

The background of the slide features three flags flying on tall silver poles against a light grey sky. The top flag is the United States flag. Below it is the Virginia state flag, which is blue with a white circular seal in the center. The bottom flag is the Goochland County Virginia flag, which is white with a blue circular seal in the center. The seal contains a crest and the text 'GOOCHLAND COUNTY VIRGINIA' and '1727'.

## CHAPTER 1

# INTRODUCTION AND DEMOGRAPHICS

## THE COMPREHENSIVE PLAN

The **Code of Virginia** requires localities to adopt a comprehensive plan for the physical development of jurisdictions. A comprehensive plan provides a blueprint for the future by establishing a framework for growth and development. The plan will provide Goochland County guidance for the formation and implementation of various tools that guide growth and development decisions.

At least once every five years the comprehensive plan must be reviewed by the Planning Commission to determine whether it is advisable to amend the plan. The comprehensive plan must be general in nature, meaning it designates the general or approximate location, character, and extent of features shown on the Future Land Use Maps or other maps or described within the text.

## GOOCHLAND COUNTY: A BRIEF INTRODUCTION

Goochland County is located in central Virginia on the western edge of the Richmond Metropolitan Area and approximately 25 miles southeast of Charlottesville. The County is approximately 289 square miles (184,960 acres) in area and the 2014 population estimate is 21,703. The County has an exurban/rural setting and is just west of the heavily

populated suburban Henrico County. Weldon Cooper has projected the 2040 population to be 27,505.

The James River flows along the County's southern border and separates the County from Powhatan, Cumberland, and Chesterfield Counties to the south. The Tuckahoe Creek generally defines the eastern boundary with Henrico County, and Goochland abuts Louisa and Hanover Counties to the north and Fluvanna County to the west.

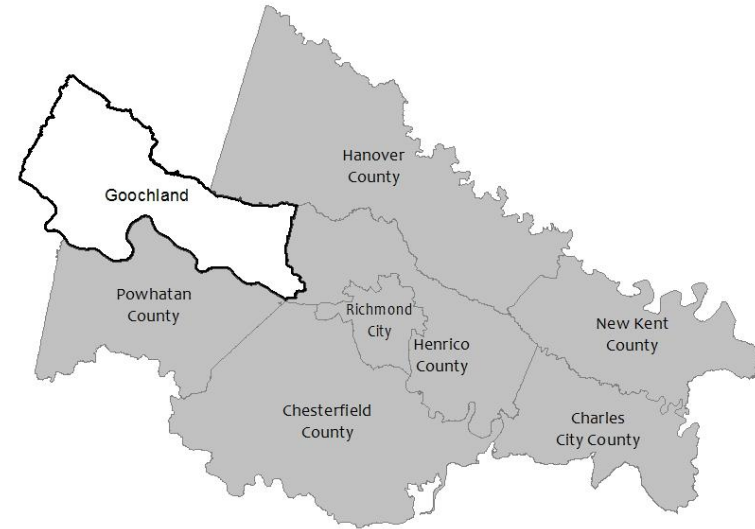
Interstate 64 traverses the northern part of the County from east-to-west, and four interstate interchanges are located in the County. U.S. Route 250 passes through the County close to and parallel to the interstate, and State Route 6 runs east-to-west in the southern part of the County. State Route 288, which serves as one segment of the outer circumferential highway/expressway for the Richmond region, crosses the eastern part of the County. Also, U.S. Route 522 is a north-to-south roadway running through the center of the County.

The County is home to West Creek, a 3,500-acre, campus-style business park which serves as the principal economic driver for the County. Major employers in West Creek include Capital One, CarMax, the Virginia Farm Bureau, and Performance Food Group. Luck Stone Corporation operates facilities countywide including its corporate headquarters near West Creek.

## EXISTING CONDITIONS/DEMOGRAPHICS

In producing the 2035 Comprehensive Plan, it is helpful to review the demographic profile of the County's past and present. The 2035 Plan recognizes these trends will influence the County's future and foretell, in part, the growth for which the County is anticipating and planning.

- Between 2000 and 2010, compared to adjoining communities, Goochland had one of the largest percentage increases in population
- Weldon Cooper projected 2010 population was very close to the actual 2010 population: projected 2010 population was 22,078 (actual population was 361 less)
- Between 2000 and 2010, the highest growth rates in the Region occurred in rural localities such as Goochland, Louisa, Fluvanna, and Powhatan
- Weldon Cooper's 2014 estimated Goochland population is 21,703 – This number is less than the 2010 Census population which reflects the decrease in the Group Quarters population (removal of prisoners at the State Farm)



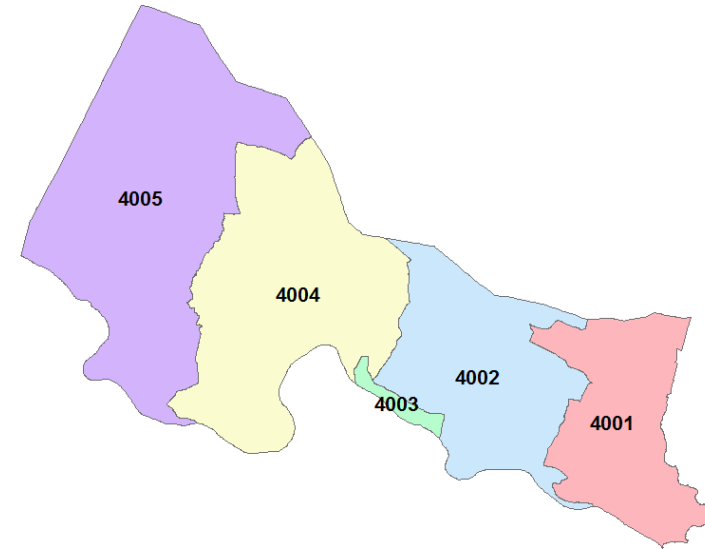
### Population Growth in Goochland & Adjoining Counties 1980-2010

County	1980	1990	Change 1980-90	2000	Change 1990-2000	2010	Change 2000-2010	Total Change 1980-2010
<b>Goochland</b>	<b>11,761</b>	<b>14,163</b>	<b>20%</b>	<b>16,863</b>	<b>19%</b>	<b>21,717</b>	<b>29%</b>	<b>86%</b>
Chesterfield	141,372	209,274	48%	259,903	24%	316,236	22%	124%
Cumberland	7,881	7,825	-.01%	9,017	15%	10,052	11%	28%
Hanover	50,398	63,306	26%	86,320	36%	99,863	16%	98%
Henrico	180,735	217,881	21%	262,300	20%	306,935	17%	70%
Fluvanna	10,244	12,249	20%	20,047	64%	25,691	28%	151%
Louisa	17,825	20,325	14%	25,627	26%	33,153	29%	86%
Powhatan	13,062	15,328	17%	22,377	46%	28,046	25%	114%

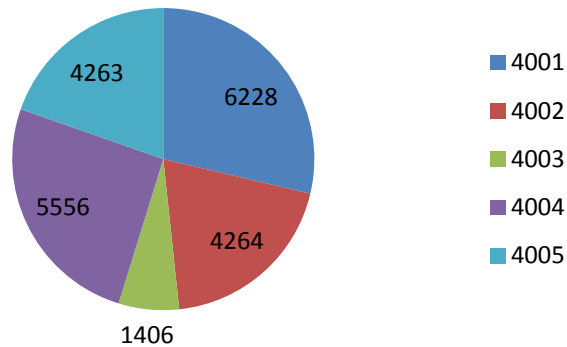
### County Population by Census Tract

Area	1980	1990	2000	2010
Goochland	11,761	14,163	16,863	21,717
Census Tract 4001	3,236 (28%)	3,971 (28%)	4,363 (26%)	6,228 (29%)
Census Tract 4002	2,442 (21%)	2,997 (21%)	3,578 (21%)	4,264 (20%)
Census Tract 4003	668 (6%)	1,029 (7%)	1,274 (8%)	1,406 (6%)
Census Tract 4004	2,998 (25%)	3,316 (23%)	4,205 (25%)	5,556 (26%)
Census Tract 4005	2,417 (21%)	2,850 (20%)	3,443 (20%)	4,263 (20%)

### Census Tract Map



### 2010 Population by Census Tract



### Where is growth occurring in the County?

- Growth is occurring uniformly across the County and not just in targeted villages or Designated Growth Areas
- Growth in western portions of the county may be resulting in decreasing farm acreage

### What does our population look like?

- Median age has increased five years between 2000-2010 to 45.2, which is significantly higher than adjoining localities, the state, and the US median age.
- The largest increases in population from 1990-2010 have occurred in the age cohorts 45 and above
- The County had a loss of population in the age cohorts 44 and below, particularly with 20-34 year olds
- Fewer children under the age of 5 are living in the county compared to the US.
- 23% of residents are over the age of 60
- Household and family income is significantly higher than US average and one of the highest in the region
- Low poverty rates
- Considerably lower labor force participation rates (41%) than adjoining localities and the State and US.
- Demographics reflect high number of retirees in the County.
- Travel time to work is higher than national average
- 13% of the County's population lives and works in the County
- High number of owner occupied units in the County, limited number of rental units

### How Fast Will We Grow?

- 2014 Population Estimate: 21,703
- Reflects decrease in the group quarters population
- Weldon Cooper projects a 1.75% growth rate per year, County anticipates a higher growth rate
- Weldon Cooper projects the 2040 population to be 27,505
- Reflecting national trends, from 2006-2011, the County saw declining numbers for building permits for single family residential new construction.
- Building permits peaked in 2005; 2011 was the lowest year with 50 permits.
- From 2011 to 2013, building permits increased by 184%

### ***Goochland County Demographic Fact Sheet***

The following information contains several tables that provide information about population and employment in the County. Except where noted,

most of the tables and charts were developed from information obtained from the University of Virginia (Weldon Cooper Center) and the U.S. Census Bureau (Census).

#### **Projected Population**

	Goochland	Change	Virginia	Change
2010	21,717	29%	8,001,024	13%
2020	24,088	11%	8,811,512	10%
2030	25,886	7%	9,645,281	9%
2040	27,505	6%	10,530,229	9%

#### **Gender**

	County Total	County	US
Male	10,764	49.6%	49.1%
Female	10,953	50.4%	50.9%

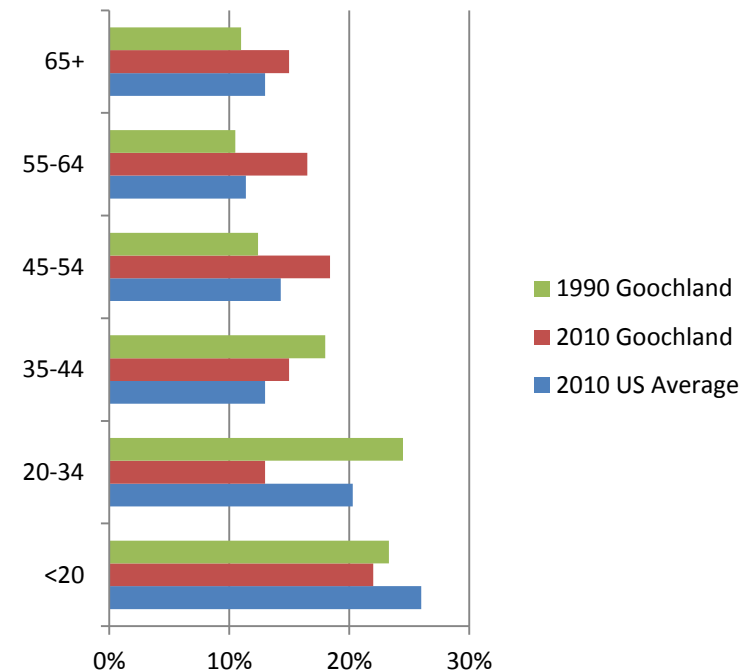
#### **Age**

	County Total	County	US
Median Age	45.2	37.4	37.2
Under 5 Years	1,012	4.7%	6.5%
18 years and older	17,317	79.7%	76.0%
65 years and older	3,237	14.9%	13.0%

#### **Median Age, Regional Comparison**

Region	Age
Goochland	45.2
Chesterfield	37.6
Hanover	41.0
Henrico	37.5
Powhatan	41.6
Fluvanna	41.1
U.S. Average	37.2

#### **Shift in Age Cohort Population: 1990 vs. 2010**



### Race/Ethnicity

	County Total	County	US
White	16,820	77.5%	72.4%
Black or African American	4,180	19.2%	12.6%
American Indian & Alaska Native	54	0.2%	0.9%
Asian	225	1.0%	4.8%
Native Hawaiian/ Other Pacific Islander	4	0%	0.2%
Some Other Race	170	0.8%	6.2%
Hispanic or Latino	455	2.1%	16.3%

### Household/Housing Units

	County Total	County	US
Household Population (Non- Group Quarter)	20,312	93%	97%
Group Quarters Population	1,405	6%	2.6%
Average Household Size	2.54	---	2.58
Housing Units	8,618	---	--
Occupied Housing Units	7,998	93%	89%
Vacant Housing Units	620	7.2%	11%
Owner-Occupied Housing Units	7,023	87.8%	65%
Renter-Occupied Housing Units	975	12.2%	34%

### Education, Employment, Income

Location	4-yr Degree or more	Labor Participation	Median HH Income
<b>Goochland</b>	<b>27.6%</b>	<b>41%</b>	<b>\$75,580</b>
Chesterfield	36.1%	72.7%	\$71,661
Hanover	32.7%	70.1%	\$76,926
Henrico	39.0%	70.7%	\$57,807
Powhatan	21.0%	46.6%	\$75,118
Fluvanna	25.8%	63.6%	\$62,163
US	27.5%	65.0%	\$51,425

### Economic Characteristics

	County Total	County	US
Labor force (16 years and older)	9,745	55%	64%
Mean travel time to work (min)	30.4	---	24.1
Median HH income	\$81,288	---	\$53,046
Median Family Income	\$92,958	---	\$64,585
Families below poverty level	608	2.8%	11%
Individuals below poverty level	1,129	5.2%	15%

### Employers by Size of Establishment

# of Employees	# of Businesses
0-5	488 (66%)
5-9	100 (13%)
10-19	80 (11%)
20-49	37 (5%)
50-99	21 (3%)
100+	15 (2%)

Source: VEC





## CHAPTER 2

# LAND USE AND VILLAGES

---

### GOAL

---

To have balanced development that contributes to the welfare of the community and preserves its rural character. County will be characterized by the following:

- ❖ High quality commercial, industrial, and employment hubs
  - ❖ Vibrant, healthy villages that respect the character of each community
  - ❖ High quality residential development that is compatible with adjacent land uses
  - ❖ Preserved natural, cultural, and historic resources
  - ❖ Viable agricultural and forestry resources that are important components of the local economy
-





## CHAPTER 2

### LAND USE & VILLAGES

The Land Use Plan provides basic parameters to follow when development occurs. The 2035 Comprehensive Plan lays out a future land use vision that includes distinct growth areas and the retention of significant rural areas. The Plan directs new development to major villages and designated growth areas in order to preserve the rural character of the county. Concentrating growth also helps when providing municipal services and infrastructure needs.

Designated growth areas should be desirable and attractive places to live and work. These areas should be the destination of choice for new residential and commercial development.

Balanced development that contributes to the welfare of the community and preserves its rural character is Goal #2 in the County's Strategic Plan. A variety of "tools" have emerged to enable governments to manage and direct growth, and many have their basis in land use regulation; therefore, development must comply with a myriad of Federal, State, and Local regulations governing site and building design, environmental protection, water quality, storm water management, and other matters protecting public health, safety, and general welfare.

