Prince George County

2018 Comprehensive Plan

Prince George County
Board of Supervisors

Adopted March 27, 2018

Prince George County
2018 Board of Supervisors

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Prince George County
Planning Commission Vision Statement

Prince George County is committed to fostering conditions that ensures a dynamic, progressive and vibrant community. The County seeks to provide encouragement for orderly and sustained growth, to promote opportunities for technological advancements and to ensure the availability of a wide range of educational opportunities consistent with the needs of county residents. Every effort will be made to ensure the effective coordination of growth patterns, land and natural resource uses and public safety activities with neighboring communities. Prince George County will continue to develop and implement short-term and long-term plans and strategies that will facilitate its ability to adapt to the demands of future conditions while continuing to retain its traditions, heritage and sense of community.

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CHAPTER I INTRODUCTION

This document is the Comprehensive Plan for Prince George County, Virginia. It is an update to a Comprehensive Plan adopted by the County in 2007. This 2012 update was prepared under the direction and guidance of the Prince George County Planning Commission along with the Community Development Department. It was completed by the Planning Division staff who revised this document by performing research with numerous government agencies, including the U.S. Census Bureau, UVA Cooper Center, and the Crater Planning District Commission. The Deputy County Administrator, County Engineer, Director of Community Development and Code Compliance, GIS Coordinator and the Erosion and Sediment Control Inspector, along with staff members of the Crater Planning District Commission, assisted in preparing the 2012 Comprehensive Plan Update.

A good plan is based upon a community vision statement as was formulated by the Planning Commission in 2012. A comprehensive plan is a long range planning tool for a community. It identifies specific issues, evaluates certain trends and conditions, and contains community goals, objectives and strategies that will help to guide decision making and public investments. Good plans also contain specific timeframes for the implementation of major plan strategies. Timeframes for plan implementation allow a community to evaluate its progress and serve as a way to measure progress for success in achieving the goals and objectives found in the Plan.

In 2012, there was a major focus upon improving the Plan's future land use recommendations as they relate to the County's public utility infrastructure needs, such as water and wastewater, through the County Engineer's 2012 Water and Wastewater Study. This study assisted the Land Use (LU) Committee in formulating new recommendations towards better commercial corridor growth and development. The Capital Improvement Plan (CIP) Committee was also able to work towards addressing school renovation needs, recreation field and lighting needs, and larger projects that relate to fire station renovations and relocations. The FY2012-2016 CIP is currently being completed this fall and it will be presented to the Planning Commission and Board of Supervisors in a Joint Work Session on December 11, 2012.

To be effective and valid, a plan must be based upon the knowledge, values, and aspirations of a community's business owners and citizens, including its elected and appointed leaders. The plan

was formally presented and informally provided to the business community through the Fall Business Roundtable Luncheon and the County's Fall Business Fair event. The Plan Update was also placed upon display within the Prince George County Library lobby for comments. County staff was instrumental in providing information about current County operations and by contributing their specific knowledge in the development of this plan's goals, objectives and strategies.

This plan is an official public document that was adopted by the Prince George County Board of Supervisors on February 26, 2013. The plan can be used as a long-term guide for land use decisions related to growth and development within the County. The plan can also be used as a general guide that outlines public priorities and directs certain expenditures for public facilities and other capital improvement programs.

Authority

Authority for local government planning in Virginia is contained in Sections 15.2-2223 through 15.2-2232 of the Code of Virginia. This plan was prepared in accordance with these provisions.

By State law, the plan shall be general in nature. It shall designate the approximate location, character, and extent of each feature shown and may indicate where existing lands or facilities are proposed to be extended, removed, relocated, vacated, narrowed, abandoned, or changed in use. A plan, with accompanying maps, charts, and additional descriptive matter, may include, but need not be limited to:

Section 15.2 – 2223 (C)

1. The designation of areas for various types of public and private development and use, such as different kinds of residential, including age-restricted, housing; business; industrial; agricultural; mineral resources; conservation; active and passive recreation; public service; floodplain and drainage; and other areas;
2. The designation of a system of community service facilities such as parks, sports playing fields, forests, schools, playgrounds, libraries, public buildings and institutions, hospitals, nursing homes, assisted living facilities, community centers, waterworks, and sewage disposal or waste disposal areas;
3. The designation of historical areas and areas for urban renewal or other treatment;
4. The designation of areas for the implementation of reasonable ground water protection measures;

5. A capital improvements program, a subdivision ordinance, a zoning ordinance and zoning district maps, mineral resource district maps and agricultural district maps, where applicable;
6. The location of existing or proposed recycling centers;
7. The location of military bases, military installations, and military airports and their adjacent safety areas; and
8. The designation of corridors or routes for electric transmission lines of 150 kilovolts or more.

(D) The comprehensive plan shall include the designation of areas for the implementation of measures for the construction, rehabilitation and maintenance of affordable housing, which is sufficient to meet the current and future needs of residents of all levels of income in the locality while considering the current and future needs of the planning district within which the locality is situated.

Planning Horizon

The year 2025 was chosen as the planning process horizon for this document. By law, this comprehensive plan shall be reviewed by the Prince George Planning Commission at least once every five years. Each of these future plan reviews can serve as the basis to formally evaluate the County's progress and community success, and the continued appropriateness of the plan's goals, objectives and strategies.

Location

Prince George County is located in Central Virginia, twenty-five miles south of Richmond, and seventy-five miles northwest of Norfolk. The James River and the City of Hopewell form the northern border of the County. The County's western border is formed by the Appomattox River, the City of Colonial Heights, Chesterfield County, the City of Petersburg and Dinwiddie County. The counties of Sussex and Surry are located to the south and east and Charles City County lies to the northeast.

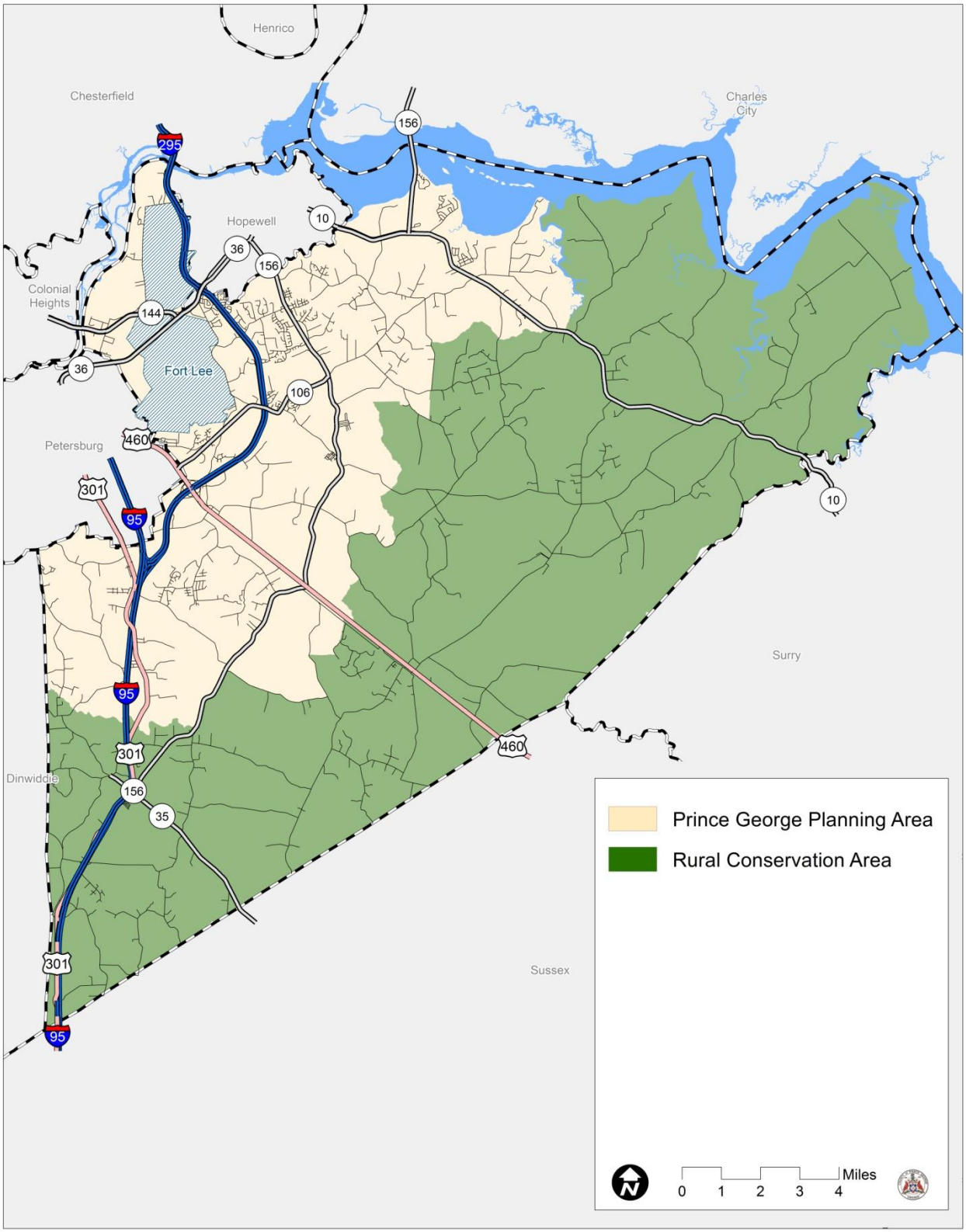
Community Planning History

The Prince George County Planning Commission was first appointed and established in 1962. The County Subdivision Ordinance was adopted in 1964 and County-wide zoning was established one year later in 1965. Prince George County adopted its first comprehensive plan in 1978. Prior to this current update, this original plan was revised and updated in 1986, 1999 and 2007.

The Prince George Planning Department was first established in 1974. In 2012, the Planning Department was consolidated with the Building Inspections and Code Compliance Department to create the Community Development and Code Compliance Department. The Planning Division is responsible for both short and long term planning initiatives, including the administration of the County's zoning and subdivision ordinances. The Planning Division also provides staff support to the Planning Commission and to the Board of Zoning Appeals. This division provides professional planning and community development advice to both the County Administration staff and to the Board of Supervisors.

Prince George County Location

Planning Areas



CHAPTER II THE PLANNING AND COMMUNITY DEVELOPMENT PROCESS

This chapter summarizes the process used by Prince George County to prepare and adopt this comprehensive plan update. The Planning Commission instructed staff in September of 2011 to begin performing an update to the Plan using County staff resources as an in-house revision to this document. County staff worked on the Plan from September of 2011 until November of 2012 by updating this document. The planning and community development process ensured that the Planning Commission had the information necessary to fulfill their mandated charge to prepare a plan update for the eventual adoption by the Board of Supervisors.

Community and Demographic Analysis

A demographic analysis was undertaken for the purpose of understanding the demographic characteristics of Prince George County. As a part of this analysis, population, housing and some economic data was collected and analyzed so that historic trends and current conditions could be understood in the planning process. The 2010 Census figures and related population projections were also reviewed and integrated into this document. The County's Strategic Economic Development Plan Update that began in 2012 will provide some additional economic development analysis relative to current employment and market trends. It should also further underscore the impact of land use planning concepts and economic development goals working together to achieve the County's vision statement for both business and industrial development.

A variety of new techniques were used by staff to ensure that Prince George County business owners and citizens were made aware of the plan update initiative and could review the plan, including:

- Staff presentations to the business community
- A display in the Prince George County Library
- The posting of the proposed plan on the County website for comments
- Social media postings for comments
- The dissemination of this information to the general citizenry.

There were Public Notices placed in the Prince George Journal, a newspaper that has general circulation in Prince George County, which legally notified property owners of the Plan Update.

A Planning Commission sub-committee on Land Use (LU) met during the Spring of 2012 and the Fall of 2012. The committee's work centered around the new water and wastewater study prepared by the County Engineer, which helped both commissioners and County staff to create future land use recommendations. A Planning Commission sub-committee on the Capital Improvement Plan (CIP) also met during the Fall of 2012 to discuss proposed capital facility needs such as:

- New parks and recreation fields and lighting
- Fire station building renovations, relocations and other needed upgrades
- Elementary school renovations
- High school tennis court repairs
- Stadium field turf project
- Numerous other needs and requests by the County administrative government and schools divisions.

CHAPTER III HISTORIC RESOURCES AND COMMUNITY HISTORY

Historic Resources

Prince George County has a large number of significant historic resources, including structures which reflect the architecture and culture of the past. These historic resources include houses, churches and farm buildings, as well as sites and other large areas where significant historic events occurred. Fifty-six historic sites have been identified by the Virginia Department of Historic Resources, including eleven of which are listed on the Virginia Landmarks Register and/ or on the National Register of Historic Places:

Brandon (1765) Brandon is the first brick plantation house constructed in Virginia.

Martin's Brandon Church (1850)This church is an excellent example of Renaissance-Revival architecture and is one of the oldest parishes in Virginia.

Evergreen Plantation (1850s) Evergreen is noted for its association with the Ruffin family, who had established themselves in the County during the 1850s. Evergreen is one of the principle plantations along the south side of the James River.

Flowerdew Hundred Plantation (1621) This plantation is one of the oldest and most historic plantations on the James River. It was the site of the first windmill constructed in America.

Hatch Archaeological Site (8000 B.C. – 1700 A.D.) This archaeological site contains deposits dating to the Archais, Woodland and early colonial periods.

Merchant's Hope Church (1655) This church is a well preserved, fine colonial brickwork church.

Petersburg National Battlefield (1861-1865) This is the site of the longest siege that any American city has ever endured.

Upper Brandon Plantation (1617)This is one of Virginia's largest and most significant plantation houses and is the site of consistent land cultivation since the 1650s and the existing building is from the 19th Century.

Aberdeen Farm This late 18th to early 19th century plantation house was built by Thomas Cocke and the house sits on a 378 acre farm.

Chester Plantation This Greek Revival style plantation house was constructed by Williamson Simmons.

County Courthouse Complex This historic area contains eleven historically significant contributing structures dating back to the 1870's.

Community History

Prince George County was established in 1702. It was named in honor of Prince George of Denmark, the husband of England's reigning monarch, Queen Anne. It was formed from Charles City County, as one of the original Virginia shires, and its original boundaries stretched from south of the James River to the North Carolina line and to the Blue Ridge and beyond with no western boundary. Monthly court sessions were held across the river in Charles City County throughout the 1600s until it became inconvenient for the settlers south of the James River to make the long water crossing. Public protests caused the Virginia General Assembly in August of 1702 to declare that the portion of Charles City County located on the south side of the river to become Prince George County.

Even though Prince George County was not officially formed until 1703, this area was one of the earliest settled regions of Virginia. It was first visited by the English in May of 1607, when Captain Christopher Newport led a crew of twenty-one men in search of the best location for their permanent English settlement. As they navigated up the James River to the mouth of the Appomattox, Newport noted that the area now known as Prince George would be a suitable location for the settlement. However, when he returned to the anchored fleet in the river, he found that his impatient followers had already unloaded their belongings and that they had begun a new English settlement at Jamestown.

In 1616, John Martin, one of the men who had arrived in 1607, was among the first to receive a permanent land grant in Virginia. He was granted Brandon, a vast tract of land along the James River. Martin's Brandon was later sold to three men, one of whom was Richard Quiney, whose son Thomas had married Judith Shakespeare, the daughter of William Shakespeare. The property was purchased by Nathaniel Harrison in 1720. He eventually built the house that stands today, circa

1765. Brandon remained in the Harrison family until 1926 when it passed to Robert Williams Daniel. Brandon's Palladian-style mansion and renowned gardens are a State and National Historic Landmark. It is also the longest continuous agricultural enterprise in the United States.

Another plantation in Prince George County which was established by the early English settlers is Flowerdew Hundred, a 1,000 acre tract of land acquired around 1618 by Sir George Yeardley. Yeardley built the first wind driven grist mill in English North America at Flowerdew. In 1978, a post windmill overlooking the James River at Flowerdew Hundred was built to commemorate the original mill of 1621. It was commissioned by David A. Harrison III, Flowerdew's owner at that time, and it was constructed by English millwright Derek Ogden. Over the years, Flowerdew Hundred has undergone several archaeological investigations. This Virginia Historic Landmark is also on the National Register of Historic Places. The windmill has since been placed in a historical windmill museum in Lubbock, Texas after the Harrison family heirs sold the land that contained the replica windmill at Flowerdew.

Prince George County has the distinction of having the first privately owned farm in English North America, known as the William Cawson property where John Randolph of Roanoke was born. Prince George is also home of one of the oldest Episcopalian churches in the nation. Merchants Hope Parish was organized in 1657 and named for the Merchants Hope Plantation, which was located west of Brandon Plantation. Merchants Hope Parrish is located on Merchants Hope Road, between Ruffin Road and James River Drive.

Revolutionary War Period

Prince George County produced native son Richard Bland, who played a prominent role in events leading up to the American Revolution. Born in 1710 at Jordan's Point, he was orphaned at the age of ten and was raised by his Uncles William and Richard Randolph. He was largely a self-taught man. He attended the College of William & Mary where he studied law and was admitted to the Virginia Bar in 1746. Bland was a member of the House of Burgesses representing Prince George County from 1742-1775. He was a part of the Virginia delegation to the First Continental Congress in 1774, and was elected to the Second Continental Congress in 1775 from Virginia. Richard Bland published the earliest defense response of the colonists' opposition to unjust taxation by the British and the overall rights of Virginia citizens and landowners. Posthumous recognitions include the naming of Bland County located in Southwest Virginia, and Richard Bland College of the College of William & Mary (a junior college located in Prince George County and Dinwiddie County).

Prince George County did not escape the harsh effects of the British during the American Revolutionary War. The house at Brandon Plantation bears bullet scars from the war, but did escape the attempts by a British ship to shell it. In April 1781, British troops under Major General William Phillips landed at Old City Point on the banks of the James River, then Prince George County, and proceeded to march through the County to defeat a much smaller and less armed patriot militia. Later that year, Generals Washington and Rochambeau's combined forces captured Cornwallis at the Battle of Yorktown and thus secured America's independence.

Edmund Ruffin III was another distinguished native son. The Ruffin family, the founders of the Evergreen Plantation, a National and State registered historic landmark, had first settled within Prince George County back in the mid-18th century. Ruffin was a pioneer soil chemist, who helped establish the first Virginia State Board of Agriculture in 1840, and he also earned the title, "Father of Agricultural Chemistry." A radical secessionist and an advocate of states' rights and Southern independence, Ruffin is often credited with firing the first shot aimed at Fort Sumter, in the battle that began the Civil War. He is undoubtedly the most famous citizen in Prince George County history.

Civil War Period

Confederate leaders understood the military importance of Petersburg early in the Civil War and worked to construct fortifications to defend the city that began in 1862 under Captain Charles H. Dimmock. A parkway in the City of Colonial Heights is currently named in his honor. Ten miles of entrenchments, that included 55 artillery batteries, surrounded the city with many of these earthworks being constructed in Prince George County. In June 1864 General Grant and approximately 40% of the Army of the Potomac crossed over the James River on a massive 2100 foot long temporary pontoon bridge stretching from Weyanoke Point in Charles City County to Windmill Point at Flowerdew Hundred Plantation in Prince George County. This allowed General Grant to bring his Union forces south of the James River through Prince George County to surround Petersburg, and there they began the nine month long siege- the longest in United States history.

The historic Battle of the Crater was also fought in Prince George County, since that area did not become a part of the City of Petersburg through annexation until 1956. By the end of July of 1864, Union forces under Generals Butler and Burnside planned a massive explosion to blow a hole in the Confederate lines. Veteran coal miners from the 48th Pennsylvania Volunteers dug a large

tunnel under the confederate earthworks and exploded 8,000 pounds of gunpowder. This large explosion had a disastrous effect, formed a large crater, and more than 5,000 men were lost on both sides during the battle.

In September of 1864, Confederate scouts had detected a 3,000-head beef herd held in a Union cattle pen at Coggins Point along the James River. Confederate General Wade Hampton orchestrated a plan to pull off the "Great Cattle Raid." He and his troops advanced to the area, engaged the enemy, surrounded the cattle herd, and then drove them out of Union control southward behind the Confederate lines. Thanks to Hampton's men and some real Virginia cowboys, hungry Rebel soldiers were thus able to enjoy their well-earned beefsteak feast.

Since the County served as a field of operations for both the Union and the Confederate Armies, many County buildings suffered extensive damage during the Civil War. The 1810 Prince George County Courthouse was ransacked and burned with many of its old record books and historical documents destroyed or carried away by treasure seekers. Private homes and estates such as Brandon, and several churches were also seized, ransacked and damaged. The homes and churches that were saved were typically used by Union troops passing through as Union hospitals and later on as officer's quarters for both Union and Confederate soldiers.

Camp Lee and Fort Lee Periods

Major historical development in Prince George County included the incorporation of Hopewell in 1916 and the establishment of Camp Lee. Within weeks after the United States declaring war on Germany in the Spring of 1917, the War Department acquired 8900 acres of farmland in Prince George County to construct Camp Lee. Construction began in June and by September more than 1500 buildings and over 15 miles of on-post roads had been completed for the war effort. Yet, in 1921 the camp was formally closed by the War Department and all of its buildings were torn down almost as fast as they had been erected for World War I as America did not believe there would be any other world wars.

During the interwar years, the federal property reverted to the Commonwealth of Virginia and it was used as a game preserve and briefly as a camp for the Civilian Conservation Corps in the 1930s during the Great Depression. In October 1940, the War Department issued orders for the rebuilding of Camp Lee in preparations for U.S. entry into World War II. Over the course of the

war, Camp Lee's population continued to grow until it became in effect the third largest "city" in Virginia, after both Richmond and Norfolk.

Camp Lee enjoyed a reputation as one of the most effective, well organized and best run military installations in the country during this time period. Unlike at the end of World War I, Camp Lee was renamed Fort Lee after World War II and remained open. In 1950 the Korean Conflict began and it would later be called the "forgotten war." Fort Lee was instrumental once again in properly supplying troops and needed supplies. In 1965 the Vietnam Conflict began and Fort Lee continued to serve the Army in "America's longest war" at that time. Then in 1990, Operation Desert Storm began for the liberation of Kuwait and the security of the Middle East and Fort Lee played a major role as well.

In 1990, Fort Lee and Prince George County experienced a post realignment as the Army began to create Fort Lee as the main logistics center for the Army. There was an influx of troops and civilian employees into Prince George boosting the local economy during the 1991 recession. After the terrorist events that occurred on September 11, 2001, Fort Lee installed a new perimeter fence to enclose the entire fort property and installed protective barriers around key buildings to help protect against any future terrorist attacks. In 2001, the Afghanistan War began and in 2003 the Iraq War began in the Middle East and troops from Fort Lee supported both of these new war efforts to protect America from additional terrorist attacks under the new Department of Homeland Security guidelines. Prince George County worked with Fort Lee to protect against terrorism, both foreign and domestic, during this heightened time in America.

In 2005, Fort Lee experienced the largest growth ever in Prince George County under the United States Congress Base Realignment and Closure (BRAC) Commission's directives to combine specific Army and Air Force training operations at Fort Lee. In the end, 1.5 billion federal tax dollars were spent to create approximately 6.5 million square feet of new space on post to include Army and Air Force headquarters, new classroom buildings, fitness and dining facilities, new military barracks, a new 1000 room high-rise hotel and new single-family and multi-family housing units. BRAC transformed Fort Lee into a major military facility in Prince George County while other parts of the country lost both federal government revenue and jobs.

The daily population on Fort Lee rose from about 32,000 to 48,000 between 2005, the start of BRAC, and the completion of the BRAC construction projects in 2011. Military personnel came from

all across the South to Fort Lee- from Redstone Arsenal, Alabama; Lackland Air Force Base, Texas; Aberdeen Proving Ground, Maryland; as well as from Alexandria and Fort Eustis, Virginia. In January 2009, the combined Sustainment Center of Excellence Headquarters was opened and transformed Fort Lee into the third largest Army training installation in the country. In July 2009, the Army Logistics University was opened and it began offering more than 200 courses and training 2300 military and civilian students on a daily basis both in logistics and military management techniques.

As in 1990, the 2005 BRAC expansion at Fort Lee provided a real boost to the Prince George economy and overall the entire region's economy. BRAC expansion in Prince George helped to sustain both the civilian contractors and the military suppliers during the recession that was brought on by the financial and residential mortgage crisis across the country. Prince George County received federal impact aid funding that assisted in the construction a new county library and assisted in the construction of a new elementary school to help educate the influx of the new military dependent students into the County school system. Federal funds were utilized to make the necessary traffic improvements in Prince George County surrounding Fort Lee such as new traffic lights, turn lanes and other road improvements, all necessary to our national defense and indirectly improving the quality of life for Prince George County residents.

Industrial Growth Period

In 1997, Prince George County formed a public-private partnership with The Hollingsworth Companies, from Clinton, Tennessee, to create Southpoint Business Park located near the intersection of US 460 and I-295. Hollingsworth was very instrumental in assisting the county in marketing the industrial park properties to various national and regional manufacturers and to product distributors such as Ace Hardware, Goya Foods, and to Service Center Metals. Prince George County won a National Association of Counties (NACO) Award for "Best Semi-Rural Economic Development Public-Private Partnership in the Nation" for its public involvement in Southpoint Business Park in order to assist new industries to locate within the County. In 2012, Service Center Metals won the University of Virginia's Darden School of Business Tayloe Murphy Award for best Manufacturing / Wholesale Sector business in the state of Virginia. At this point, well over one million square feet of industrial space has been sold or leased in the industrial park, providing new jobs and balancing the tax base within Prince George County.

In 2007, following a globally competitive site selection process, Rolls-Royce announced that they had selected Crosspointe Centre, a 1000+ acre industrial park setting in Prince George County, as their new manufacturing home in North America for aircraft engines. Investment in Prince George County by Rolls-Royce and its suppliers is expected to be well over $500 million dollars. Crosspointe Centre also became home to the Commonwealth Center for Advanced Manufacturing (CCAM). CCAM is a state of the art industry-led facility for applied research and development with its partners of the Commonwealth of Virginia, Prince George County, the University of Virginia, Virginia State University, Virginia Tech University and Rolls-Royce. In 2010, Rolls-Royce began manufacturing operations in Prince George County along with the start of construction of the CCAM educational training facility in late 2011. Rolls-Royce and Prince George County will continue to work together to expand and to enhance Crosspointe Centre Industrial Park, to make it the premier industrial park setting for world-class businesses.

In 2013, the Fort Lee Joint Land Use Study (JLUS) was completed and approved by the Defense Department in conjunction with the Crater Planning District Commission and endorsed by Prince George County on January 14, 2014. The study formalized a regional approach to enhancing communication and land use coordination between Fort Lee and the surrounding communities. The study sought to notify the public of certain noise, lighting and other safety impacts related to Fort Lee's training and operational mission within the Defense Department.
The strategic goals and objectives have been incorporated into the 2014 Comprehensive Plan in Chapter IX Future Land Use for consideration when any new development is proposed adjacent to Fort Lee and there is an opportunity to work with a site developer on their proposal.

In summary, Prince George County is perhaps one of the most historically significant counties in Virginia, rivaled only by James City County with Historic Williamsburg and the Jamestown Settlement from 1607, and by Chesterfield County with the Citie of Henricus from 1611. Prince George County has advanced through the centuries and is now leading the way in advanced manufacturing and has begun to welcome the world to locate here as a global community where families thrive and businesses prosper.

CHAPTER IV COMMUNITY DEMOGRAPHICS

Introduction

This chapter provides an analysis of population, housing, and economic data for Prince George County, Virginia. Demographic data for the Commonwealth of Virginia and the Tri-Cities Area have been included for comparative purposes. The Tri-Cities Area includes the cities of Colonial Heights, Hopewell, and Petersburg and the counties of Dinwiddie and Prince George. The source of most data was the 2010 Census and additional figures were provided by the University of Virginia Weldon Cooper Center and the Crater Planning District Commission.

Population

Population change is an indicator of a community's future demand for land and public services and facilities. In 2010, the population was 35,725 and from 2000 to 2010 the population increased 7.9 percent (33,124 to 35,725). Over the 20 year period from 1990 to 2010 the Prince George County population has increased by 30 percent (Table 1). The 2010 population figure for Virginia showed an overall population of 8,001,024 persons. This was an increase of 13 percent since the 2000 Census. The Tri-Cities Area, on the other hand, showed an increase of just 4.2 percent during the same ten year period from 2000 to 2010. This increase is a rebound from the decrease shown in the 1990 Census and the negligible growth within the 1980 Census. Overall, the slow growth in the Tri-Cities Area is attributed to a 3.9 percent decline in the City of Petersburg's population since the 2000 Census.

Age Distribution

The age distribution of a community's population is an important factor to consider in community planning initiatives. Understanding age distribution helps a community plan for and to address community service and facility needs, including those for schools, recreation, and social service facilities and programs. Table 2 compares percent distribution of the population by age, race and sex for Prince George County, the Tri-Cities Area and the Commonwealth for the years of 1970 - 2010. The distribution by age of Prince George County changed somewhat from that of the 2000 Census (Table 2). As a percentage of total population, the 45-54 age group in Prince George County has increased significantly. Slight increases were also seen in the 55-64 and 65 and older age groups. Conversely, the percentage of the population in the 25-34 age group decreased significantly (16% to 14%).

Table 1

Population Change 1970-2010
Prince George County[1], Tri-Cities Area[2] and Virginia[1]

							Percent Change			
	1970	1980	1990	2000	2006*	2010	1970-1980	1980-1990	1990-2000	2000-2010
Prince George[1]	24,371	25,733	27,394	33,047	36,494	35,725	5.6	6.5	20.6	8.1
Tri-Cities Area[2]	128,809	129,296	125,905	130,571	133,175	136,148	0.4	-2.6	3.7	4.2
Virginia[1]	4,648,494	5,346,818	6,187,358	7,078,515	7,642,884	8,001,024	15	15.7	14.4	13

[1]Source: Richmond Regional PDC and US Bureau of the Census
[2]Tri-Cities Area includes cities of Colonial Heights, Hopewell and Petersburg and counties of Dinwiddie and Prince George.

* Weldon Cooper Provisional Estimate

Table 3

Projected Population Change
Prince George County, 1990-2030

	Actual Population			Projected Population		Average Annual Rate of Change	
	1990	2000	2010	2020	2030	2010-2020	2020-2030
Prince George	27,394	33,047	35,725	39,000	41,800	8.39%	6.69%
Virginia	6,187,358	7,078,515	8,001,024	8,917,396	9,825,019	11.45%	10.08%

Note: We will be updating our population projections in 2012 to reflect the 2010 Census counts.
Source: Virginia Employment Commission.

