Local Planning for Forests & Working Lands:

An Inventory of Comprehensive Plans in Virginia

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Table of Contents

EXECUTIVE SUMMARY 2
Purpose 2
Methods 2
Scope 2
Resources 5

Section 1: Summary of Tools and Plan Highlights 6
The Comprehensive Plan 7
Recognition of Forest Benefits 7
Economic Benefits 8
Social and Environmental Benefits 9
Ecosystem Services 11
Use Value Assessment and Agricultural and Forestal Districts 13
Use Value Tax Assessment (Land Use) 13
Agricultural and Forestal Districts 14
Zoning 16
Agricultural Zoning 17
Large-Lot Zoning 18
Sliding-Scale Zoning 18
Conservation Zoning 20
Overlay Zones 20
Land Conservation 21
Conservation Easements 21
Purchase of Development Rights (PDR) 23
Identifying Priority Areas and Conservation Funding 24
Transfer of Development Rights (TDR) 26
Streamside Management Zones and Riparian Buffers 29
Viewsheds, Visual Buffers & Critical Slopes 31

Section 2: Comprehensive Plan Summaries (Alphabetical by County/City) **..... 33**

Section 3: Ecosystem Services Summary 298

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EXECUTIVE SUMMARY

Purpose

The Virginia Department of Forestry (VDOF) is actively building capacity to survey, inform and improve the conservation of working forest lands in Virginia. This report will be used by VDOF to analyze local planning efforts and to provide guidance to local governments to further develop methods for the conservation of forests and working lands.

For the first phase of this study, VDOF contracted the University of Virginia's Institute for Environmental Negotiation (IEN) to review comprehensive plans for the 68 Virginia counties within the Chesapeake Bay watershed, and develop an inventory of the existing language in these plans relative to the conservation of forests and working lands. The development of this initial inventory, completed in 2010, was supported by a grant from the US Forest Service Chesapeake Bay Program.

In its second phase, the scope of the study was expanded to include the comprehensive plans of all counties and three cities in the Commonwealth, along with a specific review of language related to the provision of ecosystem services by forests. This work was supported by funding from the US Forest Service to promote ecosystem service markets related to forests. This report combines the results of both phases to date.

Methods

This report is based on a review of comprehensive plans of each of the 95 counties in Virginia and three selected cities: Chesapeake, Hampton and Suffolk. The plans reviewed were obtained from local government websites or requested via mail. The project team worked with VDOF to identify a range of conservation strategies or planning tools that support working forestry, and to characterize the type of plan language that tends to reflect a priority on non-timber benefits such as ecosystem services. The reviewers looked specifically for discussion of these measures and language related to forestry or that might be applicable to forestry. A summary of the relevant tools and language from each comprehensive plan was compiled by either excerpting directly or summarizing language from each plan. A spreadsheet was also developed to record these results, and to analyze them comparatively across plans and regions. The team developed a score range to represent the level of inclusion of each measure reviewed (see key below); scores were then assigned for each element and recorded in the spreadsheet.

Scope

This study focuses on an array of plan elements regarding forestland conservation addressed in local comprehensive plans. The plan summaries in Section 2 of this report are intended to both highlight programs in place and to identify those elements relevant to forestry that are described or offered as goals in the comprehensive plan, but are not yet enacted by ordinances. It is important to note that comprehensive plans are independent from ordinances, and the information condensed here has been

gathered primarily from comprehensive plans. Where possible, the summaries note any differences and refer to the ordinances in county or city codes. We recognize the challenge in presenting complete information without a full review of ordinances. The review was designed to overcome this challenge in three ways: First, we used the scores to capture the different levels of inclusion, assigning values to suggestion versus implementation. Second, some tools examined in this review, such as the details of taxation, are less likely to be included in comprehensive plans. We reviewed relevant statewide surveys and reports on use-value taxation, agricultural and forestal districts, and purchase of development rights. Information on these programs is provided in the plan summaries, and noted as "not addressed in plan." Third, the summaries also include notes and details about measures adopted since the adoption of the comprehensive plan. These notes are marked "update."

Report Contents

Section 1: Tool Summary and Plan Highlights provides an overview of each tool reviewed, shows results for each tool with charts generated from the spreadsheet, and includes plan excerpts addressing each tool. The selected examples typically highlight plans that have exemplary language, use and evaluation of the tool; we also offer sample language of tools suggested or identified for further action. Each of the localities cited in Section 1 was contacted and interviewed before being included in this report, to ensure that their current practices reflect what is stated in the comprehensive plan.

- Recognition of Forest Benefits: Economic, Social and Environmental
- Ecosystem Services
- Use-Value Tax Assessment
- Agricultural and Forestal Districts
- Zoning: Agricultural, Large-Lot, Sliding-Scale, Cluster, Conservation and Overlay/Other
- Conservation Easements
- Purchase of Development Rights
- Conservation Funding for Forestlands
- Identification of Priority Areas for Conservation
- Transfer of Development Rights
- Streamside Management Zones and Riparian Buffers
- Viewsheds, Visual Buffers and Critical Slopes

Section 2: Plan Summaries provide excerpts of each comprehensive plan relevant to forestry, making specific note of measures that apply to farming or agriculture that might be broadened or clarified to include forestry. In noting these opportunities, it is understood that some measures, such as zoning tools, referring to agriculture may also apply to forestry in practice.

Section 3: Ecosystem Services compiles excerpts from plans that discuss the environmental benefits of forestland. The rating scale developed for this section is designed to differentiate between the recognition that forests provide benefits beyond timber, such as carbon sequestration and stormwater management, and the understanding that loss of forest acreage and its ecosystem services represents a cost to the locality.