A rezoning application must be filed with the County in accordance with provisions in the Code of Virginia and the County's zoning ordinance. Due process for rezoning applications includes a community meeting and review by the Planning Commission and Board of Supervisors. During the review process, the Commission and staff evaluate development proposals for compliance with the comprehensive plan and land use regulations. Proposals can be fine-tuned to better comply with County policies and regulations and to minimize impacts on nearby properties, existing infrastructure, natural resources, public facilities and services, and other matters. The rezoning application review process often serves as

#### 2035 Comprehensive Plan Guiding Principles

- Promote balanced development and preservation of rural character
- Anticipate and prepare for population growth
- Guide development to village areas and designated growth areas
- Ensure that new development does not exceed the County's ability to provide the needed services and infrastructure
- Protect natural, scenic, and historic resources

the starting point for deciding which growth management tools and strategies are necessary and how they are utilized. The County has developed a cash proffer program implemented through the rezoning process whereby developers can offer funds or off-site improvements to help offset the County's cost of providing public facilities.

Balanced growth recognizes that development can make positive contributions to the County and improve the quality of life; however, effort should be made to ensure that the benefits are not offset by the costs and impacts. Impacts often associated with growth include declining transportation levels of service, increased demand for public facilities, and loss of farmland and open space.

Balanced growth recognizes that resources are limited, development should consider public and private impacts, costs and benefits of development should be equitable, and the quality of life should be carefully retained or enhanced. As development occurs, the County encourages balanced growth by directing new growth to major villages and designated growth areas and keeping the majority of the County designated as Rural Enhancement Areas.

### **MAJOR VILLAGES AND RURAL CROSSROADS**

The Village concept has been a part of the Goochland Comprehensive Plan since 1975. Areas,

boundary lines, and village names have changed over time, but the village premise has served the county well. As the County grows and changes, a one size fits all approach may not be the most effective way to address all village areas.

The 2028 Plan distinguished the difference between a Major Village and Rural Villages. That Plan noted that all villages in Goochland County share the following characteristics:

- Possess a sense of place
- Nonresidents know about the County's villages or have a general sense of where the villages are located
- Located at transportation crossroads
- Served by primarily locally owned and operated businesses
- Unincorporated
- Villages may include a post office, church, fire station, or general store that serves village residents and adjacent rural areas. The villages often hold a place of local historic or cultural significance and have traditionally functioned, and continue to function as geographic focal points.
- This 2035 Plan keeps the Major Village concept but changes Rural Villages to Rural Crossroads. The function of the Rural Crossroads is to provide necessary goods and services to the surrounding community, but is not meant to accommodate significant new growth as encouraged in other villages.

### Major Villages

Major Villages are more populated communities where residential, commercial, and other land uses are integrated. The mix of uses may include public facilities such as schools, libraries, fire stations, or post offices. The established Major Villages in the County are *Goochland Courthouse* and *Centerville*. *Oilville* and *Manakin* are emerging as Major Villages but are further off due to infrastructure limitations.

Major Villages have existing utility services or plans to expand utility services in the future. These areas serve as “designated growth areas” where new development should be encouraged and concentrated. The amount and rate of growth that can be accommodated will vary depending upon the capacity of public sewer and public water service.

Currently Centerville and Goochland Courthouse Villages and the Tuckahoe Creek Service District offer public sewer and water services. Therefore, they are expected to be primary locations for development in the County for the next twenty years. Due to the likelihood of having access to the public sewer and water within the twenty-year plan horizon of this plan, Oilville and Manakin are considered emerging Major Villages.

Major Villages are a logical location for new residential options in the County and are appropriate areas for a greater variety of housing types and densities. The Major villages should promote a

variety of housing stock and include affordable housing opportunities.

New development should include a desirable mixture of uses combining commercial services with residential development. Major Villages are envisioned to be pedestrian-friendly and characterized by attractive streetscapes, buildings, and other structures. New development should feature high quality site and architectural design compatible with existing uses and traditional village designs. Landscape and streetscape designs should serve as amenities.



Centerville Village, Ashland and Broad Street Road

### *Centerville Village*

The Major Village of Centerville has the most development pressure of anywhere in the County. Centerville serves as the gateway into the County. This village must balance the challenges of growing as a commercial center and creating the scale and character of a village. Growth pressures are evident in Centerville and it is increasingly attractive for commercial and/or higher density residential development. Proper planning of this village is critical to the County.

New development should be of high quality with particular emphasis on landscaping. The appearance of development from Broad Street should be desirable. Architecture that has “village” elements is also desired.

The area between the County line and Ashland Road will generally be new development; however, it should still include Village type elements such as sidewalks, pedestrian scale buildings, landscaping, and high quality buildings. The area between Ashland Road and Manakin Road is the “Village Core.” This area already has developed areas but there are opportunities for infill development or redevelopment. This area should be the village focus and have pedestrian amenities, landscaping, buildings that are unique to the corridor, and high quality building materials. A variety of housing options should also be considered within the Village Core.

While Centerville will not be rural it should still have rural elements that are characteristic of the County. Aesthetic improvements, such as split-rail fencing and landscaping within the public right-of-ways in Centerville could improve the appearance and help provide a necessary identity for the Village.

In order to protect the Bellview Gardens neighborhood, when future development occurs, an appropriate buffer should be considered to provide protection to the neighborhood.

In April 2015, the County endorsed an Arterial Management Plan for the Broad Street Rd. and Ashland Rd. corridors. This plan manages new roadway access points, designs, improvements, and locations to facilitate new development in a safe and controlled manner.

### *Courthouse Village*

Goochland Courthouse Village is the historical and institutional center of government and public services for the County. This village serves as the County’s civic center with the courthouse, municipal building, library, and schools as well as community shopping centers, the YMCA, Reynolds Community College, and residential areas. As growth takes place in this village, the type and quality of development should be consistent with approved design guidelines. Pedestrian traffic is common and is encouraged within the village.



The availability of public water and sewer will impact future development in this village. The County is working on increasing infrastructure capacity for this area.



Courthouse Village, River Road West

### Rural Crossroads

The 2028 Plan identified the Rural Villages as Crozier, Hadensville, Sandy Hook, and George's Tavern/Fife. The guiding principle of the Comprehensive Plan has been to guide development to village areas. Growth should be directed to our Major villages, Centerville and Courthouse, but growth should not be encouraged in the rural village areas. This Plan would change these areas from Rural Villages to Rural Crossroads.

Rural Crossroads are an important part of the County's heritage, but are not necessarily areas where we would want to encourage residential development. These areas once served as the commercial and social centers of their surrounding areas and they still maintain their rural character and function as viable centers of activity.

Rural crossroads may offer the ability to accommodate some but not a great deal of new growth. The scale and magnitude of new growth at these locations should continue the existing character of the area and not overwhelm the area. New development within the rural crossroads should respect the existing architecture of nearby structures and the reuse of existing buildings is encouraged. The goal would be to limit the area to the "crossroads" rather than create "strip development" that



George's Tavern, River Road West



would not be in character with the rural area. The type of development that should be encouraged in the rural crossroads would be businesses that provide services to the immediate surrounding community. They are not to become “Development areas” or “growth areas”. The Rural Crossroads in the County are Crozier, Hadensville, Sandy Hook, and George’s Tavern/Fife.

## LAND USE PLANNING AREAS

The Comprehensive Plan categorizes the County into broad geographic classifications, or “Land Use Planning Areas,” targeting completely different types and intensities of land use. The designation of these planning areas is based on existing conditions, existing and planned public facilities and services, direction of growth, transportation, and other factors.

### Rural Enhancement Areas

Rural Enhancement Areas include most of the County not already included in a Designated Growth Area or Major Village. Rural Enhancement Areas exhibit a rural character with low density residential, agricultural, forest, or other uses which are not planned for public or central utilities. Residential uses should include a significant amount of open space, limit the amount of grading and native plant removal, and create minimal visual and other impacts. These areas of the County play a significant role in the rural character of the community and should be protected from urban sprawl.

### Land Use/Villages/Housing Existing Trends

- Citizen desire to preserve rural land from new development is very strong and a recurring theme for County leaders.
- The vast majority of the land in the County continues to be dedicated to forested, natural open space, or agricultural uses; however, the County is experiencing a steady increase in the amount of developed land.
- Geographically, most of the County is not served by public water or public sewer.
- Due to the location of the County in the Richmond metropolitan area and growth in surrounding counties, requests for new development are expected to increase, especially in the eastern part of the County.
- Population growth is spread across the entire County including areas outside the designated growth areas.
- Without a variety of residential options in the eastern portion of the county, rural areas remain attractive for new residential development.
- Single family detached units are the primary type of dwelling unit in the County.
- 78% of the housing stock is valued at \$200,000 or more and 6% of the housing stock is valued at more than \$1,000,000.

### Designated Growth Areas

Designated Growth Areas are outside of Rural Enhancement Areas and located generally on the eastern end of the County and in the Courthouse Village. The Designated Growth Areas identify where commercial and residential development should be concentrated. The advantages of delineating such areas include proactively planning and coordinating growth, reducing pressure to develop in rural areas, supporting cost effectiveness by utilizing existing and planned infrastructure, and facilitating private sector investment in infrastructure. The designated growth areas as discussed herein have been found to meet the intent of the Code of Virginia, section §15.2-2223.1. Site and architectural design standards are generally recommended to encourage high quality development and should include a desirable mix of land uses such as commercial, residential, and public uses.

### Tuckahoe Creek Service District (TCSD)

The Tuckahoe Creek Service District (TCSD) is a major County initiative to provide public water and sewer to a large Designated Growth Area in eastern Goochland County which generally includes the West Creek Business Park, Centerville, the Rte. 623 corridor north of Centerville, and selected nearby areas. Through the TCSD, the County has contracted with Henrico County and the City of Richmond to provide water and sanitary sewer services.

The TCSD is intended to serve as an economic driver for the County during the time horizon of this plan and beyond. Development within the TCSD is critical for achieving the long-term goals of this plan by encouraging more intense land uses, allowing higher residential densities, expanding and diversifying the County's tax base through commercial development, facilitating a desirable mix of land uses, reducing pressure to develop in rural areas, and promoting high quality, planned development.

### River Road Communities

The River Road Communities area is located in the southeastern corner of the County and is bounded by Rte. 6 to the north, the James River to the south, Henrico County to the east, and Manakin Village to the west. River Road traverses the area. This area is largely built out and is characterized by single family residential neighborhoods, natural resource areas, and semi-public uses like private recreation facilities, religious facilities, a private school, and a large cemetery.

There is limited potential for infill development in the River Road Communities. Any development including infill development should be in character with the existing high quality development, complement existing land uses, and demonstrate minimal impacts on existing neighborhoods.

### Deep Run Hunt Country Community

The Deep Run Hunt Country Community area is located in the eastern end of the County but outside the TCSD. The area is bounded by Patterson Avenue to the south, the old Crozier Village boundary and generally Genito Creek and the East Fork of the Creek to the west, generally Three Chopt Road to the north, and Hermitage Road to the east. The area is known for its equestrian activities and is home to the Deep Run Hunt Club, numerous horse farms, and equestrian schools. The character of the area is large lot single-family residences, horse farms, equestrian trails, and semi-public facilities centered on recreational activities.

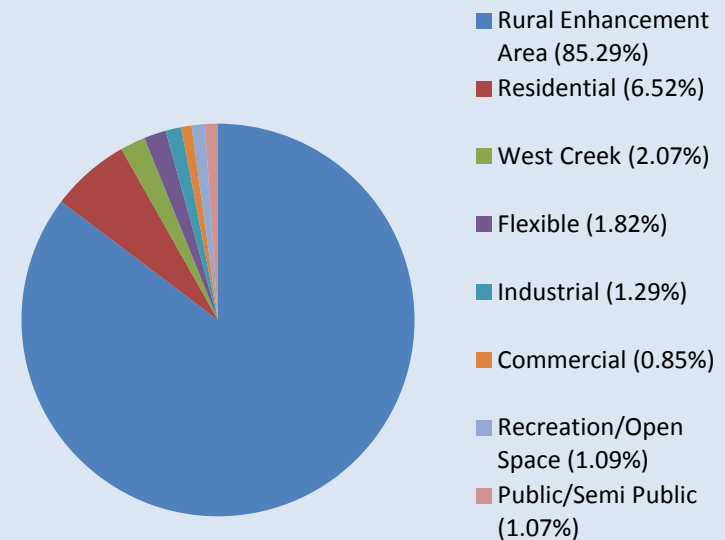
Development should strive to be in character with existing high quality development, complement existing land uses, and demonstrate minimal impacts on existing neighborhoods, and roadways.

## 2035 LAND USE DESIGNATIONS

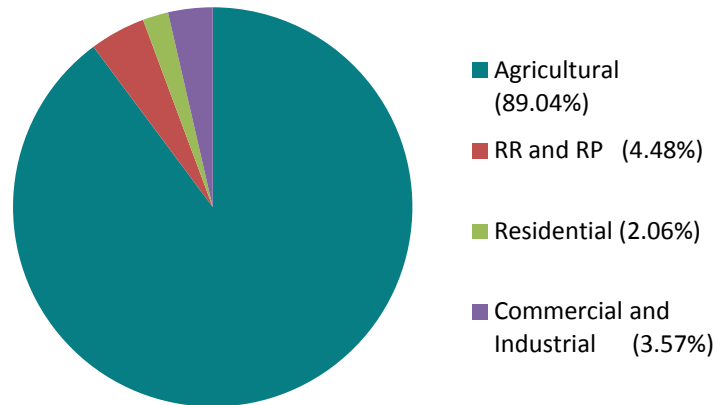
The Goochland 2035 Comprehensive Plan includes a series of Land Use Maps designating land uses between the present and 2035 — the time horizon of this plan. The Land Use Maps provide a visual, geographic representation of future land use and are intended to provide assistance regarding land use decisions, infrastructure investments, transportation planning, public facilities and public services planning, and other matters.

Through 2035, the County has designated that approximately 85% of the county will be in the Rural Enhancement Land Use Designation. Residential would represent about 6.5% of the County, and West Creek, Flexible, Industrial, and Commercial represents an additional 6%. This can be compared to the current zoning of properties in the County. Almost 90% of the County is currently zoned A-1, Agricultural, General and A-2, Agricultural, Limited. Approximately 2% of the County is zoned residential, and about 3.6% is zoned commercial or industrial.

### 2035 Land Use Designations



## Zoning as of 1/2015



## LAND USE PLAN MAPS

The Goochland 2035 Comprehensive Plan Land Use Map classifications are defined as follows:

**Residential Uses**

- ✚ **Single Family Residential, Low Density** – Single family residential uses with an average lot size of two acres.
- ✚ **Single Family Residential, Medium Density** – Single family residential uses with an average lot size of one acre. This classification generally corresponds to the R-1 and R-3 zoning districts.
- ✚ **Suburban Residential** – Single family residential uses with a maximum density of 2.5 units per acre. This classification generally corresponds to the R-1, R-3, and RPUD zoning districts.

- ✚ **Rural Enhancement Area** – Exhibit a rural character with low density residential, agricultural, forest, or other uses which are not planned for public or central utilities. Residential uses should include a significant amount of open space, limit the amount of grading and native plant removal, and create minimal visual and other impacts.

**Non Residential Uses**

- ✚ **Commercial** – Generally retail, retail service, office, and office/warehouse uses. Additional uses such as churches, hospitals, and nursing homes may be acceptable when compatible with surrounding, existing uses. This classification generally corresponds to the B-1, B-2, and POP zoning districts.
- ✚ **Industrial** – Generally manufacturing, assembling, and fabricating activities; and wholesale; warehouse and office/warehouse; office/service; and mining uses. Additional uses such as retail and office use may be acceptable when compatible with surrounding, existing uses. This classification generally corresponds to the M-1 and M-2 zoning districts.
- ✚ **Flexible** – A combination of land uses such as office, commercial, office/service, and light industrial may be considered. Growth should be planned and coordinated to create an overall balance among various uses and should generally consist of interconnected, high quality development phased with the provision of infrastructure improvements.