The percentage of pre-school-aged children, those under 5 years of age, as well as the percent of school-age children under 14 decreased as a percentage of the total population. However, when expanded to include older school aged children, the 5-24 age groups remained fairly constant over the past decade. The percentage of the population in the workforce (ages 25-64) has decreased from 2000 to 2010 (54% to 52.5%). A continuing trend is an increase in the percentage of the population aged 55 and over. In 2010 the population age of 55 and over has increased to 22.5 % which is an increase of 7.5 % since 2000. This trend is likely to continue given the percentage growth in the 45-54 age group over the past decade, as baby boomers increase upward in age and the demands for senior services will increase well into the future.

The 2010 Census population distributions for Prince George County, the Tri-Cities Area and the Commonwealth are graphically presented in Figures 2A & 2B. Note that Prince George County, the Tri-Cities Area, and the Commonwealth all have around the same amount of the 25-34 age group category, ranging from 26.2 % to 27.8 %. Group quarters populations associated with Fort Lee and correctional institutions in the County affect population within this age group and were considered when comparing Prince George population characteristics to the Tri-Cities area and the Commonwealth. The Commonwealth is starting to show some signs of growth in the 2010 Census in that age group. The Tri-Cities Area and the Commonwealth both showed a significantly higher proportion of their populations in the 55 and older categories than did Prince George County.

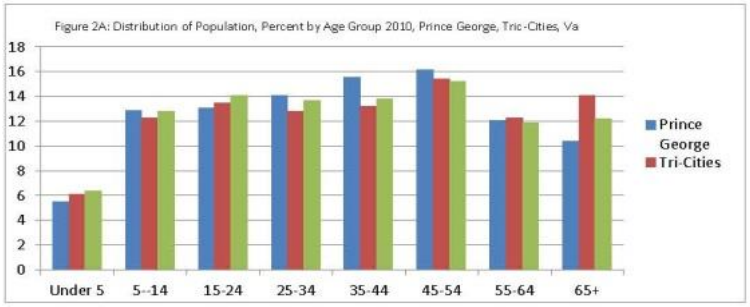
Table 2 presents the percentage change in average annual population by age group for Prince George County, the Tri-Cities and the Commonwealth. However, note that the distribution of the populations of all three areas decreased for the 5 and under age group, and that only Prince George showed a decrease in the 5-14 age group, and only Prince George County's distribution showed an increase in the 15-24 age group, while both the Tri-Cities and the Commonwealth showed a decline. Also, note the significant growth of all three areas for the 25-34 age group and Prince George County's significant growth in the 65 and over age group.

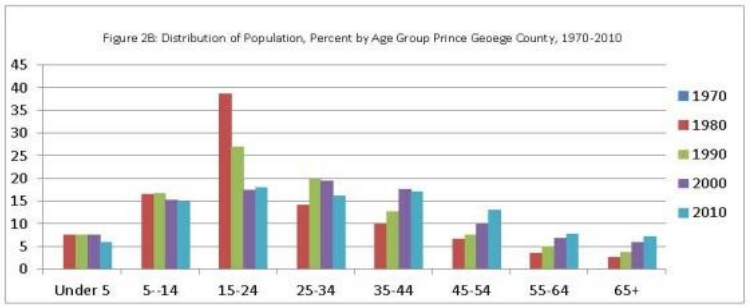
Table 2

Percent Distribution of Population by Age, Race and Gender
Prince George County, Tri-Cities Area and Virginia 1970-2010

	Prince George County					Tri-Cities					Virgina			
	1970 [1]	1980[1]	1990[1]	2000[1]	2010[3]	1970[2]	1980[1]	1990[1]	2000 [1]	2010[3]	1980[1]	1990[1]	2000[1]	2010[3]
Age														
Under 5	7.6	7.5	7.5	6	5.5	8.6	6.7	7.3	6.2	6.1	6.7	7.2	6.5	6.4
5--14	16.6	16.7	15.3	14.8	12.9	19.3	15.7	13.4	14.5	12.3	15.3	13.3	20.1	12.8
15-24	38.6	27	17.4	18	13.1	22.5	20.5	15.1	13.8	13.5	19.4	15.5	18.9	14.1
25-34	14.1	19.9	19.4	16.2	14.1	12.9	16.1	17.2	13.9	12.8	17.4	18.4	13.2	13.7
35-44	10	12.6	17.7	17.1	15.6	11.1	11.7	14.7	15.8	13.2	12.4	16	11.8	13.8
45-54	6.7	7.6	10	13	16.2	10.8	10.2	10.8	13.3	15.4	10.2	10.7	11.4	15.2
55-64	3.6	5	6.8	7.8	12.1	7.6	9.5	9.2	9.4	12.3	9.1	8.1	8.3	11.9
65+	2.7	3.7	6	7.2	10.4	7.3	9.4	12.3	13.1	14.07	9.5	10.7	7.9	12.2
Median Age	22.3	24.4	30.1	32.1	38	24.8	29.2	32.2	35.8	39.38	29.8	32.6	26.8	37.5
Race														
White	76.6	66.1	66.8	60.9	61.1	67.4	61.8	58.8	54.5	52.73	79.1	77.4	80.9	68.6
Non-White	23.4	33.9	33.2	39.1	38.9	32.6	38.2	41.2	45.5	47.27	20.9	22.6	18.9	31.4
Gender														
Male	64.5	60	53	53.9	54.6	52.1	49.4	48.5	48.8	49.16	49	49	49	49.1
Female	35.5	40	47	46.1	45.4	47.9	50.6	51.5	51.2	50.84	51	51	51	50.9

[1]Source: May 1999 Comprehensive Plan Update, Prince George County
[2]Source: CRATER PDC
[3]Source: 2010 U.S Census Bureau





Median Age

The median age has steadily increased for the past 40 years for Prince George County, the Tri-Cities Area and the Commonwealth of Virginia (Table 2). The median age is slightly younger for Prince George County residents (38 years) than the Tri-Cities Area (39.3) but older than the median age for the Commonwealth (37.5 years).

Racial Composition

Prince George County is becoming more racially and ethnically diverse over time. The percentage of non-whites in the population figures of Prince George County has remained at approximately 39% from 2000-2010, but has increased from 33% in 1990. An increasing trend in the percent of non-White's was also seen in the Tri-Cities Area and the Commonwealth over the period 1990-2010; however, the percent of non-White's in the each differed significantly. In 2010, the Tri-Cities Area had the largest percentage of non-Whites in the population (47.27%) and the Commonwealth had the least at 31.4% (Table 2). This represents a 2% increase in the Tri-Cities area and a 12% increase in the Commonwealth.

Future Population Growth

The population growth rate for Prince George County did not exceed that of the Commonwealth for the period 2000-2010 (Table 3). Population projections prepared by the Virginia Employment Commission (VEC) predicted a population of 36,000 in 2003 and in 2010 the actual population of Prince George County was 35,725. Population projections for 2020 and 2030 by the University of Virginia's Weldon Cooper Center for Public Service are estimated to be 39,000 and 41,800 in Prince George County. The population projection for the County by the VEC for 2030 is 63,420. This figure will be used as the high-end projection in this Update for analysis and comparison.

The population of the Commonwealth was 8 million in 2010 and is estimated to reach 8.6 million by 2020 and 9.3 million by 2030. Current projections do show a declining rate of growth for both the County and for the Commonwealth between 2010-2030 (Table 3). While the annual growth rate for Prince George County was lower than that of the Commonwealth in the 2010 Census, that rate is expected to slow considerably for Prince George County (.8%) for the decade of 2010 falling below the projected Commonwealth annual growth rate (.9%). These projections do not consider the impact of BRAC induced population migration into the County. These

Table 4

Population 1980 - 2010
Prince George County

Locality	1980	1990	2000	Average Annual Rate of Change 1980-1990	1990-2000	2000-2010
Prince George	25,733	27,394	33,047	0.6	2.1	0.8
Fort Lee CDP	9,784	6,895	7,269	-3	0.5	-2.1
Local Correctional Institutions	*	1,204	2,277	*	8.5	1.98
Prince George without Fort Lee CDP and Local Correctional Institutions	15,949	19,295	23,501	2.2	2.6	0.84

Source: 2010 US Census
* Not Available

Table 5

Tri-Cities Housing Units by Locality
1970-2010

Locality	1970 Housing Units	1970 Percent Tri-cities	1980 Percent Tri-cities Total	1990 Housing Units	1990 Percent Tri-cities Total	2000 Housing Units	2000 Percent Tri-cities Total	2010 Housing Units	2010 Percent Tri-cities Total
Prince George	5,867	16.10%	15.30%	8,640	17.60%	10,726	20.10%	12,056	20.87%
Dinwiddie	6,120	16.80%	15.10%	8,023	16.30%	9,707	18.20%	11,422	19.76%
Colonial Heights	4,901	13.40%	13.40%	6,592	13.40%	7,340	13.70%	7,831	13.55
Hopewell	7,650	20.90%	20.50%	9,625	19.60%	9,749	18.20%	10,121	17.52%
Petersburg	11,999	32.80%	35.60%	16,196	33.00%	15,955	29.80%	16,326	28.26%
Tri-Cities Total	**36,537**	100.00%	100.00%	**49,076**	100.00%	**53,477**	100.00%	57,756	100.00%

Source: US Census 1970, 1980, 1990, 2000, 2010
*Weldon Cooper Building Permit Data 2000-2005
http://quickfacts.census.gov/hunits/states/51pl.html

projections may also not consider the 1400 housing starts in the County since 2000. The 2020 Census will be important to look at considering the transient change due to federal employees, both military and civilian, that may change the overall population count within the County.

The 2010 Census figure is currently being appealed based upon the Fort Lee's Census figures, by Prince George County to the federal government, through the United States Census Bureau and other legal avenues by the County Attorney's Office. After experiencing a nearly 30% decrease in population in the 1990 Census, the Fort Lee Census Designated Place (CDP) has experienced an increase of over 5% and the population grew to over 7,000 in the 2000 Census. Prince George County alone, without the Fort Lee CDP figures, experienced a 26% increase in population over that same ten-year period (Table 4).

Housing

The local housing market had a significant impact on government services including utilities, education, traffic, health, public safety, taxation and existing land use. These local government responsibilities have direct implications on housing development and availability which directly contribute to the quality of the life and economic development of the community as a whole.

The number of housing units in Prince George County increased to 12,056 in 2010, which is an 11 percent increase from 2000 (Table 5)[1]. Of housing stock in the Tri-Cities Area, Prince George County housing comprised one-fifth of the total and the City of Petersburg another 30% of the total, despite an overall loss of housing units in the last decade. The proportion of housing units allocated among the remaining localities comprising the Tri-Cities Area decreased for the Cities of Petersburg and Hopewell, increased for Colonial Heights and has increased slightly for Dinwiddie County. The fluctuation is attributed to recent demolished public housing units in Petersburg and a slight increase in the construction of high end loft-style apartment units there.

Table 5 shows the change in percentage of the total Tri-Cities Area housing by locality for the period 1970-2010. Except for a decrease in 1980, Prince George County has maintained a fairly steady growth rate, and the City of Colonial Heights growth has stayed fairly constant. The Cities of Hopewell and Petersburg have seen a steady decrease, Petersburg since 1980

[1] All housing data was derived from the 2010 Census.

Table 6

Manufactured Housing
Prince George County and Fort Lee CDP, 1990-2000

	Total Housing Units		Manufactured Housing Units 1990		2000	
	1990	2000	No.	% of Total Housing	No.	% of Total housing
Prince George (excluding Fort Lee CDP)	7,145	9,281	1,097	15.40%	1,165	12.60%
Fort Lee CDP	1,495	1,445	1	0.10%	10	0.70%
Prince George (including Fort Lee CDP)	8,640	10,726	1,098	12.70%	1,175	11.00%
Commonwealth of Virginia	2,496,334	2,904,192	159,352	6.40%	185,282	6.40%

Source: US Census Bureau DP-4 Profile of selected housing characteristics: 2000; H001: Housing Units

Table 7

Dwelling Unit Occupancy
Prince George County, 1980-2010

	Total Occupied Housing				Owner Occupied				Renter Occupied			
Locality	1980	1990	2000	2010	1980	1990	2000	2010	1980	1990	2000	2010
Prince George	6,507	8,250	10,159	11,451	4,028	5,679	7,418	8,628	2,479	2,571	2,741	2,823
Percent by Occupancy					61.90%	68.80%	73.00%	75.30%	38.10%	31.20%	27.00%	24.70%
Virginia	1,863,073	2,291,830	2,699,173	3,056,058	1,221,590	1,519,521	1,837,939	2,055,186	641,483	772,309	861,234	1,000,872
Percent by Occupancy					65.60%	66.30%	68.10%	67.20%	34.40%	33.70%	31.90%	32.80%

Source: 2010US Bureau of the Census

and Hopewell since 1970. Dinwiddie County's pattern of growth mimics that of Prince George County.

Manufactured Housing

Data collection in 1990 changed to reflect manufactured housing exclusively and create an "other" category for boats and RVs. Prior to 1990 that data was included in manufactured housing. For that reason, data comparisons include only the years 1990 and 2000 and as a result, trends are difficult to predict. This type of housing unit is literally mobile and thus hard to track unless within an established mobile home park. Prince George County has been working through both the Police Department and Code Compliance Department to ensure that the quality of housing, both mobile and manufactured housing, be of higher standards but still maintaining its affordability for the County residents of our existing mobile home park areas.

The Tri-Cities Area showed a continued steady increase in the percentage of total dwelling units that are manufactured housing units since 1990. After increasing every decade since 1980, the Commonwealth showed a decline in percentage of housing that is manufactured. Manufactured housing in the Tri-Cities Area continued to increase while it leveled off in Prince George County. Manufactured housing in the Commonwealth increased on average approximately 9% per year over the past 30 years; in the last decade, however, growth has slowed, increasing less than 2%, from 182,100 to 185,282 units over the same time period. Newer modular style homes are becoming more prevalent in the housing industry and are being used more within the County.

Occupancy and Vacancy

The stability of housing resources in Prince George County increased as the number of owner-occupied homes increased. The vacancy rate decreased from 5.3% in the 2000 Census to 5.0% in the 2010 Census and the number of occupied housing units in Prince George increased to 16% from the last decade. 75 % of the 11,451 occupied housing are owner occupied (Table 7). Comparatively, of the over 3 million housing units in the Commonwealth, approximately 67% were owner-occupied. Virginia has a very stable housing stock, especially within Prince George County, with owner occupied structures. The percent of owner-occupied units has continued to increase in Prince George County more than for the Commonwealth as a whole (see Table 6).

There were 605 vacant housing units in Prince George County in 2010, 5% of the total County housing units. This represents an increase from 1990, but not as high as it had reached in 1980

(6.2%). The Tri-Cities Area had 5,763 vacant housing units or 9.9% housing units. The vacancy rate at the state level was less than the Tri-Cities at 9.2% with 308,881 vacant units.

Quality of Housing

The U.S. Census characterizes as substandard or overcrowded that housing which has 1.01 or more persons per room, or that which lacks complete plumbing facilities. The percent of units lacking plumbing facilities decreased significantly since 1980. In 2000, less than .5% of housing units in Prince George County lacked plumbing facilities. In comparison, .7% of housing units in the Commonwealth lacked complete plumbing facilities.

Median Housing Value

The median housing value for owner-occupied units in Prince George County in 2009 was $196,300, up 39.69% from 2000 (Table 8). Median values in the remaining localities in the Tri-Cities Area ranged from $109,800 in the city of Petersburg to the highest figure in Prince George County. The average increase in median housing value is 62% amongst the Tri-Cities Area, ranging from approximately 57% in Hopewell to 79% in Colonial Heights. During 2000-2009, the Commonwealth showed an increase of 97% in median housing value to $247,100. The percent change in median housing values from 2000-2009 for each of the member localities of the Tri-Cities Area and of the Commonwealth are shown in Table 8.

Fort Lee Housing

In 2010 there were 866 units in the Fort Lee CDP which represents a 40% decrease from 2010 to 2000 due to Fort Lee CDP demolition of old housing developments and the construction of new housing developments as a part of Fort Lee's expansion plan (Table 9). Despite the net loss of housing at Fort Lee, housing in Prince George County has continued to increase by 11% since the 2000 Census. When the Fort Lee CDP is removed from the analysis, the growth in housing for Prince George County slowed from over 35% in 1990 to less than 30% in the decade between 1990 and 2000. It is still too early to list the 2010 multi-family housing trend changes, but overall there has been an increase in multi-family housing off post to serve the Army and Air Force Logistic training needs. These new housing units were mainly located at the Fort Lee Shop Gate area along Jefferson Park Road, near Hopewell.

The influx of military personnel and their families, including school age children, at Fort Lee impacted the Prince George County housing market, and the housing market in the region. The expansion of Fort Lee's personnel resulted in a greater need for the regional housing market to

absorb around 3,200 new households. Based upon current Fort Lee demographics, it has been estimated that 1,675 of these households chose to locate in Prince George County and thus increased the need for additional classroom space and recreational needs. Library space and additional community meeting space were planned for and have been met by the new Prince George County Library. However, some additional senior center space is still needed as the County's population ages overall. The Parks and Recreation Community Center, at Old North Elementary, offers up some short-term recreational space but an adult day care facility may be needed and may be served by the private or non-profit sector such as the YMCA in the future. Both Commonwealth Catholic Charities and United Methodist Family Services are also on the rise in the region in providing the needed services to Prince George County residents; but that also includes travelling outside of the County for these same type services. Private senior and medical transportation services have been on the rise in the last decade due to the lack of public services to serve senior citizens.

Table 8

Median Housing Values
Owner-Occupied units
Tri-Cities area 1990,2000, and 2009

Locality	1990	2000	Percent change	Locality	2000	2009	Percent change
Prince George	75,800	118,200	55.90%	**Prince George**	118,200	196,000	39.69%
Colonial Heights	69,700	94,800	36.00%	Colonial Heights	94,800	169,900	79.21%
Dinwiddie	57,600	86,900	50.90%	Dinwiddie	86,900	152,000	74.91%
Hopewell	54,500	77,300	41.80%	Hopewell	77,300	121,900	57.69%
Petersburg	50,600	68,600	35.60%	Petersburg	68,600	109,800	60.05%
Virginia	90,400	125,400	38.70%	Virginia	125,400	247,100	97.04%

Source: U.S. Bureau of the Census, 1990, 2000.
VA Gateway Region 2005-2009 American Community Survey

Table 9

Housing Stock
Prince George County and Fort Lee CDP, 1980-2010

	Housing Units				Percent Change		
	1980	1990	2000	2010	1980-1990	1990-2000	2000-2010
Prince George (excluding Fort Lee CDP)	5,285	7,145	9,281	11,190	35.20%	29.90%	20.56%
Fort Lee CDP	1,651	1,495	1,445	866	-9.40%	-3.30%	-40.06%
Prince George (including Fort Lee CDP)	6,936	8,640	10,726	12,056	24.60%	24.10%	12.40%
Commonwealth of Virginia		2,496,334	2,904,192	3,364,939		16.30%	15.87%

Source: U.S. Census Bureau, 2001, 2010

Labor Force

The civilian labor force in Prince George County continued to increase reaching 15,272 in June 2011 (Table 10). Over the period of 1990 – 2010, the civilian labor force increased by 28%. Fort Lee's expansion has increased the region's civilian and non-civilian labor force. On-base civilian employment is expected to reach 4,190 in the fourth quarter of 2011. Fort Lee military personnel employment is expected to reach 4,993 in the fourth quarter of 2011. Unemployment was on the decline in June 2011. The Tri-Cities unemployment rate (9%) was higher than both Prince George County (6.5%) and the Commonwealth (6.3%). The City of Petersburg has a high unemployment rate (10%) that brings down the overall rate in the Tri-Cities Area.

Commuting Patterns Income

The number of workers who live and work in Prince George County increased 2% between 1990 and 2000 to 7,180 from 7,025. Over 8,700 Prince George County residents commuted to other localities; of that 4,098 commuted to localities within the Tri-Cities Area. (Table 11).

Out-commuters from Prince George County increased 21% between 1990 to 2000; the number of in-commuters decreased 16%. Of those leaving Prince George County to work, nearly 20% commuted each to Chesterfield County and to the City of Petersburg, another 17% commuted to the City of Hopewell, and over 10% commuted to the City of Richmond. Out-commuting patterns increased to Hanover County, Henrico County, and to Sussex County as well.

The number of in-commuters decreased in the last decade and did so from most source localities. About 25% of in-commuters came from Chesterfield County and about 50% (4,037) came from the Tri-Cities Area. Additionally, 15% each came from Hopewell and Petersburg and approximately 10% each came from Dinwiddie County and Colonial Heights.

A slightly higher percentage of in-commuters came from Tri-Cities Area localities. Dinwiddie County was the only locality in the Tri-Cities Area with more commuters into Prince George County than out-commuters from Prince George County to Dinwiddie; 833 Dinwiddie County residents worked in Prince George County and 266 Prince George County residents worked in Dinwiddie. All other localities in the area had more out-commuters from Prince George County than in-commuters to Prince George County.

Table 10

Civilian Labor Force Estimates
Prince George County
Selected Years 1990 - 2011

	Annual				
	1990	1995	2000	Jul-06	Jun-11
Prince George County					
Civilian Labor Force	11,921	12,163	13,865	14,758	15,272
Employed	11,476	11,684	13,603	14,137	14,203
Unemployed	445	479	262	621	1069
P.G. Unemployment Rate	3.7	3.9	1.9	4.2	7
Tri-Cities Unemployment Rate	5.4	5.6	2.7	4.9	8.96
Virginia Unemployment Rate	4.3	4.5	2.2	3.3	6.3

Note: All data not seasonally adjusted
Source: VEC, Electronic Labor Market Access
US Department of Labor: Bureau of Labor Statistics

Table 12

Persons Employed within Resident Locality, 1990, 2000

	1990		2000	
Resident Locality	No.	% of Labor Force	No.	% of Labor Force
Prince George	7,025	49.2	7,180	45
Chesterfield County	50,119	44.4	61,464	45.8
Petersburg City	8,613	53.8	5,197	39.4
Dinwiddie County	3,103	30.8	3,585	31.7
Hopewell City	4,836	45.8	2,748	29.8
Colonial Heights	1,882	23.2	2,095	25.9

Source: VEC, Electronic Labor Market Access

Table 11

Commuting Patterns
Prince George County Workers, 1980-2000

	1990	Percent	2000	Percent	Percent Change 1990-2000	
Prince George County residents working in Prince George County	7,025		7,180		2.21%	
		Out Commuters from Prince George to:				
Chesterfield County	1,902	26.19%	1,746	19.92%	-8.20%	-156
Hopewell City	1,494	20.58%	1,454	16.59%	-2.68%	-40
Petersburg City	1,309	18.03%	1,635	18.66%	24.90%	326
Richmond City	1,012	13.94%	1,020	11.64%	0.79%	8
Colonial Heights	489	6.73%	743	8.48%	51.94%	254
Hanover County	15	0.21%	110	1.26%	633.33%	95
Henrico County	230	3.17%	845	9.64%	267.39%	615
Dinwiddie County	133	1.83%	266	3.04%	100.00%	133
Sussex County	53	0.73%	233	2.66%	339.62%	180
Other Virginia	404	5.56%	486	5.55%	20.30%	82
Other States	191	2.63%	218	2.49%	14.14%	27
Other country	29	0.40%	7	0.08%	-75.86%	-22
Total Out-Commuters	7,261	100.00%	8,763	100.00%	20.69%	1,502
In-Commuters to Prince George from:						
Chesterfield County	2,539	25.41%	2,134	25.52%	-15.95%	-405
Hopewell City	1,565	15.66%	1,093	13.07%	-30.16%	-472
Petersburg City	1,563	15.64%	1,417	16.94%	-9.34%	-146
Colonial Heights	1,103	11.04%	694	8.30%	-37.08%	-409
Dinwiddie County	916	9.17%	833	9.96%	-9.06%	-83
Sussex County	368	3.68%	265	3.17%	-27.99%	-103
Richmond City	310	3.10%	172	2.06%	-44.52%	-138
Henrico County	150	1.50%	123	1.47%	-18.00%	-27
Other Virginia	818	8.19%	967	11.56%	18.22%	149
Other	661	6.61%	665	7.95%	0.61%	4
Total In-Commuters	9,993	100.00%	8,363	100.00%	-16.31%	-1,630

Sources: VEC VELMA and Virginia Business Assistance Center
1980 and 1990 Census of Population and Housing

Chesterfield County and the cities of Hopewell and Colonial Heights each decreased by over 400 the number of in-commuters to Prince George County. Sussex County, Petersburg, and Richmond each decreased in-commuters by over 100. Since 1990, in-commuting was down 615 workers from Henrico County, 300 from Petersburg, and over 250 from Colonial Heights.

The number of residents who lived and worked in Prince George County increased between 1990 and 2000 (7,025 to 7,180). This was the case also for Chesterfield County, and Colonial Heights. Both Petersburg and Hopewell had fewer residents working in their resident locality (Table 12).

Income

Among the information gleaned from income data is the anticipated Prince George County tax base. A variety of statistics measure income but the adjusted gross income (AGI) is often used as a proxy for median family income because it excludes social security benefits, incomes below filing requirements, and military personnel who claim residence in another state. These reasons make the AGI a most appropriate statistic to use in Prince George County.

In 2007, the median AGI for Prince George County was $38,475, up 26% from 2002, and 33% higher than the median AGI of the Crater PDC ($28,824). Prince George County median AGI has surpassed the Commonwealth ($37,133) and Richmond-Petersburg MSA ($36,709), when in recent years the Richmond-Petersburg MSA has been higher (Tables 13 & 14).

The median AGI for Prince George County is comparable with that of the Commonwealth over the 25-year period 1983-2007. The differences between the AGI of each have diminished over time and Prince George County has now surpassed the Commonwealth in 2007.

The rate of increase in median AGI for Prince George County and the Commonwealth have slowed from a high of 44.9 and 48.3, Prince George County and the Commonwealth, respectively to 18.8 and 27.7, respectively.

Table 13

Adjusted Gross Income
All returns, 1993, 2002 and 2007

	No. of Returns			Total AGI			Median per Return			
Locality	**1993**	**2002**	***2007**	**1993**	**2002**	**2007**	**1993**	**2002**	**2007**	**% Change(2002-2007)**
Prince George	8,744	10,993	*	300,273,563	475,733,422	658,511,235	25,588	30,404	38,475	20.96%
Richmond-Petersburg MSA	364,409	428,420	*	13,385,745,955	21,490,647,359	34,353,692,963	24,395	30,836	36,709	15.99%
Crater PDC	58,408	63,730	*	1,557,504,741	2,124,198,344	2,856,928,814	18,566	23,320	28,824	19.09%
Virginia	2,532,050	3,006,299	*	91,130,838,370	152,590,000,000	226,476,086,548	23,649	30,203	37,133	18.66%

Source: Weldon Cooper Center for Public Service, UVA. Original data from Virginia Dept of Taxation.

*2007 Awaiting addition Income data(No Data)

Table 14

Adjusted Gross Income
All Returns, 2002 and 2007

	Prince George				Virgina			CraterPDC	Richmond-Petersburg MSA
	1983	**1993**	**2002**	**2007**	**1983**	**1993**	**2007**	**2007**	**2007**
Median Per Return	17,663	25,588	30,404	38,475	15,949	23,649	37,133	28,824	36,709
Index of Income Concentration	0.314	0.335	0.359	0.349	0.344	0.369	0.42	0.35	0.41

Source: Weldon Cooper Center for Public Service, University of Virginia

CHAPTER V COMMUNITY FACILITIES AND SERVICES

Introduction

This chapter presents a brief discussion of major Prince George County community facilities and services. These community facility concepts are important. First, adequately funding community facilities is a key to providing effective services. Second, the location and timing of planned community facilities has a major impact on land use patterns. Third, the private sector can contribute fair share funding towards the capital construction of community facilities through the use of proffer legislation in Virginia.

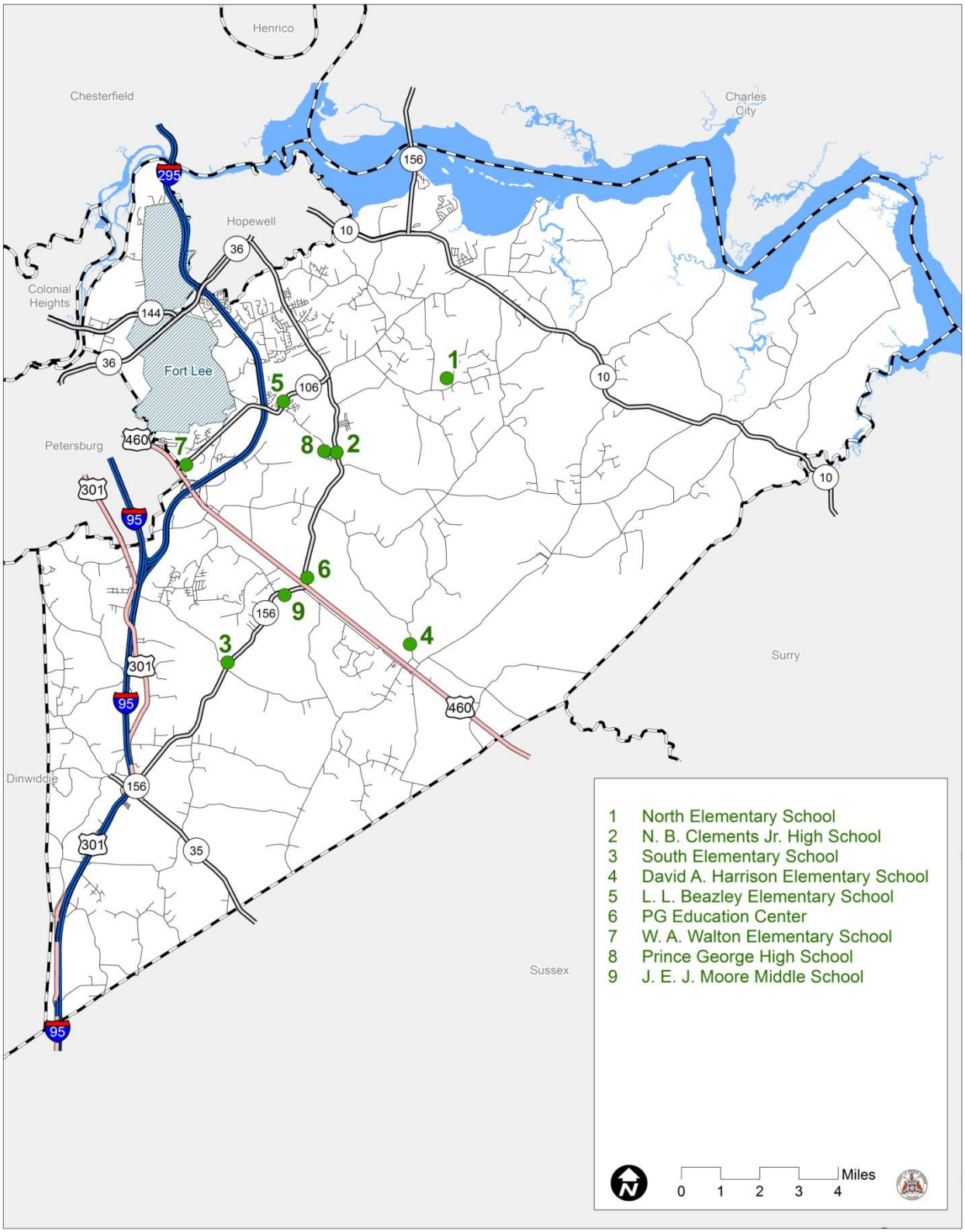
Schools

The Prince George County public school system is one of the most important public services provided to County residents. The schools and their school sites provide multiple functions - they fulfill State mandated educational requirements, offer community education programs, encourage civic groups to use the facilities, and allow and assist public recreational programs.