Spreadsheet

For each plan, a score of 1-4 was assigned for each strategy or tool and recorded in a spreadsheet. The scores were defined as follows:

1 – The conservation strategy or tool is not addressed in the plan at all;
2 – The tool is defined and/or suggested, but has not been implemented (may only mention agriculture);
3 – The tool is in use, but may be only for agriculture; and
4 – The tool is in use for forestland, and its use is measurable and/or confirmed.

More specific scales were developed for language recognizing the benefits of forests, including ecosystem services.

Page one of the spreadsheet shows the score assigned for each tool in each individual plan, with each locality as a row. Page two calculates an overall tally for each tool for all localities. Page two has two elements; the chart tallies the total number of times each score was given for a tool, and the graphs plot the tallies for each set of tools graphically. Page three shows tallies for all plans within the watershed of the Chesapeake Bay, and those outside the watershed.

Resources

VDACS
The Virginia Department of Agriculture and Consumer Services' Office of Farmland Preservation maintains a site listing TDR and PDR programs with links to local ordinances.
http://www.vdacs.virginia.gov/preservation/tools.shtml

VAPA
The Virginia Chapter of the American Planning Association regularly publishes and updates a guide entitled *Managing Growth and Development in Virginia*.
http://apavirginia.org/publications/other-publications

VAPDC
The Virginia Association of Planning District Commissions is the statewide group of Virginia's 21 regional planning organizations.
http://www.vapdc.org/

VACO
Virginia Association of Counties provides resources and advocacy for local governments.
http://www.vaco.org/

CBP
The Chesapeake Bay Program's Land Conservation page provides links to many state and regional programs.
http://www.chesapeakebay.net/landconservation.htm

DCR
The Virginia Department of Conservation and Recreation's Stormwater Management and Chesapeake Bay Local Assistance offices provide resources and technical assistance to local governments in the development of comprehensive plans, ordinances and programs to ensure compliance with the Chesapeake Bay Act and regulations.
http://www.dcr.virginia.gov/stormwater_management/

GIC
The Green Infrastructure Center provides resources to local governments to inventory local resources and develop green infrastructure plans.
http://www.gicinc.org/resources.htm

Section 1: Summary of Tools and Plan Highlights

The Comprehensive Plan

The comprehensive plan sets the vision for a city or county's land use and development. Forward-looking in nature, plans capture a community's goals and priorities for economic development, residential, commercial and institutional uses, and land conservation and water quality.

In Virginia, Comprehensive Plans serve to guide local development and land use decisions. One purpose of the comprehensive planning process is to develop strategies for implementation through ordinances in the future. The vision in the comprehensive plan is implemented through specific ordinances governing land use and development, such as subdivision and site plan regulations, zoning, and erosion and sedimentation. While the comprehensive plan serves as a guide to decision makers, ordinances are part of the locality's legal code.

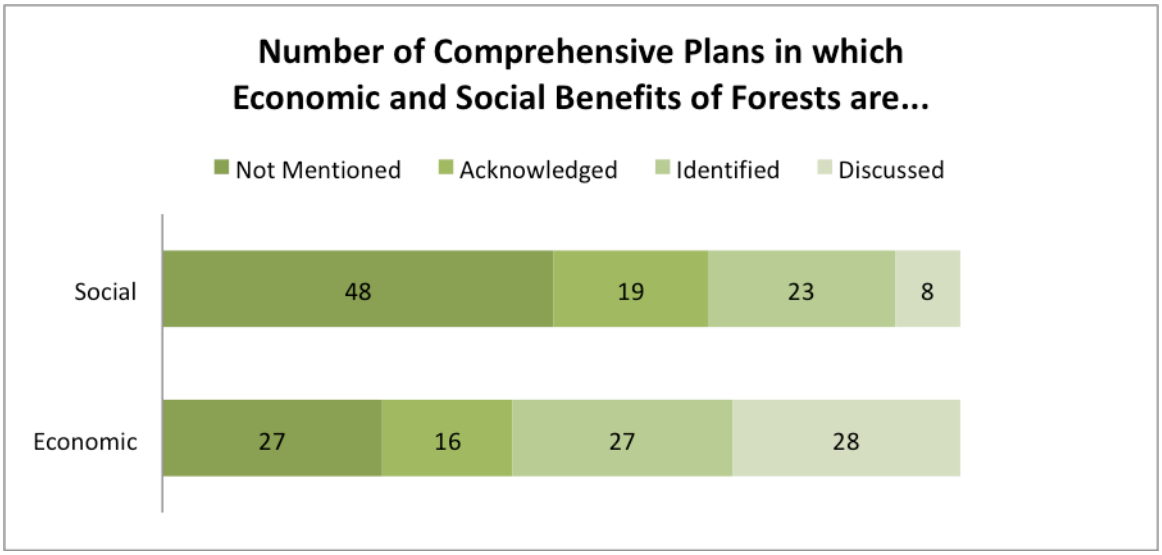
Virginia cities, counties and towns are required to review their comprehensive plans every 5 years to determine whether any updates are needed. While it is ideal for the comprehensive plan and ordinances to work together to set and implement a vision, it is important to note that in Virginia, a locality's comprehensive plan and its ordinances are not required to correspond exactly, nor are they necessarily updated on the same schedule.

It is the role of the comprehensive plan to look beyond the immediate constraints of time and budget. By stating goals in the comprehensive plan, a locality can support and encourage funding from sources outside its budget, such as public-private partnerships or grants. Since Virginia is a Dillon Rule state, meaning that the Commonwealth grants the specific powers of the local government through enabling legislation, the comprehensive plan can also be a place to discuss and state as goals innovative measures that are not yet enabled.

The 98 comprehensive plans reviewed here are reflective of local needs, and they vary widely across the Commonwealth. No two plans are alike in style, content, vision and goals. Some counties and cities have developed detailed, specific comprehensive plans that serve as a guide to community history and future development, sometimes including additional plans for open space, green infrastructure, bicycle and pedestrian uses, or greenways. Others have developed more general plans and make few changes during the review process. In the following excerpts, we attempt to present both model language and the range of styles we found.