Generally excludes single family residential and heavy industrial uses. This classification may correspond with a variety of zoning districts.

- ✚ **Flexible-Residential** – A combination of land uses such as residential, retail, retail service, and office uses may be considered. Growth should be planned and coordinated to create a desirable mix of uses exhibiting very high quality site and architectural design, interconnectivity, and minimal impacts on adjacent properties. This classification may correspond with a variety of business and residential zoning districts. The residential density for residential uses should not exceed 2.50 units/acre.
- ✚ **Office-No Retail** – A combination of residential and office land uses may be considered. Uses should be planned and coordinated and exhibit very high quality site and architectural design, interconnectivity, and minimal impacts on adjacent properties. This classification generally corresponds to the R-O zoning district. The residential density for residential uses should not exceed 2.50 units/acre.
- ✚ **Prime Economic Development Area**– Generally, an area which includes West Creek Business Park and areas between Broad Street and Interstate 64. These areas are a critical component of the County's long-term economic foundation and include areas that are at strategic locations in the county relative to superior transportation networks

and utility infrastructure. Land uses should demonstrate a positive impact on the County's tax base and may include uses that serve to attract and retain corporate investment, generate jobs, and expand and diversify the County's tax base. Prime Economic Development Areas shall generally consist of large-tract, diverse, very high quality development phased with the provision of infrastructure improvements.

- ✚ **Semi-Public** – Includes properties such as private schools, churches, and cemeteries.
- ✚ **Public/County-Owned/Institutional** – Includes properties that serve the functional and civic needs of the County. Includes properties owned by Goochland County, State of Virginia, and the Federal Government. Includes, public schools, community college, hospitals, post offices, and similar uses.
- ✚ **Recreation/Open Space** – Public and private areas planned for passive and active recreational and open space uses such as athletic fields, golf courses, properties encumbered with Conservation Easements, and similar uses.
- ✚ **100-year Floodplain** – Areas where very limited or no development is planned due to 100-year floodplain (as defined by FEMA). Extra precaution is required to protect the environment and public health, safety, and welfare.

## LAND USE/VILLAGES IMPLEMENTATION STRATEGIES

### Residential Development

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Use 2035 Plan to determine appropriate densities	Planning	✓		
P	New growth should be targeted to Designated Growth Areas and Major Villages	Planning & Public Utilities	✓		
A	Revise zoning ordinance to allow additional opportunities for varied housing types	Planning		✓	
P	Require a Fiscal Impact Study for appropriate projects (such as Mixed Use)	Planning		✓	
P	When appropriate, provide vegetated buffers at subdivision entrances and adjacent roadways	Planning	✓		
P	Preserve open space, provide landscaped buffers, encourage street trees	Planning	✓		
P	Protect residential areas from incompatible land uses	Planning	✓		
P	Minimize impacts to the transportation system	Planning & VDOT	✓		
P	Require stub street connections, where appropriate	Planning & VDOT	✓		
P	Encourage sidewalks where appropriate	Planning	✓		
P	Maintain open lines of communication with representatives of the Commonwealth of Virginia to monitor future changes in uses or ownership of the State Prison property and other State owned facilities	Planning and Admin	✓		

\*P: Policy, A: Action



### Commercial and Industrial Development

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Direct development to Designated Growth Areas or I-64 interchanges	Planning & Econ Dev	✓		
P	Support local business development and expansion	Planning & Econ Dev	✓		
P	Promote high quality architectural and site designs that are compatible with the area	Planning	✓		
P	Encourage landscaping that enhances the development	Planning	✓		
P	Discourage the proliferation of signs	Planning	✓		
P	Ensure compatibility with neighboring uses (noise, screening, lighting)	Planning	✓		
P	Encourage interconnectivity between uses	Planning	✓		
P	Ensure adequate utility and transportation infrastructure exists in areas targeted for commercial and industrial development	Planning	✓		

### Rural Crossroads

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Encourage development to complement existing architecture and character	Planning & Econ Dev	✓		
P	Encourage reuse of existing buildings	Planning	✓		
P	Encourage scale and scope of new uses to be consistent with the character of the community	Planning	✓		✓
A	Review zoning requirements to determine if typical suburban style development standards are appropriate within rural crossroads	Planning			✓

\*P: Policy, A: Action

**Major Villages and Designated Growth Areas**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Coordinate regulations, plans, and policies to guide new development into Designated Growth Areas	Planning & Econ Dev	✓		
A	Review Overlay Districts and amend as needed	Planning		✓	
P	Encourage more density toward the center of villages and reduce density along the fringes	Planning	✓		
P	Encourage sidewalks and pedestrian scale uses within Villages	Planning	✓		
A	Begin to consider installing public amenities such as street trees, sidewalks, fencing, lighting, and street furniture	Planning		✓	
P	Promote a variety of residential types	Planning	✓		
P	Encourage variety in landscaping materials with an emphasis on native plants and a mixture of evergreen and deciduous materials	Planning	✓		
A	Develop a detailed pattern book/design standards	Planning & Econ Dev			✓
P	In Centerville, concentrate village center and feature commercial uses along Broad Street	Planning & Econ Dev	✓		
P	For large projects, encourage streetscape improvements to be made with initial phase	Planning	✓		
A	Begin to address sewer capacity issues in the Courthouse Village	Planning			✓

\*P: Policy, A: Action

**River Road Communities**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Encourage continued single family residential uses	Planning	✓		
P	Recommended maximum residential densities – 1 to 3 acre lots	Planning	✓		
P	Ensure development, including infill development, is in character with the existing high quality development, complements existing land uses, and demonstrates minimal or no impacts on existing neighborhoods	Planning	✓		

**Deep Run Hunt Country Community**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Maintain minimum lot size of 2 acres	Planning	✓		
P	Encourage continued single family residential uses in this area	Planning	✓		
P	Ensure development is in character with the existing high quality development, complements existing land uses, and demonstrates minimal or no impacts on existing neighborhoods and roadways	Planning	✓		
P	Preserve equestrian uses	Planning	✓		
P	Protect rural character and view sheds along public roadways	Planning	✓		
P	Carefully consider new or the conversion of existing residences into uses such as schools, churches, or other places of public assembly	Planning	✓		

\*P: Policy, A: Action

A faded background image of a rural landscape featuring a wooden fence in the foreground, a field, and utility poles with power lines stretching into the distance under a cloudy sky.

## **CHAPTER 3**

# **RURAL STRATEGIES**

---

### **GOAL**

---

To support a diverse and stable agricultural and forestry base that contributes to the County's rural character, scenic quality, natural environment, and fiscal health. The County will strive to meet the following:

- ❖ Support agricultural activities and value-added agricultural businesses to encourage economic vitality
  - ❖ Support and promote specialty and niche farming uses such as equestrian uses
  - ❖ Support new development that enhances rural character
  - ❖ Support carefully designed commercial development in Rural Crossroad Communities
-

## CHAPTER 3 RURAL STRATEGIES

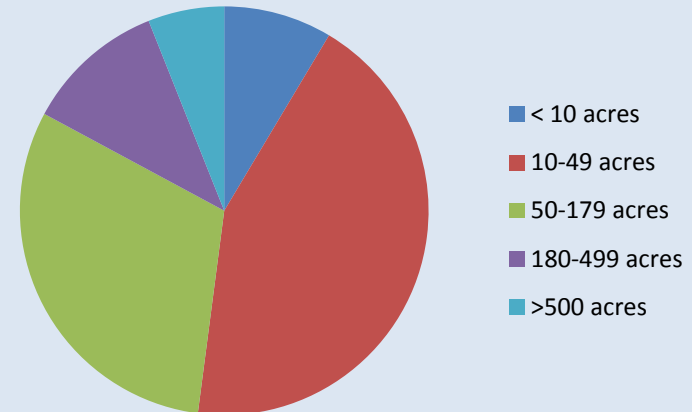
Farms, forests, rolling hills, and scenic views give Goochland its distinctive character. A fundamental principle of previous comprehensive plans is the widely-held desire of the Board of Supervisors and the citizens of Goochland County to protect and maintain the County's rural character, and this Comprehensive Plan commits to upholding this principle.



The majority of the County is designated in the Comprehensive Plan as Rural Enhancement Area. These areas exhibit a rural character with low density residential, agricultural, forest, or other uses, which are not planned for public or central

utilities. Preservation of these areas are encouraged by directing growth to Major

### Number of Farms by Acreage



Villages and Designated Growth Areas, and by not extending public utilities to these areas.

Agriculture and forestry play an important and long-standing role in the environment, heritage, and economy of the county. Equestrian activities are another significant agricultural use in the County. In 2012, the Federal Census of Agriculture identified 315 farms in Goochland County (at least \$1,000 gross income), with a total of 50,142 acres or approximately 27% of the County. The overall number of farms and acreage dedicated to agriculture has decreased since 2007. The face of farming nationwide has been changing for decades. Many small family farms have been

absorbed by larger farms or subdivided into residential lots; this may have reduced the overall number of farms in the County or perhaps has caused the remaining farms to drop into smaller size classes.

### Rural Strategies Existing Trends

- There is a strong citizen desire to preserve rural land.
- Vast majority of County land continues to be dedicated to forested, natural open space, or agricultural uses
- 27% of the County is dedicated to active farming.
- Farms are decreasing in number and acreage.
- Majority of the farms in the County are between 10 and 49 acres
- Average farm size is 159 acres
- Board of Supervisors created a Rural Economic Development Committee to identify ways to support agri-business

The most important way to prevent the suburbanization of our rural areas is to provide ways for property owners to keep their properties intact. Agriculture and agri-business uses should be recognized as economically desirable – not vacant

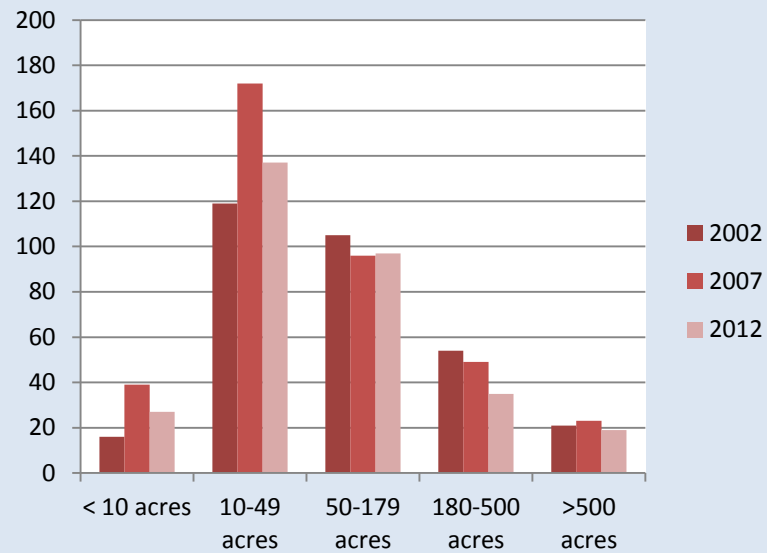
land. Agri-business and tourism uses that are compatible with rural character should be encouraged. Activities that are natural extensions of traditional farming practices are important to farm profitability and should be considered part of agriculture. There is a delicate balance between providing more opportunities to support rural uses and allowing too many uses that will cause the rural features to be lost.

The conversion of land in the Rural Enhancement Areas for residential development should be monitored by the County. The number of rural non-farm housing units are increasing. When subdivisions do occur, careful design that is sensitive to the surrounding areas is encouraged. Being sensitive to the landscape, preserving open space, and providing buffers along roads can help retain rural character and reduce the appearance of transforming rural places into very low density suburban places. Uses which negatively impact rural areas, but would otherwise be desirable in the County should be located in appropriate areas designated by the Comprehensive Plan.

Businesses in rural areas, that supply basic services and convenience to nearby residents, are encouraged in our Rural Crossroad Communities. Rural Crossroad businesses can help retain the rural character by reusing existing commercial buildings, building new uses in scale with the character of the community, and avoiding strip commercial development.



**Number of Farms, 2002-2012**



Source: US Census of Agriculture, 2002, 2007, 2012



## Rural Implementation Strategies

### Agriculture and Forestry Resources

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Market agricultural and natural resources as amenities and tourist destinations	Planning & Econ Dev	✓		
P	Encourage farming techniques that help protect farmland and water quality	Planning	✓		
P	Educate the public about the importance of farmland preservation	Planning	✓		
P	Encourage and support agricultural education in our classrooms	Schools	✓		

### Rural Production and Economic Vitality

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
A	Support agri-business	Planning & Econ Dev		✓	
A	Use the County's Economic Development website for marketing	Planning & Econ Dev		✓	
P	Allow appropriately scaled low impact uses on working farms	Planning	✓		
A	Review home occupations ordinance to allow uses in barns or outbuildings	Planning			✓

### Protect and Enhance Equestrian Activities

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Encourage bridle paths where appropriate	Planning	✓		
P	Encourage continuance of existing equestrian activities	Planning	✓		

\*P: Policy, A: Action

**Residential Development in Rural Areas**

Type	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	When appropriate, new residential development should:  Minimize visual impact with roadway buffers; include significant open space; plan placement of new buildings; preserve natural features on site; be sensitive to existing topography and land forms; minimal clearing, grading, and impervious surfaces; clustering of building lots	Planning	✓		

**Commercial Development in Rural Areas**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Encourage development to complement existing architecture and character	Planning	✓		
P	Encourage reuse of existing buildings	Planning	✓		
P	Encourage scale and scope of new uses to be consistent with the character of the community	Planning	✓		
A	Develop rural design standards for commercial uses within rural crossroad communities	Planning			✓

\*P: Policy, A: Action

The background of the slide is a grayscale photograph of a paved road with white lane markings, flanked by grass and trees. The image is slightly blurred and serves as a backdrop for the text.

## **CHAPTER 4**

# **ECONOMIC DEVELOPMENT**

---

### **GOAL**

---

The County will strive to build and nurture a positive economic climate that will attract high quality development that increases and diversifies the County's tax base. The County will facilitate policies that promote entrepreneurial and small businesses and encourage the retention and expansion of existing businesses.

---

Economic Development is an important component to the Comprehensive Plan. *Balanced Growth* is one of the Plan's guiding principles. In order to preserve our rural character, it is important to plan for growth areas in the County. The Land Use Plan identifies appropriate locations for commercial and industrial development. In 2011, an Economic Development Strategic Plan was prepared for the County. This chapter is based on concepts from that plan.

Goochland County is on the western edge of the Richmond Metropolitan Region. The County is immediately adjacent to Henrico County, which has seen significant growth and now has limited vacant land available. Henrico's limited land availability has made Goochland more attractive for development.

Goochland County is served by a network of interstates and highways, providing businesses with accessibility to major markets along the East Coast and beyond. Interstate 64 runs east-west through the County and Route 288 runs north-south. The County is also in close proximity to Interstate 295. The proximity of major interstates, road access, and nearby larger populated localities means companies have access to a very large labor force.

In 2002, the County established the Tuckahoe Creek Service District (TCSD) to provide water and sewer service in the eastern end of the County. The TCSD was part of a strategy to encourage targeted economic development in the County. The TCSD includes the area known as West Creek. West Creek

is a 3,500 acre business park home to Capital One, CarMax, Virginia Farm Bureau, the Federal Reserve Bank and others. Capital investment in the area is needed to offset the cost of the bonds issued to build the sewer and water infrastructure. The County's residential/commercial split is 82.5%/17.5%. While there is no "perfect" ratio, this ratio should be closer to a 70%/30% split.