In addition to public K-12 education in the County, there are other schools in the County which are not governed by the Prince George County School Board. Richard Bland College is located along the Dinwiddie-Prince George border. The college is a two-year division of the College of William & Mary that offers both day and evening classes in fields leading to an associate degree, which also allows a student to transfer to any other four year college to complete their college education; continuing education classes and community based arts and crafts classes. Richard Bland College now offers on campus residence halls for students that may not reside in the County or surrounding areas, thus adding new college-based residents to the community. These students and faculty members shop, dine and contribute to the community, adding to the overall tax base.

Prince George County participates with the regional efforts of the Appomattox Regional Governor's School for the Arts and Technology (ARGS), located in historic Petersburg, and the Henrico Center for Science, Math and Technology, located in Henrico County. Rowanty Vocational Technical Center is a regionally operated facility serving Dinwiddie, Prince George and Sussex County Public Schools. Located within Prince George County at Carson, it is located equidistant from each of the County high schools. Students attend Rowanty for three

School Facilities



periods a day. The academic portion of their daily curriculum is provided at their respective high schools. Most of the instructional programs at Rowanty are two years in length. Some of the programs offered are: auto body repair, electricity, horticulture, cosmetology, public safety and practical nursing. Graduates may be granted advanced placement at John Tyler Community College and Southside Virginia Community College for additional training towards advanced manufacturing jobs and skills that are needed in today's ever changing high-technology world.

Prince George County has nine public schools within its jurisdiction. There are five elementary schools, one middle school, one junior high school, one high school and one alternative school. At the beginning of the 2010-2011 school year, total school system enrollment stood at 6,225 students. Enrollment projections are considered in planning for capital improvements, hiring school personnel, school construction and renovations, the division's participation in regional programs, and in developing the school division's budget.

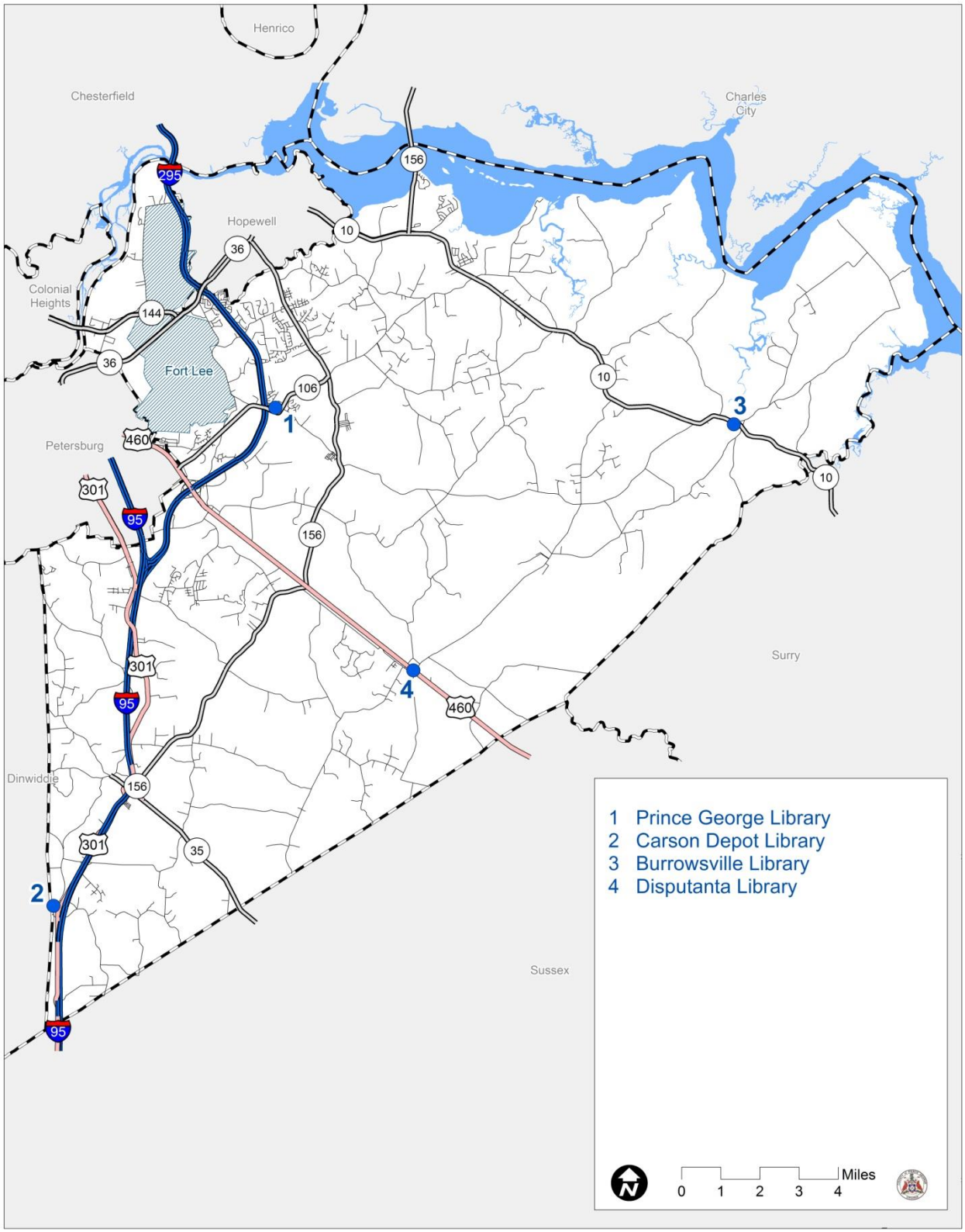
Between 2006 and 2011, student enrollment was estimated to increase from 6137 students to 6513, but enrollment only went up 1.5 percent during the 5-year window and not 1.5 percent each year. The anticipated growth due to the military population did not result in additional high growth within the student enrollment like previously was estimated. The County's previous rapidly growing population resulted in increased pressures on the public school system to provide the facilities and personnel needed to maintain the high standards of academic excellence found in the County's schools. School system operating costs will increase as demands on the school system increase. In addition, constructing and maintaining adequate facilities to meet the growing student population will be a continuing challenge for the County.

The County and School Board should continue to use their Capital Improvement Program (CIP) as a fiscal planning tool to anticipate needs and to plan and allocate funds for capital needs. In addition to general fund and bond revenues financing needed capital improvements, the County should use its proffer authority to negotiate with developers of proposed residential developments to voluntarily contribute cash or donate private land for new schools.

Library Facilities

In 1974, Prince George and Dinwiddie Counties joined with Hopewell to form the Appomattox Regional Library System (ARLS). The system is governed by an eleven person Board of

Libraries


Henrico
Chesterfield
Charles City
Hopewell
Colonial Heights
Fort Lee
Petersburg
Surry
Dinwiddie
Sussex
295
156
10
36
144
106
460
301
95
35
1 Prince George Library
2 Carson Depot Library
3 Burrowsville Library
4 Disputanta Library
Miles
0 1 2 3 4

Trustees, of which three are Prince George appointees. The system's Headquarters Library, located in downtown Hopewell, houses the operations and administration for the regional system. In addition to the headquarters facility, seven system branch libraries are operated in Prince George and Dinwiddie Counties at Burrowsville, Carson, Dinwiddie, Disputanta McKenney, Prince George and Rohoic. ARLS also maintains a Bookmobile that averages 15 stops throughout the library's service area at area schools, child care centers and retirement communities. In addition, the Richard Bland College has an excellent library facility in the northwestern part of the County which is available to Prince George County residents.

Of the eight permanent facilities operated by the ARLS, four libraries are located within Prince George County. The Carson Depot Library is located in a renovated train depot, the Disputanta Library is located on Route 460 inside the Disputanta Community Center and the Burrowsville Library is located in the renovated Burrowsville School. The new Prince George County Library is located at the Prince George County Government Complex, adjacent to Scott Park, and it opened in July of 2011. It was previously determined by a usage survey of the Hopewell Library that County residents comprised 47% of the regular users of Hopewell facility. This was part of the impetus for the construction of the new Prince George County Library.

Prince George County's new library was constructed to reflect the advanced technology values and rural character influences of the County. For children and teens there are weekly events such as book clubs, teen book reviews, movie nights, gaming areas and a children's reading area for preschoolers. Adults can utilize the periodicals reading area, check-out DVDs, e-Books, audio books and other digital media items. There is also a community meeting room that is available in the new library for county residents and other members of the ARLS to use for meetings and any other special events.

Public Safety Facilities

The public safety needs of the citizens of Prince George County are met by the Prince George County Police Department, the Sheriff's Department and by the volunteers and limited paid staff of the Fire Department and Emergency Crew who graciously offer their time, experience and their concern for the health, safety and welfare of County citizens and business owners.

Animal Services and Adoption Center

In October of 2012, a new Animal Services and Adoption Center was completed on County Drive (US 460) in Disputana that offers dog and cat adoptions, neuter and spaying services for a small fee, and rabies testing and shots along with housing the Police Department – Animal Services staff members.

Crime Prevention and Protection

The Prince George County Police Department is directed by the Chief of Police who is appointed by the County Administrator. The Police Department headquarters is centrally located within Prince George County at 6600 Courthouse Road (Route 106). All police operations are based at this location which underwent a major renovation in 2011 and is now a state of the art police department building that includes a forensics lab, video conferencing with the magistrates office, and secure space for police officers and detectives to safely interview suspects and consult with witnesses on confidential matters in the law enforcement process.

Law enforcement is also provided by the Prince George County Sheriff's Department which is responsible for courthouse security and civil due process. It operates a number of law enforcement and community related programs such as serving civil and criminal papers, promoting gun safety, checking in on elderly residents in the community, and various other community based service programs.

The County utilizes the Riverside Regional Jail, located within the County's boundaries, to house their prisoners. Juvenile offenders are housed in the Crater Juvenile Detention Home, also located within the County on US 460 near the Crater Criminal Justice Academy. The Academy trains area officers, to include the County's sworn force, and those of the Crater District 19 to include the City of Petersburg, City of Hopewell and the City of Colonial Heights that make up the Tri-Cities area.

The Prince George Police Department (PGPD) is organized into three divisions and a Captain supervises each division. Each division embraces the concept of community oriented policing by working closely with the County residents to solve criminal matters and other related problems.

The Patrol Division provides preventive criminal patrol, initial crime incident investigation, traffic accident investigation and enforcement, and responds to calls for service. The County is divided into four areas of patrol with each shift supervised by a Lieutenant and a Sergeant. Personnel are deployed to these areas based on workload distribution.

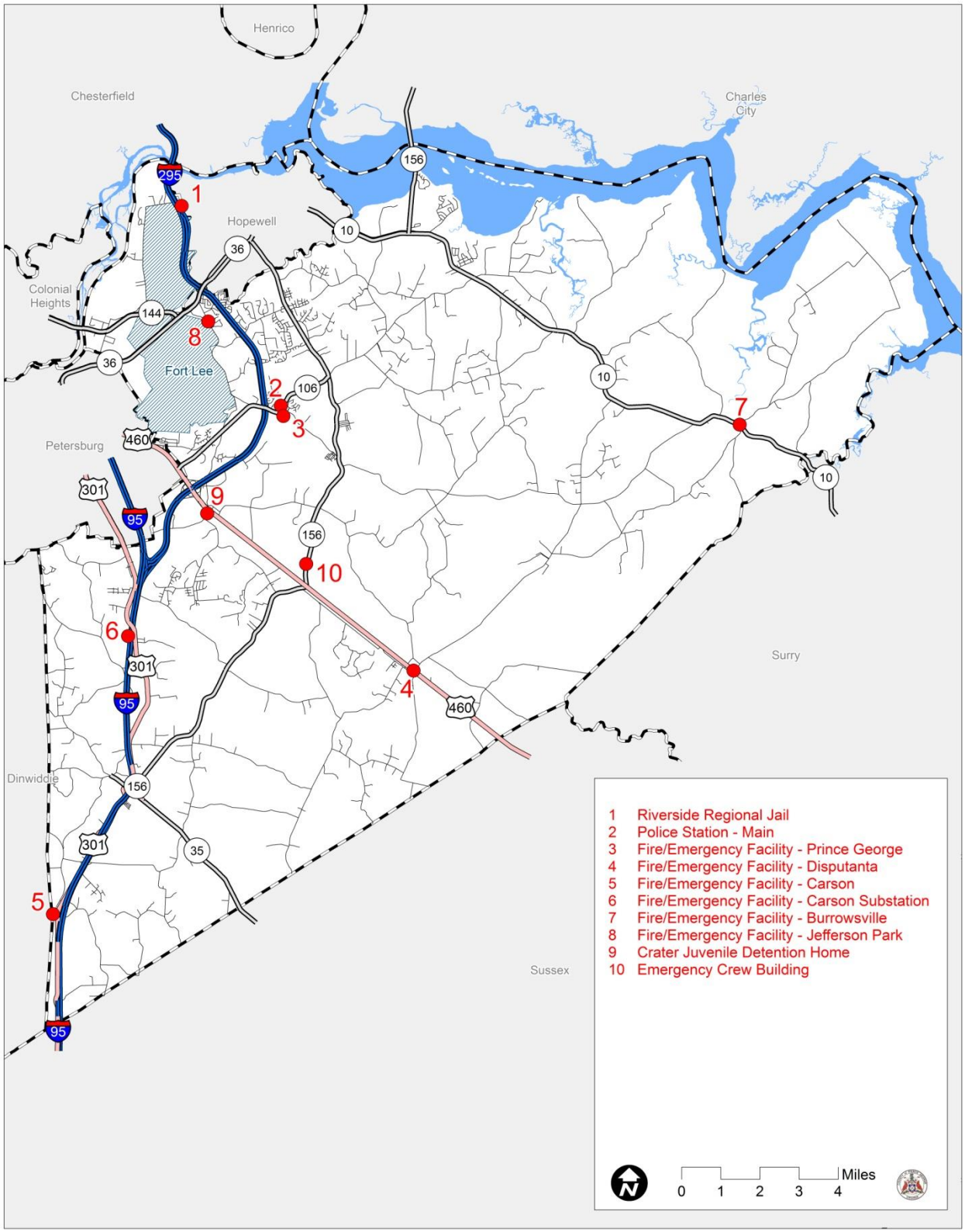
The Community Policing Unit is in this Division and provides the following community services:

- Child Safety Seat inspections
- Crime Prevention inspections to residents and businesses utilizing the "Crime Prevention Through Environmental Design" (CPTED) model
- Conducts neighborhood community events such as National Night Out
- Neighborhood code enforcement of unlicensed or inoperable vehicles
- Works with the Code Compliance staff on property maintenance code and zoning ordinance violations.

The second Division is the Investigative Division. This division is responsible for the investigation of major and multiple offenses. The availability of a State of the art interview room and Forensic equipment greatly assists the detectives in solving cases. Also serving in this division is the Vice & Narcotic Unit. These detectives are responsible for the investigation of the sell, possession and distribution of illegal drugs.

The third Division is the Administrative Services Division. This division provides for the maintenance of records and administers the various facets of the department's budget. It works with personnel from the County Garage on the management of the department's fleet vehicles. In addition, it oversees the operations of Animal Services and the Emergency Communication Center. The Emergency Communications Center operates from a facility located within the County Complex. The center, using an Enhanced E-911 and a Computer Aided Dispatch system, dispatches all law enforcement, fire, and rescue calls. In addition, the center monitors radio channels used by other county departments including Utilities, Building Officials office and the School system. The center is capable of interoperability with other jurisdictions to include a RIOS system which allows a link to the State Police.

Public Safety Facilities



Fire Prevention and Emergency Rescue Squad

Since 2002 the County's fire prevention and emergency services have been coordinated by the County's Director of Fire, EMS and Emergency Management. Working in conjunction with the County's management staff and volunteer committees, this position is responsible for the overall administration of fire, emergency medical services and emergency management in the County.

The County is divided into six fire response districts. Each district is served by an all-volunteer fire department. These volunteer departments are located in Prince George, Disputanta, Carson, Carson Sub-Station, Burrowsville and Jefferson Park (Map 9).

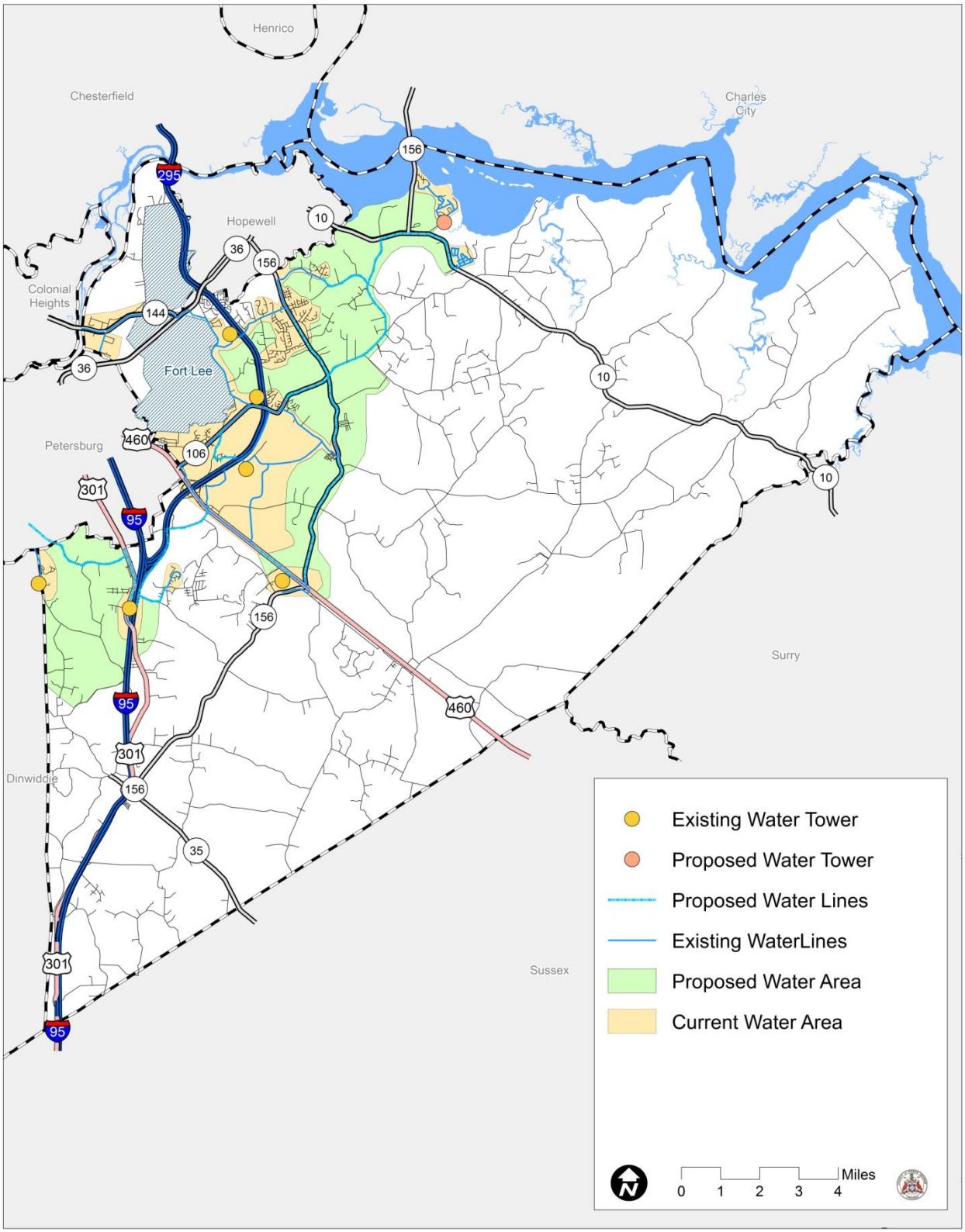
Emergency medical services are provided to the County by the Prince George Volunteer Emergency Crew, Prince George Fire and EMS, Prince George Volunteer Fire Department, Carson Sub-Station and Jefferson Park Volunteer Fire Department. The Prince George Volunteer Emergency Crew Station is in the center of the County on Route 156, near its intersection with U.S. Route 460. Volunteer and Career personnel work hand-in-hand to provide medical services throughout the County.

Water and Wastewater Facilities

The location of public water and wastewater systems is a key determinant of existing and future land use patterns. Prince George County has several systems within its borders, all of which are located within the Prince George Planning Area. These systems, which are regulated by the Virginia Department of Health (water) and the Virginia Department of Environmental Quality (wastewater), are owned and operated by both the County and private entities. Local utility connection policies, and the timing and location of future extensions or new systems, influence the location and rate of growth in a community.

In October 2012, the County Engineer prepared a revised Water and Wastewater Study for Prince George County. The Study is incorporated into this plan, and excerpts of it as they relate to water and wastewater are included in this plan. The main purpose of this study is to contribute to the overall effectiveness of the comprehensive plan. The Prince George Planning Area (PGPA) is designated as the planned growth area for dense, suburban type development. It will be necessary to have the water and wastewater infrastructure installed in the PGPA to provide for the anticipated commercial, industrial and residential growth. Outside of the

Water Utilities Facilities



established Prince George Planning Area is the Rural Conservation Area (RCA). It is anticipated that limited development may occur in the RCA in such a manner that individual on-site well and septic systems will satisfy most residential requirements. The Virginia State Health Department has recognized new alternative wastewater treatments systems that have become possible options for land that did not perk for the conventional drainfield system. The Board of Supervisors has adopted a policy that no individual, multiple user, stand-alone water and wastewater systems will be allowed in the County. Therefore, since any dense development will have to connect to the existing central utility systems it is doubtful that any dense development will occur outside of the Prince George Planning Area.

Water

The County has been a member of the Appomattox River Water Authority since its creation in the early 1960s. The County started using the water with a direct connection when Temple Avenue was constructed in 1986. The County currently has a capacity of 2,750,000 gallons per day allocated from the water authority.

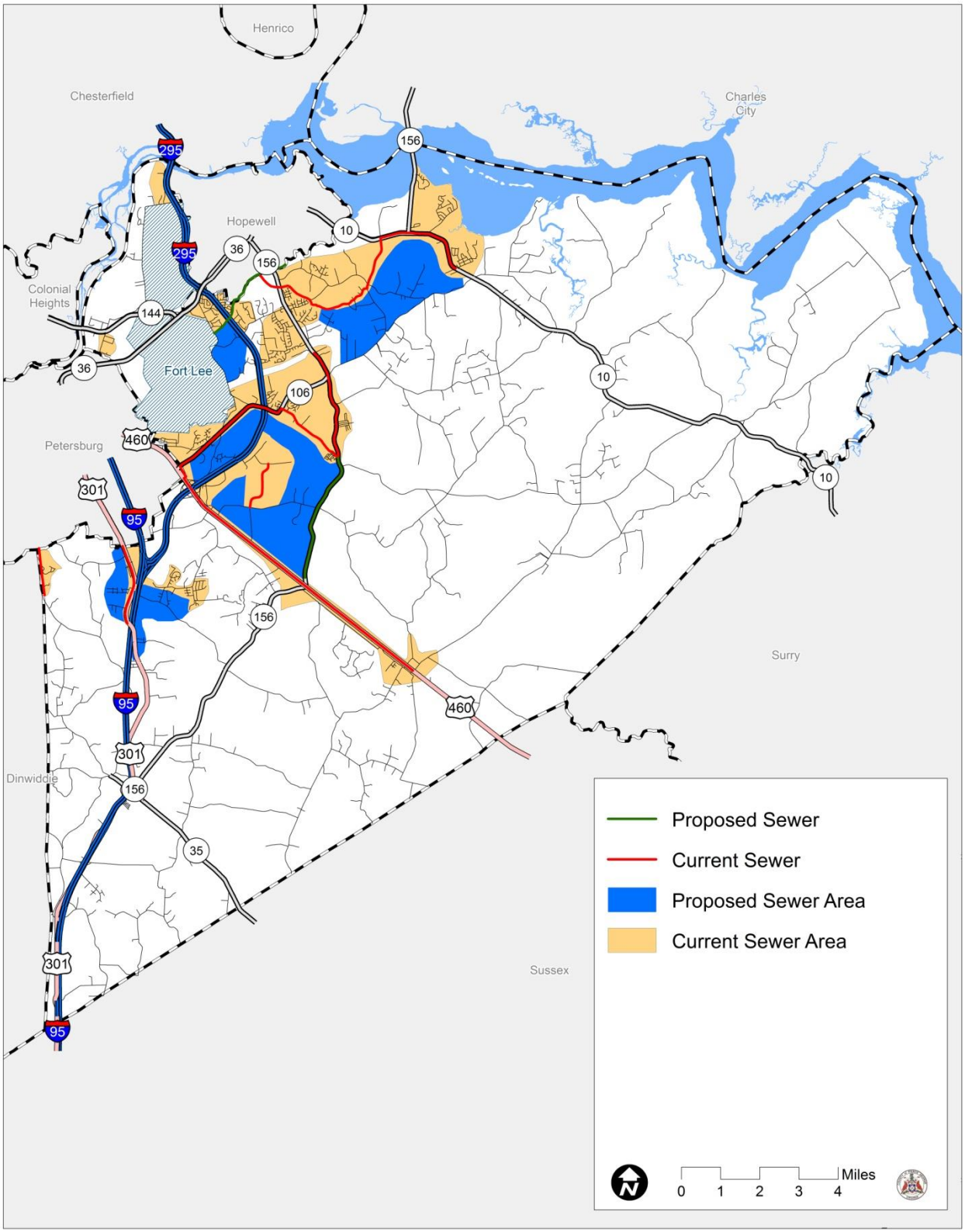
Wastewater

The County has agreements in place to provide for wastewater conveyance by the City of Petersburg to the South Central Wastewater Facility. The County has an allocation of 1,750,000 gallons per day at the South Central Wastewater Facility. An agreement with the City of Hopewell provides for the conveyance through the City of Hopewell with treatment at the Hopewell Regional Wastewater Treatment Facilities. This agreement allows for a flow of 2,000,000 gallons per day through the City of Hopewell.

Petersburg

The service agreement with the City of Petersburg dated May 22, 1974 required that the County pay annual line costs for the cost of construction of the receiving lines by the City of Petersburg. These payments were completed in 1999 which was the deadline of the 25 year contract. With the formation of the South Central Wastewater Authority, a new contract was negotiated with the City of Petersburg for the conveyance of wastewater only. This agreement, dated May 30, 1996, renews automatically every five years with the City. The County currently has a total conveyance of 1,575,000 gallons per day through the City of Petersburg's wastewater treatment system.

Wastewater Utilities Facilities



Hopewell

The original service agreement from November 1974 was amended several times over the years as the Prince George County Utilities Department developed. The current agreement that is in place is an amendment to the 1979 Agreement for Wastewater service. This agreement was made in April 1994 and runs for 30 years. This agreement required that the County pay the city $2,400,000 for a capacity of 2.0 million gallons per day. All new connection points for discharge into the City would have to be approved by Hopewell.

Private Facilities

Lundie Utilities operates a water system which supplies water to Temple Estates, Wildwood Farms and Huckleberry Hills Subdivisions. Lundie Utilities operates under a Certificate of Convenience and Necessity issued by the State Corporation Commission prior to the Prince George Utilities Department being created in 1976. Lundie Utilities is only allowed to operate in the aforementioned subdivisions.

Other private water supplies include The Virginia American Water Company which serves the Jefferson Park Area, The Crossings Shopping Center, Stratford Woods, Cedar Creek East and West and New Birchett Estates subdivisions. The Virginia American Water Company operates under a Certificate of Convenience and Necessity issued by the State Corporation Commission. This allows the company to operate in a designated area which includes only the above subdivisions. This certificate was granted prior to the county having a central water system. New subdivisions in this designated area have been extending and connecting onto the Prince George County Water System. Other private wells and wastewater systems are maintained by individual trailer parks and motels that do not have access to public water or have chosen not to connect at this time.

Food Lion Distribution Center Industrial Water Supply

This water supply was constructed in the early 1980s in order to promote industrial development along the Route 460 Corridor. The water supply has a 1,000,000 gallon bulk storage tank and two booster pumps to support the pressure requirements in the area. Fire flows in the area exceed 1,000 gallons per minute by means of a high volume and high pressure pump; normal operating pressures are maintained by a small pump which provides the same pressure but not the volume of water. This water supply is also equipped with a generator so that service can be maintained during power outages. There is approximately 7,000 linear feet of 12" waterline which must be extended to tie the central water supply from ARWA into the Food Lion Industrial water supply. The plans for this water line extension were drawn up years ago and approved by the State Health

Department; therefore, this waterline could be constructed in a very short time should a large user such as a new industry decides to locate in this area. As development extends down Route 156, the Food Lion Water System will eventually be looped back to the central water system at the Courthouse area.

Route 301 Water System

The County currently has agreements with the hotel owners to operate the well systems at the Hampton Inn, Days Inn and Howard Johnson Motel. Treatment and upgrades at the Howard Johnson Motel must be installed prior to this well being connected to the County System. The Utilities Department currently provides water to the Howard Johnson Motel from the 500,000 gallon elevated storage tank on Route 301. The water supply at the Hampton Inn consists of a standpipe with a storage volume of 188,600 gallons, and two booster pumps. This system also has a backup generator and booster pumps that are used for fire protection. The Prince George County Utilities Department does not operate the fire suppression system that is located in the well house; however, the utilities department does operate the iron removal system for the domestic water supply.