Recognition of Forest Benefits

The review looked for language in each comprehensive plan that acknowledges the economic and social benefits of forestland, both generally and specifically to the local area. Measurement metrics or policies may be noted as well as the overall desire to maintain a certain character in the given county. Discussion of the benefits of forestland suggests a county's recognition of the potential impacts of land use decisions on forest resources. This can provide rationale for land use decision making and establish a base of support for specific measures to conserve forestlands.



Economic Benefits

Several of the comprehensive plans reviewed offer information about the direct economic benefits of forests, such as stumpage value received by landowners in the locality, and others discuss the employment generated or the broader economic value of forestry. Following are excerpts from comprehensive plans that discuss these benefits thoroughly, shown alongside the same plans' discussion of social and environmental benefits.

Economic Benefits	Social and Environmental Benefits
4 - **Charlotte County** Pg. 2-28. "Charlotte County's land area is approximately 68.7% forest (Table 2-2, Figure 2-9), and the county realizes significant economic impact from the products of that land. The Virginia Department of Forestry estimates that every dollar that landowners receive for their timber generates more than $35.00 for the state's overall economy."	"Charlotte County relies heavily on its rural land to support its population. Loss of forest land will result in loss of both economic vitality and environmental stability in the county. Therefore, **Charlotte County's leaders need to seek a balance between growth and development, and forest land retention**."
4 – **Goochland County** – Appendix C, Pg. 14-15. "Economic Benefits: There has been a steady decrease in the total volume of timber sold - down almost 30% from 1986 to 2005. The report, Virginia's Forests Our Commonwealth (2001), explains how $41.82 of economic value is generated from each dollar paid to a landowner for timber harvested through services such as harvesting, primary and secondary processing,	"Aesthetic Benefits: Trees and wooded areas enhance the living and working environment for County residents. Woodland areas are an essential element in promoting and preserving the rural character and appearance and support the lifestyle and traditions that make the County unique. In addition, woodland areas screen unpleasant or distractive views which minimize their impacts."

transportation, construction, and marketing. Using this multiplier, the value of the County's 2005 timber harvest ($1,270,501) to the overall economy is nearly $53 million."	
4- **Grayson County**, p. 28. "Timberland plays an economic role in the community, based on timber severance taxes paid from 1996 to 2001, which averaged $2.5 million per year to Grayson County landowners for timber sold. The 1995 publication, Virginia's Forest Our Commonwealth describes how $48.64 of economic value is generated from each dollar paid to a landowner for timber stumpage through such services as primary and secondary processing, transportation, harvesting, construction, and marketing. Using this multiplier, the value of the timber harvested averaged $121,600,000 in economical activity."	"These figures do not include values such as hunting, recreation, tourism, air quality, and aesthetic benefits, which are important to our economy. Socially, timberland provides a pleasant environment for Grayson County residents to live and work. It promotes public health and safety through the reduction of noise, air, water, and visual pollution. Timberland promotes and preserves the appearance, life styles, and traditions, which have existed in Grayson County for decades."

Social and Environmental Benefits

Many of the plans reviewed recognize the social, aesthetic, and environmental qualities of forests as benefits to the community. Among the benefits most often cited are wildlife habitat, erosion control and storm water management, recreation, water and air quality, scenic value and rural character. Some plans also recognize forests for providing plant habitat, moderating temperature, and acting as a buffer to noise. A selection of excerpts follow:

> **Pittsylvania County**, Chapter 2 Pg. 17. "Pittsylvania County's visual landscape should be considered a significant resource and be treated as an essential part of, and receive equal consideration with, the other resources of the County. It is important to protect significant sites, vistas, and highway corridors. Also, there are direct links between the benefits of visual resources and the development of tourism and outdoor recreation activities."
>
> **Fauquier County,** Chapter 2. Pg. 13. "The forestlands within the County not only provide raw materials for forestal industries and an economic income for forestland owners, they also provide environmental benefits to all of the people who reside within the County. These benefits include watershed protection, soil erosion and stream sedimentation control, recreational opportunities, air pollution and noise modification, screening for privacy, wildlife habitats, and general visual beauty."
>
> **Brunswick County,** Executive summary. Pg. ES-5. Also **Halifax County,** Page II-1. "Forestlands are perhaps the most important aesthetic, environmental, and economic resources of Brunswick County. While their annual value as a cash crop can be determined, their economic value as the scenic backdrop of the County is incalculable. They provide must [sic] of the beauty which the

> County offers as a residential community and tourist attraction, and are of great importance in reducing soil erosion and in creating wildlife habitats. Major stands of trees that remain along traffic arteries and between or within smaller residential neighborhoods reduce noise levels, provide a sense of privacy, create scale, protect residential values, and make urban development less noticeable by isolating smaller units."

As highlighted in Charlotte County in the table above, some plans make a direct link between forest benefits and land use decisions. Goochland's plan, quoted below, goes further to discuss the implications of changes in forest ownership and profitability, while Spotsylvania's plan stresses the importance of economic viability to preserve working lands:

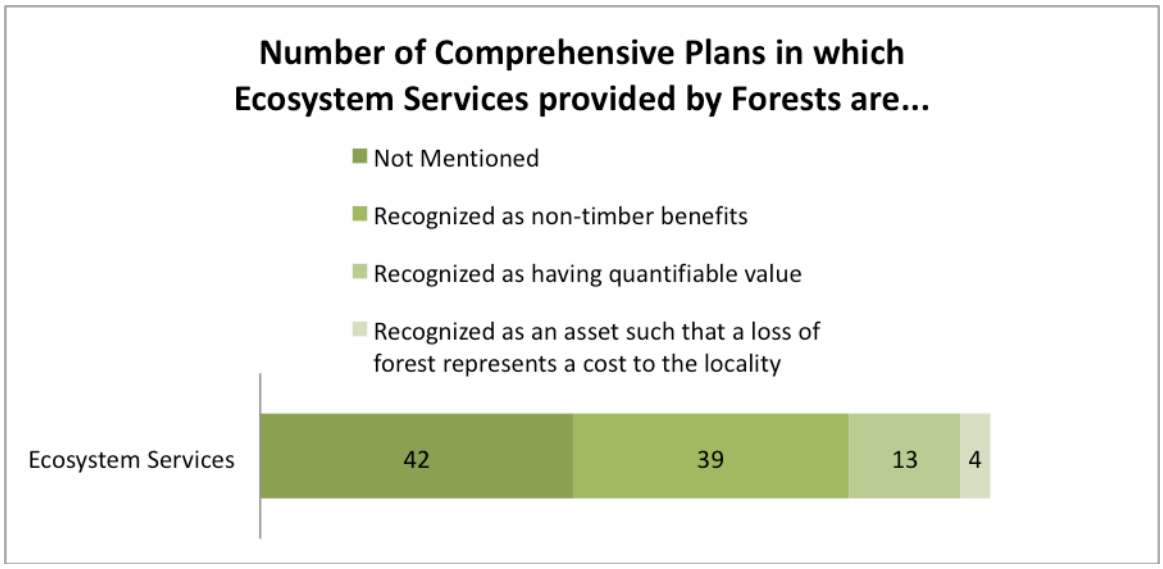
> "The most recent coverage data (2005) shows the County is still primarily forested…Except for a small portion owned by the County, timber ownership in the County remains with private landholders. A shift in ownership trends began in 1992, when forest product corporations started selling holdings in the County to timber investment management organizations and real estate investment trusts. While many of these entities continue to maintain professionally managed forests, this could change if more profitable options become viable for their investors." (Goochland Appendix C, Pg. 14-15)
>
> **Spotsylvania County** – Economic development, page 4. "The economic, environmental and aesthetic role of farm and forest resources makes their protection and promotion important to the Spotsylvania community. In addition to land use controls, one of the best ways to preserve these resources is to promote activities to enhance the economic viability of the agricultural and forestal industries."

Madison County's plan makes a strong statement of support for the importance of forests and working lands in relation to heritage, tourism and recreation:

> Natural Resource Protection. Pg. 56. "Madison County is endowed with an abundance of regionally significant natural resources, a rich cultural heritage and incomparable scenic beauty. Clean and available water, clean air, forest cover and farmland, wildlife habitat, cultural landscapes and other open spaces are all critical assets; once lost, they are difficult to replace, and in many cases are irretrievable. Agriculture, forestry and tourism - the major economic activities of the County - are highly dependent on the protection of soil and water resources and conservation of open spaces; so too are the opportunities for traditional outdoor recreation activities including hunting, fishing, and hiking. Thus, the quality of these natural resources, and the standards for their conservation, have a direct and immediate impact on the economic vitality, the health and wellbeing, and the quality of life for the residents of Madison County. In the face of the accelerated consumption and fragmentation of open land, the fundamental importance of these resources to the County's economy and the health and welfare of her citizens necessitates a strategic and holistic approach to their conservation."

Ecosystem Services

The second phase of this study focused on comprehensive plans that identify the environmental benefits of forests as ecosystem services and acknowledge that the value of these services provided by the forest have an economic value to the community. Of the 56 plans that identify non-timber benefits of forest, 17 plans in the study recognize forests as providing ecosystem services of quantifiable value.



Of these, four plans go one step further in detailing specific ecosystem functions and describing service value that would carry a direct cost to replace through other means, such as stormwater management and water and air quality improvement. Section 3 of this report compiles comprehensive plan excerpts regarding non-timber benefits and ecosystem services. Below are selected excerpts that scored 3 or 4 on a scale developed for their discussion of ecosystem services.

The excerpts from Grayson, James City and the City of Hampton below show the range of ecosystem services discussed in plans across regions of the Commonwealth. James City, a coastal county, highlights erosion, water quality and wildlife diversity, while Grayson's plan mentions nutrient loads, ground water and wildlife and plant habitat, and Hampton's plan highlights the storm water, air quality and energy efficiency services provided by urban forests.

> 3 – **Grayson County** – Pg. 28. "Ecologically, timberlands help maintain good water quality. Timberland filters, traps sediments, and absorbs pollutants from overload, runoff, and subsurface flow. Timberlands act as natural buffers along the New River, smaller perennial [and] intermittent streams by preventing excess nutrients, like nitrogen and phosphorous, from entering and polluting our waterways. Tree roots help maintain clean ground water. Timberland provides essential ecosystems for a variety of plants and animals. It provides food, shelter,

cover, nesting, and bedding areas for a wide variety of wildlife. Several rare or threatened species of plants can be found within the timberlands throughout the County."

3 – **City of Hampton** – Pg. EN-12. "A healthy forest is beneficial to the urban environment by reducing storm water runoff and erosion and sedimentation, improving air quality, and offering wildlife habitat. In addition, tree cover mitigates climatic effects and provides energy efficiency value (e.g. windbreak, shade, etc.) and physiological value (e.g. shelter, screen, aesthetics, etc.). By enhancing the city's appearance and increasing property values, trees are a valuable landscape resource (see Land Cover map)."

3 – **James City County** – "Forests contribute more than wildlife habitat and timber. Tree roots have been proven to be the best natural device to hold streamside soil in place. Forested riparian buffers are particularly valuable for improving water quality and preserving biological diversity. These forested areas filter runoff before it enters the waterway, stabilize eroding areas, and provide wildlife habitats for many sensitive species. Deforestation that is not part of an overall forestry management plan, such as that typically associated with development is a significant environmental and aesthetic concern and impacts the County's wooded character." Environment, page 45 under Forestland.