The areas identified for business growth in the County's Economic Development Strategic Plan are consistent with the Designated Growth Areas and Major Villages identified in the Comprehensive Plan. They include: West Creek area, Centerville Village including north to Pouncey Tract Road, I-64 corridor (within 1-2 miles of the exits), and Courthouse Village.



Medical Office Complex, West Creek



The Plan also identifies enhancing tourism in the County as part of our economic development strategies. Tourism and agri-business activities should be considered important components of our economic development plan. The protection and continued presence of rural character and the activities associated with agriculture can provide unique economic development opportunities for the community and increase the visibility of Goochland County.

It is important to note that economic development should include activities to attract, retain and expand business at all levels from home-based businesses to existing small businesses, and to large scale commercial projects.



Manakin Farmers Market

### Economic Development Existing Trends

- Commercial/Residential Real Estate Ratio is 17.5% / 82.5%
- 110 commercial building permits filed in 2013
- \$41.5 million\* in taxable commercial investment in 2013 (Based on Permit Data)
- \$31.3 million\* in new commercial investments within TCSD boundaries
- County unemployment rate was 4.6% in 2013, the State of Virginia's was 5.5%
- 66% of County's businesses have 0-5 employees
- Industries with the most employees are in the fields of Finance and Insurance, Construction, and Management
- Employment in the County continues to increase. There was about a 5% annual rate of employment growth from 2010-2013.
- 13% of the County residents live and work in the County
- Goochland has considerably lower labor force participation rates (41%) than adjoining localities, the State, and US.
- Mean travel time to work is 30.4 minutes

\*Based on permit data.



## ECONOMIC DEVELOPMENT IMPLEMENTATION STRATEGIES

### New Development

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
A	Develop tools to effectively market the County	Econ Dev		✓	
A	Prepare a listing of major properties that are available	Econ Dev		✓	
P	Assist new business in accessing resources	Planning & Econ Dev	✓		
A	Identify target industries appropriate for Goochland	Econ Dev		✓	
P	Encourage the expansion of telecommunications to provide widespread access to broadband capabilities	Planning & Econ Dev	✓		
P	Continue to review policies and procedures to streamline County processes	Planning & Econ Dev	✓		
P	Maintain quality development standards without being overly burdensome	Planning	✓		
A	Explore opportunities for public/private partnerships for new infrastructure	Econ Dev		✓	
P	Ensure adequate areas are designated for commercial and industrial uses in Designated Growth and Village areas	Planning & Econ Dev	✓		
A	Prepare and certify selected sites at a shovel/pad ready status	Planning			✓
P	Continue to encourage the bridge construction over Tuckahoe Creek	Administration	✓		

\*P: Policy, A: Action

**Business Retention and Expansion**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Strengthen the business visitation program	Econ Dev	✓		
P	Coordinate “business to business” support in the County	Econ Dev	✓		
P	Focus regular attention on the largest employers in West Creek, vital to long term retention and expansion	Economic Development and Administration	✓		

**Tourism and Agri-business**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
A	Help to create joint marketing programs for agri-business and tourism based businesses to create an array of attractive destinations in the County	Econ Dev			✓
P	Identify and develop access points on the James River	Planning & Econ Dev	✓		
P	Promote sporting events and venues in the County	Econ Dev	✓		
A	Develop walking trails in east end of County	Parks and Rec & Planning		✓	

\*P: Policy, A: Action



## CHAPTER 5

# TRANSPORTATION

---

### GOAL

---

Create and sustain a transportation system that meets the demands for existing and future traffic; skillfully integrates existing and planned development; and provides a safe and cost-efficient transportation network. Investment in the County's transportation network should promote the following:

- ❖ Safety (including pedestrian safety)
  - ❖ Coordination between transportation and land use planning
  - ❖ Economic development efforts
  - ❖ Accessibility and interconnectivity of different travel modes
  - ❖ Congestion reduction
  - ❖ Minimizing impacts to environmental and cultural resources
-

## CHAPTER 5 TRANSPORTATION

The design and location of roads strongly influences the pattern and location of land uses. A well-functioning transportation system in Goochland County is essential for the efficient movement of vehicles, people, and freight; maintaining the quality of life; and facilitating economic growth. As population and commercial growth continue in both the County and the region, it is essential for the County to proactively plan for managing traffic movement throughout the County.

The County has both a large *publicly* maintained road system that includes an interstate highway, a limited access highway, State primary and secondary roads, and neighborhood streets as well as a number of *privately* maintained roads. Public roads are under the jurisdiction of the Virginia Department of Transportation (VDOT), which builds, operates, and maintains most public roads. The VDOT road network consists of different systems (Interstate, Primary and Secondary), each having distinct funding, maintenance, and planning mechanisms.

### TRANSPORTATION PLANNING AND FUNDING

In the County, transportation planning and funding occurs at the state, regional, and local levels. Chief components of the County's transportation funding efforts include the Six Year Secondary Plan

(state/local), the Long Range Transportation Plan (federal/regional/local), and the County's Capital Improvement Program (local).

### State

Under the leadership of the Commonwealth Transportation Board, the State employs VDOT to develop transportation plans (Statewide Long-Range Transportation Plan) and allocates funds (annual Six Year Improvement Program (SYIP). The SYIP also funds the urban highway system (towns and cities) and other transportation modes such as ports, airports, and rail and public transportation.

In the County, VDOT administers and distributes funds for construction and maintenance on interstate, primary, and secondary highway systems. Most public roads in the County are part of the secondary road system. The County includes one interstate (I-64) and six primary roads:

- |              |                                |
|--------------|--------------------------------|
| 1) Route 6   | Patterson Ave./River Road West |
| 2) Route 45  | Cartersville Rd.               |
| 3) Route 250 | Broad Street Road              |
| 4) Route 271 | Pouncey Tract Road             |
| 5) Route 288 | WW II Veterans Memorial Hwy    |
| 6) Route 522 | Sandy Hook Road                |

Regional

The amended Federal Highway Act of 1962 established that Federal, State, and Local officials create a “cooperative, continuing, and comprehensive transportation planning process” for distributing Federal transportation funds. The Richmond area is served by the Richmond Area Transportation Planning Organization (TPO) which serves as the principal body for regional transportation planning and

disbursement of Federal funds. Goochland County is represented on the TPO governing body by two elected officials. The Regional Long Range Transportation Plan (plan2035) approved in 2012 established the following projects as regional priorities for Goochland County (The projects in gray have been completed or are in progress):

**Regional Long Range Transportation Plan (July 2012)**

Roadway Type	Project	Description	Status
Primary	Broad Street Rd	4-lane from Rte 621 to Rte 632	Complete
Primary	Broad Street Rd	4-lane from Rte 621 to Rte 623 (ARRA)	Complete
Primary	Broad Street Rd / Fairground Rd	Acceleration lane	Complete
Primary	Rte 288	2 new lanes north of James River	Not yet funded
Secondary	Manakin Rd	Improve area around Three Chopt Rd	Design complete
Secondary	Lee Rd ( <i>*reallocated to Ange Rd</i> )	Rural Rustic Road program	Complete
Bridge	Tuckahoe Creek Bridge	Road and bridge study	Not yet funded
Interstate	Ashland Rd / I-64 interchange	Interchange modification report	AMP recommendation
Primary	Rte 288 / Rte 250 interchange	Interchange modification report	AMP recommendation
Secondary	Ashland Rd	4-lane from Broad Street Rd to I-64	AMP recommendation
Secondary	Wilkes Ridge Parkway	New facility, 4-lane divided	Phase I complete
Interstate	Oilville Rd / I-64 interchange	Interchange modification report	Not yet funded
Primary	Hockett Rd / Broad Street Rd	Improve intersection	Traffic signal installed
Secondary	Hockett Rd (Existing)	Redesign from Broad Street Rd to Holly Ln	AMP recommendation
Primary	River Rd West / Patterson Ave	Improve intersection	Not yet funded
Secondary	Oilville Rd	Widen to 4 lanes from Rte 250 to I-64	Not yet funded
Secondary	Blair Rd Improvements	Reconstruct from Rte 6 to River Rd	Not yet funded



Local

Although VDOT has authority for the construction and maintenance of the secondary road system, State law creates a partnership between VDOT and the County's Board of Supervisors for new secondary road construction. This is accomplished via the Secondary Six-Year Plan (SSYP). The Board is responsible for establishing priorities for the SSYP and VDOT allocates the funding. The County and VDOT schedule an annual public hearing in the second quarter of each calendar year to update the SSYP. The following projects were approved in May 2015 for the FY 2016-2022 SSYP:

**Goochland County SSYP Projects**

	Project	Type	Status	Cost (\$)
1	River Road W	Sidewalks	Ad 5/26/15	\$353,000
2	Valley View Ln	Rural Addition	Complete	70,880
3	Manakin Rd/ Three Chopt Rd	Safety/ Drainage	Right-of-way acquisition	1,070,000
4	Fairground Rd/ Sandy Hook Rd	PE only	Not underway	313,000
5	Old Stage Rd	Pave-in-place	Not underway	34,500
6	Patterson Ave/ River Rd.	Intersection Safety	Not fully funded	120,000
7	Bulldog Way	Turn lanes	Not underway	250,000
8	Hockett Rd	PE only	AMP Study	400,000
	Rural Additions	VDoT Cost Center	Funds accruing	2,400
	Bridge	VDoT Cost Center	Funds accruing	132,000

PE= Preliminary Engineering

**ROADWAY DESIGN AND FUNCTION**Functional Classification

Functional classification categorizes roadways into classes, or systems, according to: 1) the degree of property access desired, and 2) the purpose of the traffic (local vs. thru traffic). There are three functional classifications - arterial, collector, local - and all roadways are grouped into one of these classes. Functional classification is important for establishing design characteristics such as design speed, lane width, access management, bike/pedestrian accommodation, etc. Each classification has specific purposes or functions, as defined by Goochland County as follows:

*Arterial Roads*

- Provide a high "level of service" (LOS) at the greatest speed
- Move large volumes of traffic
- Property access is limited and highly managed
- Carry the bulk of truck and bus traffic
- Design speeds are higher
- Right-of-way widths vary greatly depending on capacity needs:
  - From a 50 ft. right-of-way w/ 18 ft. pavement to 200 ft. right-of-way (or more)
- May include median strips or parallel service roads
- Planting strip to physically separate pedestrians from vehicular traffic and provide room for utilities, streetlights, and street trees
- Border rather than traverse residential neighborhoods



The following roads are designated Arterial Roads in the County:

- Route 6            Patterson Ave./River Road West
- Route 250        Broad Street Road
- Route 271        Pouncey Tract Road
- Route 288        WW II Veterans Memorial Hwy
- Route 522        Sandy Hook Road
- Route 623        Ashland Road
- Route 632        Fairground Road

#### *Collector Roads*

- Provides a high level of service at a lower speed
- Collect traffic from local roads before volumes get too high and carry traffic to arterials or to traffic generating uses such as schools, shopping centers, or event centers
- Carry some bus and truck traffic
- Property access is somewhat limited and managed
- Moving traffic emphasized in road design:
- Generally, should not be narrower than connecting local roads:
- May serve as an easement for utilities or as a design element in a residential community (parkway)
- Planting strip to physically separate pedestrians vehicular traffic and provide room for utilities, streetlights, and street trees

The following roads are designated as Collector Roads in the County:

- Route 605        Shannon Hill Road
- Route 606        Hadensville Fife Road

- Route 617        Oilville Road
- Route 621        Manakin Road
- Route 622        Rockville Road
- Route 623        Hockett Road
- Route 629        Old Fredericksburg Road
- Route 634        Maidens Road
- Route 644        Millers Lane
- Route 649        Blair Road
- Route 650        River Road
- Route 654        Shallow Well Road
- Route 670        Cardwell Road
- Route 673        Whitehall Road
- Route 676        Hermitage Road
- Route 740        Tuckahoe Creek Parkway
- Route 1250       West Creek Parkway
- Route 1263       Wilkes Ridge Parkway

#### *Local Roads*

- Generally, roads not defined as arterials or collectors are classified as local roads
- The primary purpose of local roads is to provide access to property
- Provide driveway access, lower speeds, and little or no through traffic
- Local roads usually link to a Collector:
  - In commercial areas, where Collectors do not function efficiently or there are too few Collectors, local roads may connect directly to an arterial
- In residential areas, local roads should facilitate circulation within the neighborhood and discourage through traffic
- Lower traffic volumes should allow for narrower

streets

- Pedestrian and vehicular traffic should be safe and integrated, and sidewalks or other pathways should link to sidewalks on the Collector roadways
- Traffic volumes should be kept low
- Bus and heavy truck traffic should be minimal

#### Road Design - Villages

The design and location of roadways is an integral consideration for village areas. Varying building setbacks and street widths can create different impressions in a community. Small setbacks and narrow streets can contribute to a sense of place and intimacy as opposed to the openness and detachment associated with large setbacks and wide streets. Narrow streets offer safety advantages by encouraging slower speeds, which is more comfortable for pedestrians and cyclists. Less pavement and right-of-way also reduces construction and maintenance costs. One trade-off for narrower streets, however, is losing flexibility, which may include inhibiting on-street parking as an option and making future road improvements more difficult.

#### Centerville Arterial Management Plan

The County recently adopted an Arterial Management Plan (AMP) in cooperation with the Virginia Department of Transportation for selected areas in Centerville Village, specifically along U.S. Route 250 (Broad Street Rd.) and St. Route 623 (Ashland Rd.). The AMP study reviewed existing conditions and provided analysis for future road conditions based on land uses proposed in the Comprehensive Plan. A

number of new roadways and road improvements are recommended and conceptual road locations are shown on the Centerville Land Use Map. In addition, the AMP study provided guidance on managing access points. As Centerville Village develops, it is essential that land developers work with the County to implement the Arterial Management Plan.

#### **Transportation Existing Trends**

- County recently completed an Arterial Management Plan for Broad Street Rd and Ashland Rd, focusing on the Rte. 288 and I-64 interchanges.
- Significant projects since 2012: Broad Street Rd in Centerville, Broad Street Rd/Fairground Rd intersection, Sandy Hook Rd/Whitehall Rd intersection, Leakes Mill Park entrance, Ange Road, and Valley View Lane.
- Large new segments of sidewalks constructed along Broad Street Rd.
- First segment of Wilkes Ridge Parkway opened
- New traffic signals installed at Broad Street Rd/Hockett Rd and Patterson Ave/Blair Rd intersections
- County secured \$1 Million in TPO funds for Hockett Rd realignment project
- Reorganization of the TPO includes two elected County officials

Road Design – Rural Enhancement Area

One transportation objective is to preserve rural character while improving rural road safety. In some situations it may be more appropriate to retain rural roads in their current condition, focusing on road safety improvements such as shoulders and guardrails, straightening curves, and increasing regular maintenance rather than widening the road. Rural road improvements should not encourage growth outside of the Development Areas, but should provide access to farms, markets, and other approved rural activities. Rural roads benefit from designs that keep drivers moving at speeds appropriate to react safely to slower moving farm equipment, bicyclists, people checking mail, children walking to a bus stop, etc.

**Bike/Pedestrian Facilities**

Often thought of as a recreational activity, bicycling as a mode of transportation is gradually growing in use and acceptance. A complete local transportation system includes bikeways, sidewalks, and other pathways.

The County features many rural roads with minimal or no shoulders. Providing dedicated bike lanes for a majority of roads in the County is not feasible due to the rural nature of the roads.