A groundwater withdrawal permit has been written by DEQ for the combined three wells. The limit of the permit is for 6,583,470 gallons per month maximum with an average of 3,780,154 gallons per month. This is an average daily usage of 124,279 gallons per day. The maximum daily withdrawal was calculated by multiplying the observed well pump yield by 55%, which allows for adequate recharge of the wells. The 229,600 gallons per day is a value based on the actual yield of the wells. Ground water withdrawal permits issued by DEQ would be the limiting factor on how much water could be withdrawn on a daily basis.

The cost of the water tower and water extension system is being paid for out of hotel lodging tax revenues. The lodging tax was increased in 2004 ago by 3% in anticipation of this project. The increase in the lodging tax was approved on the condition that the water infrastructure would only be used to promote the construction of hotels, motels, new commercial development and conference centers; therefore, no residential development would be allowed to connect to this water system.

The water lines connecting the three existing wells to the water tower are the only lines that have been constructed at this time. Water line extensions to the Petersburg City Limits on Route 301

have been designed and approved by the State Health Department. A waterline extension under I-95 to the Frontage Road and to the Tavern Road waterline and water tower also has been designed. When this line is constructed in the future, the water to this area will then be supplied by the Route 460 water line and the ARWA central water system. Continued use of the existing wells in this area would have to be decided at that time by considering the cost benefits of maintaining the wells.

Johnson Road Water System

This water system is set up as a special water district with the water being supplied by the City of Petersburg on a retail basis. It is now considered as part of the ARWA central system for permitting purposes; however, it is not physically connected to the ARWA central system through Prince George County. The water does originate at the ARWA treatment facility and it is delivered through the City of Petersburg.

Richard Bland College constructed a 500,000 gallon elevated storage tank and booster pump system in 2008 to provide the necessary water pressure for the fire suppression systems that are required in the college dormitories. The college requested that the county take over ownership and maintenance of the elevated storage tank and the pumps; in addition, the County paid for the oversizing of the tank which the College had originally designed as a 250,000 gallon tank. The County has excess water capacity in the Johnson Road Area in the amount of 250,000; however, at this time the City of Petersburg has limited by contract our use of their water to only Richard Bland College, Bland Ridge Subdivision and the Carden Condominiums.

This area has an abundance of residentially zoned land and is marked for dense development in the comprehensive plan. For this reason, the County contributed to the oversizing of the tank and agreed to taking over ownership of the tank. The actual pressure that the City of Petersburg has in this area is only 44 psi and they have indicated that the flow is adequate. However, Richard Bland College installed a booster pumping station at the elevated storage tank to provide a continually higher pressure. A future water line down Birdsong Road has been suggested by the City to supply water to the north end of Route 301 in the County and then tie into the City water main at the City line. This proposed arrangement would benefit both the City and the County to supply water to this area.

Eastwood Corporate Park

This business park currently has only one tenant, the Southside Homebuilders Association. Water and sewer service to this building is provided by the City of Petersburg. However, as tenants increase in this area, Petersburg will require that a master water meter be installed and then consequently service will be provided directly by Prince George County. Specter Properties has installed a sewer line into this area as well as a dry water line anticipating future commercial development. Their properties could be provided water service by the master water meter located at Corporate Drive and the City of Petersburg city limits.

Water and Wastewater - Population Projections

The population projection for Prince George County for 2030 is 63,420 persons from the Virginia Employment Commission. A 2030 population projection from the UVA Cooper Center is 41,800 persons. The current population is at 35,725 persons and that value is relatively close to the UVA Cooper Center Projection for 2030; therefore, the extreme case of 63,420 persons will be used for these calculations. The current population of 35,725 persons has a population of 9,200 persons on the ARWA water system based on an average of 3.0 persons per household which is a percentage of 22% being on the County central ARWA water system. If this percentage holds constant 22% of the 2030 population projection of 63,420 would equate to 13,952 persons being on the ARWA water system. At the current population of 9200 the daily per person average consumption would be 70 gallons per day. This is very close to the 90 gallons per day that was projected by the 1976 Water and Wastewater Study which was performed when the utilities department was first created. The 2030 projected population of 13,952 persons on the ARWA system would create a demand of 976,640 gallons per day. It is assumed that by 2030 the existing water systems of Cedarwood, Prince George Woods, Beechwood Manor, River's Edge, Jordan on the James, Food Lion Distribution Center Industrial Water System and the Route 301 Water System will all be connected to the ARWA central water system. Therefore, by 2030, the usage of the ARWA water system would be approximately 1,176,640 gallons per day; which is well within the allocation of 2.75 mgd which the County currently has from ARWA. This analysis is based on past experience and does not reflect the dense development within the Prince George Planning Area which is called for in the comprehensive plan. The VEC population projection of 63,420 persons, yielding an estimated flow at 1,176,640 gallons per day, would still be within the 2.75 mgd current allocation; however, this flow would not allow capacity for peak demand times when the flow may be as high as 2.5 times the average daily flow. This peak flow of 2.94 million gallons per day would exceed the County's ARWA allocation and additional allocation would be required to be purchased.

The water use projection is based on percentages only. If dense development occurs in the Prince George Planning Area, this usage may be higher in the future.

Wastewater Service Areas

The wastewater service districts in the county for the most part mimic the water service districts. All flow is metered before it flows into the collection systems of the City of Hopewell and the City of Petersburg. The county is relatively flat with some steeper slopes on the eastern side of the county. High groundwater throughout the county causes problems with the construction of gravity sanitary sewers being constructed in deep excavations. These two geographic attributes are the reason that most of the wastewater generated in the County needs to be pumped by means of a lift station to the nearest interceptor collection system. Most of the subdivisions in the county have a lift station that serves only that subdivision. The County has several large interceptor lines which are the main lines that collect all of the flow from the subtrunk lines in subdivisions. Sewer interceptors are the wastewater equivalent of water transmission mains. The County has larger interceptor lines at all of the major flow connections. These include Route 460, Route 301, Johnson Road, Manchester Run, Route 10 and the Blackwater Swamp.

Manchester Run Service Area

This interceptor line flows into the Bailey's Creek Interceptor in the City of Hopewell. This interceptor is a 21 inch line at Route 156 and it decreases to a 12 inch line in Fountain Ridge Subdivision where the force main discharges from the Route 10 Service Area. This interceptor has a capacity of 4.89 million gallons per day at the flow meter and a capacity of 1.6 million gallons per day where the force main from the Route 10 Service Area discharges. The Manchester Run interceptor receives flow from the Route 156 subdivisions of Manchester Mills, Newstead Farms, Birchett Estates, New Birchett Estates, Branchester Lakes and The Meadows Subdivision in addition to the Route 10 Service Area. These combined service areas still have a considerable amount of land which is available for development and are located within the limits of the Prince George Planning Area. The limitation in this service area would be the capacity of 2.0 million gallons per day, which is the current agreement with the City of Hopewell.

Puddledock Road Service Area

This service area serves along Puddledock Road from Harrison Creek to Temple Avenue, and East Whitehill Drive. This area has an allocation of 100,000 gallons per day from the City of Petersburg. This lift station is located on East Whitehill Drive and it discharges to a lift station in the City of Petersburg located on Puddledock Road at Harrison Creek. With the land that has been zoned for commercial development in this area, the County needs to be cautious in how the wastewater allocation is used. Residential development in this area would use up the flow allocation quickly without returning the commercial tax base which the county is trying to attract in this area adjacent to the Southpark Mall retail area of the City of Colonial Heights.

Route 460 Wastewater Service Area

The service area is the largest of the four service areas that contribute flow to the City of Petersburg collection system. It also has the largest allocation at 1,000,000 gallons per day. Currently there is a flow of 326,924 gallons per day to this flow meter. There are several large subdivisions that are being proposed in the Courthouse Road area. In preliminary discussions with these developers, it has been indicated to them that they will have to direct their flow to the City of Hopewell through the Manchester Run flow meter which has a substantially greater amount of flow available to be used for development.

The Route 460 wastewater service area is where both Southpointe Business Park and Crosspointe Centre Industrial Park are located. The estimated flow from the Rolls Royce property is approximately 400,000 gallons per day. In addition, the County has approved contracts with Cypress Springs residential development, Diamond Park commercial development as well as the New Bohemia Business Park area. The estimates of the flow from these developments will leave little capacity for other developments in this area. The County needs to be very selective as to how much residential development can be allowed to flow into the Petersburg system.

The agreement with the City of Hopewell allows for flows generated north of Route 460 to be sent to Hopewell. If the dense residential development at the Courthouse becomes a reality, the County will need to redirect other flow in this area to the City of Hopewell in order to retain the City of Petersburg's allocation for commercial and industrial growth along the Route 460 Corridor. Another alternative would be for the County to build a force main to pump from Route 460 directly to the South Central Wastewater Authority treatment facility. This alternative would be difficult to construct as well as very expensive. In addition, the 25 years of investment in contributing for upgrading the City of Petersburg's collection system would be lost.

Route 301 Wastewater Service Area

There is a large amount of previously zoned residential property in the Route 301 corridor. The special water district which will have to be set up in this area will delay residential growth for now, but in the near future this problem will have to be addressed. One way to address this is for the County to extend the force main through Petersburg to the South Central Wastewater Authority treatment facility. This alternative will be costly to construct and again as in the Route 460 Service Area the 25 years of investment in contributing for upgrading the City of Petersburg collection system would be lost. The other alternative would be to spend a substantial amount of money on Inflow and Infiltration abatement. The drawback to this is that it is a continuous process. Lines and manholes, once they are fixed, are still susceptible to damage by road work, other utility work, shifting earth and interior corrosion of the structures.

Johnson Road Service Area

The total unused allocation which would be available for use in this area for residential development is 56,400 gallons per day. It must be understood that this flow can be used for residential development in this area; however, it is still allocated to The Country Club of Petersburg and Richard Bland College should they ever need the flow to expand their facilities. The County has a contractual obligation to have that flow available for both entities. This allocation of 56,400 would equate to about 141 new houses at a usage of 400 gallons per day.

There is approximately 1,000 acres of zoned residential property in the Johnson Road Corridor. Since the water system after completion of the elevated storage tank now has an adequate water supply for many years into the future, it is recommended that this area be down zoned to larger lots that will be required to connect to the central water supply but will provide their own on-site sewage disposal systems. This will require negotiations with the City of Petersburg to eliminate the current contract and for the City to serve the County as a wholesale customer rather than a retail customer as is currently the practice. This may alleviate the need for additional wastewater to be sent into the City of Petersburg for treatment purposes.

Solid Waste Management

Solid waste collection in Prince George County is accomplished by an on-site or door-to-door collection system. This service is performed exclusively by private firms on a contractual basis with

the individual customer and is available to all residential, commercial and industrial establishments within the County.

Prince George County terminated its landfill operation in 1994 and turned the 32-acre facility into a drop-off convenience center. The drop-off station is located south of the City of Petersburg near Virginia State Route 649. All of the waste collected at the station is delivered to the CFS landfill site in the City of Petersburg for disposal. The disposal of hazardous waste is not permitted. The center is operated through an agreement between the County and Container First Services.

The County is also a member of the Central Virginia Waste Management Authority (CVWMA), a public service authority that implements solid waste management and recycling programs. The CVWMA serves the Cities of Colonial Heights, Hopewell, Petersburg, Richmond; the Town of Ashland; and the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan & Prince George.

Prince George County has three recycling center facilities: one located at the Prince George Convenience Center on Union Branch Road as the main processing center operated by Container First Services (CFS), one located adjacent to the County Courts Building at the government complex, and one located at the Burrowsville Convenience Center on James River Drive (Saturday hours only) to serve County citizens and business owners.

Electrical Power

Dominion Power and the Prince George Electric Cooperative supply electrical power to all portions of Prince George County. Dominion Power generates electricity for the Petersburg service area at its Chesterfield power station and at the Surry nuclear station. In addition, 500-kilovolt transmission lines from the North Anna nuclear station link the entire Dominion Power network, with interconnections at stations in Richmond, Northern Virginia, Tidewater and Mount Storm, West Virginia. The system is also interconnected with out-of-state power companies.

Natural Gas

Natural Gas is distributed to customers in Prince George County by Columbia Gas Services, Inc. Two interstate transmission lines, owned and operated by the Columbia Gas Transmission Corporation, traverse the western and central areas of the County. Natural gas is available to a

large portion of the County including areas along and adjacent to Flank Road, Johnson Road, Puddledock Road, Prince George Drive, County Drive, Oaklawn Boulevard, Sandy Ridge Road and South Crater Road.

Parks and Recreation

Prince George County residents enjoy a wide variety of formal and informal recreational opportunities. Fishing, boating, hiking, biking, hunting, golf, tennis and swimming are just a few of the informal recreational activities available within the County. More formal activities are offered by the County's Department of Parks and Recreation. Established in 1977, the department provides organized sporting activities, manages and programs park and recreational facilities, and organizes special activities and seasonal events for County residents and visitors.

The youth sports programs offer supervised programs in football, cheerleading, basketball, soccer, tennis, softball and baseball. The softball and baseball programs are the largest in the Tri-Cities area. Instructional camps are provided in football, cheerleading, basketball and soccer. Adult sports include competitive leagues in volleyball.

County Complex

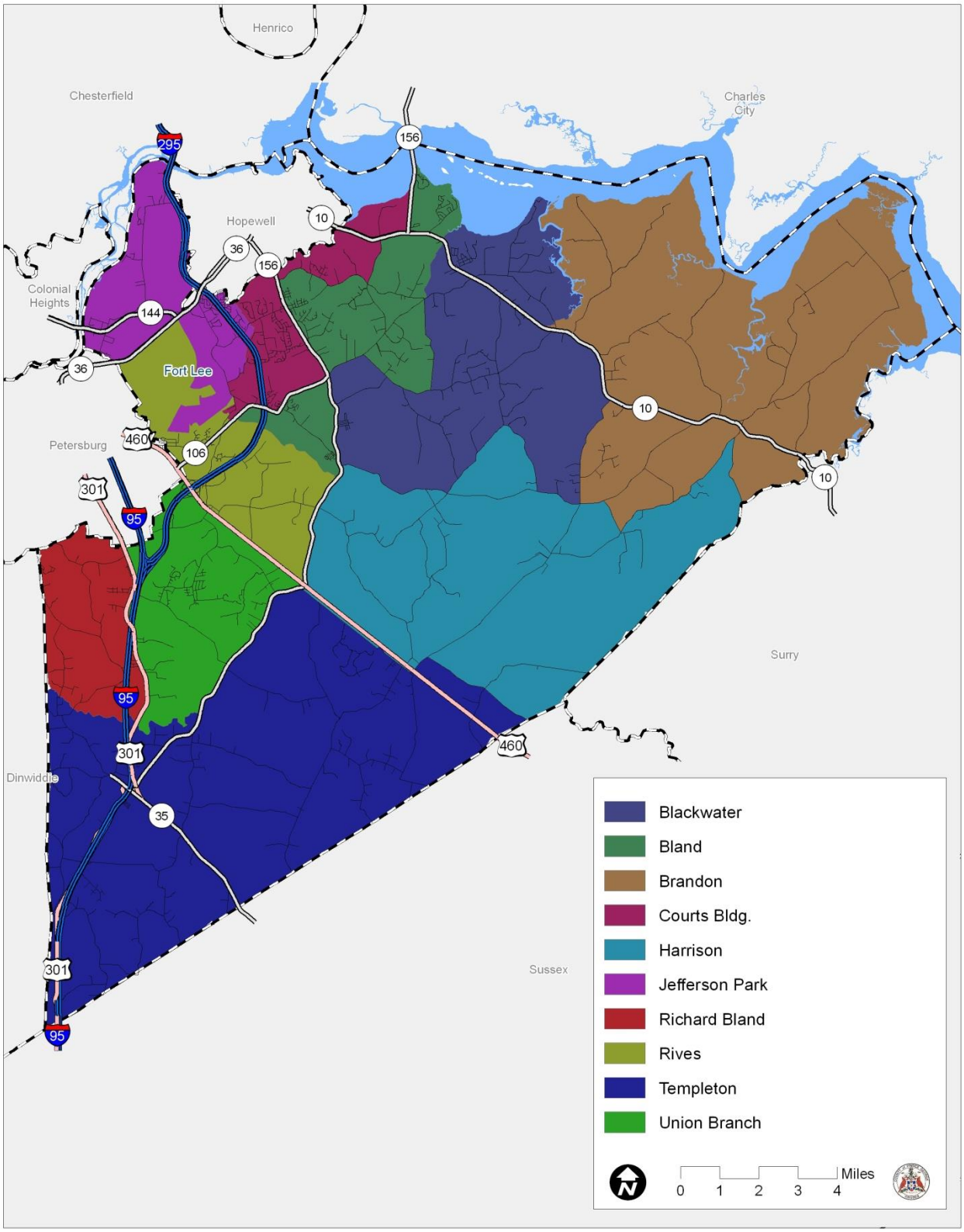
Managed recreation facilities include a new Community Center and three regional parks: the Appomattox River Park, Scott Park and Temple Park. The new Community Center consists of an exercise room, multi-purpose room, arts and craft area, and meeting/class rooms. Both Scott and Temple Park consist of lighted baseball fields, large picnic pavilions, playground equipment, and open space area. Temple Park also has three tennis courts and basketball courts available. Neighborhood parks are provided in many subdivisions including Rivers Edge, Stratford Woods, Wildwood Farms, Beechwood Manor and Branchester Lakes. Local and regional sporting events are played at the Moore complex and public school grounds which consist of lighted recreational fields and several practice fields used by both youth and adults.

Future enhancements to the park and recreation opportunities available to citizens should be based on a new parks and recreation master plan. Such a plan would serve as an effective guide for public investment in future park facilities and recreation services. The plan would evaluate parks and recreation resources and opportunities, including the potential for increased public access to the James and Appomattox Rivers, similar to the new Appomattox River Regional Park. This park offers over 60 acres of wooded trails with an observation pier on the Appomattox River, and educational shelter and new restroom facilities.

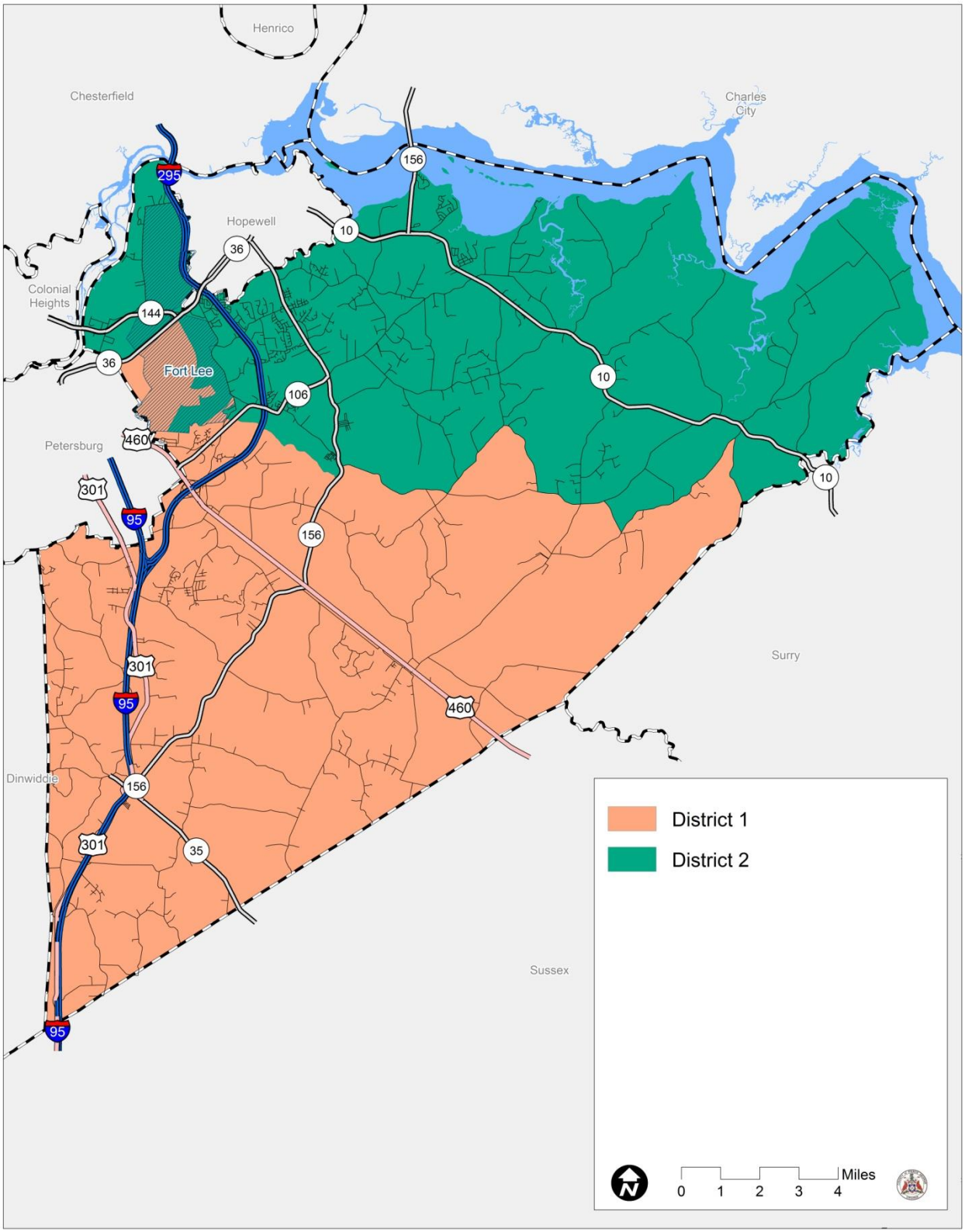
PRECINCT	POLLING STATION LOCATION
101 – Richard Bland	Richard Bland Barn Theater 11301 Johnson Road Petersburg, VA 23805
102 – Templeton	South Elementary School 13400 Prince George Drive Disputanta, VA 23842
103 – Union Branch	Union Baptist Church 3356 Union Branch Road Petersburg, VA 23805
104 – Rives	Walton Elementary School 4101 Courthouse Road Prince George, VA 23875
105 – Harrison	Harrison Elementary School 12900 East Quaker Road Disputanta, VA 23842

PRECINCT	POLLING STATION LOCATION
201 – Bland	N. B. Clements Jr. High School 7800 Laurel Spring Road Prince George, VA 23875
202 – Blackwater	Old North Elementary School 11100 Old Stage Road Prince George, VA 23875
203 – Brandon	Burrowsville Community Center 18701 James River Drive Disputanta, VA 23842
204 – Courts Building	Courts Building 6601 Courts Drive Prince George, VA 23875
205 – Jefferson Park	Jefferson Park Fire Department Building 4225 Jefferson Park Drive Prince George, VA 23875
CAP (Central Absentee Precinct, tabulates all absentee ballots)	County Administration Building 6602 Courts Drive, Suite 243 Prince George, VA 23875

Voting Districts



Supervisor Districts



CHAPTER VI ENVIRONMENT

This chapter presents information about the critical components and aspects of the County's natural environment including critical environmental areas, surface and groundwater resources, floodplains, wetlands, shorelines, air quality, slopes and Chesapeake Bay Preservation Act and Regulations.

Climate

The climate of Prince George County is modified continental, having mild winters and warm humid summers, with normally adequate rainfall for farming. According to the National Climatic Data Center, (NCDC) the mean, daily high temperature is approximately 69ºF and the mean, daily low temperature is approximately 46ºF. The County receives an annual average rainfall of approximately 44 inches. Most of this precipitation occurs in the form of rain that occurs throughout the year. Snow in normal winters seldom remains on the ground for any great length of time. The growing season averages approximately 190-200 days.

Geology and Soils

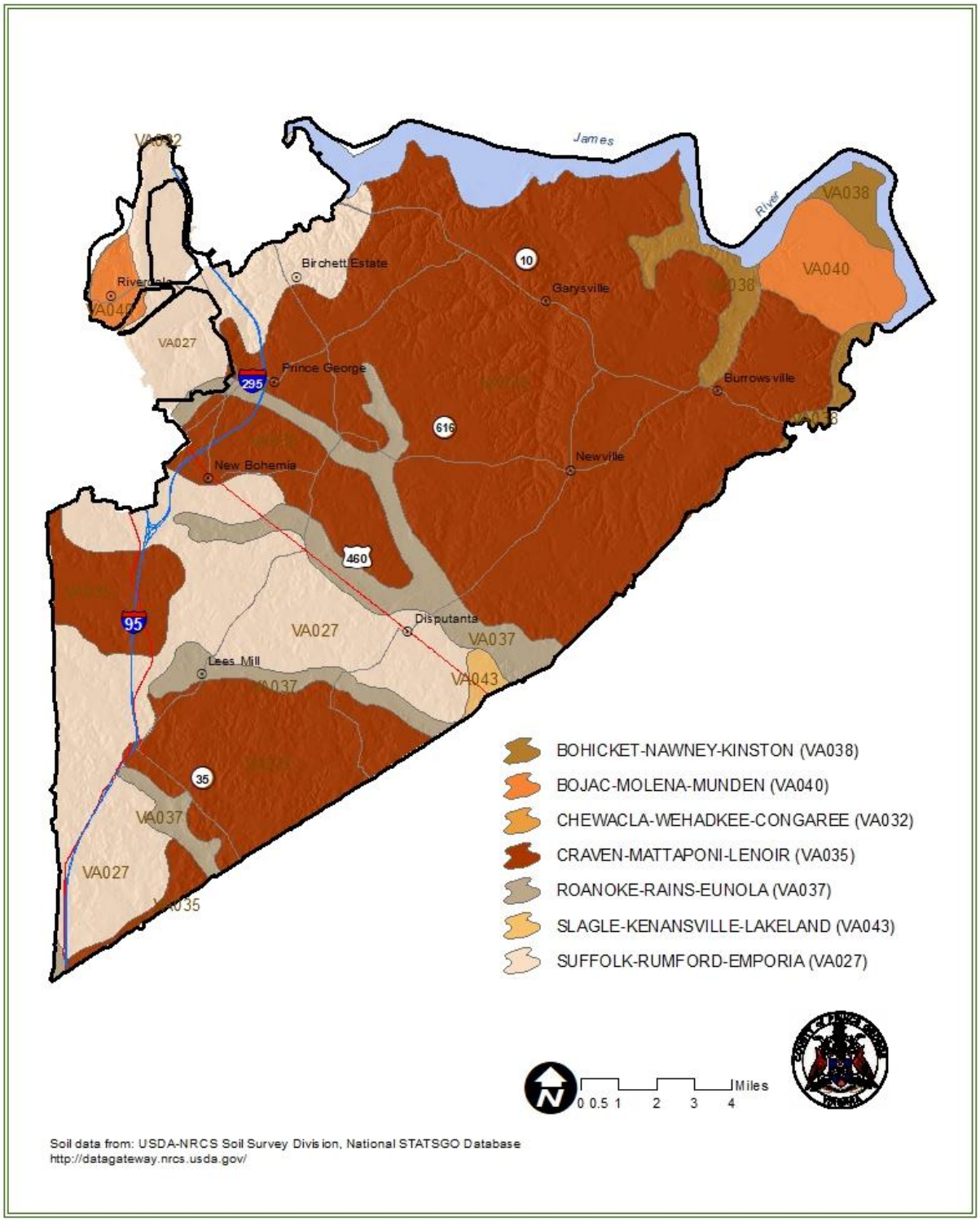
Geology is a factor which is useful when determining appropriate types of development. By using the information available from geological surveys, and more refined site specific evaluations, it is possible to determine the strata of soils, elevations of groundwater, and location of rock. This information is important to identify because certain conditions can influence building or site design or make development costly or make it inappropriate.

The suitability and limitations of the soils in an area have a great impact on development. Soil factors such as depth, absorption, percolation, shrink-swell conditions, wetness and filtering action all have an effect on development

The County's altitude ranges from about sea level to 175 feet above sea level. Seven soil associations are found in the County, but approximately 83 percent of the County's land area is made up of two of these associations. These are the Craven-Mattoponi-Lenoir (64 percent of the land area of the county) and Suffolk-Rumford-Emporia (19 percent of the land area of the county) soil associations.

The Craven-Mattaponi-Lenoir and Suffolk-Rumford-Emporia soil associations each have moderately to well-drained soils and are not prone to flooding. The two (2) other soil associations with moderate to well-drained soils are Slagle-Kenansville-Lakeland (less than 0.5 percent of the percent of land area of the county) and Bojac-Molena-Munden (4.5 percent of the land area of the county). The remaining three soil associations frequently flood and have poor drainage. The Roanoke-Rains-Enola (8.5 percent of the land area of the county) soil association encompasses much of the Second Swamp, Blackwater Swamp, North Fork Blackwater Swamp, Warwick Creek, and Jones Hole Swamp, which drain to the Chowan River Basin. The Bohicket-Nawney-Kinston (3.3 percent of the land area of the county) soil association encompasses much of Flowerdew Hundred Creek, Wards Creek, and Upper Chippokes Cree, which flow to the James River. The soil association of Chewacla-Wehadkee-Congaree (less than .05 percent of the land area of the county) is located adjacent to the Appomattox River in the northwest portion of the county.

Soil Associations



Soil data from: USDA-NRCS Soil Survey Division, National STATSGO Database
http://datagateway.nrcs.usda.gov/

Septic System Suitability

85 Percent of the land in the county has been evaluated as soils that are unsuitable for traditional on-site septic systems for treatment of solid waste. Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 72 inches is evaluated. The ratings are based on soil properties, site features, and the observed performance of the soils. Permeablity, a high water table, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Large stones and bedrock interfere with installation.