Four plans, those of Louisa, Fluvanna, Powhatan and Loudoun, thoroughly discuss ecosystem services as having value and link that value with the potential cost if those services are lost.

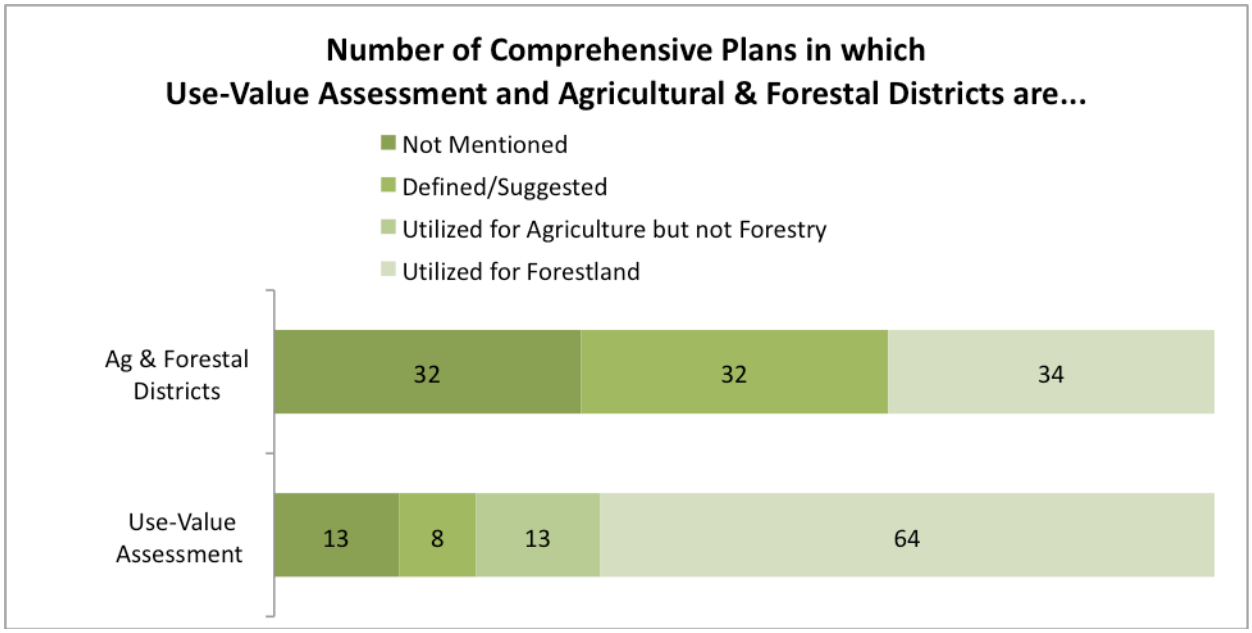
4 – **Louisa County –** Pg. III-8. Benefits of Agriculture and Forestry. "Agriculture and forestry are major contributors to Louisa County's economy through the sale of products, employment, and the generation of support activities. Agriculture and forestry also provide related benefits such as protection of public water supply watersheds; preservation of the natural landscape and open space, and less costly service delivery needs than would be required by scattered residential subdivision development in rural areas. The farm and forestland have traditionally contributed to the quality of life in Louisa County. They provide the rural character and scenic quality, which distinguishes these areas from urban and suburban regions. Forests help recharge ground water and clean it for drinking, absorb carbon dioxide from combustion, and provide oxygen. One acre of flat forestland collects enough water in ground water recharge to provide a one-year supply of 2.75 homes every year. One mature tree absorbs approximately 13 pounds of carbon dioxide a year. For every ton of wood a forest grows, it removes 1.47 tons of carbon dioxide and replaces it with 1.07 tons of oxygen."

4 – **Fluvanna County –** Pg. 13. "The income from timber sales has provided the incentive for the non-industrial, private landowner to own land and grow a timber resource. Cleaner air, water, and a myriad of other ecoservices are a no cost byproduct of responsible forest management. As an alternative to this valuable ecoservice, the cost to clean the air and water with technology would be significantly higher than the value of the forest products sold… Aside from economic and aesthetic benefits, forests contribute many ecoservices like storm water management (both quality and quantity), wildlife habitat protection, minimization of erosion, groundwater recharge, carbon sequestration, and pollination."

Use Value Assessment and Agricultural and Forestal Districts

The study reviewed language in the comprehensive plans about use value assessment and Agricultural and Forestal Districts (AFDs). Both of these tools are voluntary and initiated by landowners. These tools are related, as land within Agricultural and Forestal Districts qualifies for use value assessment. When use value assessment is enabled, there is less of an incentive for landowners to establish AFDs, as they already enjoy the main benefit of reduced property taxes. Looking at the two tools together, we found that 33 localities enable both AFDs and use value assessment, and that only four, Halifax, Prince Edward, Wise and Wythe counties, actively use AFDs but have not enabled use value assessment for forestry.

Over the course of this review, Northampton County abolished its use value assessment program. Without a use value assessment program in the County, the only way for a landowner to secure a use-based assessment to reduce property taxes is to enroll in an AFD. This change has led to a great increase in AFD enrollment. In 2009, Northampton had 13 active AFDs with a total of 8,092 acres enrolled. Since use value assessment was discontinued, the number of AFDs has risen to 49, totaling 37,800 acres as of March 2011.



Use Value Tax Assessment (also known as Land Use)

Virginia law allows localities to establish a lower tax rate for eligible land in three categories: agriculture/horticulture, forest, and open space. Localities may offer use value assessment for any or all three of these use categories. For forest uses, a minimum of 20 acres is required. Open space and Agriculture/Horticulture uses require a minimum of 5 acres.

Landowners apply voluntarily, and eligible land is then assessed based on its use rather than fair market value. Reduced property tax assessments can serve to encourage continued use and reduce financial pressure to sell or develop property. When a parcel in use value assessment is converted to an ineligible

land use, localities can collect "rollback taxes" for the 5 previous years. This measure serves as a modest disincentive to development.