## TRANSPORTATION IMPLEMENTATION STRATEGIES

### Transportation Planning

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
A	Implement the Arterial Management Plan	Planning & VDOT	✓		
P	Ensure County policies and ordinances are consistent with or exceed VDOT standards	Planning & VDOT	✓		
P	Review transportation impacts of new development	Planning & VDOT	✓		
P	Encourage stub street connections where appropriate	Planning & VDOT	✓		
A	Implement recommendations of the Arterial Management Plan	Planning & VDOT		✓	
P	Incorporate pedestrian and bicycle pathways into plans when appropriate	Planning & VDOT	✓		
P	Encourage safe and convenient crosswalks, street lighting, and streetscape landscaping where appropriate	Planning & VDOT	✓		
A	<i>River Road West (Rte. 6)</i> : Undertake a detailed corridor planning process from the Henrico Co. line to Rte. 288.	Planning & VDOT			✓
A	<i>Park-and-Ride Lots</i> : Identify suitable locations for additional Park-and-Ride lots. These facilities should be considered within villages and along the Goochland-Henrico lines at Broad St. and Patterson Ave.	Planning & VDOT			✓
P	<i>Bus Service</i> : Explore the expansion of GRTC service to West Creek Business Park and Centerville Village.	Planning & VDOT			✓

\*P: Policy, A: Action

### Roadway Improvements

Type	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Ensure that roadway access points, designs, improvements, and locations are consistent with the Arterial Management Plan	Planning & VDOT	✓		
A	Study the feasibility of I-64 interchange at Rte. 623 as a full cloverleaf. If feasible and desirable, reserve the right-of-way for this cloverleaf in proposed development plans.	Planning & VDOT			✓
A	Study the feasibility of I-64 interchange at Rte. 617 as a full cloverleaf. If feasible and desirable, reserve the right-of-way for this cloverleaf in proposed development plans.	Planning & VDOT			✓
A	<i>River Road West (Rte. 6)</i> : Widen the bridge over Genito Creek.	Planning & VDOT			✓
A	<i>West Creek Area East-West Collectors</i> : Support an additional east-west collector road south of Tuckahoe Creek Parkway between Hockett Rd. and West Creek Parkway.	Planning & VDOT			✓
P	<i>Tuckahoe Creek Parkway Bridge</i> : Continue to endorse the need for this connection.	Planning	✓		
A	<i>Service Roads</i> : Provide service roads along Broad Street to facilitate business development, divert traffic, distribute traffic volumes, and maintain the efficiency of Rte. 250.	Planning & VDOT	✓		
A	Fairground Rd. (Rte. 632) / Sandy Hook Rd. (Rte. 522) intersection: Pursue a roundabout or signalization and extension of Fairground Road to Route 6	Planning & VDOT		✓	

\*P: Policy, A: Action



## CHAPTER 6

# PUBLIC FACILITIES

---

### GOAL

---

To provide optimum public facilities and services that meet the County's current and future needs in a reliable, efficient, economic, and environmentally responsible manner.

- ❖ Public Utilities: Ensure the orderly expansion of and improvements to the County's utility infrastructure.
  - ❖ Public Safety: Provide for and protect health and safety in the County through the continuous support of Public Safety agencies.
  - ❖ Parks and Recreation: Provide park and recreation facilities to meet the needs of current and future County residents.
  - ❖ Public Education: To have a superior education system that serves as an asset to the community and to provide quality education facilities to serve all of our citizens.
  - ❖ Solid Waste: Provide facilities to ensure adequate options for solid waste disposal throughout the County.
  - ❖ Technology: Encourage opportunities to meet the technology needs of the entire County in an affordable manner.
-



## CHAPTER 6 PUBLIC FACILITIES

Providing and maintaining public facilities and public services are essential to the protection of the health, safety, welfare, and quality of life for the residents and businesses in the County and enhances economic development capabilities. The County should strive to allocate adequate land for public facilities to maintain and increase levels of service and to identify land allocation needs for public facilities before development occurs.

Several of the goals of the recently adopted County Strategic Plan emphasize efficient and effective services, sound financial health, and planning for future capital needs. In particular, Goal 4 is *“High quality core services including Education, Public Safety, and Community Health.”* This Comprehensive Plan recognizes the importance of planning for public facilities. It is also important for the County to remain flexible so it can respond to growth and service in a fiscally sustainable manner, and provide services when and where they are needed. To these ends, public facilities should be designed and built to maximize existing infrastructure, to be cost efficient, and to facilitate private investment when appropriate.

Public facilities like schools, parks, and libraries contribute to the identity of a community and provide

public gathering places. When these facilities are provided in an exemplary manner, they contribute to higher property values because of the increased appeal to the community.

The following public facilities/public services are addressed in this chapter:

- Public Utilities
- Sheriff’s Office
- Fire and Rescue
- Animal Protection
- Parks and Recreation
- Schools
- Solid Waste
- Technology

### PUBLIC UTILITIES

Public water and sewer is located generally in the eastern end of the County in the Tuckahoe Creek Service District and in the Courthouse Village. The Tuckahoe Creek Service District (TCSD) was established in 2002 and is located in easternmost Goochland County. The original plan was to establish water and sewer service to approximately 8,500 acres (13 square miles) in eastern Goochland to serve the commercial and industrial areas along the Route 288 corridor and portions of the Route 250 and I-64 corridors. The 3,500-acre West Creek Business Park is located in the TCSD.

Water provided by the TCSD is purchased from Henrico. The water source for the TCSD is surface water from the James River which is treated by Henrico using conventional flocculation, sedimentation and filtration processes. Sanitary sewer effluent is piped to either the Henrico or the Richmond Waste Water Treatment Plants for treatment and released back into the James River.

The Goochland Courthouse Village is served by public water and sewer systems owned by the State Department of Corrections. The water source for this system is surface water from the James River which is treated by conventional flocculation, sedimentation, and filtration processes. The County purchases water from the Department of Corrections and owns most of the branch lines serving the village outside the correctional center. This system serves approximately 250 customers. There is a Memorandum of Understanding between Goochland, Powhatan and Department of Corrections to provide additional water in the future.

Several private central water systems are in operation: a small area in the Crozier Village, Pagebrook, James River Estates, Manakin Farms, and Jenkins Mobile Home Park. James River Estates has a sanitary district for the central water system and a water line along River Road provides public water as a support to the existing system.

The County recently completed a Utility Master Plan which will be used to optimize the existing system and to plan for future infrastructure improvements. This Plan provides a comprehensive evaluation of the County's water and wastewater system within the Goochland Courthouse and Eastern Goochland Service Areas and identifies recommended improvements projected to be required through the Year 2045. Maps which illustrate existing and proposed future improvements can be found in the Utility Master Plan.

## PUBLIC UTILITIES IMPLEMENTATION STRATEGIES

### Public Utilities - General

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Manage utilities in conjunction with land uses recommended by the 2035 Plan	Public Utilities and Planning	✓		
P	Evaluate timing, funding, and priority for implementing projects identified in the 2015 Utility Master Plan	Public Utilities	✓		
P	When appropriate, prepare cost-benefit analysis for the feasibility of extending public water and sewer trunk lines through the TCSD to connect to developer-funded local distribution systems and developer-funded lateral lines	Public Utilities	✓		
p	In areas with a high growth potential, support design for both trunk and distribution systems to accommodate future expansions	Public Utilities	✓		
P	Encourage the use of public and/or centralized sanitary sewer facilities rather than septic systems in Designated Growth Areas	Public Utilities and Planning	✓		

\*P: Policy, A: Action

### System Expansion

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Monitor plans for the supply and distribution of water and the collection and treatment of sewage and amend as needed	Public Utilities	✓		
P	Coordinate the plans of existing private utility companies and proposed public utilities to minimize waste and duplication of efforts, to encourage creative alternatives, and to create more efficient distribution of services	Public Utilities	✓		
P	Coordinate and cooperate with neighboring municipalities and agencies to pursue the most economical and logical expansion of public utilities	Public Utilities	✓		
A	Evaluate options for increasing sewer capacity in the Courthouse to match water capacity.	Public Utilities and Planning			✓
P	Continue to support public utility services provided in the Courthouse Village in cooperation with the State Department of Corrections	Public Utilities	✓		

### Utility Master Plan

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Use the 2015 Utility Master Plan to aid in predicting future Capital Improvement Projects and optimize the existing system to provide the highest quality service to our customers	Public Utilities	✓		
P	Utilize models of the existing water and wastewater infrastructure for existing analysis and future predictions	Public Utilities	✓		
P	Utilize the Condition Assessment report to ensure the highest performance of all utility assets	Public Utilities	✓		

\*P: Policy, A: Action

## PUBLIC SAFETY

### Sheriff's Office

The Sheriff's Office is a multi-faceted law enforcement agency providing many public safety services for the citizens of Goochland County. Sheriff's communications officers supervise the County's enhanced 911 system and dispatch deputies, other police agencies, and fire-rescue units 24 hours a day. In addition, deputies enforce all criminal and traffic laws and investigate more than 95% of the criminal complaints in the County.

The Sheriff is also responsible for the security of three court rooms, the movement of prisoners, and enforcement of court orders. Deputies provide security to the Goochland General District and Juvenile and Domestic Relations Combined Courts and to the Goochland Circuit Court. They maintain safety and control in the courtrooms and prevent unauthorized entry of weapons and contraband into the courthouse. Deputies serve civil papers which include garnishments, summonses and other court orders and carry out court ordered evictions, levies, and mental commitments. Also deputies transport inmates to and from court appearances, medical appointments, and Department of Corrections transfers.

Responsibilities and activities of the Sheriff's Office include but are not limited to the following:

### Traditional Law Enforcement

- Criminal investigations of State, Federal, and Local law
- Search and rescue
- 24 hour/day patrol with RADAR equipped police vehicles
- Business and residential security checks
- Selective traffic enforcement and traffic safety checkpoints
- Traffic crash investigations
- Joint commercial truck safety inspections with Virginia State Police
- Bank deposit escorts
- Instruct statewide recruits at Rappahannock Regional Criminal Justice Academy

### Communications

- Twenty-four hour Communications and Dispatch Center dispatches all fire, rescue, and law enforcement agencies within the County
- Enhanced 911 services

### Crime Prevention

- Citizen's Sheriff's Academy
- D.A.R.E Unit
- School Resource Officer
- Neighborhood Watch
- Business inspection programs
- Special events
- Operation Child Care /Operation Kid Care

- Mutual aid agreements with adjacent county police agencies

#### Special Programs

- Meals on Wheels Delivery
- Goochland Christmas Mother
- RADAR Trailer
- Mobile AED's (Heart Defibrillator Units)
- Richmond Metro Crime Stoppers
- Central Virginia's Most Wanted Program (WWBT-12 & Comcast)
- Accreditation through the Va. Professional Law Enforcement Standards Commission
- Video equipped Selective Traffic Enforcement Vehicle
- Requests for vacation checks and extra patrols

#### Court Related Services

- 2 cage transport vehicles, 15 passenger prisoner van
- Maintenance and security of prisoner holding cells
- Automated fingerprint system linked with the FBI and State Police
- Automated record keeping
- Digital photography for booking
- Security for three courtrooms
- Interstate prisoner extraditions
- Intrastate prisoner transportation to and from courts and jails

There is no local jail in Goochland County. Local inmates are housed at the Henrico County Regional Jail East located in New Kent County. Opened in 1996, this facility was built and is operated as part of a regional agreement between Goochland, Henrico and New Kent counties. Juveniles are housed in the James River Regional Juvenile Detention Center in Powhatan County. This facility serves Henrico, Goochland, and Powhatan counties.

Construction of a new Emergency Operations Center is underway with an anticipated completion date of Summer 2016. The facility will be a dispatch center and an emergency operations center to be used for disaster response, weather events, and otherwise as needed. The building will also be used for training.

Historically, the County's crime rate has been one of the lowest in Virginia. However, there is a correlation between population growth and increased calls for service. The number of overall calls will be expected to increase as the County grows. Projected population growth and new development will impact the operations of the Sheriff's Office.

The costs and consequences of land use development to the Sheriff's Office must continually be considered. In addition, periodic advances in equipment and technology and upgraded space for operations are to be expected. As the County's population grows, the demands on public service agencies continue to increase. Over the time horizon for this plan, the services provided by the Sheriff's



Office are likely to be impacted by the growing number of residents and businesses, additional traffic volumes on County roadways, and changing commuting patterns. These impacts may necessitate additional personnel, upgrades in equipment and technology, and additional space for operation.

### **Fire and Rescue**

The Goochland County Fire-Rescue Department, in conjunction with the Goochland County Volunteer Fire-Rescue Association, provides fire and rescue response to the County. The Department currently employs a staff of full-time County employees who support and supplement the volunteer members of the organization. The Department also coordinates the County's Emergency Operations Plan. Administrative offices are located in the Goochland Courthouse Village.

Fire-Rescue provides countywide, 24-hour fire and emergency medical service and cooperates with surrounding counties to provide and receive mutual aid as needed. Emergency units operate out of six stations/companies which operate together to provide fire protection and emergency medical care.

There are currently six Fire-Rescue Stations in the County. All Fire-Rescue companies provide both fire and EMS responses from their stations. Not all stations have accommodations for overnight stay. In 2014 the County embarked on the first County owned station replacement in Hadensville. In the future, the

expectation is for future stations to be County-owned and funded facilities.

Fire and EMS response service areas are periodically revised due to growth and development trends. In October, 2014 the Board of Supervisors adopted a goal for response time standards. A recommended 15 minute standard for areas east of Rt. 522 south from the Louisa Line to its intersection with Jackson Shop Road and east of Jackson Shop Road to its intersection with Rt. 6 and a 20 minute standard for all areas west of the above points.

Level of service standards are based on call volume, distance, and response time. This will determine where future stations will be required to provide optimal public fire/rescue response.

### Volunteer Resources

Sufficient, well-trained personnel are essential to maintain adequate fire protection in the County. Fire-Rescue volunteers receive professional training and must meet extensive standards set by the State's Office of Emergency Medical Services and Department of Fire Programs. Fire-Rescue volunteers have the option to be cross-trained in both fire and rescue skills, and many perform in both capacities. Several Fire-Rescue volunteers are certified paramedics. As technologies change and Fire-Rescue services evolve, managing and assuring up-to-date and specialized training will become increasingly important.

The recruitment and retention of volunteers remains a critical and primary concern of Fire-Rescue. Increases in volunteer membership have not kept pace with the County's population growth. Active volunteer membership (Fire, Rescue, and Fire-and-Rescue trained volunteers) varies significantly from year-to-year with frequent 15%-20% increases or decreases. Overall, volunteer hours are decreasing, making it necessary for the County to hire paid staff to provide reliable response to citizens.

#### Facilities and Equipment

Efficient and timely response to emergency and medical calls with the personnel and equipment appropriate for the situation is critical - improving the safety of both the residents and the responders. Fire-Rescue operates equipment to respond to all-hazards such as vehicle accidents, fires, illness, injury, and to provide pre-hospital emergency care for medical emergencies including Advanced Life Support and special cardiac care.

Fire-Rescue operates a training center along the west line of Maidens Road (Rte. 634) approximately one mile north of River Road West (Rte. 6). The training center consists of a smokehouse for live fire training, a vehicle extrication area, classrooms, restrooms, and storage facilities. The site also includes an emergency communications radio tower and related equipment.

Up-to-date apparatus is essential for carrying out public safety activities in the County, and periodic

evaluation is done to determine the equipment necessary to accommodate growth and development without lowering service levels. Periodic advances in equipment and technology and upgraded spaces for operations are to be expected. New development and growth will necessitate additional fire stations in order to maintain response standards. As call volume increases the need for additional staff (both career and volunteer) will be required.