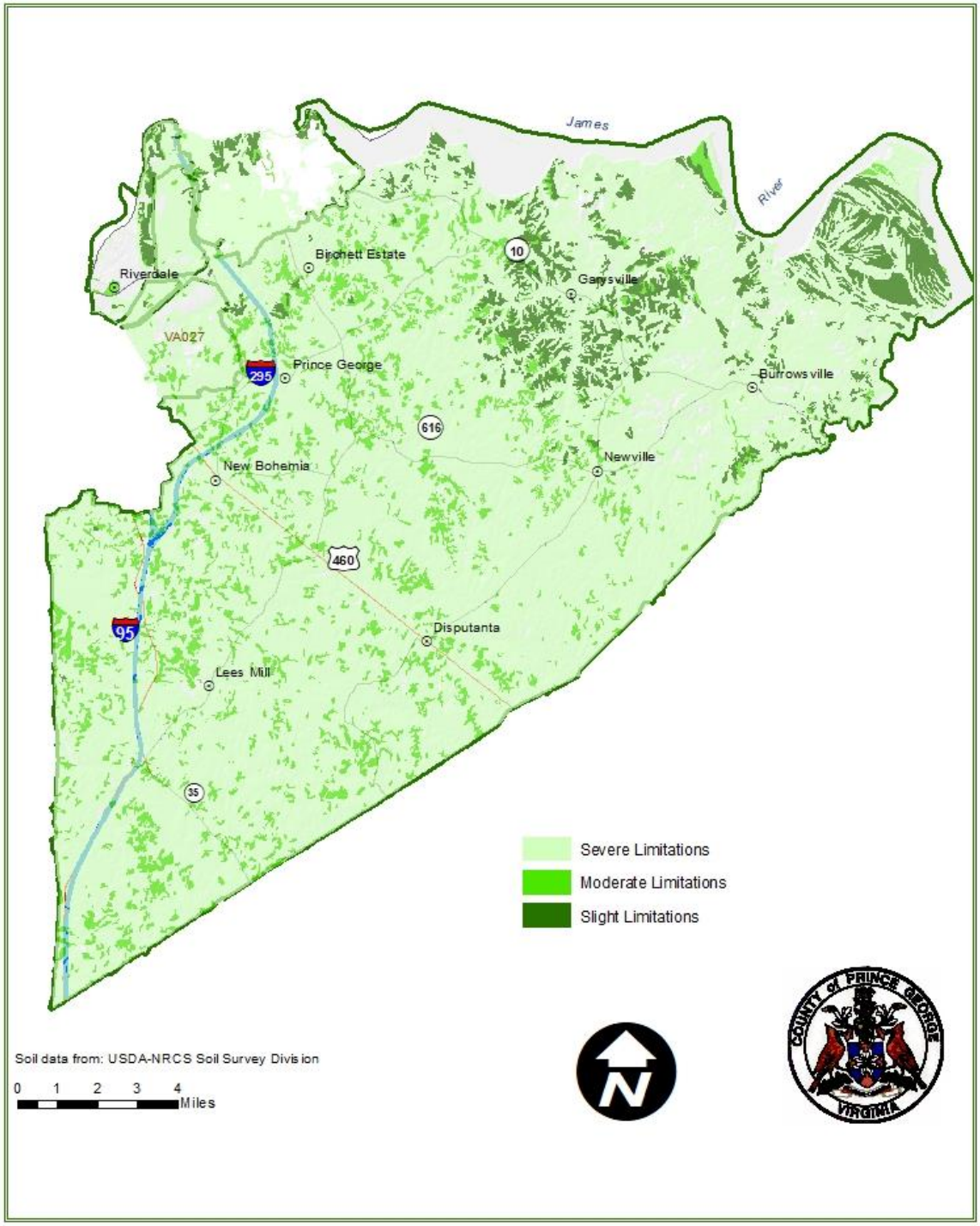
Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage, can affect public health. Groundwater can be polluted if highly permeable sand and gravel or fractured bedrock is less than 4 feet below the base of the absorption field, if slope is excessive, or if the water table is near the surface. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively.

There are three categories of soil types given by the Prince George County Soil Survey that show the limitations they create for traditional on-site septic systems. They are 1) Slight – soil properties and site features that are generally favorable for the indicated use and limitations are minor and easily overcome; 2) moderate – soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and 3) severe – soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance is required.

Conflicts are non-existent between the Plan and the soils categories in the Rural Conservation Area. Some conflicts exist within the Prince George Planning Area. The County's wastewater utility ordinance requiring mandatory connection in the Prince George Planning Area has alleviated much of the conflict. The implementation of an increased separation distance between the seasonal high water table and a septic field by the state Health Department has reduced another area of conflict on nonsubdivision activities. Additionally, through the use of the Water Utility Ordinance, Zoning Ordinance, Soil Erosion and Sedimentation Ordinance, and Subdivision Ordinance, the County has addressed the conflicts on non-subdivision activities in the Prince George Planning Area. In areas where wetlands, whether tidal or nontidal, an identification of wetland boundaries is required with

a permit from the U.S. Army Corps of Engineers before any land disturbance is permitted. The County will continue to enforce the Chesapeake Bay Preservation Areas regulations.

Septic System Suitability



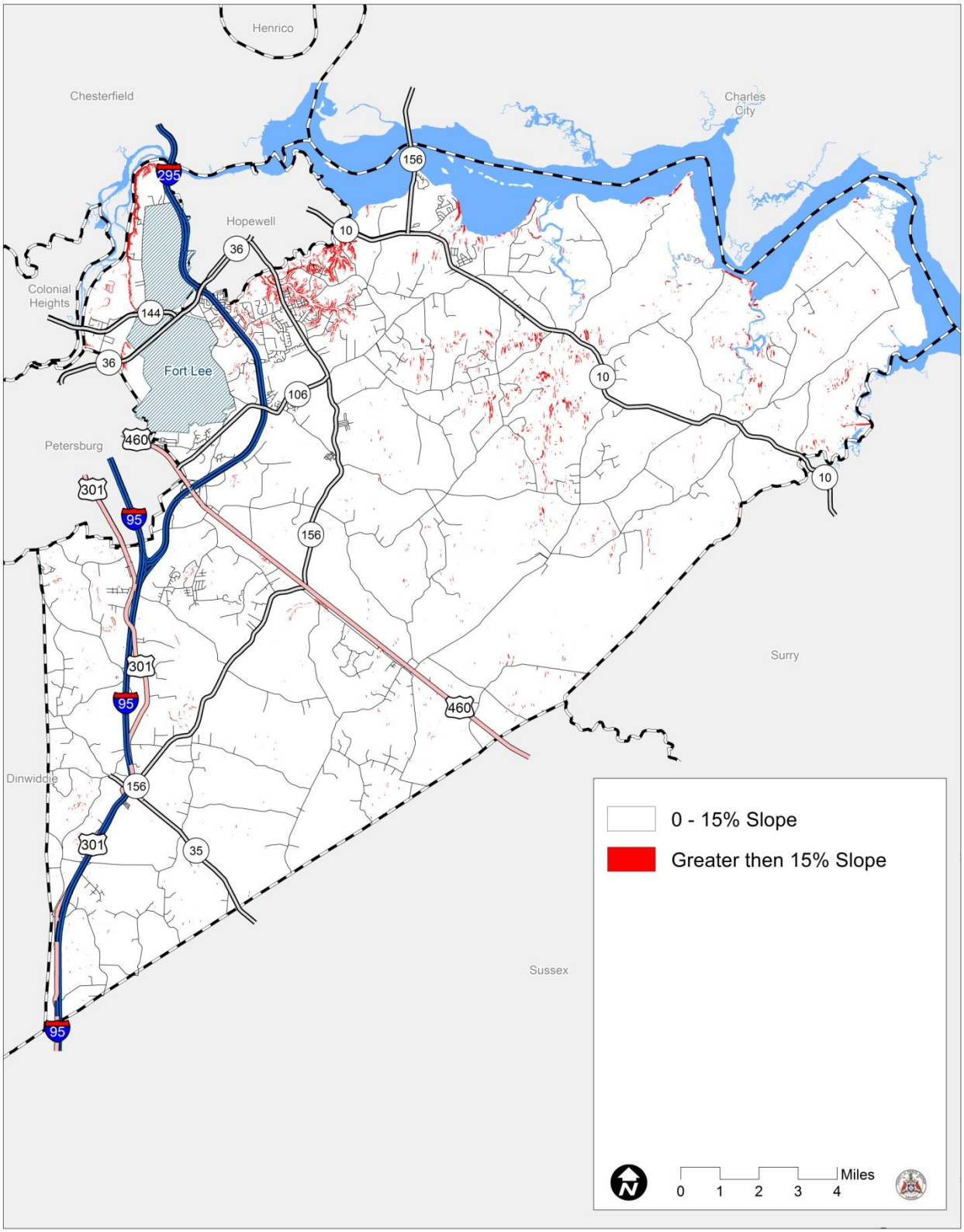
Slope

Prince George County is nearly level, containing large areas which possess minimal slopes ranging from 0 to 15 percent. Slope refers to the angle between the earth's surface and a horizontal plane. It is expressed in percentage as measured by the number of fee change in elevation per 100 horizontal feet. Slopes in excess of 10 percent often contribute substantial expense to development costs either through elaborately designed structures or massive cut and fill activities.

Moderate slopes of 15-25 percent to steep slopes greater than 25 percent are rare, but exist along some drainage ways and shorelines. These moderate and steep sloped areas are predominantly located in the northern portion of the County in the Prince George Planning Area and the Rural Conservation Area adjacent to the streams and tributaries which flow into the James River.

Slopes are a critical determinant of land development because they influence the direction and rate of water runoff, lend variety to the landscape, influence species of vegetation and wildlife, affect the formation of soils and affect the type and expense of land development. Disturbance of moderate sloped areas could cause the entire slope to slide, resulting in environmental damage, endangering not only any on-site construction activities, but also neighboring and downstream properties. Grading, disturbing or development of steep slopes of greater than 25 percent should be avoided.

Slope


Henrico
Chesterfield
Charles City
Hopewell
Colonial Heights
Fort Lee
Petersburg
Dinwiddie
Surry
Sussex
295
156
10
36
144
106
460
301
95
35
0 - 15% Slope
Greater then 15% Slope
Miles
0 1 2 3 4

While Prince George County is predominantly level, there are areas in which slopes vary from moderate to excessive. These areas present some constraints to normal development due to the high cost of site preparation prior to construction and potential drainage problems. The highly erodable soil in the County is found in these areas. A major portion of the moderate to excessive slopes is along drainage ways, some of which lie within flood hazard areas. Areas in excessive slopes, while not occurring over a large portion of the County, should be monitored for their appropriateness as desirable build sites and for the physical impact on the environment. In areas where such development would be undesirable, it should be restricted.

Water Resources

There are four major watersheds in the County; The James River watershed, the Appomattox River watershed, the Blackwater River, and the Nottoway River watershed. These water resources provide recreational opportunities and are a critical component of the County's infrastructure and quality of life. As such, the protection and enhancement of these water resources should be a primary County objective.

Voluntary riparian easements and buffer programs implemented along the County's streams and rivers can mitigate the impacts of agricultural and non-agricultural non-point source runoff. Similar benefits could be achieved from a regulatory approach that required more stringent erosion control measures, and site and land use standards designed to protect and enhance these water resources. Prince George County adopted an Erosion and Sediment Control Ordinance in 2002 and has actively promoted certain erosion control measures to protect and enhance the water resources.

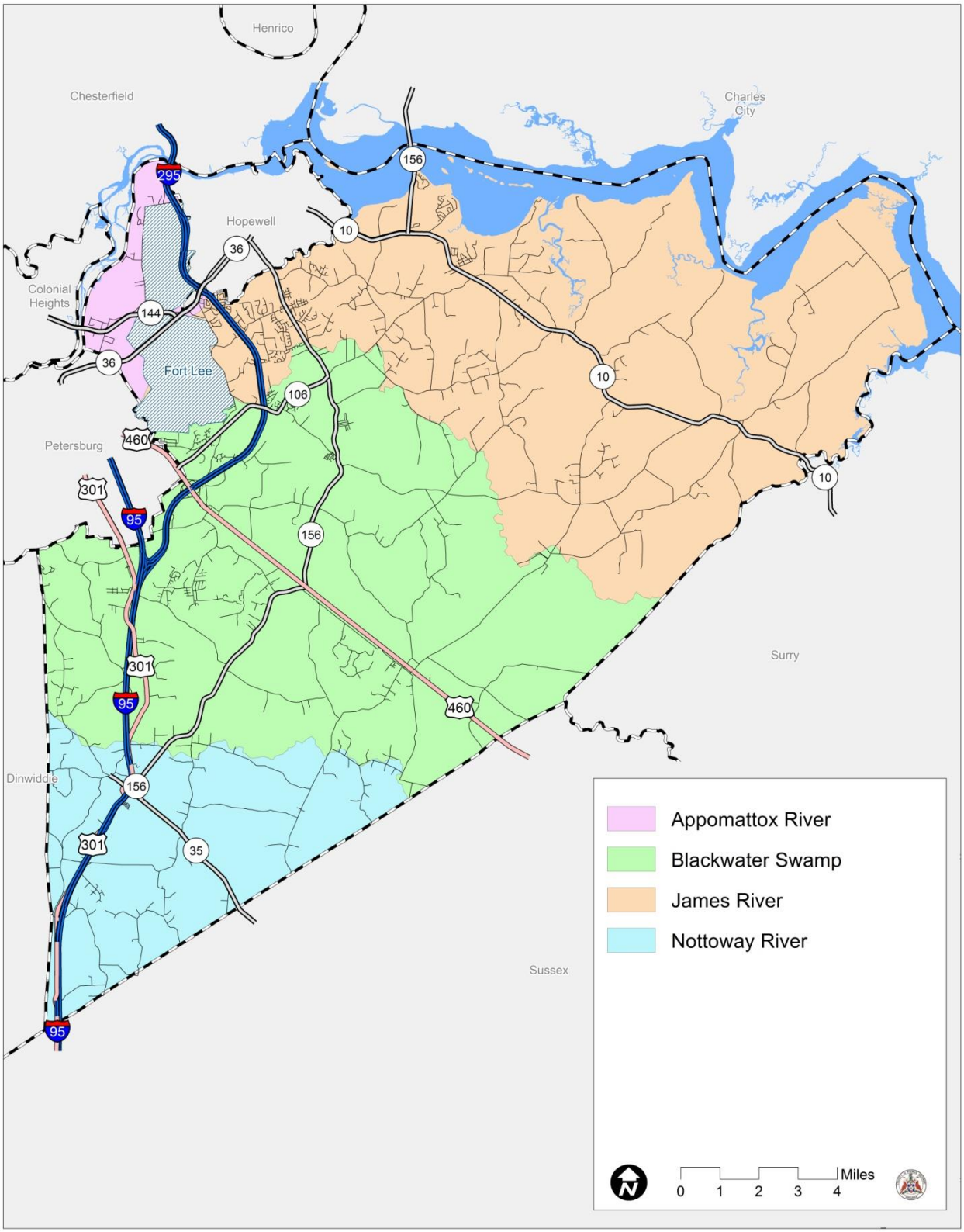
Surface Waters

Prince George County is divided between two major river basins, the James River and Chowan River Basins. In the northern part of the County, constituting about 48 percent of the total County land area, water drains into the Appomattox and the James Rivers and eventually reaches the Chesapeake Bay.These two rivers have an approximate combined flow of greater than 5,000 cubic feet per second at their confluence. This watershed falls under the protection of the Chesapeake Bay Preservation Act.

The remainder of the County is in the Nottoway River and Blackwater River watersheds. Their tributaries include Rowanty Creek, Jones Hole Swamp, Warwick Swamp, and Cypress Swamp. The Nottoway and Blackwater flow into the Chowan, and its final receiving estuary is the Albemarle-Pamlico Sound in North Carolina.

The total drainage area of the James River Basin is 10,102 square miles. Surface water flowing from the northern part of the County enters the James and Appomattox Rivers through the major streams and creeks of Harrison Creek, Bailey's Creek, Walls Run, Wards Creek, Powell Creek and Upper Chippokes Creek. The James River flows into the southern end of the Chesapeake Bay.

Major Watersheds



Ground Water

Ground water is generally available in large quantities throughout the County and is the County's primary source of water supplied through either a public water system or private individual wells. The abundance of groundwater has been a factor that has influenced the pattern of residential development in the County. Because it is plentiful at relatively shallow depths, residential development locations and densities have not generally been restricted by water supply. Rather, rural zoning density standards, and the County's mandatory utility connection policies in the current Prince George Planning Area have had a much greater influence on shaping residential development character and patterns.

The development intensity and water demands of any future groundwater-dependent development proposal should be evaluated partially on the basis of the availability of groundwater. The Virginia Department of Environmental Quality has designated all land areas within the County, east of I-95, a Groundwater Management Area, limiting the possibility of future major withdrawals. The Eastern Virginia Groundwater Management Area was created to conserve the use and protect the quality of the groundwater for all areas east of Interstate 95. As a strategy to further manage and implement the County's growth strategies, the Board of Supervisors amended the County Code in the summer of 2006 to prohibit independent community (public) water systems in the County.

There are potential threats to groundwater. Groundwater contamination can come from a number of sources (i.e underground storage tanks, improper septic systems, uncontrolled hazardous waste, chemicals and road salts, and atmospheric contaminants). If groundwater is pumped out at a rate faster than it is repleshed, it can cause groundwater depletion which can cause the lowering of the water table, increase cost to attain water, reduce surface water supplies, lead to the loss of support below ground (land subsidence), and poor water quality.

Inter-relationship between Surface Water and Groundwater

Management of water resources has focused on primarily on surface water or groundwater as if they were separate entities. As development of land and water resources increases, it is apparent that development of either of these resources affects the quantity and quality of the other. Nearly all surface-water features (streams, lakes, reservoirs, wetlands, and estuaries) interact with ground water. These interactions take many forms. In many situations, surface-water bodies gain water

and solutes from ground-water systems and in others the surface-water body is a source of ground water or conversely, pumpage of ground water can deplete water in streams, lakes, or wetlands. Pollution of surface water can cause degradation of ground-water quality and conversely pollution of groundwater can degrade surface water. Land and water management thus requires a clear understanding of the linkages between ground water and surface water as it applies to any hydrologic setting.

Threats to Water Quality

Point Source Pollution

Water quality in the Appomattox River and James River is generally good as they each flow through Prince George County. However, based upon Federal Clean Water Act standards, portions of these rivers and various streams and swamps in the County that were monitored contain some impairments. In 2016, the Virginia Department of Environmental Quality (DEQ) identified impairments found in Prince George County. These impairments ranged from Escherichia Coli, PCB, Mercury in Fish Tissue found in the James River Basin and the Chowan River Basin.

An inventory of existing pollution sources that may potentially harm groundwater and surface waters can help to identify areas in the County that may need to be monitored. Pollution sources can be classified as either point sources or nonpoint sources. Those sources coming from a well-defined location or source are known as point sources. The Virginia Department of Environmental Quality regulates point sources through the Virginia Pollution Discharge Elimination System (VPDES) permit program. As of November 2017, DEQ indicates that Prince George has eight (8) industrial stormwater permits, two (2) non-metallic mineral permits, three (3) concrete products permits, and five(5) domestic sewage (less than 1,000 gallons per day) permits.

List of Impaired Waters in Prince George County, Virginia - Updated 2016

Basin	Water Name	Cause Name	Use	Cyle First Listed	TMDL Schedule
James River Basin	Bailey Creek and Cattail Creek	PCB in Water Column	Fish Consumption	2012	2024
		Escherichia Coli	Recreation	1994	2010
		pH	Aquatic Life	2004	2016
	James River	pH	Aquatic Life	2014	2026
		PCB in Fish Tissue	Fish Consumption	2002	2014
		Escherichia Coli	Recreation	2006	2014
		Estaurine Bioassesments	Aquatic Life	2012	2024
	Appomattox River		Aquatic Life	2010	2022
		Sediment Biossays for Estuarine and Marine Water			
		Escherichia Coli	Recreation	2016	2028
		Aquatic Plants (Macrophytes)	Aquatic Life, Shallow-Water Submerged Aquatic Vegetation	2006	2010
	Bailey Creek	Aldrin	Fish Consumption	2002	2014
		Escherichia Coli	Recreation	2008	2010
		Benthic-Macroinvertebrate Bio assessments	Aquatic Life	2014	2026
		PCB in Fish Tissue	Fish Consumption	2002	2014
	Cattail Run	Escherichia Coli	Recreation	2012	2024
	Poythress Run	PCB in Water Column	Aquatic Life	2012	2024
		PCB in Water Column	Wildlife	2012	2024
		PCB in Water Column	Fish Consumption	2012	2024
	Walls Run	Escherichia Coli	Recreation	2006	2018
	Southerly Run	Escherichia Coli	Recreation	2008	2020
	Upper Chippokes Creek	Escherichia Coli	Recreation	2008	2020
	Flowerdew Hundred Creek	Escherichia Coli	Recreation	2016	2028
	Powell Creek	Escherichia Coli	Recreation	2008	2020
Chowan River and Dismal Swamp Basin	Joseph Swamp	Escherichia Coli	Recreation	2010	2022
	Jones Hole Swamp/Moores Swamp	Escherichia Coli	Recreation	2010	2022
	Gosee Swamp	Escherichia Coli	Recreation	2014	2026
	Rowanty Creek	Escherichia Coli	Recreation	2012	2024
	Blackwater River	Mercury in Fish Tissue	Fish Consumption	2006	2008
	Nottoway River	Mercury in Fish Tissue	Fish Consumption	2010	2020
	Blackwater Swamp	Escherichia Coli	Recreation	2006	2014
	Warwick Swamp	Escherichia Coli	Recreation	2008	2014
	Second Swamp	Escherichia Coli	Recreation	2010	2016
	North Fork Blackwater Swamp	Escherichia Coli	Recreation	2010	2022
	Otterdam Swamp	Escherichia Coli	Recreation	2016	2028

Nonpoint Source Pollution

In contrast with point source pollution, it is difficult to pinpoint the exact source of nonpoint source pollution. Nonpoint source pollution occurs throughout an entire watershed. Nonpoint source pollution can result from several human activities including construction, runoff from impervious surfaces associated with development, agriculture, and forestry. Nonpoint pollutants can consist of fertilizers, pesticides, oil, sediment, and metals. DEQ is responsible for assessing nonpoint source pollution statewide by hydrologic unit and associated subwatersheds.

Farming remains a dominant land use and important component of the local economy of Prince George County. The County will continue to work with the James River Soil and Water Conservation District in reviewing and encouraging the use of soil conservation and water quality plans and nutrient management plans among farm land owners in the County, especially where such activity occurs in the RMA and RPA. Through the site plan review process, the County will continue to work with the land owners to minimize land disturbance and encourage the preservation of vegetation in every development in the Bay Watershed area in the County.

Protection of Potable Water Supply

Several efforts to assure safe water supplies and protecting the James River's water quality have been made:

(1) The County's water and wastewater utility ordinances within the Prince George Planning Area require connection by all subdivisions to public water and sewage systems.
(2) In the Rural Conservation Area a five acre lot size is required by zoning regulations. This size lot assures a lower water draw down rate and provides the potential for lower percentages of lot disturbance and coverage, thereby providing greater runoff filtering areas. The principal variance to this lot size being the State mandated family division which allows for one acre lot sizes for immediate family members throughout the County.
(3) The County's policy implemented in the late 1980's which requires a 100% septic field reserve area reduces the chance for failure of new septic systems.
(4) The County has had an active indoor plumbing program since 1989 through the Virginia Department of Housing and Community Development.
(5) A pump-out program for septic tanks has been initiated on a phased five (5) year basis.

Mineral Resources

Prince George County is in the Coastal Plain province and is underlain primarily by sand, gravel and clay strata. In the past, clay materials were produced in the County for use in the manufacture of brick. Glauconitic or greensand marl occurs along the James River and was formerly produced near Hopewell and marketed for agricultural use. Some calcareous marl has also been obtained for agricultural purposes. Several hundred tons of manganese ore were reportedly mined at a site near Hopewell many years ago. Diatomaceous sediments occur in the vicinity of Petersburg but the presence of commercial deposits has not been established.

Mineral extraction activities in Prince George County contribute in a small way to the local economy. The Virginia Department of Mines, Minerals and Energy is responsible for monitoring the safety aspects of these mining operations. As of 2016, the department has active mineral extraction permits for six different locations in the County. These permits cover a total of approximately 1300 acres and authorize the extraction of sand, clay and gravel. Two of these locations were producing in 2016. Of these, the largest operation is a 900 acre sand and gravel mine in the Puddledock area of the County. Combined, the two operating locations had a combined production in excess of 700,000 tons.

Forest Resources

Forests are an important part of the natural landscape and economy of Prince George County. They provide habitats for many plant and wildlife species, natural resources for outdoor recreation, protection from erosion, and sedimentation, groundwater recharge areas and visual buffers between land uses.

Forests cover over 74% of the County's landscape. Primarily private individuals or private corporations own these forested areas. A very small percentage is owned by the State or Federal government. Over 50 percent of County timberland is composed of the yellow pine forest types. Of the hardwood species, the oak, hickory and gum trees are predominant. Of the 98 timber producing localities in Virginia, Prince George ranks 21st in total value of timber products. These products have an average annual harvest value exceeding 3.6 million dollars in 2006. Direct and indirect forestry-related employment in the Tri-Cities area exceeded 2000 jobs in 2007 with a total harvest value in excess of 73 million dollars.

The current annual growth quantities are more than the cut quantities at this time. Timber-growth potential is excellent in Prince George County. Good forest-management practices and forest-fire

prevention must be maintained and continued to realize this potential. These two objectives are particularly important as continued County development permanently removes land from forestry potential and woodland home sites increase the risk of possible forest fires.

Critical Environmental Areas

Critical environmental areas have been legislatively defined as "areas of natural, scenic and historic value, including, but not limited to, wetlands, marshlands, shorelands and floodplains of rivers, lakes and streams, wilderness and wildlife habitats, historic buildings and areas." In Prince George County, three areas were identified and delineated by the Commonwealth as Virginia's critical environmental areas. Three important areas affecting the development of the County are:

- Appomattox River Area
  Critical watershed and wildlife habitat, portions remain in relatively undisturbed condition.

- James River Area (including the James River National Wildlife Refuge)
  Critical watershed and fish habitat, scenic and natural areas of immense recreational value. Critical wetland areas occur along Powell Creek, Wards Creek and Chippokes Creek.

- Blackwater River and Bottomlands Area
  Swamp-like natural area, relatively inaccessible. Cypress Swamp contains critical watershed, scenic, and wildlife areas and is unsuitable for intense development.

With the exception of the James River National Wildlife Refuge which is federally owned, recognition of critical environmental areas does not protect these areas from environmental degradation or inappropriate land development. The above mentioned critical environmental areas have been delineated under Chesapeake Bay programs and those environmental lands in the James River Watershed that were designated as Chesapeake Bay Preservation Areas.

Chesapeake Bay Preservation Act and Regulations

In 1988, the Virginia General Assembly passed the Chesapeake Bay Preservation Act (Bay Act) as Virginia's commitment to improving the health of the Chesapeake Bay. Protection of the water quality of the Chesapeake Bay, the James River and its tributaries is essential to the welfare of the Commonwealth and the County of Prince George. As a natural resource, the Chesapeake Bay has

always been essential to the growth and vitality of Virginia. It is an important body of water for aquaculture, recreation and transportation, and it has always been a critical component of the state's ecosystem.

The regulations, which apply to lands within the James River basin, provide a framework within which local governments are to handle development requests in environmentally sensitive areas. Prince George County was required to designate Chesapeake Bay Preservation Areas. The County has also adopted performance criteria and incorporated these required land use regulations into the comprehensive plan, zoning ordinance and subdivision ordinance. Citizen comments received during the 2007 planning process pointed out the inequities of having the Chesapeake Bay regulations apply to only the top portion of the County. Many citizens had commented that these inequities could be addressed, and the County's natural environment improved, by applying the Chesapeake Bay Act standards county-wide for more uniform and equal regulations and enforcement methods.

Certain land areas play a more important role in protecting water quality than others. The Bay Act attempts to identify and focus on those critical land areas, which if improperly developed, could result in substantial water quality degradation. These areas are called the Chesapeake Bay Preservation Areas (CBPA's) and include two components: the Resource Protection Area (RPA) and the Resource Management Area (RMA).

A Resource Protection Area (RPA) includes land area at or near the shoreline that contains sensitive natural features that play an important role in protecting water quality through the ecological and biological processes they perform. The RPA regulations of the Prince George County Zoning Ordinance designate land areas meeting the following criteria:

1. Tidal wetlands;
2. Non-tidal wetlands connected by surface flow to tidal wetlands or perennial tributary streams;
3. Tidal shores;
4. A 100 foot wide buffer area located adjacent to and landward of perennial tributary streams and the other above features.

The RPA features filter sediments and pollutants from runoff before they reach the Bay, thus improving the water quality. These lands, preserved in their natural state, work to prevent erosion, absorb water, prevent flooding, provide a protective buffering of the shore, reduce nutrients entering the water, and otherwise prevent sediments and pollutants from entering the water. The uses and development of RPA land, as well as land clearance and the removal of vegetation is extremely restricted and possible only under certain circumstances by special permitting. Few exceptions exist other than for development defined and determined to be water-dependent, redevelopment, or for lots recorded prior to October 1, 1989, which due to their size, shape or other unique features, cannot be developed within the requirements from which relief is necessary to afford the reasonable use of the property. Even in such cases, specific applications and approvals are required for development within the RPA.

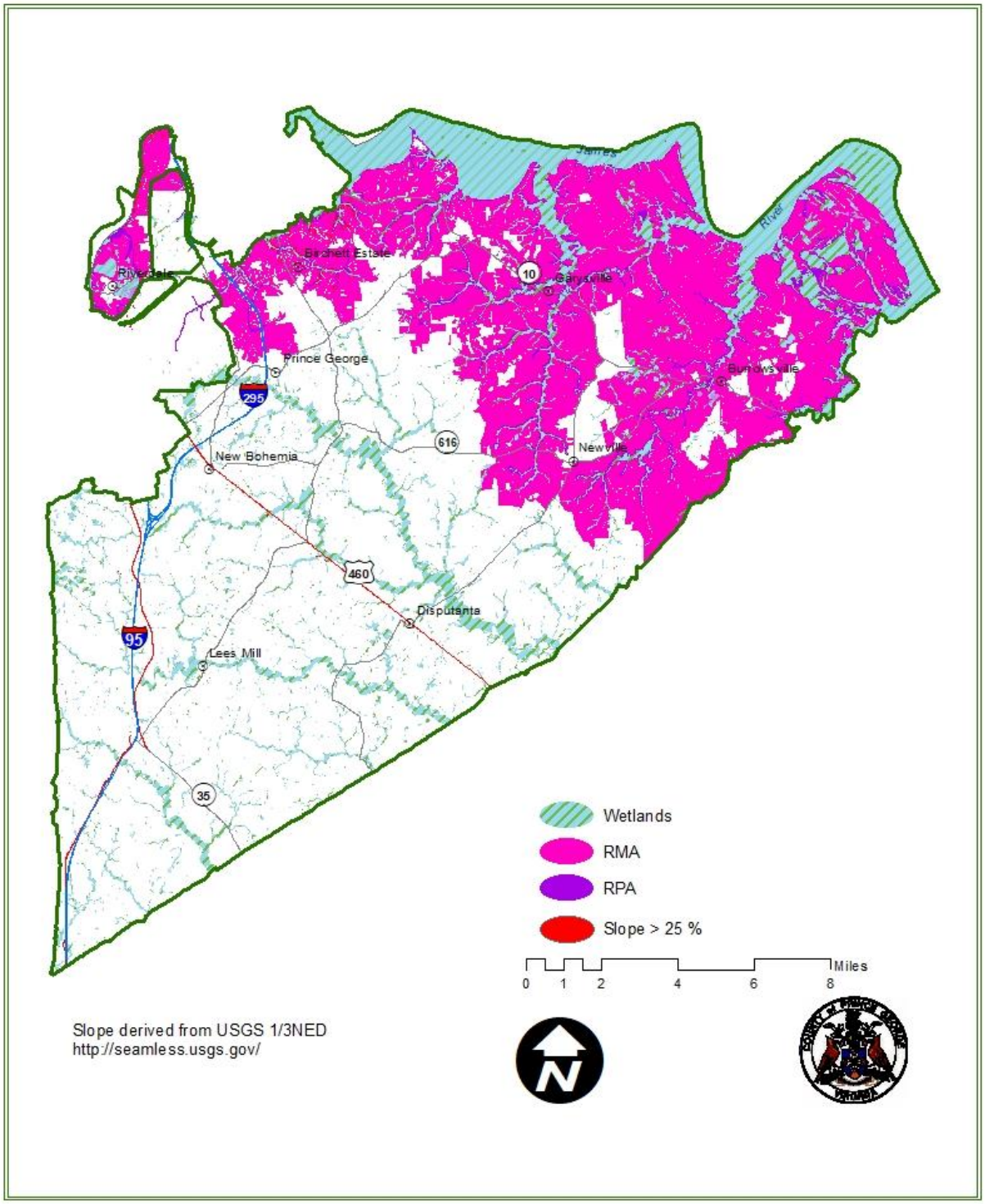
The Resource Management Area (RMA) is land area that protects and buffers the sensitive features of the RPA. The RMA is located landward and contiguous to the RPA. The RMA identifies the area as one hundred fifty (150) feet in width contiguous to and landward of the RPA, including all contiguous floodplains not included in the RPA overlay zoning district, and non-tidal wetlands converted by an intermittent stream to an RPA.