Use value assessment is widely used, and available for forest uses in a total of 64 of the 98 localities in the study. Thirteen localities in this study enable use value assessment for other uses, but exclude forestry. This is likely in order to maintain tax revenue from commercial forest industries.

Agricultural and Forestal Districts

Virginia law allows for the creation of Agricultural and Forestal Districts (AFDs). These are special districts that provide for the protection of large segments of agricultural and forestal land for a set period of time (anywhere from 4 to 10 years, with the option for renewal). AFDs are approved locally at the request of a landowner or group of landowners and must contain a "core" area of least 200 acres of contiguous land to be eligible.

One purpose of AFDs is to minimize local restrictions on farming or forestry practices. During the term of the AFD, property owners are not permitted to develop their land to more intense uses such as commercial, industrial or residential. In return, property owners receive consideration in local land use decisions and some protection from nuisance suits and public infrastructure additions to their land, such as roadways and power lines. Perhaps most important, land within an AFD is eligible for use value tax assessment, even if the program is not otherwise offered by the locality.

It is important to note that AFDs are not zoning or overlay districts, but instead a unique statewide program that is locally implemented. Many zoning classifications have similar titles. AFDs can be established independent of zoning, although some localities require that eligible land be within areas zoned for agriculture. AFDs are a flexible tool for localities, as each local program can create additional criteria, restrictions or provisions. Certain localities in Virginia are also allowed to establish Local AFDs of as little as 20 acres for a term of eight years.

AFDs are a widely used tool across the Commonwealth. Over 700,000 acres are within AFDs in Virginia as of 2009, and this study identified 34 localities with actively enrolled AFDs. This review also identified 32 localities whose comprehensive plans support the creation of these districts, but currently have no districts. It is of note that the enabling legislation for AFDs, though it can be adapted locally, dictates the basic eligibility of forest uses, therefore all localities' AFD programs can be used for forestlands.

Like use value assessment, this is a temporary and voluntary tool that offers flexibility and is implemented locally through direct cooperation with landowners. AFDs can also serve to identify potential lands for more permanent conservation, such as purchase or transfer of development rights. Some localities' purchase of development rights (PDR) ordinances include criteria that give priority to property within or adjacent to AFDs.

The following is a side-by-side comparison of three counties' use value and AFD programs:

Use Value Tax Assessment	**Agricultural/Forestal Districts**
4-**Culpeper**- "Agricultural land subject to land use taxation encompasses 37.1 percent of the County, while forestal use encompasses 23.7 percent (see Table 10.1). There are 2,549 parcels in the land use tax program as of mid-2009." Pg. 10-1.	4-**Culpeper-** "Agricultural and Forestal Districts are established … to protect agricultural and forestal lands. Districts are initiated by local landowners on a voluntary basis. There are approximately 49,485 (as of June 5, 2009) acres of land in fifteen Agricultural and Forestal Districts in Culpeper County (see map 5.1) representing 20.53% of total County land. The newest Agricultural and Forestal District, Point of Fork, was created in June 2007." Pg. 5-6.
4- **Powhatan-** "[Use value taxation is] an assessment practice which helps preserve farmland and timberland, has been in effect since January 1, 1976. Any parcel with (a) 20 acres (b) 400 woody merchantable stems to the acre and (c) access to logging will qualify for the land use tax. In 1997, a parcel under the land use tax is taxed at a value of $400 per acre rather than at the assessed value, which is typically higher. Currently, land use taxation is applied to 85% of the County's commercial forest property." Page 47.	4- **Powhatan- "**The Agricultural Forestal District is not an official Zoning classification. It is a classification of land use wherein the property owner agrees with the County to leave his/her property in agricultural, forestal, open space, or recreational use. In exchange, the property owner is granted "use value" taxation for a specified length of time, usually ten (10) years. The County has adopted 13 such districts totaling 9,954 acres. These are shown on the County's official zoning map, and on the map of existing generalized zoning in this plan." Pg. 39.
3- **Amelia** - "The County will continue to make Use Value Assessment available to qualifying agricultural land. The County will explore the feasibility of making it available for forestland as well, with a possible linkage of the Use Value program to the formation of Agricultural and Forestal Districts." Pg. 139. [Suggested but not currently in use]	2 **- Amelia – "**The county will encourage the formation of Agricultural and Forestal Districts." Pg. 140. [Suggested but not currently in use]