Fire and Rescue is funded by a combination of tax dollars, grants, and tax deductible donations. Funding for fire apparatus is provided by the Board of Supervisors. Funds should be allocated for the purchase of replacement ambulances on a seven-year cycle and other vehicles on a fifteen-year cycle; this would enable the Department to maintain a modern fleet of reliable vehicles.

Planning for additional and replacement equipment and assuring specialized training will become increasingly important. Apparatus funding could be addressed through development of an "apparatus replacement plan" incorporated into the County's Capital Improvement Program (CIP) budgeting process. Fire-Rescue periodically reevaluates the Goochland Fire-Rescue Strategic Plan and applicable recommendations of that plan should be incorporated into the County's comprehensive plan, CIP, or other countywide planning efforts which address public safety.

**Animal Protection**

The Department of Animal Protection also provides public safety services for the County. Animal protection officers provide around the clock services for citizens 365 days a year. This office enforces all state and local animal welfare ordinances. This office has the following responsibilities:

- Work to prevent the spread of rabies to humans and domestic animals
- Investigate dog bites and potential vicious dog cases
- Ensure through education and disciplinary actions, that all domestic animals in the County are provided adequate care and are treated humanely
- Confine all stray domestic animals and impound them at the animal shelter
- Maintain the animal shelter
- Find permanent homes for unclaimed animals through adoptions to citizens and networking with animal rescue organizations

The County currently has one animal shelter located on Fairground Road. Increasing animal populations, along with more stringent State mandates requiring more separation among animal populations in municipal shelters, will require the construction of a new animal shelter. Plans for construction of this shelter are in the works and completion is scheduled for approximately late 2016.

Citizens have an increased expectation of services to include routine evening services in addition to the current emergency services provided. The Animal Protection Office will be doing a Needs Assessment to help determine future staffing levels that would be required to maintain adequate service.

## PUBLIC SAFETY IMPLEMENTATION STRATEGIES

### Public Safety - General

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Ensure maintenance of existing facilities and equipment and continue to monitor needs to add new facilities and equipment	Sheriff and Fire-Rescue	✓		
P	Maximize the use of volunteers, citizen and private programs, inter-jurisdictional opportunities, and grant funds to leverage the County's ability to provide public safety services	Sheriff and Fire-Rescue	✓		
P	Maintain and keep up to date the Geographic Information System (GIS) to strengthen quick-response systems and to map and coordinate service areas	GIS	✓		

### Sheriff's Office

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Maintain adequate equipment/protective gear to ensure Officer Safety and response	Sheriff's Office	✓		
P	Continue to monitor and upgrade radio equipment as needed	Sheriff's Office	✓		
A	Construct the Emergency Operations Center	Administration & Sheriff's Office		✓	
A	Begin preparations for a new Courthouse Building	Administration & Sheriff's Office			✓

\*P: Policy, A: Action

**Fire-Rescue**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
A	Develop a Fire-Rescue Strategic Plan to manage the allocation and expansion of Fire-Rescue and Emergency Management resources	Fire-Rescue			✓
P	Strive for the following response times: <ul style="list-style-type: none"> <li>15 minute standard for areas east of Rt. 522 south from the Louisa Line to its intersection with Jackson Shop Road and east of Jackson Shop Road to its intersection with Rt. 6</li> <li>20 minute standard for all areas west of the above points</li> </ul>	Fire-Rescue	✓		
P	Expand and add new fire protection and emergency medical service facilities and equipment as need to maintain acceptable levels of service		✓		
P	Establish new stations or relocated existing stations as needed to maintain acceptable County response times	Fire-Rescue	✓		
A	Complete the new Station #6 in Hadensville Village	Fire-Rescue & Administration			✓
P	Recruit and retain an adequate number of Fire-Rescue volunteers to keep pace with the anticipated growth	Fire-Rescue	✓		
P	Continually examine the need to provide manpower supplementation with full-time, career safety personnel, especially during hours that volunteer manpower does not achieve minimum staffing levels	Fire-Rescue	✓		
P	As needed, hire career firefighter/EMS personnel to increase coverage	Fire-Rescue	✓		

\*P – Policy, A – Action Item

**Fire-Rescue - Development Standards**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	<p>Include Insurance Services Office Fire Protection Class ratings as well as the other Fire-Rescue requirements into density and development standards for the County.</p> <ul style="list-style-type: none"> <li>• Ensure all proposed roadway and traffic improvements have Fire-Rescue review and input</li> <li>• Evaluate the effects of new projects on Fire-Rescue response times</li> <li>• Require all new traffic signals installed in the County to include a pre-emption system to facilitate the safe and timely passage of emergency vehicles</li> <li>• Require interconnectivity and multiple means of ingress/egress for all large subdivisions</li> <li>• Define all residential driveways as fire access rights-of-way</li> </ul>	Fire-Rescue	✓		
P	Confirm the availability of water for fire protection in development in rural areas. This is achieved primarily with dry hydrant installations	Fire-Rescue	✓		
P	Promote rural development in accordance with Urban Wildland Interface guidelines, which is desirable where urban development (subdivisions and businesses) border natural areas (typically surrounding forests and fields)	Fire-Rescue	✓		

\*P – Policy, A – Action Item



**Animal Protection**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Continue to provide Public Safety services while striving to reduce response times	Animal Protection	✓		
P	Continue to provide forever homes for all adoptable animals entering the Animal Shelter	Animal Protection	✓		
P	Continue to reduce the number of rabies incidents in domestic animals through education, law enforcement, and providing low cost rabies clinics	Animal Protection	✓		
A	Construct new animal shelter	Animal Protection		✓	
A	Do a Needs Assessment Analysis to determine future staffing needs	Animal Protection		✓	

\*P: Policy, A: Action

## PARKS AND RECREATION

Park and recreation facilities are valuable community assets. The social, communal, and personal benefits derived from park, recreation, open space, and leisure opportunities are increasingly important as development increases and the overall pace of life quickens. Quality park and recreation facilities enhance the quality of life and health of County residents. Additionally, parks and recreation facilities provide public gathering places and contribute to the identity of a community. When facilities are provided, they contribute to community pride and reinforce the County's commitment to high quality development.

The value and services provided by the Recreation Division extend beyond the provision of playgrounds and athletic fields. The Division provides comprehensive year-round programs for youth and adults which includes athletics, leisure skill classes, fitness, arts and crafts, cultural opportunities, general recreational classes, special events, social trips, and educational enrichment.

The result of population growth on the demand for Parks and Recreation services should be considered. In addition to the continual maintenance required for new and existing facilities, periodic capital

expenditures are necessary to purchase, construct, expand, or reconstruct Parks and Recreation facilities.

*Facilities* - As Goochland County's population grows, the demand for recreational facilities will grow. Per the Virginia Outdoor Plan, there is additional need for park land and public open space in the County. The Parks and Recreation Department operates six outdoor recreational facilities including three parks.

Many County facilities are near capacity usage limits. With projected population growth, the County may need to plan for more recreation facilities and activities. Consideration should be given to the acquisition and development of park and open space to serve the needs of all County residents. Development plans should be reviewed with this in mind.

The County has the opportunity to do long range park and recreation planning. The current Parks and Recreation Master Plan consists of a comprehensive needs assessment and an inventory and analysis of existing resources. This plan is currently being updated and it is the intent for the Parks and Recreation Master Plan to be incorporated by reference in the Comprehensive Plan.

## PARKS AND RECREATION IMPLEMENTATION STRATEGIES

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
A	Update the Parks and Recreation Master Plan	Parks and Rec		✓	
P	Continue to monitor future demand for facilities based on demographic projections and manage full utilization of existing facilities	Parks and Rec & Planning	✓		
P	Manage development and maintenance of existing facilities	Parks and Rec	✓		
P	Explore creating new facilities on the former middle school site which may include new soccer, baseball, softball, or football fields	Parks and Rec			✓
P	Support the use of available property in the County for recreation uses when the property can be converted safely and relatively inexpensively	Parks and Rec	✓		
A	Formalize maintenance agreements with the School Board to improve upkeep and expand existing school sites to meet recreational needs	Parks and Rec & Schools			✓
P	Continue to review County policies and regulations and revise ordinances as needed to require the dedication of adequate open space, park, and recreation areas	Parks and Rec	✓		
P	Encourage developers to include open space, walking trails, bridle trails, tot lots, or other amenities with development applications	Parks and Rec	✓		
P	Continue to support private sector, non-profit, or other entities attempting to create or expand recreational opportunities in the County and continue to partner with these agencies to provide facilities if needed	Parks and Rec	✓		

\*P – Policy, A – Action Item

## PUBLIC SCHOOLS

Schools play an important role in the county's high quality of life. An excellent school system is an asset which attracts businesses and economic development in the County. Residential development is a primary factor contributing to the growth of public school system's enrollment; therefore, it is important for a coordinated planning effort between the County and the School Board to ensure adequately sized facilities are provided for future generations.

Enrollment fluctuations, evolving program offerings, aging school facilities, geographic location, and changing population demographics are among the many factors which influence education facility needs.

The County has experienced a slight increase in enrollment in recent years across all grade levels, with the most growth coming over the past few years at Randolph Elementary School. Improvements to and expansion of elementary school facilities are expected over the time horizon of this plan and should be addressed in the Capital Improvement Program.

Goochland County has over 2,400 students that attend three elementary schools, one middle school, one high school, one specialty center, two governor's schools, and an alternative school.

School	Grade Levels	Enrollment	Capacity
Byrd Elementary	K-5	312	399
Goochland Elementary	PreK-5	321	440
Randolph Elementary	K-5	440	536
Goochland Middle School	6-8	572	690
Goochland High School	9-12	754	1,018
Goochland Tech	PreK and CTE	NA	
Maggie L. Walker Governor's School		23	
Blue Ridge Virtual Governor's School		58	

In 2013, Goochland County School Board adopted a Strategic Plan for the 2014-2020 timeframe. The Plan provides a vision, a new mission, a set of five core values, and a set of three strategic goals. This plan provides a future direction for the schools, how that will be implemented, and also provides mechanisms for regular monitoring.

The Goochland County Public School Division offers a variety of programs and services designed to prepare students for quality citizenship and learning in the 21st century. These programs cover specific offerings with regard to Special Education, Gifted & Talented and Enrichment, Alternative Education, Career and Technical Education, Pre-Kindergarten Programs, Governor's School opportunities at both the Maggie Walker Governor's School in Richmond and through the Blue Ridge Virtual Governor's

School. There are multiple opportunities for dual enrollment through J. Sargeant Reynolds Community College and advanced placement courses. All Goochland County Public Schools provide special education, enrichment and gifted services. Below are highlights regarding the Goochland County Schools:

- Student to teacher ratio (Elementary 15:1, Secondary 22:1)
- Progressive leadership in innovation with instructional technology - local, state, and national recognition
- Use of mobile, desktop, and laptop computing devices with high-speed wireless throughout the Division
- Promethean ActivBoards at Middle/High School and Select Elementary Classrooms
- Excellent Technology ratio (1 device for every 2 students)
- Innovative G21™ Project Based Learning Model for developing workplace readiness skills across all grade levels
- Enrichment opportunities including STEM Camp, Children's Engineering, Robotics, Young Explorers, Destination Imagination, and Artist-in-Residence program
- Byrd Elementary recognized as Distinguished Title I School
- In 2013, Goochland was chosen as a launching pad for new statewide initiatives in education by Governor McDonnell
- Goochland Instructional Support Team used at elementary level to enhance impact of instruction

- Strategic Planning Initiative built upon Values-Based Leadership in conjunction with Luck Companies, a Goochland-based company with international recognition for helping organizations reach their full potential
- Expanding fine arts (dance, music, drama, visual arts), career and technical education programs
- Focus on high quality advanced academic programs with high rigor
- Supported Athletics programs, including state champion football and baseball teams
- 1 of 22 School Divisions (in 2014-2015) to have all schools Fully Accredited
- Government Finance Officer's Distinguished Budget Award

School expansion projects present opportunities to provide additional public/community uses. The use of school facilities for community meetings and recreation activities has been routinely approved by the School Board, and the joint use of school facilities helps to achieve the maximum benefits from public investments.

In addition to the County's public school system, the Goochland Campus of J. Sargeant Reynolds Community College is located in the Goochland Courthouse Village. This campus should continue to be recognized as an integral part of the Goochland Courthouse Village community in future planning efforts.

## PUBLIC SCHOOLS IMPLEMENTATION STRATEGIES

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Ensure the 2035 Plan complements and supports planning efforts undertaken by Public Schools	Schools and Planning	✓		
P	Proactively determine when new school facilities and equipment are needed	Schools	✓		
P	Acquire additional school sites well in advance of need to ensure relatively low land costs and ample, uncrowded facilities	Schools	✓		
P	If enrollment dictates, construct new educational facilities in central locations to ease burdens on parents, encourage attendance from all parts of the area served, and reduce energy costs associated with transporting students	Schools	✓		
P	Make school facilities available for recreation, group meetings, and other community activities not related to public education	Schools	✓		
P	Locate schools adjacent to parks when possible to encourage the maximum use of both facilities	Schools	✓		
P	Continue to support Reynolds Community College – Goochland Campus programs and expansion of facilities in the County	Schools	✓		

\*P – Policy, A – Action Item



## SOLID WASTE MANAGEMENT

Goochland County closed a landfill in 1993 and opened a transfer station at the former landfill site that now serves as the Central Convenience Center. In 2006, the County opened a second convenience center that serves the western portion of the County. The public brings solid waste to the convenience centers where it is compacted and transported to private landfills in Amelia and Goochland Counties. As a member of the Central Virginia Waste Management Authority, Goochland County utilizes numerous service agreements negotiated with local vendors to provide refuse processing and recycling services in an efficient and cost effective manner.

Some of these services include: Curbside Recycling (certain eastern portions of the County only), Drop-Off Recycling at both convenience centers which includes: all types of metals, glass, plastics (#1 and #2 only), paper and paper products, batteries, appliances, propane tanks, brush and tree debris, and tires. Other items collected include household

hazardous waste items such as: oil, oil filters, antifreeze, paints, and gasoline.

Goochland County Convenience Center Locations:

*Central Convenience Center*  
1908 Hidden Rock Lane

*Western Convenience Center*  
3455 Hadensville-Fife Road

The Goochland County Landfill Post Closure Plan outlines the monitoring plan for the old landfill site, which includes biannual sampling of groundwater wells and quarterly sampling of methane gas probes. Groundwater monitoring helps the County detect the potential for contamination migrating offsite. Methane monitoring is important as well, since the old landfill site is used as a recreation site by the County. The County received a grant to convert the old landfill property into a recreational park (Hidden Rock Park) that includes softball fields, soccer fields, and a restroom/concession building.

## SOLID WASTE IMPLEMENTATION STRATEGIES

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Explore possibilities of a new site for a recycling center in the east end of the County	Convenience Center and Administration			✓
P	Expand convenience center services as necessary	Convenience Center and Administration	✓		

\*P – Policy, A – Action Item

## TECHNOLOGY

The impact and need for technology is increasing every day along with citizen and business expectations for service and doing business with the County. Technology is utilized by the County emergency communications, all public safety personnel, schools to educate children, all County departments, and used daily in most residences and businesses.

The County currently recognizes an imbalance in the availability of broadband communication technologies (cell phone, WiFi/WiMax, wireless internet, fiber optic cable, etc.) in the County. The eastern portions of the County, areas along the interstate, and areas near the Goochland Courthouse tend to have availability; however, more rural areas in central, western, and southwestern portions of the County tend to have limited options. Encouraging economic development and improving educational opportunities for the children of the County, will entail the County continuing to pursue the growth of high speed internet services and providers. Finding affordable options are necessary.