These areas, if improperly developed, would result in erosion, flooding and other adverse impacts to the RPA, thereby preventing its proper functioning resulting in degraded water quality.

The Chesapeake Bay Preservation Act allows local governments the option to designate Intensely Developed Areas (IDA) as an overlay of the Chesapeake Bay Preservation Area within the jurisdiction. The purpose of the IDA is to serve as redevelopment areas in which development is concentrated as of the local program adoption date. This designation is to address water quality impacts of heavily urbanized or development areas. Development in these areas are usually confined to either the redevelopment of existing developed sites or new construction on a limited number of remaining vacant parcels. IDA's are further characterized by one of three of the following conditions: 1) Development has severely altered the natural state of the area that it has more than 50% impervious surface; 2) Public sewer and water systems, or a constructed stormwater drainage system, or both, have been constructed and served the area by the original local program adoption date, or 3) Housing density is equal to or greater than four dwelling units per acre. The concentration of intensive use coupled with the absence of natural vegetation and extensive impervious coverage contribute to non-point pollution of surface waters.

Currently, there are no areas designated as Intensely Developed Areas in the County. Even without the identification of IDA's, Prince George County will continue to seek ways to improve water quality on individual redevelopment and renovation projects.

Development Constraints



Floodplains

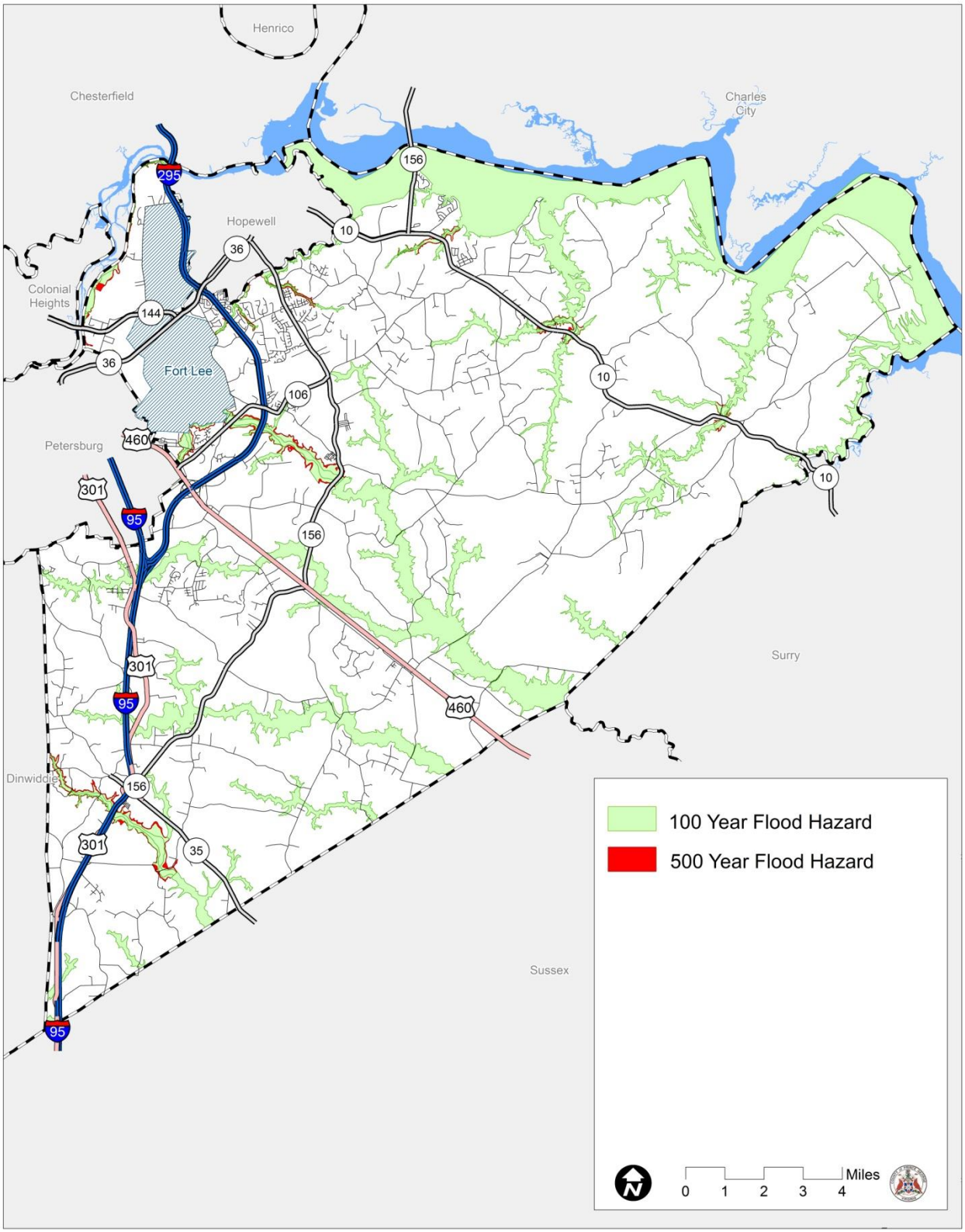
Floodplains are areas along streams and rivers where flooding is likely to occur in the County. In addition to the James, Appomattox and Blackwater Rivers, which are State designated critical environmental areas in the County, there are several other low-lying areas which are floodplains or wetlands. These areas are along the banks of Blackwater Swamp Warwick Swamp, Second Swamp, Indian Swamp, Joseph, Jones Hole Swamp, Gosee Swamp, and Rowanty Creek.

Floodplains are critical environmental resources due to their function as a natural and economical stormwater management system, as well as their value as wildlife habitats and recreational areas. Construction in floodplains is subject to damage by floodwaters, but substantial change to existing terrain can also affect the conveyance or storage of the natural channel to the detriment of upstream or downstream landowners. As such, the County has restricted land development in the flood hazard areas.

Prince George County adopted new Flood Insurance Rate Maps (FIRM) that became effective on May 16, 2012 and June 2, 2015. Additionally, the Floodplain Ordinance was updated to reflect these changes required of localities by the National Flood Insurance Program to enact local legislation designed to enforce floodplain management regulations to help mitigate the effects of flooding on new and improved structures. By meeting the requirement, property owners and businesses located in proximity to a floodplain are provided affordable insurance.

The FIRM maps were created using digital mapping data and they were easily converted into the County's Geographic Information System (GIS) for more accurate floodplain determinations. All flood elevations shown in the Flood Insurance Study provided by FEMA are now referenced to the North American Vertical Datum of 1988 (NAVD 88). In order to perform the map conversion from the May 1, 1980 FIRM maps, the effective elevation values from the National Geodetic Vertical Datum of 1929 (NGVD 29) were adjusted downward by 1.1 foot. In general, the majority of the County's floodplain areas did not increase in area during this conversion process. They only changed in the immediate areas around both the City of Hopewell along the Appomattox and James Rivers and the City of Petersburg near Harrison Creek. This was due to more urban based flood studies being performed for the long term benefit of their city residents and business owners for better flood protection purposes.

Flood Plains



Wetlands

Wetlands have traditionally been considered unproductive wastelands, which has in the past lead to their elimination by artificial draining or filling. This view has changed significantly as the connection between wetlands, wildlife, water quality and other ecological and economic values have been evaluated. Each wetland works in combination with other wetlands as part of a complex, integrated system that delivers these benefits and others to County landowners.

Wetlands are required by many types of animals and plants for survival. They are particularly important habitats for estuarine and marine fish and shellfish, various waterfowl, birds, and several mammals. Wetlands are among the most productive natural ecosystems in the world. They provide an important source of food for both people as well as for our aquatic animals.

Wetlands have often been referred to as natural sponges that absorb flood waters up naturally. By temporarily storing flood waters, wetlands help protect adjacent and downstream property owners from flood damage. Trees and other wetland plants help slow the speed of flood waters. This action, combined with water storage, allows wetlands to lower flood heights and reduce the flood water's erosive potential. One of the most important values of wetlands is their ability to help maintain good water quality in our nation's rivers and other bodies of water, and to improve degraded waters. Wetlands do this in several ways; removing and retaining nutrients, processing chemical and organic waters and reducing sediment loads to receiving waters. Wetlands are particularly good water filters. Due to their position between upland and deep water, wetlands can both intercept surface-water runoff from land before it reaches open water and help filter nutrients, wastes and sediment from flooding waters. This function is important in both suburban and agricultural areas alike and to people as well as to aquatic and other wildlife. In addition, wetlands serve as recharge areas for groundwater aquifers and play an important role in water supply. Other wetlands are sites of groundwater discharge and they provide important contributions to freshwater stream flow, especially during drought conditions.

In Prince George County there are approximately 1,500 acres of wetlands as identified on the National Wetlands Inventory (NWI). This is less than 1% of the County's 266 square miles of land. Most of the wetlands are located along the rivers and within stream valleys, predominantly in and around the floodplain areas. The NWI maps were developed by the U.S. Fish and Wildlife Service and show wetland boundaries as delineated from aerial photographs. The small scale of the

photography and inherent margins of error in photo interpretation render the maps most useful for general use planning.

Public/Private Water Access

There are over 92 linear miles of shoreline in the Prince George County area. This geographic area is composed of the County, the City of Hopewell and parts of the City of Petersburg. The shoreline's physiography ranges from low shore to high shore, with seventy-three percent being classified as either low or moderately low shore. Flooding is not a serious threat to most areas of the shoreline, as elevations average greater than 10 feet. Only in a few isolated areas in the County are structures endangered by flood waters.

Shorelines are also areas to access waterways. However, the land adjacent to the shore is not owned by the locality. The geographic area along the Appomattox River has several uses. The majority of the shoreline here are owned by the federal government: Fort Lee and the Federal Correctional Institute. The shoreline in this area also have industrial sand and gravel operations, railroad lines, recreational and agricultural uses.

The Jordan Point area, near the Benjamin Harrison Bridge and on the major route between Hopewell and Williamsburg, has a marina, a country club and a residential development. Most of the remaining shoreline are contained within several large estates; Brandon, Flowerdew Hundred, Willow Hill and Upper Brandon. These estates, which have survived from the 1800s, directly control the use of much of the shoreline. From Jordan Point to the head of the Upper Chippokes Creek, ninety-six percent of the shoreline are either wooded or agricultural. The other four percent of the shoreline is divided among commercial, industrial, recreational and residential uses.

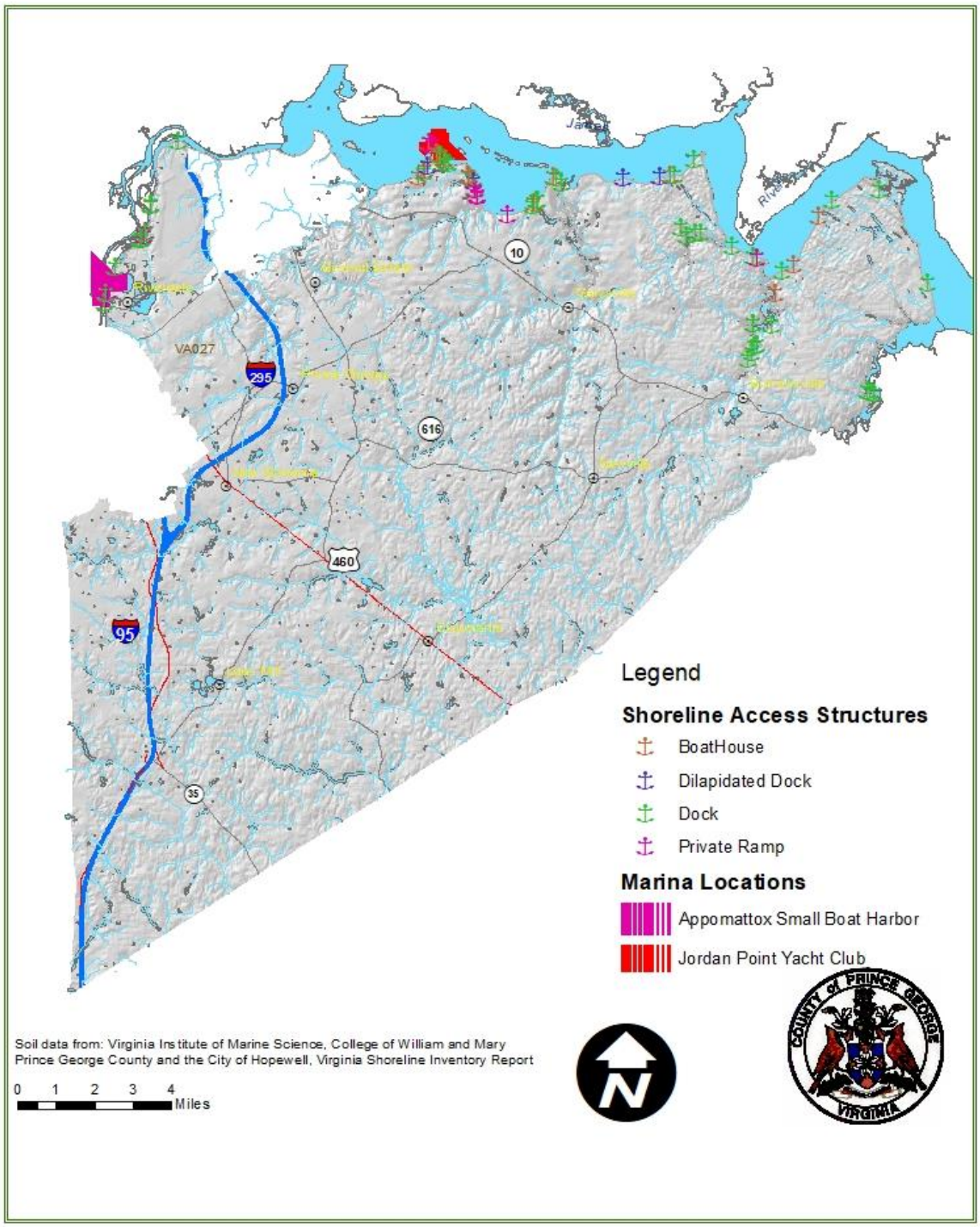
Access to the waterways are provided through private owned land via marinas, docks, and piers. Currently, there are no plans for any additional marinas in the County. The County, however, recognizes the need to provide additional public river access points for its citizens to take advantage of the recreation potential of its Rivers. It is Prince George's policy to minimize the water quality impacts of marine facilities. If the County is given the opportunity to establish a future waterfront access point, the County will evaluate the proposed facility upon Virginia Marine Resources Commission's Criteria for the Siting of Marinas and Community Facility for Boat Moorings.

Presently, there are 57 docks and 14 private ramps in the County. Individuals wishing to build private docks and piers must work with The Virginia Marine Resources Commission and Prince George County Ordinances to construct one.

Marinas and recreational boating are very popular uses of coastal waters. The growth of recreational boating, along with the growth of coastal development in general, has led to an increased awareness of the need to protect the environmental quality of our waterways. Because marinas are located right at the water's edge, there is a strong potential for marina waters to become contaminated with pollutants generated from the various activities that occur at marinas—such as boat cleaning, fueling operations and marine head discharge—or from the entry of stormwater runoff from parking lots and hull maintenance and repair areas into marina basins.

Prince George County does not contain or border any commercial fisheries. However, the County does allow recreational fishing as permitted by the Virginia Department of Game and Inland Fisheries.

Existing Public/Private Water Access



Shoreline Erosion

Shoreline erosion results from the combined impacts of waves, sea level rise, and tidal currents, in some cases, boat wakes, and shoreline hardening. Overall, the erosion is very low in most sections of Prince George County. Along the James River toward Upper Chippokes Creek, the erosion rates increase slightly, while Upper Chippokes Creek has the highest erosion rate in the County because of several areas of marsh that are eroding rapidly.

An area of shoreline erosion concern specifically is areas with agriculture and grass within a 100 ft of the shoreline. These uses have the highest potential for nutrient runoff due to fertilizer applications. Agricultural lands are also prone to high sediment loads since the adjacent banks are seldom restored when erosion problems persist. According to the Prince George County Shoreline Management Plan, the majority of the shoreline management in Prince George can be achieved without the use of traditional erosion control structures (i.e. riprap, bulkheads), but can be managed by enhancing the riparian buffer or the marsh if present.

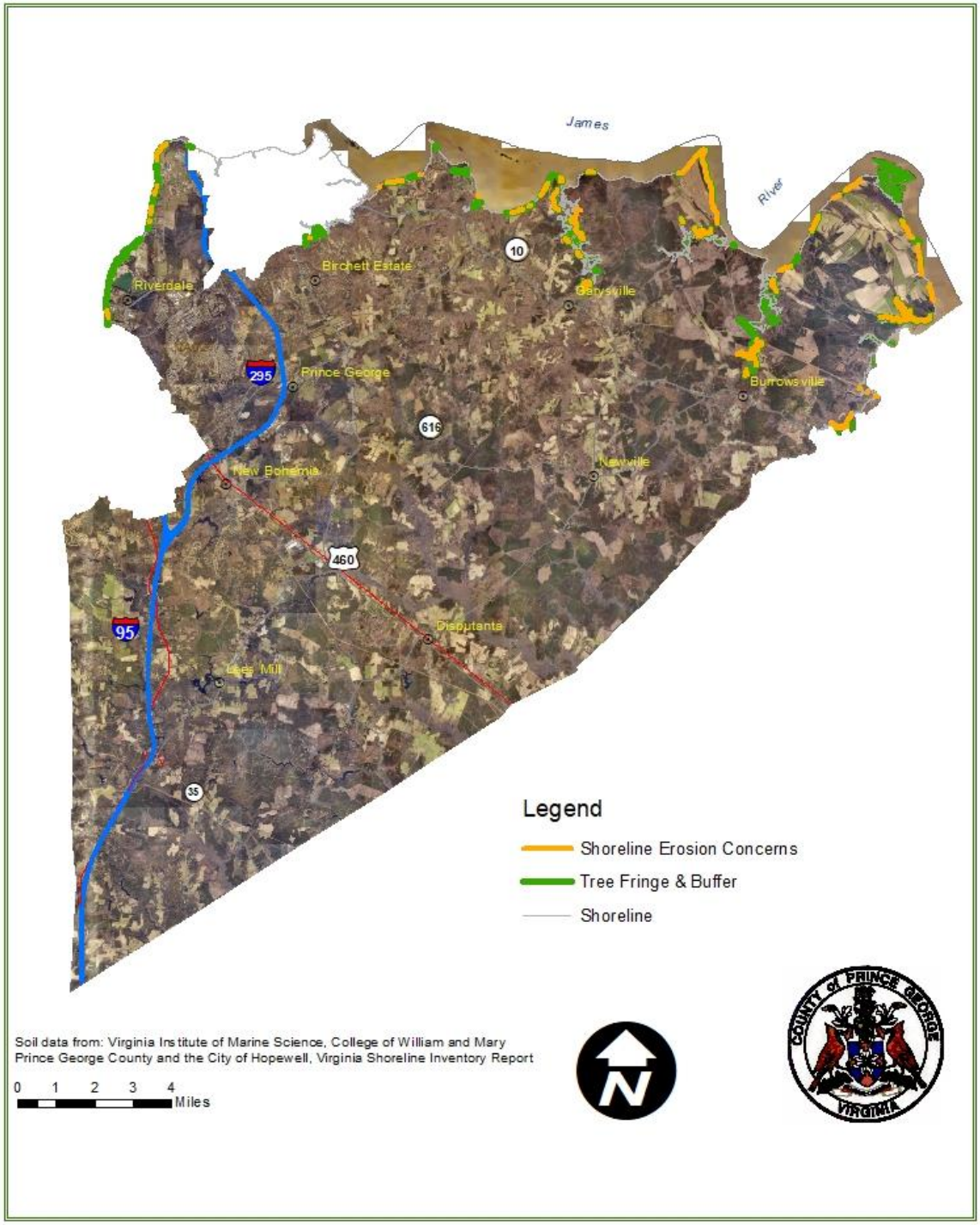
Tidal marshes comprise 80 percent of the County's shoreline. The marsh areas, especially embayed and extensive marshes, should be preserved, as they are important flood and erosion control agents and as they are valuable wildlife habitats. The beaches, which compromise eighteen percent of the shoreline, are poor, thin strips, often with vegetation. Only two percent of the shore is artificially stabilized, which maybe higher due to the work in Jordan Point area.

Typically, when shorelines exhibit erosion, property owners have tended to harden the shoreline, which has been the most common management solution to shoreline erosion. There is growing concern that the natural character of the shoreline cannot be preserved in perpetuity if shoreline management does not change.

The Prince George County Shoreline Management Plan, Shoreline Best Management Practices, and the shoreline evolution of Prince George County are available via the Virginia Institute of

Marine Science (VIMS) at http://www.vims.edu/ccrm/ccrmp/portals/prince_george/index.php

Shoreline Erosion



Comprehensive Coastal Resource for Tidewater Virginia Localities

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

The science behind coastal ecosystem resource management has revealed that traditional resource management practices limit the ability of the coastal ecosystem to perform many of these essential functions. The loss of these services has already been noted throughout coastal communities in Virginia as a result of development in coastal zone areas coupled with common erosion control practices. Beaches and dunes are diminishing due to a reduction in a natural sediment supply. Wetlands are drowning in place as sea level rises and barriers to inland migration have been created by construction of bulkheads and revetments. There is great concern on the part of the Commonwealth that the continued armoring of shorelines and construction within the coastal area will threaten the long-term sustainability of coastal ecosystems under current and projected sea level rise.

In the 1980s, interest arose in the use of planted wetlands to provide natural shoreline erosion control. Today, a full spectrum of living shoreline design options is available to address the various energy settings and erosion problems found. Depending on the site characteristics, they range from marsh plantings to the use of rock sills in combination with beach nourishment.
Research continues to support that these approaches combat shoreline erosion, minimize impacts to the natural coastal ecosystem and reinforce the principle that an integrated approach for managing tidal shorelines enhances the probability that the resources will be sustained. Therefore, adoption of new guidance and shoreline best management practices for coastal communities is now necessary to insure that functions performed by coastal ecosystems will be preserved and the benefits derived by humans from coastal ecosystems will be maintained into the future.

Coastal Resource Management Policy Statement and Recommendations

In 2011, the Virginia Assembly passed legislation to amend §28.2-1100 and §28.2-104.1 of the Code of Virginia and added section §15.2-2223.2, to codify a new directive for shoreline management in Tidewater Virginia. In accordance with section §15.2-2223.2, all local governments shall include in the next revision of their comprehensive plan beginning in 2013, guidance prepared by the Virginia

Institute of Marine Science (VIMS) regarding coastal resource management and, more specifically, guidance for the appropriate selection of living shoreline management practices. The legislation establishes the policy that living shorelines are the preferred alternative for stabilizing eroding shorelines.

This guidance, known as Comprehensive Coastal Resource Management Guidance, is being prepared by VIMS for localities within the Tidewater region of Virginia and shared through their Comprehensive Coastal Resources Management Portal (CCRMP). It explicitly outlines where and what new shoreline best management practices should be considered where coastal modifications are necessary to reduce shoreline erosion and protect our fragile coastal ecosystems. This guidance will include a full spectrum of appropriate management options which can be used by local governments for site-specific application and consideration of cumulative shoreline impacts. The guidance applies a decision-tree method using a based resource mapping database that will be updated from time to time, and a digital geographic information system model created by VIMS.

- Refer to the guidance presented in the locality's Comprehensive Coastal Resource Management Portal (CCRMP) prepared by VIMS to guide regulation and policy decisions regarding shoreline erosion control.
- Utilize VIMS Decision Trees for onsite review and subsequent selection of appropriate erosion control/shoreline best management practices: http://ccrm.vims.edu/decisiontree/index.html.
- Utilize VIMS' CCRMP Shoreline Best Management Practices for management recommendation for all tidal shorelines in the jurisdiction.
- Consider a policy where the above Shoreline Best Management Practices become the recommended adaptation strategy for erosion control, and where a departure from these recommendations by an applicant wishing to alter the shoreline must be justified at a hearing of the board(s).
- Encourage staff training on decision making tools developed by the Center for Coastal Resources Management at VIMS.
- Follow the development of the state-wide General Permit being developed by VMRC. Ensure that local policies are consistent with the provisions of the permit.
- Evaluate and consider a locality-wide permit to expedite shoreline applications that request actions consistent with the VIMS recommendation.

- Seek public outreach opportunities to educate citizens and stakeholders on new shoreline management strategies including Living Shorelines.
- Follow the development of integrated shoreline guidance under development by VMRC.
- Evaluate and consider a locality-wide regulatory structure that encourages a more integrated approach to shoreline management.
- Consider preserving available open spaces adjacent to marsh lands to allow for inland retreat of the marshes under rising sea level.
- Evaluate and consider cost share opportunities for construction of living shorelines.

Air Quality

In 1990, the Congress passed and the President signed into law amendments to the federal Clean Air Act. These amendments require cleanup of polluted areas in accordance with a specific schedule, tighten emission standards and grant federal agencies greater powers to enforce the Act's requirements. Those portions of the Act having the most direct bearing on this plan are those relating to ozone pollution. Ozone is formed by chemical reactions in the atmosphere when hydrocarbons and nitrogen oxides emitted by motor vehicles, industries and power plants combine in sunlight. While ozone in the upper atmosphere is beneficial because it blocks the sun's ultraviolet rays, ozone at and near ground level is harmful to humans and particularly to children. Ozone levels are continually monitored at various locations in the Richmond-Petersburg metropolitan area. Between 1990 and 2006, monitoring stations in Charles City County, Chesterfield County, Hanover County and Henrico County recorded multiple instances of ozone levels exceeding the Federal safety standard of 84 parts per billion. As of 2012, the Richmond area to include the Tri-Cities and Prince George County, is now in attainment for all applicable national air quality standards, including ozone levels.

Constraints to Development

Not all land in the County is suitable for development. Environmental factors play a major role in delineating an area's suitability for development. Slope considerations, soil characteristics, the presence of floodplains and/or wetlands and air and water quality are just some of the many environmental factors that should be considered when planning for the future growth and development of the County. These factors, and others, should be considered for future development of the County, future policies, plans and ordinance recommendations.

CHAPTER VII AFFORDABLE HOUSING

Introduction

Housing is a commodity that is supplier and consumer based upon market demand. As a commodity, the construction and price of housing is influenced partially by this supply and demand relationship, and also by non-market factors such as the cost of complying with government regulations. As the County's population has increased so too has the supply of housing in the County. Over 1100 new dwelling units have been constructed in the County from 2000 to 2010. The vast majority of these new homes have been single family dwellings. Multi-family units represent a small percentage of new dwellings during this period, as do manufactured homes. Manufactured homes have been an important housing option for certain segments of the County's population.

Regional Housing Market

Most housing markets are regional in nature. Prince George County participates in a regional Tri-Cities Virginia housing market. The County's role in this market is increasing as a result of the high number of new homes constructed in the County, coupled with a decreasing housing supply in Hopewell and Petersburg. Within this region, consumers of housing have various options with respect to housing styles, price ranges and locations. Yet, not all housing choices or price ranges are available in all jurisdictions. The average value of homes in County has escalated close to 40 percent from 2000 to 2010. This is the lowest percentage increase during this period. The highest percent increase of average value was recorded by the City of Colonial Heights where value, based upon sales, increased over 79% during this period.

The growth of Fort Lee personnel over the last 7-10 years has placed a demand on the region (Tri-Cities Area), and even though the economy is down and unemployment has been rising in the last 3 to 5 years, the Tri-Cities Area was able to build over 4,200 housing from 2000 to 2010 (57,756-53,477) to accommodate for the Fort Lee personnel and citizens in and around the county. Prince George has played a major part role in providing housing for Fort Lee personnel but because of its lack of housing choice (style, rental, affordability, etc.), other jurisdictions in the region have been supplying housing options as well. A long term goal of the County is to provide a variety of housing styles ranging from rental, affordability and manufactured houses to cater to the growing population of Prince George County and the Tri-Cities Area.

Affordable Housing

What is Affordable Housing? Affordable housing is defined as 'for a household to pay no more than 30 percent of its annual income on its housing needs. Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulties affording necessities such as food, clothing, transportation, and medical care.' – HUD definition.

Housing affordability is an issue in the County with the growing population and the demand for residential property. The housing market in the last 5 to 7 years has hit a major stand still but recently the market is taking a turn for the better and consumers are looking at property to buy in Prince George County. House affordability is an issue in the County with population growth and the corresponding demand for residents driving up land and housing costs, but the County has taken some steps in establishing affordability with Independence Place Apartments, Puddledock Place Apartments (under development review), multi-family homes and 55 & older age restricted dwellings. These units cater to Fort Lee's growing military population, senior citizens, young adults, and the purpose of providing affordable housing in the county. Although the housing market is a major factor in establishing the type of housing being built and the value of the housing, the County can take certain steps to help to ensure that there are housing choices for all income level households in the County.