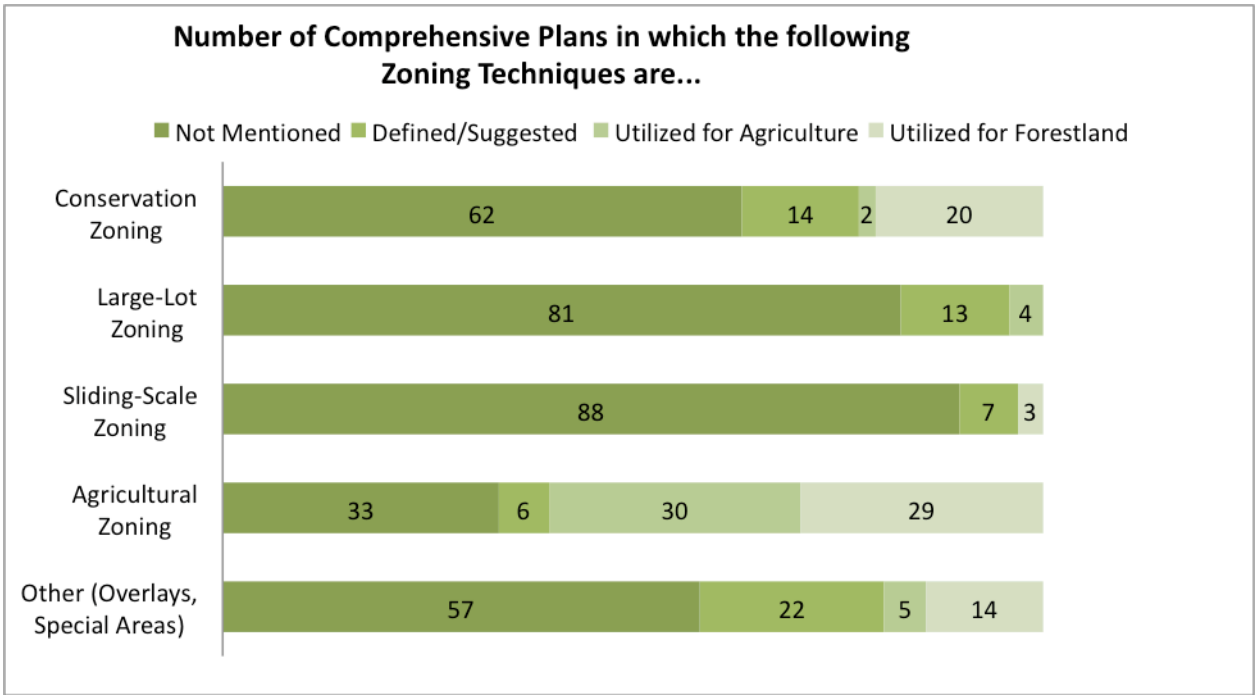
Zoning

Through zoning, a county or city establishes the allowable uses in a given area. The zoning ordinance is the basic legislative tool for implementing land use as envisioned in the comprehensive plan. While comprehensive plans often set forth the purpose or spirit of a zoning classification, and may sometimes include specific rules for a zone, the zoning ordinance itself is the legally enforceable set of requirements that govern land use.

While it is ideal for the comprehensive plan and ordinances to work together to set and implement a vision, is important to note that in Virginia, a locality's comprehensive plan and its ordinances are not required to correspond exactly, nor are they necessarily updated on the same schedule.

To give a sense of the difference in scope, the excerpts in this section are taken from both plans and zoning ordinances. This study reviewed measures in comprehensive plans, but not all zoning and subdivision ordinances, and was not intended to capture the exact level of use of each type of zoning. The plan summaries in Section 2 provide zoning details from each plan.

Following is an overview of zoning tools that apply to working lands and relevant excerpts from comprehensive plans reviewed in the study.



Agricultural Zoning

Agricultural districts, a commonly used zoning classification for undeveloped, rural or open space areas, typically allow varying degrees of residential development by right, as well as other uses by permit. As development pressure builds, piecemeal residential subdivision can compromise rural land uses and character. Some counties use increasingly exclusive levels of agricultural zoning to reserve areas for intensive agricultural operations such as poultry houses. In exclusive agricultural districts, the only uses allowed are those involving or compatible with farming or forestry. Excerpts of comprehensive plan language follow.

> 4 – **Charlotte County** – Pg 4-3. Rural, Agricultural, and Forestry Area: "Purpose: To provide maximum flexibility and freedom for uses compatible with the rural environment while safeguarding against such uses as might be objectionable to most rural residents. Policy: Not encourage development (as defined above) in this area, while encouraging activities that will help maintain the profitability of agriculture and forestry enterprises."
>
> 4 – **Shenandoah County –"**The Agriculture District (A-1) is designed to preserve the character of those areas where the major uses are agriculture and related uses, and is located primarily in a wide belt running northeast-southwest through the center of the County. Residential uses are allowed in the conservation and agricultural districts as well as the residential districts. The required minimum lot size was raised to 3.5 acres in 2003 to reduce the number of lots that could be developed on agricultural land. Individual manufactured homes (single-wide or double-wide) are also allowed by right, and manufactured home parks are allowed by Special Use Permit." Land Use, page 15 under Zoning. [Forestry practices are a by-right use and therefore permitted in A-1 district.]
>
> 3 – **Powhatan County – "**The Agricultural District pertains to the majority of land in the County. It was established to provide space for agricultural uses, which comprise an important part of the economy of the county. The intent was to permit lands best suited for agriculture to be used for agricultural purposes and to prevent encroachment of incompatible land uses on agricultural lands. The minimum lot size for dwellings in the A-1 District is 10.0 acres for subdivisions of three to ten lots, 2.0 acres for subdivisions on private roads serving no more than two lots or for a one-time, 'single-cut' subdivision, and 1.0 acre for a lot created for gift to an immediate family member." [Zone also encompasses forestland] Pg. 36-37.

As cited in Powhatan's plan above, subdivision ordinances also support agricultural zones. One approach involves setting a limit on the number of subdivisions allowed on one parcel in a set time frame. Here is an example form Madison County's subdivision ordinance, which limits subdivision to 4 parcels created in 10 years in the County's agricultural and conservation zones:

> "No lot, tract or parcel of land in the Conservation, C-1, District or Agricultural, A-1, District shall be subdivided into more than four (4) smaller lots; tracts or parcels of land (including the residue, if any) within any ten (10) year period." Madison County Subdivision Ordinance, p. 13.

Large-Lot Zoning

Large-lot zoning sets a high minimum lot size that results in large parcels served by individual well and septic. Minimum lot sizes can range from 5 to 10 acres to 20 acres or more. The goal is for lot sizes to be large enough to protect agricultural economy from encroachment by residential and non-agricultural uses. While large lots may slow the pace of development, some argue that requiring large, sprawling residential development may create the opposite effect. Large-lot zoning is often a feature of Agricultural zoning classifications (see Powhatan excerpt, above) and is sometimes combined with cluster zoning provisions, especially in lots less than 10 acres.