The Board of Supervisors created a “*Goochland High Speed Internet Committee*” to review and provide recommendations on this topic. Their final report indicated that high speed internet is essential in determining whether our County remains vital and

prosperous. The report stated, “*Broadband has become the foundation of the American economy and the platform required for innovation and opportunity. It is a tool every child needs if they are to learn and compete in the global economy. Access to affordable broadband infrastructure is required to ensure that businesses, large and small, are created in Goochland, move here and choose to stay here.*”

There will be a need for more wireless communication facilities over the next 20 years to serve existing wireless service providers and emerging technologies, some known and some unknown. It is anticipated that new towers will be required to ensure a cohesive telecommunications infrastructure. Although some see towers as an undesirable visual element, they are essential in the development of a viable wireless network.

Construction of new towers will generally be private sector driven but does require approval by the Planning Commission and Board of Supervisors. Assessment of future sites for facilities and structures must include an evaluation of the impact on surrounding land uses and the desire to enhance the telecommunications infrastructure throughout the County. Site evaluation should include an assessment of the safety, aesthetics, security, access, and technological needs for the area in close proximity to the facility or structure and the County as a whole.

It is preferable to have fewer towers even if that means they have to be taller. Wireless providers are encouraged to co-locate on existing towers or use existing structures when available (water tanks, etc ;). If these options are not available, new tower construction may be considered. At times it is difficult to find suitable locations that meet both the expectations of the wireless industry and the aesthetic goals of the community. While industrial and commercial areas may be more suitable for towers, with this 2035 Plan, almost 85% of the County is designated Rural Enhancement Areas. To adequately serve the entire County, towers will need to be located in rural areas. That said, reasonable efforts should be made to minimize visibility.



## TECHNOLOGY IMPLEMENTATION STRATEGIES

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Provide optimal public safety communication	Sheriff, Fire, IT	✓		
P	Allow construction of communication facilities in all land use designations	Planning	✓		
P	When available, encourage collocation on existing facilities	Planning, Administration	✓		
A	Implement recommendations of the “ <i>Goochland High Speed Internet Committee</i> ”	IT, Administration			✓
P	As road repaving, widening, or new construction projects are underway, installation of conduit for fiber optic or other communications cabling should be incorporated if funding allows	Planning, IT, Administration	✓		
A	Explore grant opportunities for funding expansion of high-speed internet	Planning, IT, Administration			✓
A	Explore completing an update to the Technology Plan	Administration			✓

\*P – Policy, A – Action Item



## **CHAPTER 7**

# **HISTORIC AND NATURAL RESOURCES**

---

### **GOAL**

---

To recognize the significance of our historic, natural, and cultural resources and to be good stewards of these valuable commodities.

---



## **CHAPTER 7 HISTORIC AND NATURAL RESOURCES**

Historic and natural resources contribute to the quality of life enjoyed by County residents. These resources provide amenities, lend themselves to attractive recreation facilities, draw visitors and tourists, and enhance the overall environment of the County. This Plan provides guidance for preserving and incorporating these assets in an effort to sustain the unique sense of place, history, and environmental quality that define Goochland County.

The County's Strategic Plan encourages, "Balanced development that contributes to the welfare of the community and preserves its rural character." The strategic plan's objectives and the strategies include promotion and support of the County's historic resources.

Historic and natural resources should be maintained and protected when appropriate. Evaluating impacts to these resources is critical when considering land use decisions, as their preservation and protection generally enhances development. The County's long-term economic prosperity and property values will be enriched by promoting development practices which require stewardship of the County's resources.

The natural and historic resources maps should be used in tandem with other land use planning tools.

The Historic and Cultural Resources Map identifies properties on the National Register of Historic Places, historic sites, and historic mines. The Conservation Lands Map identifies specific lands that are already protected or are in need of protection and includes areas with conservation easements, surface water bodies, wetlands, steep slopes (over 25% gradient), floodplains, and Natural Heritage Resources (unique vegetation and wildlife habitats).

### **HISTORIC RESOURCES**

#### Brief History of the County

Goochland County was formed in May 1728 from "upper Henrico County" by proclamation of Sir William Gooch from Williamsburg and aptly named after him. Sir William Gooch served as Lieutenant Governor of Virginia from September 8, 1727 to June 20, 1749. A native Englishman and officer in the British Army, Gooch was proclaimed to be the most successful and efficient executive in the history of the colony.

At the time of formation, Goochland included all lands west of Tuckahoe Creek to the Blue Ridge Mountains on both sides of the James River. In 1744, Albemarle County was carved from the western part of the County, and in 1748, Powhatan County was created south of the river.

Prior to the European settlement, Goochland was occupied by the Monacan Indians who lived in brush huts. In 1700, King William of England was persuaded to give land tax free to French Huguenot refugees who

had fled religious persecution. William Byrd dedicated 20,000 acres of his land south of the James (present day Powhatan County) for the settlement known as Manakintown.

Several prominent people were either born in Goochland County or spent part of their lives in the County. Thomas Jefferson was born on April 17, 1743 at Shadwell, then within the boundaries of the County. Thomas Mann Randolph, born at Tuckahoe in 1768, and James Pleasants, born at Contention in 1769, became Governors of Virginia. The County furnished a native son for the cabinet of each of the opposing governments during the Civil War - Edward Bates in the Cabinet of Abraham Lincoln and James A. Seddon in the Confederate Cabinet of Jefferson Davis.

In addition to serving as the homestead for several prominent Americans, Goochland experienced two significant historical events during the Revolutionary and Civil Wars. In June 1781, practically the entire army of Lord Cornwallis was within the boundaries of the County as they raided Elk Hill and the Cottage at Rock Castle. General Marquis de Lafayette's forces were in Goochland at this time in an attempt to engage the army of Cornwallis. On March 1, 1864, Colonel Ulrich Dahlgren and his raiders traveled through the County during his march on the Confederate Capital of Richmond.

Goochland County was a frontier area which provided an ideal setting for development of new farmland to produce tobacco. Large land grants and plantation homes were established along the James River. The

Goochland Historical Society has detailed records available on 408 original land grants: including the acreage and location on current County maps with dates and names of settlers. A few of the mid-to-late eighteenth-century dwellings built by the wealthiest landowners exist today.

William Randolph, a wealthy landowner from eastern Henrico County, patented a large tract of land in what would become Goochland County at Tuckahoe Creek. The property, called Tuckahoe, was expanded by his son, Thomas, who was living there in 1723. The house was later expanded to become one of Virginia's best-known and most ornate plantation seats. Thomas Jefferson spent his childhood years at Tuckahoe where he received his early education in a school house that remains today.

In 1730, the first courthouse and jail were built just above Atkinson's Ferry near present-day Maidens. In 1763, the frame courthouse grew inadequate, both in form and location, and a new courthouse was built in 1763 a short distance away at a place called Beaverdam. The need for the courthouse to be near Atkinson's Ferry was eliminated 1748 when Cumberland County was carved out of Goochland.

The present Goochland courthouse was built in 1827 by Dabney Cosby, a brick mason trained by Thomas Jefferson, and Valentine Parrish, a builder from Cumberland County. Cosby had completed two buildings for the University of Virginia under Jefferson's guidance before coming to Goochland. The old stone jail was built in 1833 during the

construction of the canal, and served as the headquarters of the historical society. There was originally no clerk's office – the clerk kept records in a building on his own property. The small, brick Clerk's Office was added to the west of the courthouse in 1847. A second brick office was built nearby in 1906, and a larger brick office building was added to the east side in 1955.

### National Register of Historic Places

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Goochland County has 23 sites listed on the National Register of Historic Places. Preservation of the sites is of the utmost importance in maintaining the historic character of the County. The County's Strategic Plan encourages the promotion of our historic sites. The **Historic and Cultural Resources Map** shows the location of these areas and other sites of historical significance in the County.



Goochland Courthouse

### National Register of Historic Places

Name	DHR #	Map #
Bolling Hall	037-002	1
Ben Dover	037-0078	14
Bolling Island Plantation	037-0003	2
Brightly	037-0004	3
Byrd Presbyterian Church	037-0016	5
Dover Slave Quarter Complex (Brookview Farm)	037-5012	20
Elk Hill (Harrison's)	037-0009	4
First Union School	037-5016	22
Goochland County Courthouse Square	037-0136	17
Howard's Neck	037-0100	15
Jackson Blacksmith Shop	037-0163	18
Lockkeeper's House	037-0105	16
Mount Bernard	037-0038	10
Oak Grove	037-0076	23
Powell's Tavern (Double House)	037-0023	6
Rochambeau Farm	037-0069	12
Rock Castle; Queen Anne Cottage	037-0054	11
Second Union Colored School	037-5051	21
Springdale	037-0073	13
Tanglewood Ordinary	037-5010	19
Tinsleyville Tavern (Tinsley Tavern)	037-0032	7
Tuckahoe	037-0033	8
Woodlawn (Taylor Home)	037-0035	9

Source: Virginia Department of Historic Resources (DHR), 2014.

## NATURAL RESOURCES

Goochland's abundance of forested, agricultural, and riverfront land supports diverse wildlife habitats, provides opportunities for recreation, enhances the local economy, and helps define the County's rural character. Residents take pride in the County's existing natural resources and want to preserve them for future generations. With increasing development pressure, a greater focus on environmental planning is critical to minimize and prevent impacts to water, land, and air resources.

Development is associated with altering the natural landscape. Farmland, forests, wetlands, meadows, etc., are replaced with roof tops, roads, and parking lots. These hardened surfaces are impermeable to rainfall and are collectively known as impervious cover. Impervious cover has a profound impact on the quality of aquatic resources. Research has demonstrated that as impervious cover in upstream watersheds exceeds 10%, the quality of streams, lakes, and wetlands decline due to the stormwater runoff. Minimizing these impacts of development on the County's natural resources can be addressed through a number of design techniques such as: reducing impervious cover where unnecessary, treating stormwater runoff at its origin, reducing parking space requirements, encouraging sidewalk construction on only one side of the street, incorporating grass swales into parking lots, etc.

By concentrating growth and higher density development within the villages, the County can help protect its forest and agricultural resources. Current zoning options, such as the Rural Preservation District, promote clustered development and preservation of open space. Conservation easements are another opportunity to protect land.

It is important to balance preservation of the County's natural resources and environmental quality with new development. In order to protect our natural resources, it is important to understand environmental features and how they impact the County. The following is a summary of environmental features impacting the County.

### Surface Water

The James River accounts for more than 40 miles of the County's southern border. The James River is the largest watershed in Virginia encompassing 10,236 square miles and is the longest river in the nation contained in a single state - all 340 miles flowing within Virginia from the Allegheny Mountains to the Chesapeake Bay. The river flows toward the southeast and its tributaries flow toward the south and southeast.

The river is divided up into three watershed regions: the upper, middle, and lower. Goochland is located within the Middle James River region which extends west to Amherst County, north to Greene County, south to Prince Edward County, and east to Charles City County. The majority of Goochland County is drained by the James River and its tributaries. At the



County level, the Middle James River watershed can be broken into smaller sub-watersheds made up of streams and adjacent land draining into the streams. The **Rivers and Streams Map** provides individual stream locations.

Eastern portions of the County are drained by Tuckahoe, Dover, and Genito Creeks. The Tuckahoe Creek watershed is split almost in half between Goochland and Henrico County. James River/Little River (Dover and Genito Creeks) watershed includes Manakin Village and parts of Oilville. Land uses within this watershed are mostly agricultural and low-density subdivisions.

Central Goochland is drained by the Beaverdam Creek/Courthouse Creek watershed and the James River/Mohawk Creek (Powhatan Co.) watershed. Low-density residential and agricultural land uses make up the majority of this watershed with more dense uses located within the Goochland Courthouse area.

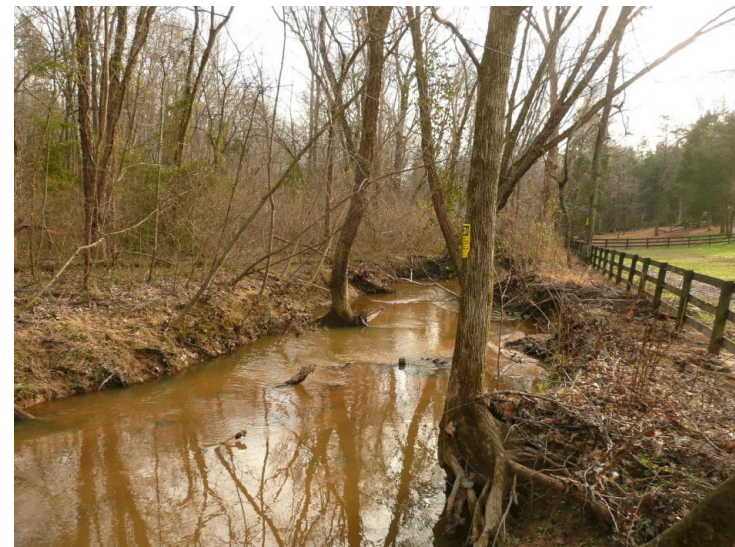
Western Goochland is drained by Byrd, Little Lickinghole, and Big Lickinghole Creeks where the land uses are predominantly agricultural, forestal, and very low density residential.

Stormwater management permits are required for land disturbance activities larger than one acre. Beginning July 1, 2015, Goochland County assumed local authority for the Stormwater Management Program (previously administered by DEQ). Detaining stormwater onsite decreases runoff into

existing channels and minimizes erosion along the channel. This is particularly important when the channel is inadequate to accommodate the runoff. Stormwater detention may also be required to address downstream flooding problems.

### Impaired Streams

The Virginia Department of Environmental Quality (DEQ) monitors state waters for pollutants annually to determine if they pose a threat to human and environmental health. If pollution amounts are too high, the waters cannot support their designated uses (recreation, water supply, aquatic life) and fail to meet Virginia water quality standards. These waters are considered "impaired." Several local streams and segments of the James River exceed water quality standards and are therefore considered "impaired":



**Impaired Streams**

Stream	Parameter Impaired	Miles Affected
Beaverdam Creek	E. coli**	8.75
Big Lickinghole, Little Lickinghole, and White Hall Creeks	E. coli**	21.4
Big Lickinghole	Dissolved oxygen	3.34
Broad Branch	pH	2.59
	Fecal coliform**	4.92
Byrd Creek	Fecal coliform**	19.52
Courthouse Creek	E. coli**	10.32
Genito Creek	E. coli**	6.80
Little Byrd Creek	E. coli**, Benthic-macroinvertebrate	8.02
Little Creek	pH, E. coli**	0.66
Little Tuckahoe Creek	E. coli**	5.89
James River	PCB in fish tissue	201.78
	Mercury in fish tissue	4.36
Ransome Creek	Benthic-macroinvertebrate	3.36
Tarred Rat Creek	E. coli**	3.28
Tuckahoe Creek	E. coli**	7.58
Unnamed Tributary to James River	Fecal coliform**	0.41
Unnamed Tributary to Tuckahoe Creek	E. coli**	1.73
Unnamed Tributary to Tuckahoe Creek	pH	1.81

\* "Miles Affected" includes total miles impaired and is not limited to Goochland County.

\*\* Total Maximum Daily Load document has been approved or other control measures are present.

As a rule, a cleanup plan, or Total Maximum Daily Load (TMDL), must be developed to restore impaired waters. Two TMDL plans have been developed for watersheds in Goochland for bacterial (fecal coliform or E. coli) impairments.