Most community's older homes are often the most affordable based upon their smaller size, lack of modern features and depreciated value due to normal wear and tear or lack of required maintenance. Programs designed to help maintain these older homes can be an important component of a locality's efforts to promote housing affordability.

More aggressive approaches to promoting affordable housing are also available to localities. State and federal funding programs allow localities to partner with private development companies or local non-governmental organizations to develop land and construct housing. Public funds can be used to develop the necessary residential infrastructure. In exchange, the developer agrees to build more affordable units, and/or limit the sales price of new units to a level that is affordable to lower income residents.

CHAPTER VIII TRANSPORTATION

Introduction

Prince George County's transportation system is comprised of more than just highways. Air transportation, rail facilities, waterways, bikeways and pedestrian opportunities are all elements of the County's transportation network. Together, these allow for the efficient movement of people and goods. It is essential that the County continually plan for the construction and enhancement of these transportation elements. Doing so allows the economic viability of the County to be retained and enhanced well into the future.

It is important to remember the strong reciprocal linkage between land use planning and transportation planning. A community's land use decisions will directly impact the adequacy of existing transportation networks. Conversely, transportation planning decisions have a great impact on community growth patterns, and the availability and adequacy of public facilities. The County's primary transportation system is and will continue to be a rural road network, with an ever increasing suburban road network adjacent to the Cities of Colonial Heights, Hopewell and Petersburg.

The Transportation Planning Process

Transportation planning in Virginia is undertaken through a partnership of state, local, and federal participants. The Tri-Cities Area Metropolitan Planning Organization (MPO) is a federally mandated planning body comprised of local elected and appointed officials. Responsible for carrying out both short and long range transportation planning initiatives, it is staffed by the Crater Planning District Commission. The MPO's activities and scope of authority are limited to the cities of Colonial Heights, Hopewell and Petersburg, and the urban portions of Chesterfield, Dinwiddie and Prince George counties.

The 2035 Tri-Cities Area Transportation Plan consists of a long range element and a short range element. The long range element is a regionally prioritized listing of recommended interstate, arterial, collector and some local roadway and intersection improvements. The short range element of the 2035 Tri-Cities Area Transportation Plan consists of the regional Congestion Management Process and the 2010 Transit Development Plan. The Congestion Management Process includes an assessment of current and future roadway segment traffic volumes and capacities and identifies specific recommended strategies for addressing traffic congestion

appropriate for conditions in the Tri-Cities. These recommended strategies include capacity expansion strategies, such as constructing turn lanes, and travel demand management strategies, such as ridesharing and mass transit. The 2010 Transit Development Plan includes an assessment of transit management alternatives and an assessment of current transit route efficiency and recommendations for new transit service areas.

The Tri-Cities FY12 – FY15 Transportation Improvement Program is a programming document listing all projects anticipated to receive federal funding over the next 4 year period. All of these transportation planning and programming documents are required by the federal government to be fiscally constrained. In other words, the MPO cannot include projects beyond forecasted revenues for the applicable horizon period.

In addition to various Commonwealth and regional needs assessments, the MPO relies on local comprehensive plans to help identify future improvement needs. The Commonwealth and/or federal government provide the majority of funding for any slated improvements. Local governments also have the responsibility of making wise land use and community facility decisions that respect the integrity of the existing transportation system and/or anticipate planned and funded improvements.

Existing Transportation Facilities

Prince George County's transportation system allows for the efficient and safe movement of people and goods. The County contains major interstates, several important primary roads, and a network of secondary roadways that provide adequate travel routes within the County. Interstates I-95 and I-295 link the County to the national system of interstate highways, and the County's five interstate interchanges provide exceptional transportation access for commerce, tourism, and commuters wishing to visit, live or work within the County.

US Routes 301 and 460 and Virginia State Routes 10, 35, 36, 106, 144, and 156 are the non-interstate primary highways within the County. By design and function, they provide primary access to different parts of the County and link the County to adjoining jurisdictions. US Route 460 cuts diagonally across the County, directly connecting Petersburg and areas west, to Sussex County and the Norfolk area. Virginia Route 36 provides local access to Fort Lee and direct travel between Hopewell and Petersburg. US Route 301 is a north-south corridor connecting Richmond and areas

north to Emporia and North Carolina to the south. Route 144 connects Colonial Heights to the County and to Fort Lee.

The VDOT estimates the County has approximately 925 public highway lane-miles within its borders. This mileage is broken down as follows:

VDOT Maintained Lane-Miles Prince George County 2004

Interstate	Primary	Secondary	Frontage[2]	Total
127	190	583	25	925

Comp Road shows a comprehensive County road inventory with information on number of lanes and surface materials.

Perhaps the most significant of these planned improvements is the Route 460 PPTA project which will be a new, four lane, limited access highway. There is no reconstruction of the existing Route 460 connected with the Route 460 PPTA project. It is uncertain how the 2 roadways will be signed. It is very important that the County continue to monitor on-going developments related to this fully funded project, especially for the western terminus area and the proposed interchange at Route 156 in the vicinity of the J.E.J. Moore Middle School.

VDOT has prepared and distributed to localities estimates of lane mile construction costs for various highway geometric designs. These are listed below:

Cost Per Lane Mile (CPM) Typical Urban Section June 2006		
Facility	Width of Pavement (Feet)	CPM ($)
Bikeway	5	540,000

[2] A frontage road is a non-limited access road running parallel to a higher-speed limited access highway. Frontage roads provide access to properties along limited access highways.

2 Lanes	26-30	3,000,000
3 Lanes	36-40	5,700,000
4 Lanes	40-48	6,800,000
4 Lanes Divided	48 w/16' raised median	7,600,000
4 Lanes Divided	48 w/28' raised median	8,200,000
6 Lanes Divided	72 w/ 16' raised median	9,800,000
6 Lanes Divided	72 w/ 28' raised median	10,600,000
8 Lanes Divided	96 w/ 16' raised median	12,200,000
8 Lanes Divided	96 w/ 16' raised median	12,900,000

Cost Per Lane Mile (CPM) Typical Rural Section June 2006		
Facility	Width of Pavement (Feet)	CPM ($)
Bikeway	5	240,000
1 Lane	12	330,000
2 Lanes	18	500,000
2 Lanes	20	830,000
2 Lanes	22	990,000
2 Lanes	24	1,400,000
3 Lanes	36	2,900,000
4 Lanes Divided	48	3,900,000
4 Lanes Divided	48 w/16' raised median	4,100,000
4 Lanes Divided	48 w/28' raised median	4,900,000
6 Lanes Divided	72	5,400,000

6 Lanes Divided	72 w/ depressed median	7,100,000
8 Lanes Divided	96	10,700,000

Railroads

No passenger service is provided within the County, although AMTRAK stations are located within the region in Ettrick, Henrico County and Richmond. Two rail companies provide freight service within or near Prince George County. The CSX Corporation, one of the two major rail systems to connect the Midwest and East Coast, has service adjacent to the County near Carson. Also serving the County is the Norfolk Southern Railway Corporation. Norfolk Southern tracks parallel US Route 460 and also serve the Puddledock area of the County. In 2004 the company announced plans to construct a major intermodal transfer and warehouse facility along the Route 460 Corridor in Prince George County. Those plans were approved by the Board of Supervisors in 2005 but, no progress has been made to date on the development plans.

Mass Transit

No mass transit service is based within the County. Petersburg Area Transit (PAT) provides limited service to Prince George County locations within the Crater Road area of the County, portions of Ft. Lee, the Crossings Office Park and the Crossings Shopping Center along Route 36 near the City of Hopewell.

Airport Service

Prince George County residents and business travelers benefit from two nearby airports. The region's largest airport, Richmond International, has full commercial services. The Dinwiddie County Airport, located in northeast Dinwiddie County provides air service to residents and businesses. Aviation Services at this facility are limited to charter, private aircraft, air freight, maintenance, and flight instruction.

Waterways

The County has approximately 30 miles of navigable water along its coastline, formed by the Appomattox and James Rivers. Along this coastline, there are only three points of public access. These are the Jordan Point Marina on the James River and the Appomattox Small Boat Harbor on the Appomattox River, along with the new Appomattox River Regional Park that offers a canoe and kayak launch site. Also, two restricted access points exist; the boat ramp at Fort Lee along the Appomattox River and the Tarmac barge facility on the James River. The James River sea lane links

the County to Virginia port facilities in Hampton Roads and at Richmond's deepwater terminal. There are no commercial ports within Prince George County.

Bikeways and Pedestrian Opportunities

In 2003, the MPO staff completed an update to the Tri-Cities Area Bikeway Plan. The updated plan was adopted by the MPO's Transportation Technical Committee in March of 2004. This plan is incorporated into this comprehensive plan by reference. The Tri-Cities MPO will begin updating the current regional bikeway plan in 2013. In addition, the MPO will address the concept of pedestrian planning with the region for the first time in 2013. Prince George County currently has no designated bikeways/bike routes within its limits. The County's 1999 comprehensive plan recommended the preparation of a County bikeway plan with an emphasis on the County's more urbanized areas. The Tri-Cities Area Bikeway Plan affirmed this recommendation and provided specific recommendations for four bikeways/routes within the County. Prince George County has partnered with VDOT to install additional sidewalks along Courthouse Road (Route 106) from Beasley Elementary School to the new Roundabout located at the intersection of Allin and Courthouse Roads. Additional Sidewalks have also been added to the Prince George County Government Complex that link up with the sidewalks along Courthouse Road.

Assessment of Highway Facilities

TOP TEN SECONDARY ROADS

RT. #	FACILITY NAME	Present traffic (2004)	Predicted Traffic (2025)*
630	JEFFERSON PARK ROAD	13,000	20,100
646	MIDDLE ROAD	6,900	13,800
645	RIVER ROAD	5,600	9,000
634	ALLIN ROAD	4,700	7,900
645	PUDDLEDOCK ROAD	4,600	7,800
629	RIVES ROAD	4,600	6,300
616	LAUREL SPRING ROAD	4,200	5,100
630	LAMORE DRIVE	3,500	5,700
626	TAVERN ROAD	3,000	6,000
630	BULL HILL ROAD	3,000	4,800

*includes effects of Fort Lee and the Fort Lee Expansion Traffic Study, Michael Baker – 01/2007

Most County secondary roads have very low average daily traffic volumes, with only one road topping the 10,000 vehicle per day threshold. This data shows that Jefferson Park, Middle and Rives Roads (Routes 646, 629, and 630) are currently experiencing the highest average daily demand and are projected to have the highest daily demand in 2030.

Transportation Policy Issues

The following transportation issues emerged during the discussions and analysis undertaken as part of the preparation of this plan in 2007.

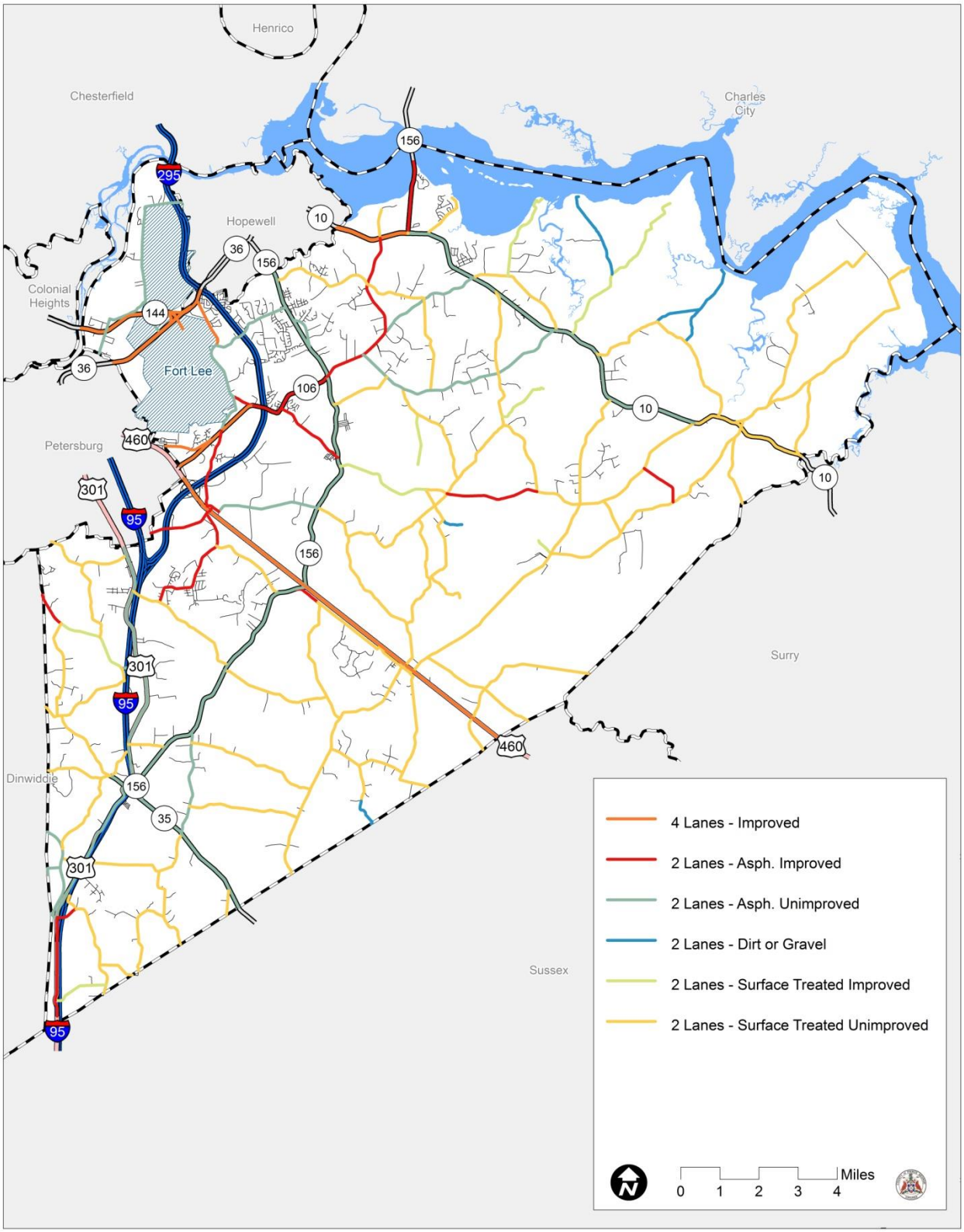
Like many jurisdictions in Virginia, Prince George County's need for road improvements is outpacing available funding for roads. Limitations of state transportation funding and competing priorities for local funds have resulted in the deferral of needed road improvements. A quick analysis of the County's Secondary Six-Year Plan shows that fully funding identified road needs will require fiscal resources from sources not yet identified.

The current fiscal environment for road funding necessitates that the County be proactive in transportation planning. The following policies are recommended:

County-Wide Access Management Program

The County's highways are an important public resource and they represent a major public investment that should be preserved. They provide the means for residents' trips to work, to shop, to go to school, to travel. Highways are essential for commerce, trade and tourism. Yet as land develops along a road, the potential exists for highway corridors to become stripped

Comprehensive Road Inventory



with numerous, closely spaced entrances, traffic signals, and median openings - many of which do not have proper left and right turn lanes. These deficiencies lead to a high rate of accidents, congestion, and a reduction in the traffic carrying capacity of the road.

Access Management and Its Benefits

The goal of access management is to achieve a safe and efficient flow of traffic along a roadway while preserving reasonable access to abutting properties. By applying a set of traffic control methods, the quality of the County's network of roads can be maintained and be improved. Techniques for managing access include:

- Standards for the location, spacing and design of driveway entrances;
- Median treatments;
- Providing exclusive left and right turn lanes;
- Connecting the parking lots and streets of neighboring land uses; and,
- Increasing the distance between traffic signals.

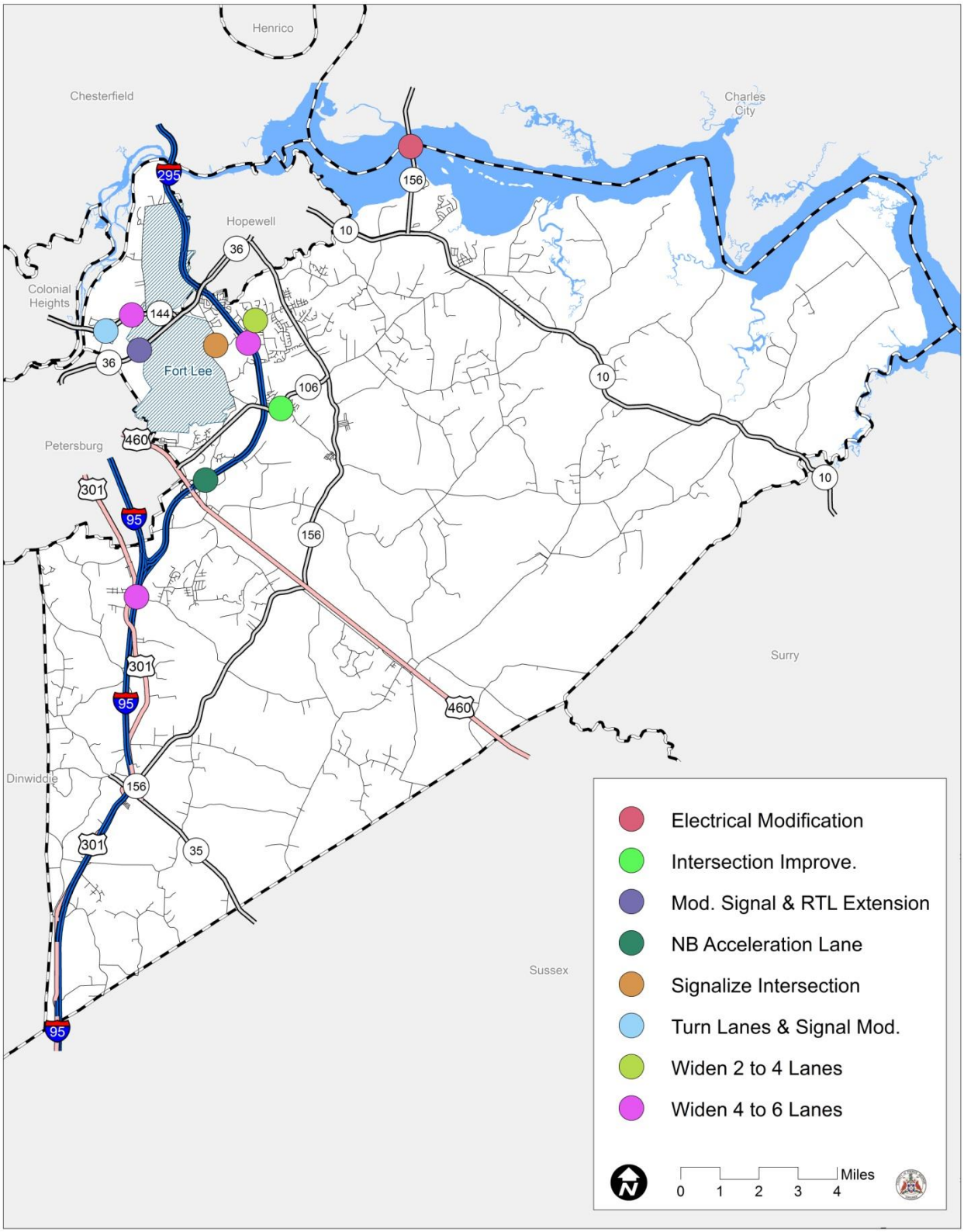
Localities that have implemented access management controls have reduced traffic related accidents, injuries, and fatalities; have enhanced the economic vitality of the area by providing a more efficient movement of both people and goods; and reduced the need for expensive road widening improvements. For example, studies have demonstrated that a four lane highway with good access management can serve as many vehicles as a six lane highway. It is less expensive to control access through access management than to build new highways.

Recommendations

Access management objectives can be achieved through land use strategies that discourage strip development and promote the grouping of land uses into commercial, office and residential nodes near existing developed areas and at major highway intersections. The functional classification of the road network and the location of future land uses should be coordinated so they complement each other.

Corridor access management plans or overlay districts can be used to prevent future access problems and to provide solutions to existing issues on high priority corridors. A highway corridor is analyzed in terms of roadway design, traffic characteristics, existing and future land use, and existing access points. The study would recommend standards and policies for

2035 Crater Transportation Plan



medians, signal location, entrance spacing, inter-parcel connections, turn lanes, and clustering of land development within the corridor. Certain measures may need to be implemented over time - for example, the addition of more parking to accommodate an expansion of a business can be used to consolidate entrances, install turn lanes, and link the adjacent land uses.

A County program would seek to include access management standards in the zoning and subdivision ordinances: entrance, median crossover, and traffic signal spacing and design standards; requirements for joint access and inter-parcel connections; minimum lot frontage; and rules for reverse frontage lots in subdivisions. Enforcement of County standards and regulations can be achieved through site plan and subdivision plat review. Traffic impact studies can be required for larger developments during the rezoning process.

Coordination is important at every stage of access management: from the development of the programs and studies to the review of development proposals. Access management decisions will involve input from various County Departments, the Crater Planning District Commission, and the VDOT Residency and District staff. Successful coordination and collaboration between agencies is necessary to manage access effectively.

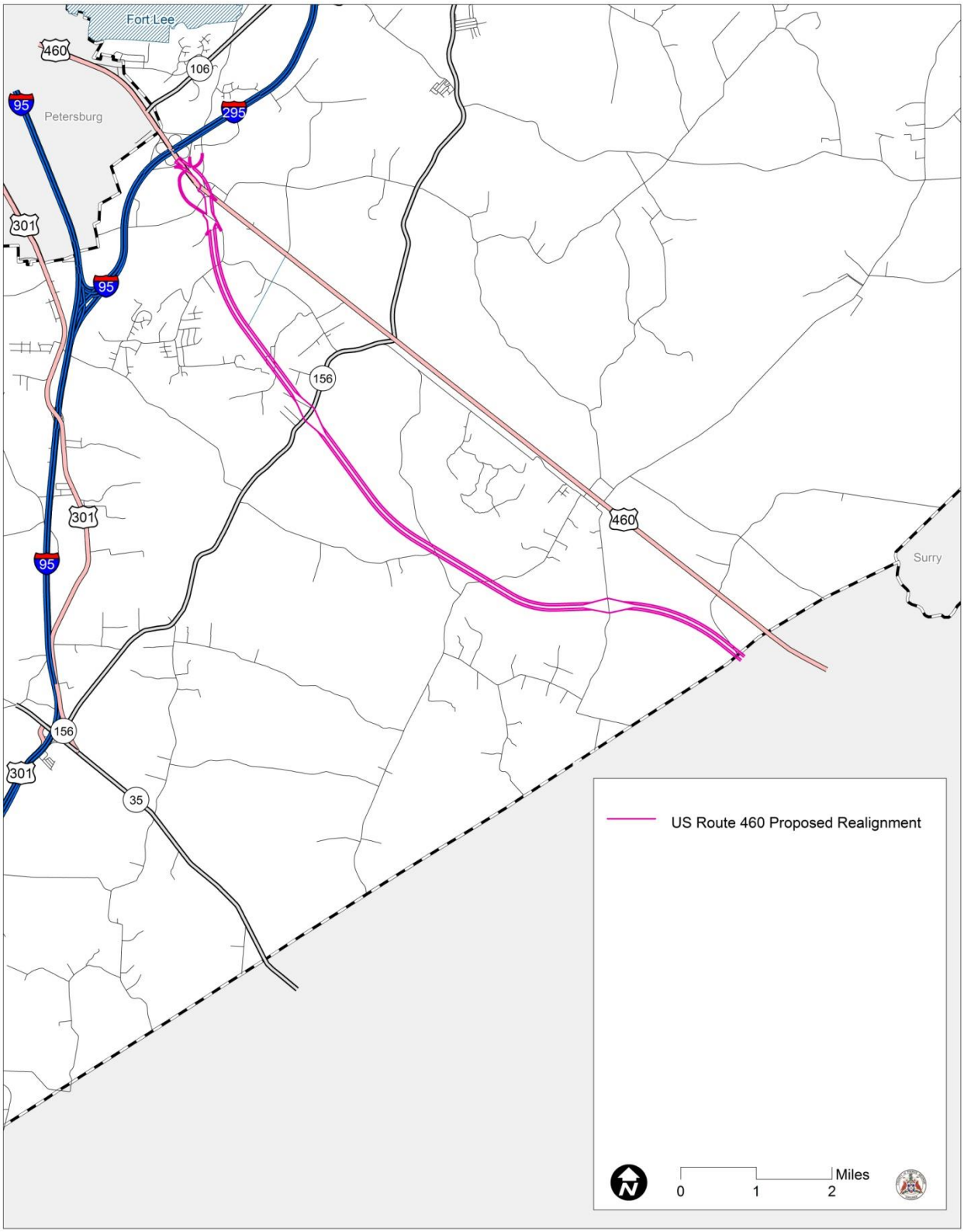
Identify and Protect Critical Transportation Corridors

As the population of Prince George County continues to grow, transportation planning will become increasingly important. Of particular importance will be the identification and protection of the necessary rights-of-way for new or expanded road corridors. Identifying the need for new and expanded road corridors is a technical process based upon current traffic volumes and patterns, and projecting expected increases and road needs due to community growth and changes in land use patterns. Protecting the identified corridor is a more challenging endeavor. Funding limitations generally limit local government's ability to control the rights-of-way in advance of when they will be required. Zoning and subdivision standards can be used to help ensure structures and private facilities are not located in areas that will be needed for rights-of-way.

Recommendations

Prince George County should take the following steps to identify and protect new road corridors and to identify existing road corridors in need of expansion.

US Route 460 Proposed Realignment



A. The County should establish minimum rights-of way standards for various road classifications in the County. These minimum standards should be as follows:

Road Classification	Minimum R/W Width	Number of Lanes
Interstate	250′	4+
Primary	120′	4+
Secondary		
Arterial	90′	2-4
Collector	70′	2
Local	50-60′	2
Industrial Access	90-120′	2-4

B. The County should adopt zoning and subdivision ordinance amendments to require the reservation of rights-of-way identified as necessary for future road improvements.

C. If new future road corridors are identified in future planning documents, the County should adopt an amendment to this plan to formally designate each identified corridor.

Promote a Balanced Transportation System

As stated previously, Prince George County's transportation system is comprised of more than just highways. Air transportation, rails facilities, and to lesser extent, waterways, bikeways and pedestrian facilities are all elements of the County's transportation network.

Recommendations

Prince George County will take the following steps to promote a balanced transportation system:

A. The County will encourage increased mass transit and rail options for County citizens.

B. The County will request that bike lanes, consistent with the adopted bikeway plan, be incorporated into VDOT road projects. The County's subdivision and zoning ordinances will be amended to require bike and pedestrian facilities.

C. New development along the James and Appomattox Rivers shall be encouraged to provide public access to the waterways.

D. Encourage and look for new ways to improve secondary roads including new funding sources.

Link Transportation and Land Use Decisions

Understanding the role that land use decisions play in transportation efficiencies is critical if the County is to have a safe and adequate highway network. The County must evaluate all future land use decisions partially on the basis of how well the proposed land use preserves the integrity of the safety and capacity of the transportation system.

Recommendations

Prince George County will take the following steps to link transportation and land use decisions:

A. Work with VDOT to adopt an updated thoroughfare plan that takes into consideration the land use and growth management recommendations contained in this plan.

B. Adopt new zoning and subdivision ordinances that contain standards and requirements for access management, traffic calming, and rights–of way dedication.

C. Require traffic impact studies for all new development expected to generate or attract over 250 vehicle trips per day. (TIAs)

D. Evaluate all rezoning and special exception requests partially on the basis of the proposed land use impact on the County's transportation system.

E. Plan and locate major capital facilities partially on the basis of how the facility will affect the direct and indirect demands on the County's transportation network.

Promote and Implement Traffic Calming Measures for New Subdivisions

Traffic calming techniques are strategies to slow traffic in residential neighborhoods without restricting access. Prince George should identify and address traffic concerns that may result from new development. The development review process should ensure that the developer places emphasis on, and addresses the need to, design street geometrics that make streets less desirable for speeding and cut-through traffic.

Chapter IX FUTURE LAND USE

Introduction

The County's existing land use pattern has been influenced by many factors. Prior to government intervention, land use patterns in the County were influenced solely by market demands and the environmental characteristics of land. Later, with the adoption of local regulatory and policy tools such as subdivision and zoning ordinances; capital improvement program plan, comprehensive plan, etc., the County began to play a much more active role in shaping land use patterns. County decisions on public facility locations, specifically public water and wastewater lines, also have influenced existing growth patterns.

Existing Land Use

The County is approximately 266 square miles. Approximately 89 percent of the County is forested or in crop production. The Virginia Department of Forestry estimates that approximately 74 percent of the County's land area is forest land, some of which is commercially owned and managed. The 2002 Census of Agriculture estimates that approximately 15 percent of the County's land area is devoted to cropland. Since most new development occurs on land previously used for forestry or agricultural purposes, the 89 percent of the County that is currently "undeveloped " will likely decrease to accommodate future growth demands. The remaining 11 percent of the County's land area is currently devoted to residential, commercial, industrial, or public uses, with residential consuming most of this 11 percent. Developed areas are primarily in the north and northwest portions of the County in the Prince George Planning Area near Hopewell and Petersburg.

The County Land Uses are:

- Agriculture – This category includes forestal lands, properties in active agricultural production, undeveloped properties and properties greater than 20 acres used for single family purposes.

- Residential – This category includes single family dwellings on lots that are 20 acres or less in size.

- Residential Multi-Family –This category includes all properties used for multi-family purposes.

- Commercial –This category includes all properties used for commercial purposes, including office uses.

- Industrial - This category includes all properties used for industrial purposes.

- Civic- Local Government - This category includes all properties owned and/or used by Prince George County.

- Civic- Other Government This category includes all properties owned and/or used by the State of Virginia or the Federal Government.

- Civic- Other Uses This category includes all non-government properties that are tax exempt.

Constraints to Future Development

Not all land in the County is suitable for development. Environmental factors play a major role in delineating an area's suitability for development. Slope considerations, soil characteristics, the presence of floodplains and/or wetlands and air and water quality are just some of the many environmental factors that should be considered when planning for the future growth and development of the County. These factors, and others, were considered in developing the future land use map contained in this plan, and should be considered as the County adopts policy and code changes to implement this plan's recommendations. They should also be considered as the County evaluates rezoning requests and specific land development proposals.

Land Use Policy Issues

A number of land use policy issues emerged during the plan preparation process in 2007. They emerged from staff discussions, stakeholder interviews, citizen comments, sub-committee participant discussions and the Commission's consideration of the County's demographic profile. The Commission and staff also considered their monthly experiences evaluating land use requests. These land use policy issues and associated recommendations are presented below.

Agricultural Land and Open Space Preservation

As Prince George County continues to experience residential, commercial and industrial growth, there will be continued pressure on the County's open space, agricultural and forested areas to be

developed for these uses. The rapid population growth of the County, increases in agricultural and forestal land values, the aging of agricultural land owners, County utility policies, and the high suitability of many agricultural and forestal lands for development can all be cited as factors that are contributing to the loss of the County's agricultural, forestal and open space resources.

Approximately 37 percent of the County is defined as prime agricultural land. The desire of the governing body and citizens of the County to protect the agricultural and other critically important environmental areas of the County places limitations on these lands for normal development in the residential, commercial and industrial categories.

Prime agricultural land and many environmentally critical areas are also the most desirable for development. These lands represent a constraint that is associated with the governing body's desire to preserve agricultural activity and environmentally sensitive areas rather than any physical limitation. The County has previously designated certain areas as natural or environmentally important conservation areas. These areas are considered to be constraints to development in order to limit the detrimental effect such growth would have on the aesthetic quality of life.

The challenge for Prince George County is to accommodate future growth demands in a planned manner that provides for the conservation of these important agricultural and open space resources. Future residential, commercial and industrial development should be encouraged to locate in areas of the County where adequate public services are available or planned. Development that does occur in the rural agricultural and forestal portions of the County should be designed to incorporate significant open spaces and minimize environmental impacts on the County's land, air and water resources.

When future development requests require Commission review and Board of Supervisors approval, the economic and quality of life benefits of open space and agricultural and forest land uses should be considered, as well as the adequacy of public facilities and services in the area. The environmental impacts of the development should also be considered. It is important to maintain a balance between development and preservation objectives throughout the County.

Time will demonstrate whether anticipated regulatory changes and development incentives are sufficient to influence the market for new housing in the agricultural and forestal areas of the County. If regulatory changes and incentives do not influence these patterns of rural residential

development, then more agricultural and forested acreage will be lost to subdivision. This is an inefficient land use pattern that places demands on public services and continues to degrade the County's agricultural and forestal land base.

The future land use map in this Chapter should be used as a general guide for future County development patterns. Implementation of the future land use map recommendations will require amendments to the County's development codes to provide both requirements and incentives for the conservation of land.

Rural Preservation Tools

Zoning, subdivision standards, use value assessments and taxation, and public facility decisions are the tools most commonly used by counties to influence the timing and location of growth.

Other tools and programs are available to agricultural and rural property owners who wish to take steps to preserve their land holdings while hopefully obtaining a desired rate of return on their equity. These programs are voluntary and generally involve a partnership between the landowner and a governmental agency.

Agricultural and Forestal Districts

Agricultural and forestal districts are rural zones reserved for the production of agricultural and forestry products. At the request of a property owner, they are established by a local governing body according to state guidelines. In essence, a district constitutes a voluntary agreement between landowners and the government that no new, nonagricultural uses will take place in the district. An agricultural/forestal district provides much stronger protection for farmers and farmland than does traditional zoning. Districts are established for a set period of time, and can be renewed. During the life of a district, a land owner is prohibited from subdividing or developing the land for non-agricultural or forest uses. Similarly, a local governing body is prohibited from rezoning land in a district to a non-agricultural classification, or from making capital or community facility decisions that endanger the landowner's ability to maintain the land for agriculture or forestry use.

Conservation Easements

A conservation easement is a legal agreement in which a landowner retains ownership of his/her property while conveying certain specified rights to the easement holder. Conservation easements are usually given to a non-profit, charitable land conservation organization or a public entity.

Easements can be tailored to meet the owner's wishes regarding the future use of his/her land. They can be for a specific time period, or can be granted in perpetuity. Typically a conservation easement restricts development or uses that would destroy natural, scenic, or historic areas while at the same time allowing other traditional uses such as farming. Depending upon the terms and timing of the easement, significant tax savings can accrue to the property owner granting the easement.

Riparian Easements

A riparian easement is a special type of conservation easement that applies only to a streamside or riparian zone mutually agreed upon by the landowner and the easement holder. Like all easements, a riparian easement is a legal agreement in which the landowner retains ownership and full control of the property, yet conveys certain specified rights to the easement holder. Specifically, the landowner agrees to restrict uses that would harm the riparian zone and works with the easement holder to develop a management plan to ensure riparian zone protection. Typically this is done by establishing and maintaining vegetation and limiting livestock access to the stream. Each easement is tailored to the property and the desires of the individual landowner. Again, depending upon the terms and timing of the riparian easement, significant tax savings can accrue to the property owner granting the easement.

Designation of County Planning Areas

This plan proposes two planning areas. In the northern portion of the County, the Prince George Planning Area will continue to be the County's designated growth area. County codes and policies will encourage the majority of the County's residential, commercial and industrial growth to be located in this area. The southern and eastern portion of the County will be a single planning area known as Rural Conservation Planning Area This area will be the County's designated conservation area with codes and policies for this area designed to achieve conservation and preservation objectives.

The Prince George Planning Area, as designated in this plan, is smaller in acreage than the PGPA designated in the County's 1999 plan. Recent analysis by the Crater PDC determined that under current zoning regulations there is sufficient vacant acreage within the current limits of the PGPA to accommodate over seventy years of anticipated residential growth. This acreage includes over 2300 acres of land currently zoned R-1. Reducing the size of the County's designated growth area will allow the County to further focus its investments in public facilities.

County Utility Policies

Current County utility policies require that all new development in the Prince George Planning Area be connected to public utility services. If services are not currently located at the development site, the developer bears the financial cost of extending services to the development site. As the Prince George Planning Area is an "urban service area", this is a sound utility and environmental policy. The policy ensures that new development does not run the risk of septic or well failure, and limits the risk that the County will need to make unplanned line extensions to neighborhoods with failing private facilities.

The County should maintain its mandatory connection policies for the Prince George Planning Area. However, modification of the policy should be explored. Specifically the County should investigate incorporating reimbursement provisions that would allow a developer to be reimbursed for a portion of off-site costs incurred. Future connection fees on the extended line would be the source of reimbursement revenue. Many jurisdictions in Virginia use such an approach to promote equity and compliance with local growth objectives in a positive way.

Road Corridor Development

US Routes 301, and 460 and Virginia State Routes 10, 35, 36, 106, 144 and 156 are the non-interstate primary highways within the County. These road corridors are critically important in two respects.

First, as major points of access to the County it is critical that these roads maintain a high level of service. Future development along these roads should be planned and designed to ensure that the safety and capacity of these roads are maintained and managed.

Second, these routes are the "gateways to the County". Users of these routes develop impressions of Prince George County based upon the natural viewsheds and character of development visible from the roads. Maintenance and enhancement of these gateways can be critical to the success of the County's economic development and marketing activities.

Recommendations:

1. Evaluate and amend the County's zoning and subdivision ordinances to ensure that future land uses allowed along these corridors are consistent with the future land use map.

2. Evaluate and amend the access provisions in the County's zoning and subdivision ordinances to ensure that new developments along these corridors are allowed adequate access and that unnecessary or dangerous access points are not permitted.

3. Evaluate future rezoning and special exception requests along these corridors partially on the basis of proposed access plans and the traffic impacts resulting from the proposed use.

4. Consider the development of a corridor design policy manual. This manual that would be used by the Planning Commission and Board of Supervisors as a policy guide when evaluating the site design and architectural character of development proposals within these corridors that require Board approval.

5. Explore with VDOT the potential application and use of transportation enhancement funds to create formal landscaped gateways at specific points along these corridors.

Village Center Areas

Prince George County is a community of communities. Although there are no incorporated towns in the County, there are a number of smaller unincorporated "villages" that are the center of community life and community activities in the County. These communities include the villages of Prince George, Burrowsville, Carson, and Disputanta

Zoning in these communities should allow and encourage land uses and development patterns and densities compatible with these village areas. Permissible residential densities in these areas should be higher than those allowed in the adjacent agricultural and forestal areas, and should be limited on the basis of environmental factors such as well feasibility and septic suitability. Zoning should also allow and encourage the development of land uses that meet the rural service needs of local residents who reside in the community. Small scale commercial, personal service and office uses are appropriate land uses in these areas provided site design and architectural proposals respect the rural character of these village center areas.

Recommendations:

1. Work with the various communities to identify appropriate village center areas and amend the County's official zoning map to formally designate the limits of these areas.

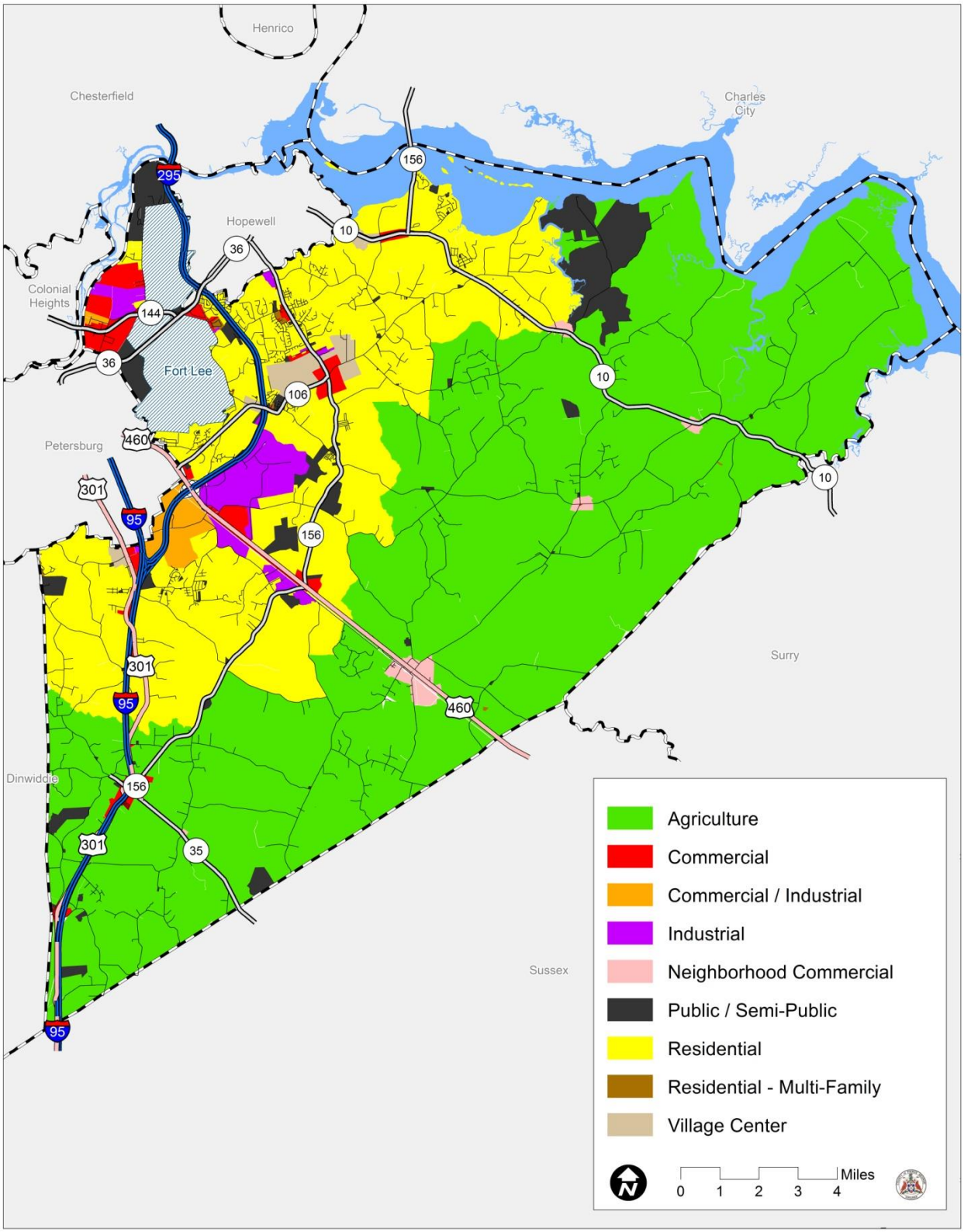
2. Adopt village center zoning district standards. Ensure that new standards allow the County the ability to control the character of development within village center areas, particularly with respect to density, signage, landscaping, building scale and parking lot design.

Future Land Use

The Future Land Use Map serves as a general guide for the future development of Prince George County. The Planning Commission and Board of Supervisors can use this future land use map as one source of information when planning public facilities or evaluating land use requests. The map may also serve as a general guide for private investment, indicating the location and type of future desired development.

This map presents a generalized overview of desired land use locations within the County. The map is not intended to be parcel specific. As a generalized map, a mixture of land uses may be found in any designation. The specific location of future land uses will be determined by the zoning ordinance, and when required by the zoning ordinance, Commission and Board review of specific land use requests. Such review will consider the compatibility and benefits of the

Future Land Use



use, and the land use impacts of a specific use on the surrounding neighborhood and larger community.

Nine future land use categories are shown on this map:

Agricultural

This category includes land areas in the rural portions of the County where agricultural and forestal uses are, and should be, the dominant land use. Large lot single family development may exist within some of these areas. Future residential development of these properties is not encouraged.

Residential

This category includes areas within the PGPA where small lot residential development is encouraged. Public water and/or wastewater facilities are available and required for such development.

Residential- Multi-Family

This category includes areas where residential development such as town homes and apartments may be suitable. Allowable future densities in these areas should be based upon the availability and adequacy of public services and facilities and the compatibility
of the proposed land use with surrounding properties. Public water and/or wastewater facilities typically serve these areas. Most of these areas are and will be located in the PGPA.

Village Center

This category designates those areas of the County in the PGPA that are suitable for a mixture of residential and small-scale commercial uses to meet the needs of community residents.

Commercial

This category designates areas where commercial developments have occurred and where future urban and suburban commercial developments are encouraged. Public water and wastewater facilities are generally available or planned for these areas.

Neighborhood Commercial

The category designates those areas where small scale commercial uses are encouraged. Such uses provide goods and services designed to meet the needs of the surrounding residential community.

Commercial/Industrial *

This category designates those areas that are suitable for future commercial and/or industrial economic activities.

Industrial

The category designates those areas where major industrial activities exist and/or are planned.

Public/Semi-Public *

This category includes land areas owned and operated by a federal, state or local government.

*Fine Street Comprehensive Plan Amendment –Adopted February 23, 2010

The Board of Supervisors amended the comprehensive plan to further identity the different designations between commercial and industrial land use categories at a parcel level scale. Fine Street contains an existing mix of residential and industrial land uses. However, it appears that the nature progression along Fine Street will be for the industrial uses to continue to expand into the residential areas. The Planning Commission and staff discussed the plan area and were of the opinion that Fine Street is a transitional area. Further, we believe that there will continue to be a natural progression of commercial and industrial uses to be developed in the plan area.

Plan Amendment Findings:

- Fine Street is an established area with a mixture of dwellings, established businesses, vacant homes, a mobile home development, industrial businesses and a recreational facility (marina)
- The underlying zoning includes residential, commercial, industrial and agricultural designations.
- It is the opinion of the Planning Commission and staff that as commercial development increases along Temple Avenue and Puddledock Road, there will be a natural progression of commercial and industrial development in this area and that the existing residences will either be converted for commercial use (such as offices) or be removed.

- Based on the existing uses and continued commercialization and industrialization of this area, the Planning Commission and staff recommends that the Comprehensive Plan be amended to designate this area as "*Commercial/Industrial*.
- All properties would continue to be regulated by the underlying zoning. The change in the Comprehensive Plan would not change the existing use of any property. Nor would it require that any of the homes be converted to a commercial or industrial use.

Recommendations:

1. The Planning Commission should annually monitor rural development patterns to determine the location of new development and the rates of growth in these areas.
2. The Planning Commission and Board of Supervisors, through the recommendation and adoption of this comprehensive plan, should state their commitment to agricultural and forestal land preservation objectives.
3. The Planning Commission and Board of Supervisors should use the future land use map contained in this plan as a general guide for determining the desired location of development.
4. In evaluating development proposals, the Planning Commission and/or Board should consider the adequacy of existing or planned public services and facilities in the area, and the impact the development will have on these services and facilities. If necessary facilities are planned, the timing of the planned new service or facility must be considered.
5. Commercial and or industrial developments that are approved in the rural portions of the County should be small in scale and of a design character that is consistent with a rural environment.
6. The County should research the preservation tools presented in this plan and be willing to provide information and administrative support to property owners who wish to pursue a particular preservation strategy.
7. The County's zoning and subdivision ordinances should be revised to limit subdivision activity in the rural portions of the County.
8. The County should support the activities of local land trusts and other environmental organizations in their efforts to voluntarily preserve critical agricultural and open space areas in the County.
9. The County should work closely with the Natural Resources Conservation Service and the Virginia Department of Forestry to ensure that private timbering operations in the County are undertaken using approved techniques in an environmentally sensitive manner.

10. The County should evaluate and adopt zoning and subdivision standards that allow and/or encourage low impact development techniques as a tool to manage non-point source environmental pollutants associated with new development.
11. Within the limits of state law, the County should monitor local agricultural practices as they apply to water quality, and provide resources and assistance to agricultural land owners who wish to take advantage of conservation opportunities such as riparian buffer and easement programs.

* 2013 Fort Lee Joint Land Use Study (JLUS) Strategic Plan Recommendations:

1. Develop a formalized regional approach to enhance communication and land use coordination between Fort Lee and surrounding communities such as Prince George.

2. Pursue the development of a regional Geographic Information System (GIS) database for monitoring land use changes in the region around Fort Lee.

3. Participating local governments to make information available to the public regarding the location of noise, safety, and other impacts related to Fort Lee's training mission.

4. The participating local governments should consider adoption of Comprehensive Plan amendments in support of the Joint Land Use Study findings and recommendations.

5. The participating local governments should consider adoption of Zoning Ordinance amendments in support of the Joint Land Use Study findings and recommendations.

6. Fort Lee should continue to develop regular updates to military operational impact assessments to enhance sustainability of the military missions. The tools for implementing these recommendations are set forth in the Fort Lee Joint Land Use Study and they can be found online at www.fortlee-jlus.com or craterpdc.org

Fine St - Future Landuse
Puddledock Rd
Fine St
Flexon Dr
Temple Ave
Riverdale Ave
Temple Ave
Whitehill Blvd
Temple Ave
City of Colonial Heights
Chesterfield County
RoadCenterlines
TaxParcels
Agriculture
Residential
Residential - Multi-Family
Village Center
Commercial
Neighborhood Commercial
Commercial / Industrial
Industrial
Public / Semi-Public
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CHAPTER X GOALS, OBJECTIVES AND STRATEGIES

Introduction

This chapter of the Plan presents a series of goals, objectives and strategies designed to guide public decision making within Prince George County. Guidance is offered in the areas of community facilities, housing, economic development, transportation, the environment, and land use. These goals, objectives and strategies should be considered and used in conjunction with other policy directions and recommendations contained in this plan, specifically those presented in Chapters V through IX.

The goals, objectives and strategies offered in this chapter are not laws. County ordinances and the building code are the legal mechanisms by which land development is controlled. Similarly, planned community services and facilities are a function of the Board of Supervisors' annual decisions pertaining to capital and operating expenditures.

However, decisions made in general accordance with a comprehensive plan hold great legal weight in Virginia. Making decisions that conform to a comprehensive plan demonstrates to the citizens of a community that elected and appointed officials have thought about the future of their community and are willing to plan for a future that is desired.

Finally, a comprehensive plan is not a static document. In addition to periodic five year reviews, a plan may be formally amended at any time to address unanticipated community conditions, or new or emerging community objectives.

Community Facilities and Services

Goal #1

To plan for, construct, and maintain needed community facilities is a manner that is cost effective, environmentally sound and consistent with the growth objectives contained in this plan.

Objective #1

Plan for and fund the County's capital facility needs.

Strategies

1. Continue to prepare and adopt an annual CIP.

2. Annually revise the cash proffer program.

Objective #2

Consistent with this plan, develop and maintain public water and wastewater systems to meet the needs of a growing commercial, industrial and residential base.

Strategies

1. Prepare an updated water and wastewater master plan for the County.

2. Continue to require public utility connections for all new development within the Prince George Planning Area.

3. Develop and adopt a revised water and wastewater extension rebate program as an incentive to encourage developers to extend off-site facilities in the Prince George Planning Area.

4. Continue to prohibit independent water systems within the County.

Objective #3

Provide the facilities and services required to meet the recreational needs of County citizens.

Strategies

1. Prepare a parks and recreation master plan for the County.

2. Continue current planning for an expanded recreation center on Old Stage Road.

3. Explore and pursue all opportunities to provide additional public access to the James and Appomattox Rivers.

Objective #4

Provide the facilities and services required to meet the public safety, library and school needs of County citizens.

Strategies

1. Continue to support the system of volunteers who provide the majority of fire and EMS safety services.

2. Continue to monitor school enrollment projections and renovate existing schools.

3. Continue planning for new library services to be offered at the Prince George Library.

Objective #5

Recognize and promote the historical significance of the County of Prince George.

Strategies

1. Continue to support the development of the Prince George County Courthouse Historic District.

2. Encourage ongoing support and use of the Prince George County Regional Heritage Museum on Courthouse Square.

3. Actively promote Prince George County for Tourism. Continue support of the Regional Tourism Corporation and maintain strong voice within that organization.

4. Schedule initiatives within the growth/development implementation plan to allow appropriate historical review and recordation.

5. Develop procedures for historical review.

Housing

Goal #1

To promote the creation of residential communities that meet the needs of all County citizens.

Objective #1

Identify and remove barriers that limit housing choice in the County.

Strategies

1. Amend the zoning ordinance to allow a full range of housing choice options in the County including multifamily, townhouses and condominiums.

2. Promote and encourage mixed use developments that contain housing choices.

3. Promote affordable housing through zoning ordinance amendments including possible density bonuses in exchange for providing affordable units.

4. Promote and encourage well designed manufactured home communities that are functional, aesthetic, and taxed as real estate.

Objective #2

Explore and participate in housing programs and partnerships designed to assist low and moderate income families.

Strategies

1. Explore the use of Community Development Block Grant funds to finance infrastructure improvements in new residential developments that incorporate housing for low to moderate income residents.

Objective #3

Explore programs and initiatives designed to stabilize and maintain the County's older housing stock.

Strategies

1. Initiate a housing quality assessment in selected, older neighborhoods.

2. Encourage and promote restoration, preservation, and new uses for existing structures, continuing to utilize resources available from the Prince George County Historical Society and the Virginia Department of Historic Resources.

3. Explore the use of Community Development Block Grant funds to finance initiatives designed to stabilize and maintain the County's older housing stock.

Economic Development

Goal #1

To enhance the economic base and employment opportunities in Prince George County.

Objective #1

Develop a strong and diversified tax base through guided office, commercial retail and industrial development.

Strategies

1. Use the future land use map and the zoning map to identify and reserve land areas suitable for future economic activities.

2. Continue to actively promote and market "ready to go" industrial development sites within the County.

3. Coordinate closely with other local, regional, and statewide economic development organizations.

Objective #2

Develop and maintain the County's community facilities and transportation system.

Strategies

1. Use the CIP as a tool to plan for and finance adequate public facilities and services to meet the needs of an expanding economic base.

2. Coordinate closely with VDOT and other agencies that can assist with economic development opportunities associated with new or expanding businesses.

3. As resources become available, implement planned public water and wastewater extension projects and planned road improvements to accommodate future economic growth consistent with this plan.

4. Seek industrial access funds to provide pubic road access to new industrial areas.

Objective #3
Promote the retention of existing businesses.

Strategies

1. Provide assistance to existing businesses and industries that wish to expand in the County.

2. Continue to pursue and facilitate work-force training opportunities that will assist new or expanding businesses.

Transportation

Goal # 1
To develop and maintain a safe and efficient transportation system.

Objective #1
To establish and maintain a level of service of "C" or better for all secondary and primary highway intersections in the County.

Strategies

1. On an annual basis work with the Virginia Department of Transportation to prepare a 6-year secondary road improvement plan based upon locally identified needs and available resources.

2. Maintain a cash proffer system to help fund road improvements necessitated by the demands of new development.

3. Work with the General Assembly to obtain increased state funding for transportation enhancement grants.

4. Develop and adopt a comprehensive access management program for the County.

5. Continue to consider road adequacy and safety as criteria to be considered when evaluating rezoning and special exception requests. Require applicants to provide formal traffic impact studies in accordance with state legislation.

6. Continue to participate as a member of the Tri-Cities Area MPO.

7. Ensure that all established growth areas within the County are connected by arterial corridors.

8. Continue the Transportation Subcommittee of the County's Planning Commission as on on-going/standing committee of the Commission. Ensure membership includes citizen members and VDOT representatives.

9. Consistent with the recommendations contained in the land use chapter of this plan, promote an efficient land use pattern that promotes new residential areas within the Prince George Planning Area.

10. Plan for and require through rezoning actions and subdivision approvals pedestrian and vehicular interconnectivity between neighborhoods and activity centers such as shopping areas, schools, libraries, and community centers.

11. Evaluate the need for traffic calming measures to be installed in existing subdivisions, and establish in the subdivision ordinance traffic calming warrants and acceptable traffic calming measures for new subdivision streets.

12. As part of the County's annual CIP and budget process, consider the allocation of additional local funds for identified transportation system needs.

Goal #2

To encourage a balanced efficient transportation system

Objective # 1

Promote transit and van pool ridership in Prince George County.

Strategies

1. Work with Petersburg Area Transit (PAT) to identify cost - effective route extensions within the County.

2. In accordance with the recommendations contained within the land use chapter of this plan, promote residential development at densities sufficient to support transit in the urban service area of the County.

3. Support and promote van pooling opportunities in the County.

Objective # 2

Develop a minimum of ten miles of bike lanes or off-road bike paths within the County within the next ten years.

Strategies

1. Adopt and implement a Prince George County bikeway plan that shows specific routes, design standards, funding sources, and a timetable for implementation.

2. Encourage and require bike lanes and bike paths within new residential developments.

3. Request VDOT design and incorporate bikeways into new road projects as designated in adopted regional and County bikeway plans.

4. Consider bike lanes and bike paths "public facilities" to be considered as part of any future proffer policy adopted by the County.

Objective #3

Support all rail opportunities within the County

Strategies

1. Participate in state rail planning initiatives and identify opportunities for future rail services/facilities in the County.

2. Work regionally to explore the benefits and feasibility of a light rail system to serve the County.

3. Encourage local rail providers to support industry requests for new rail facilities and sidings when such requests are consistent with the land use recommendations contained in this Plan.

Goal #3

Plan for the County's future highway needs.

Objective # 1

Identify and protect new highway corridors needed to serve the long term needs of the County.

Strategies

1. Prepare and adopt a 25 year transportation plan that identifies highway needs based upon expected County and regional growth rates and patterns.

2. Adopt zoning and subdivision ordinance amendments necessary to protect future rights-of-way needed for new corridors or the improvement of existing corridors.

3. Utilize the County's official map authority to formally designate future road corridors.

4. Identify alternative funding sources, including cash proffers that might be needed to acquire planned road corridors.

Environment

Goal #1

To protect and enhance the natural environment.

Objective #1

Protect and enhance the County's surface and ground water resources.

Strategies

1. Amend the zoning and subdivision ordinances to provide incentives for the use of low impact development techniques.

2. Continue the implementation of Chesapeake Bay Act regulations within the James River watershed.

3. Consider the county-wide application of Chesapeake Bay Act regulations.

4. Evaluate all new development partially on the basis of its impact on water resources.

5. Adopt zoning and subdivision ordinance provisions that enhance the protection of wetlands and floodplains on property proposed for development.

Objective #2
Protect and enhance the County's air quality.

Strategies

1. Promote mixed use developments as a strategy to promote live-work relationships.

2. Evaluate all new development partially on the basis of its impact on air quality.

Land Use

Goal #1
To achieve a balanced land use system that provides sufficient and compatible land areas for all community land use needs, while protecting sensitive natural environments and important local historic and cultural resources.

Objective #1
Promote a strong and diversified industrial and commercial base which does not create significant impacts on residential areas, prime agricultural lands or public facilities.

Strategies

1. Use the future land use map contained in this plan as a general guide for future commercial and industrial land use decisions.

2. Limit new commercial and industrial areas to node locations as shown on the future land use map.

Objective #2

Discourage scattered development patterns which are incompatible with the County's ability to provide adequate and cost effective public services and facilities.

Strategies

1. Through zoning and subdivision ordinance amendments limit by-right subdivision activity in the A-1 Agricultural zoning district.

2. To the extent allowed by law, limit family division parcels.

3. Amend the County's zoning and subdivision ordinances to provide incentives for developments that demonstrate conservation site design principles and/or incorporate low impact development techniques.

4. Ensure that all planned capital facilities are evaluated partially on the basis of consistency with the growth objectives of this plan.

5. Ensure that all new water line and wastewater line extensions designed to serve new development are located within, and only serve areas within, the Prince George Planning Area.

Objective #3

Enhance the rural and environmental character of the County through the preservation of agricultural and forestal lands, wetlands, flood hazard areas, and Chesapeake Bay Resource Protection Areas.

Strategies

1. Promote opportunities to educate property owners on the benefits of conservation site design.

2. Adopt a local agricultural and forestal district ordinance as a first step in establishing agricultural and forestal districts in the County.

3. Support future efforts of local conservation organizations and the Virginia Outdoors Foundation to acquire and provide stewardship for locally obtained conservation easements.

Objective #4

Adopt and maintain appropriate land use ordinances and voluntary programs designed to guide and implement the provisions of this comprehensive plan.

Strategies

1. Amend the County zoning ordinance to provide enhanced standards for signage, noise, buffering, and lighting.

APPENDIX A CAPITAL IMPROVEMENTS PLAN

The Capital Improvements Plan most recently been adopted by the Board of Supervisors is considered to be part of this Comprehensive Plan. Please consult the Prince George County Department of Finance website to view the most recent documents.

APPENDIX B WATER & WASTEWATER STUDY

In 2012, the "Prince George County Water and Wastewater Study" was adopted as part of this Comprehensive Plan.

On March 8, 2016, Prince George County adopted the "Water and Wastewater Master Plan" to supplement or replace the information in the 2012 Study. Please consult the Prince George County Department of Engineering and Utilities website to view the most recent documents.

APPENDIX C 2012 IMPLEMENTATION MATRIX

The "2012 Comprehensive Plan Implementation Matrix" includes the Goals, Objectives and Strategies from Chapter X of this Comprehensive Plan, combined with key objectives of the 2012 Capital Improvements Plan.