A TMDL identifies significant sources of pollution, the pollutant contribution from each source, and necessary pollutant reductions from each source to attain and maintain water quality standards. The TMDL establishes the basis for identifying future pollution reduction levels and the actions necessary to achieve them. For example, the TMDL may attribute the bacterial contamination to fecal matter deposited from livestock, pets, human, and wildlife which is carried by stormwater into the streams and rivers. The potential for bacterial impairments is significantly increased by allowing livestock to graze within the stream or by the absence of riparian buffers to act as natural filters. The second phase of the TMDL may address the implementation of "best management practices" to reduce the bacteria contamination.

**Groundwater**

Geographically, most of the County depends on wells for drinking water (approximately 87% of households); therefore, the availability and quality of groundwater is an important development consideration. The diversity of the subsurface geology of the Piedmont Province results in wide variations in groundwater quality and well yields. Groundwater in the County can be found in two principal types of aquifers - surface and confined aquifers. *Surface aquifers* (not



deep enough to be protected by layers of clay) are particularly vulnerable to contamination from pollutants introduced at the surface. Bored wells tap into surface aquifers. These shallow wells are not much deeper than the water table and usually obtain water that infiltrated relatively nearby, typically less than a mile. To protect surface aquifers from contamination, the recharge area (area where groundwater flow replenishes the aquifer) around the well needs to be protected.

Most private wells in the County are drilled wells (deeper than bored wells) and draw water from the Piedmont Geologic Crystalline Bedrock Aquifer. This system is dependent on fractures for groundwater production, yield, and recharge. The size and number of fractures and faults in the bedrock which store and transmit ground water decrease with depth, so most significant water supplies are found within a few hundred feet of the surface. Drilled wells are installed more frequently because they tend to produce higher yields and don't fluctuate as greatly as bored wells. Rather than protecting the recharge area around individual wells, the entire recharge area of the aquifer should be protected.

In the past few years, regional and local drought conditions have brought water supply issues to the forefront, and resulting state legislation requires each locality or region to prepare a Water Supply Plan. The plan, completed in 2011, evaluates existing and future water supply needs for the counties of Goochland, Henrico, Powhatan, and Cumberland. The Plan indicated that there would be adequate water supply

through the time horizon of this Plan.

### **Floodplains**

A floodplain, or flood-prone area, is land that experiences occasional or periodic flooding. The floodplain includes the *floodway*, the stream channel and adjacent land area that carries flood flows, and the *flood fringe*, areas inundated by floodwaters but which do not experience a strong current.

The 100-year floodplain is the standard recognized by the National Flood Insurance Program and the County. The 100-year floodplain delineates the level of flood water expected to be equaled or exceeded at least once in a 100-year period. These lands account for 19,896 acres (10 %) of the County.

Floodplains act as a natural reservoir for excess water during storms by providing storage capacity for excess water until downstream waterways can handle the load. Holding the excess water during flooding reduces the dangers downstream to life and property. If floodplain areas are developed or their natural vegetative cover removed, natural flood controls are altered or eliminated.

The County's zoning ordinance allows only limited uses within the floodplain. Measures to protect floodplains protect property owners from flooding events and also discourage degradation of natural riparian buffers.

### **Wetlands**

Wetlands are an integral part of the water cycle;

filtering the water supply, preventing soil erosion, and absorbing floodwaters. They are most commonly situated within floodplains along rivers and streams, in isolated depressions surrounded by dry land, along the margins of lakes and ponds, and in other low-lying areas where the groundwater intercepts the soil surface or where precipitation sufficiently saturates the soil. Wetlands are identified by unique soils (hydric soils), by plants adapted to life in wet environments (hydrophilic vegetation), and by the presence of water (hydrology).

The ecological value of wetlands has become understood in recent years, and the loss of wetlands can adversely impact water quality and flood water storage. Wetlands serve as reservoirs from which groundwater supplies can be replenished during dry seasons and provide biologically productive ecosystems for a variety of fish and wildlife species.

According to the National Wetland Inventory, most wetland areas within the County are located along streams and the James River. The inventory is based on aerial photography and soil associations and can only be used as a planning tool. A site-specific delineation is required for any proposed development to determine the true extent of wetlands and potential impacts. This is reviewed during the POD process.

### **Soils**

Soil characteristics affect the capacity of land to support structures, roads, foundations, and septic systems; therefore, soils types are an important consideration in evaluating the capability of land to

support development. Although the Soil Survey provides detailed descriptions of soil types and soil associations and soil maps for the County, a site-specific study must usually be conducted for a specific parcel(s) to delineate and identify soil types.

About 16% of the County's soils are classified as having no limitation for development. These soils are capable of supporting more intense development, especially when public water and sewer services are provided. The majority of the soils in the County (51%) are categorized as having Moderate limitations. Soils with Severe limitations (40%) have limitations due to slope, shrink-swell potential, low soil strength, and/or hydrology.

The majority of residential property owners (only about 800 homeowners are on public sewer) in the County utilize private septic systems. When considering the capability to support septic systems, local soils generally provide slow percolation for septic tank absorption fields which limits where systems can be located. In case the first system fails, the State Health Department requires a reserve drainfield area for all buildings served by septic systems.

Alternative septic systems are an option for those properties with soils that are not compatible with a conventional septic system. An annual maintenance agreement with a certified professional is required because of the systems' mechanical complexity and potential environmental health hazards that could arise with malfunction. There are also significant costs associated with alternative systems including

installation costs and annual maintenance.

### Natural Heritage Resources

Common Name	Scientific Name	Federal Status*	State Status*
Bald Eagle	<i>Haliaeetus leucocephalus</i>	NL	LT
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	LT	
Brook Floater	<i>Alasmidonta varicosa</i>	NL	LE
Yellow Lance	<i>Elliptio lanceolata</i>	SC	NL
Atlantic Pigtoe	<i>Fusconaia masoni</i>	SC	LT
Green Floater	<i>Lasmigona subviridis</i>	NL	LT
Virginia Pigtoe	<i>Lexingtonia subplana</i>	SC	NL
James Spiny mussel	<i>Pleurobema collina</i>	LE	LE
Virginia Least Trillium	<i>Trillium pusillum var. virginianum</i>	SC	NL

\*SC: Species of Concern; LT: Listed, Threatened; LE: Listed, Endangered, and NL: Not Listed.

Alternative discharging septic systems that discharge effluent above ground are considered "point source discharges" and must be permitted by DEQ in addition to the Health Department. The County restricts these alternative systems to property owners with an existing, conventional septic system that has failed and there are no alternatives to prevent condemnation. These specific systems are prohibited within the Tuckahoe Creek Watershed by State statute to protect the downstream water quality of the intake at Boshers' Dam in Henrico County (four miles downstream of the Goochland County line).

### Natural Heritage Resources

Department of Conservation and Recreation (DCR)

identifies and protects natural heritage resources statewide and maintains a comprehensive database of all documented conservation sites in Virginia. Conservation sites are recommended for protection because of the natural heritage resources and habitats they support but are not under an official protection designation. The County is home to 16 distinct known natural heritage resources.

Identifying natural heritage site locations enables the County to better screen development projects for potential impacts to resource areas, to identify targets for open space, and to guide restoration activities. The following table lists natural heritage resources documented in the County:

### Forest Resources

Woodlands help maintain water quality by filtering and trapping sediments and absorbing pollutants from runoff and subsurface flows. Woodlands act as natural buffers along the James River and its tributaries, reducing the amount of excess nutrients from polluting County waterways. Forests provide unique ecosystems for a variety of plants and animals and provide food, shelter, cover, nesting and bedding areas for a wide variety of wildlife.

Trees also support public health through the reduction of noise, air, and visual pollution and help moderate air temperature and artificial glare - preventing large expanses of impervious surfaces.

The value of the County's 2012 timber harvest was \$1.8 million dollars. This figure underestimates the total contribution forests provide to the economy because it

does not include values for hunting, recreation, or tourism or for air quality, water quality, and aesthetic benefits. Timber harvesting can be both sustainable and a good forestry practice if forestry best management practices are in place.

Trees and wooded areas provide a desirable environment for County residents to live and work. Trees and woodland areas are an essential element in promoting and preserving the rural character and appearance and promoting the lifestyles and traditions that make the County unique. Finally, woodlands areas screen unpleasant or distractive views minimizing their impacts.

The County's forests are a critically important renewable resource. Policies and regulations that maintain forest resources are essential to ensuring a high quality environment for County residents.

### **Mineral Resources**

The majority of the mineral resources extracted in the County are crushed stone from granite quarries. In 2008 over five million tons of crushed stone were produced from granite in the eastern part of the County. There are several quarries located in the County. The Zoning Ordinance requires excavating to be confined to an area at least 1,000 feet from the nearest occupied residential dwelling at the time the use was permitted by the state. The quarry locations can be found on the **Quarries and Mines Map**.

### **Mineral Resources**

Mine Name	Company	Resource
Anderson Creek	Martin Marietta Materials, Inc.	Granite
Boscobel Plant	Luck Stone Corp.	Granite
Rockville Plant	Luck Stone Corp.	Granite
Royal Stone Quarry	Vulcan Construction Materials	Granite
Waller Mine	Minerals & Chemicals Corp.	Iron Oxide, Gold

\*Source: Virginia Department of Mines and Minerals (DMME), 2014.

Luck Stone has conditional use permit approval for a 350 acre site in Hadensville which is not yet in operation.

The western portion of the County historically had a number of gold mines. Gold was first discovered near Caledonia about 1829, and lode and placer mining were conducted intermittently at sites in western Goochland County until about 1942. Southern Piedmont Mining is permitted for gold and quartzite mining in the County but is not active. Another perspective gold mine operation has recently obtained approval for a site located at the western boundary of the County.

Abandoned mines pose a threat to public safety by increasing the potential for groundwater contamination and sinkholes. To identify these areas, the Department of Mines, Minerals, and Energy (DMME) has developed maps depicting the locations of abandoned mines found in the agency's publications, databases, and archives. Historic Mines are shown on the **Quarries and Mines Map**.

### Historic and Natural Resources Existing Trends

- The recently adopted Strategic Plan identifies the need to promote and support historic resources in the County
- Twenty-three sites in the County are located on the National Register of Historic Places.
- The County in the past approved several conservation easements using local easement programs. Conservation easements allow a landowner to protect rural land from development and reduce land available for potential development in rural areas. The County no longer accepts conservation easements but they can be accepted by other agencies such as the Virginia Outdoors Foundation.
- Virginia Department of Forestry regulations regarding clear cutting of sites do not address impacts on adjacent properties or public views from rights-of-way from the clearing of the previously forested areas.

### Historic and Natural Resources Existing Trends (cont'd)

- According to the soil survey conducted by the U.S. Soil Conservation Service, many soil types in the County have moderate to severe limitations for septic drainfields. Steep slopes and flooding, in combination with soil limitations, increase the potential for contamination of both private wells and streams. The County also has shrink swell soils which impact development.
- Goochland County is in the Chesapeake Bay Watershed. Activities in the County impact water quality downstream.
- Development encroaching on streams, wetlands, and riparian forests increases the potential for excess nutrient and sediment runoff. Clearing land next to these sensitive areas denudes the vegetated buffer that acts as a natural filter, slows runoff, and provides wildlife habitat.
- Water quality is an important development consideration. Development typically increases impervious surface area and reduces area for stormwater infiltration.
- Stormwater management permits are required for land disturbance activities larger than one acre.
- New stormwater regulations were implemented by the State on July 1, 2014.
- The County recently adopted a “dark sky” ordinance for lighting.

## HISTORIC AND NATURAL RESOURCES IMPLEMENTATION STRATEGIES

### Historic Resources

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Support designation of appropriate sites for the State and National Registers	Planning	✓		
P	Promote public awareness of the County's history	Planning	✓		
P	Support voluntary preservation efforts	Planning & Parks & Rec	✓		
P	Support efforts to preserve the Historic Courthouse Area	Econ Dev	✓		
P	Protect important sites through the zoning and subdivision ordinances and conditional rezoning	Planning	✓		
P	Look for opportunities to include historic and cultural resources into parks or other public facilities	Planning & Parks & Rec	✓		
P	Promote historic resources through tourism promotion and marketing	Planning & Econ Dev	✓		

### Natural Resources

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Retain natural topography and existing vegetation in new developments	Planning	✓		
P	Encourage open space in new developments	Planning	✓		
P	Encourage Best Management Practices as amenities	Planning	✓		
P	Encourage environmental stewardship through volunteer programs	Planning	✓		
A	Review landscape requirements and encourage the use of native plants	Planning			✓
P	Continue to enforce the Dark Sky Lighting Ordinance	Planning	✓		

\*P: Policy, A: Action



**Water Quality**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Establish riparian buffers along streams and wetlands	Planning	✓		
A	Identify stream bank and slope erosion problem areas	Planning			✓
P	Land disturbance permits are currently required for land disturbing activities within 50 feet of the James River. Consider increasing the requirement to 100 feet	Planning & Parks & Rec	✓		
P	Work to reduce bacterial levels in impaired streams and continue to develop methods to address streams with a Total Daily Maximum Load plan	Planning	✓		
A	Discourage development on steep slopes (over 15%)	Planning			✓
A	Develop strategies to address illegal, direct discharge	Planning			✓

**Groundwater**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Continue to require groundwater testing for new residential development not served by public water and sewer	Planning	✓		
A	Revise the County water supply plan at least every five years	Planning & Public Utilities			✓
A	Review ordinances to determine barriers to implementing low impact development	Planning			✓

\*P: Policy, A: Action

**Floodplains**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Continue to limit uses to agricultural, passive recreational, and open space land uses within 100-year floodplain areas	Planning	✓		
A	Update County GIS as needed for floodplain and dam inundation zone mapping	Planning & GIS			✓

**Land Conservation**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Support conservation easements to be accepted by Virginia Outdoors Foundation or other similar agencies	Planning	✓		

**Mineral Resources**

Type*	Implementation Strategies	Responsible Department	On-Going	Short Term	Mid Term
P	Continue to allow mineral extraction through the conditional use permit process	Planning	✓		
P	Continue to maintain setback requirements for new residential uses	Planning	✓		

\*P: Policy, A: Action



## CHAPTER 8

# IMPLEMENTATION

## CHAPTER 8

### IMPLEMENTATION

The Comprehensive Plan provides guidance for growth and development decisions. Planning is a continuous process; therefore completion of the 2035 Comprehensive Plan should be viewed as the beginning not the end of the process. The goals and strategies recommended in this Plan can be implemented through a variety of techniques and measures, some are already in place, others may need to be modified, and some will be new. As time goes on, some strategies identified may prove to be not practical to implement.

The 2035 Comprehensive Plan is generally policy driven and all departments of the County need to review their existing ordinances and programs to ensure execution of the recommendations of this Plan.

#### Implementation Tools

- Zoning Ordinance
- Subdivision Ordinance
- Erosion and Sediment Control Ordinance
- Utilities Ordinance and Master Plan
- Parks and Recreation Master Plan
- Schools Strategic Plan
- Economic Development Strategic Plan
- Tax Assessment Program
- Capital Improvement Program
- Planning Commission, Board of Supervisors and County Administration Policies
- Arterial Management Plan
- Fire/EMS Strategic Plan – Not completed yet
- Public Facilities Plan – Not completed yet

#### Goochland 2035 Implementation Priorities

- ❖ Rewrite Zoning Ordinance to make it more business/user friendly
- ❖ Identify ways to allow varied housing types and expand housing options in County
- ❖ Review and update landscaping requirements
  - Streetscape buffers in Centerville
  - Encourage a larger variety of plant mix
  - Simplify and clarify landscaping requirements
- ❖ Create a detailed design manual/pattern book for the Centerville and Courthouse Areas
- ❖ Consider CIP funding to install public amenities (sidewalks, fencing, benches, landscaping, etc;) within our villages
- ❖ Utilize all of the “Implementation Tools and Plans” to further land use planning