Sliding-Scale Zoning

Sliding Scale Zoning is a method of zoning requiring that the larger the initial size of the parent parcel prior to subdividing, the lower the permitted density or number of divisions. The permitted density decreases on a sliding scale as the size of the parent parcel increases. For example, an ordinance might permit parcels of less than 10 acres to be divided once each, but allow only 3 total divisions on parcels over 100 acres. The rationale is that higher densities should be allowed on smaller tracts because they are difficult to farm and may have already moved out of agriculture and into the residential land market. This strategy can help to protect large tracts from excessive division. Two references follow:

> 4 – **Clarke County -** Sliding-Scale Zoning – In use for certain zoning districts. Pg. I – 28: "Sliding-scale zoning allocates dwelling unit rights (DURs) for parcels of land and a maximum number of dwelling units that may be built in the Agricultural/Open Space/Conservation (AOC) Zoning District and Forestal/Open Space/Conservation (FOC) Zoning District. That number cannot be increased unless parcels are rezoned but is decreased as landowners build houses or place their property under permanent open-space easement… Current rural zoning regulations would allow the number of houses in the entire County to increase by another 4,200 in addition to the existing 6,200 dwellings with a parallel impact on County population. When all DURs have been used, the number of dwelling units in the rural portion of the County is intended to remain stable in perpetuity."
>
> 2 – **King George County -** "Implement large lot and/or sliding scale zoning in the areas currently zoned agricultural to promote the preservation of the prime agricultural lands in this Area." Key Policies/Implementation Strategies for Future Development and Preservation. [Suggested but not currently in use] Pg. 19.

Cluster Zoning

Cluster zoning is a method used in rural areas to preserve large areas of land by concentrating home sites in a cluster; thereby reducing the area of a parcel developed, but still achieving the same average density over an entire site. Subdivisions under cluster zoning are grouped together on lots that are smaller than otherwise allowed to ensure that more contiguous areas of land are preserved for open space, forestry, or agricultural uses. The open spaces may be owned in common by landowners. Cluster zoning can reduce the site impact of development on rural lands, but not necessarily the associated growth. A range of local measures for cluster zoning are below.

4 – **Accomack County –"**Amend the zoning ordinance to provide incentives for clustered development to preserve open space and promote a more efficient pattern of development." Pg. 5-7. Recommended Actions: 2-a.

Area regulations for Agricultural District "A", "(a) The minimum lot area in the district shall be five acres, unless the cluster option is used, as set forth in subsection 106-55(b). (b) Cluster option: Lots may be clustered at an overall base site density of one lot per five acres. (1) The minimum lot area for a cluster lot shall be 30,000 square feet and the maximum lot area for a cluster lot shall be one acre. (2) If lots are clustered, two additional bonus lots shall be allowed for the parent tract, provided that the remainder lot shall be greater than one acre. (3) Bonus lots are allowed for parent tracts of less than five acres if the minimum lot sizes are met in accordance with the clustering provisions in subsections 106-55 (b)(1) and (2). (4) The remainder lot shall not be further divided." County Code. Chapter 106. Zoning. Article III. Agricultural District "A". Sec. 106-55. Area regulations.

4 – **Stafford County -** Residential Cluster Provisions. "The purposes of this article are:
(1) To encourage the protection and preservation of environmentally sensitive portions of sites and agricultural lands in the county; (2) To encourage development in a manner which lessens the cost of infrastructure; (3) To provide incentives for clustering residential development in the most appropriate locations; (4) To encourage more efficient and aesthetic use of open space; (5) To encourage the reservation of open space for scenic and recreational uses; (6) To create and encourage the use of a variety of development choices to satisfy the changing needs of the county; (7) To offer flexibility to the developer in his approach and solution to land development problems.

This article shall apply to cluster developments, which are areas of residential development under unified ownership or control and which are to be developed and improved as a whole under a comprehensive cluster development plan. The provisions of this article will allow residential dwellings to be developed in clusters, subject to the provisions of section 28-75, Density and dimensional requirements, with less than the minimum lot area and setbacks required by article III, General District Use Regulations and Standards, for conventional subdivisions, but without any increase in the total allowable density as specified by this chapter." County Code. Chapter 28. Zoning Ordinance. Article V Residential Cluster Provisions. *[County Comprehensive Plan is in the review stage and the available sections do not yet discuss Residential Cluster Provisions although it is a zoning ordinance.]*

2 - **Montgomery County** – "Rural Cluster Zoning: Rural Cluster Zoning allows a relatively significant amount of residential development to occur in rural and farming areas while at the same time ensuring that such development is designed and laid out to have the least possible impact on the landscape and to preserve large chunks of open space land even after development is complete." Pg. 139. *[This is a goal for the County. Currently the County uses compact development in R-3 zoning, but doesn't require clustering, instead creating more of a residual area left after subdivision.]*

Conservation Zoning

Conservation zoning districts are established to protect environmentally fragile or significant areas by prohibiting development that potentially can have adverse impacts. Examples of comprehensive plan language regarding conservation zoning follow:

> 4 – **Fauquier County** – "[Conservation District (RC)] contains those mountains, which are environmentally sensitive, have physical limitations, and contain much of the County's timber resources. The regulations are designed with emphasis on the conservation of those areas to minimize the potential adverse impacts of development while providing for compatible very low-density residential uses." Chapter 4. Pg. 12.
>
> 4 – **Giles County** – "[Conservation District (C-1)] protects areas of the County where human activities, left unrestricted, have a high potential for adversely impacting the environment and the safety and welfare of the public by accelerated soil erosion, reduced water quality, inappropriate uses of land, and generally the uneconomical provision of public services and facilities." Pg. 69.
>
> 4 – **Nottoway County –** "[Conservation District] covers the unincorporated portions of the county that are occupied by open spaces with a rural character. This district is established to conserve these open spaces in order to facilitate existing and future general farming operations, conservation of water and forest resources, and maintenance of a distinctly rural environment." Land Use Plans. Pg. LU-116.

Overlay Zones

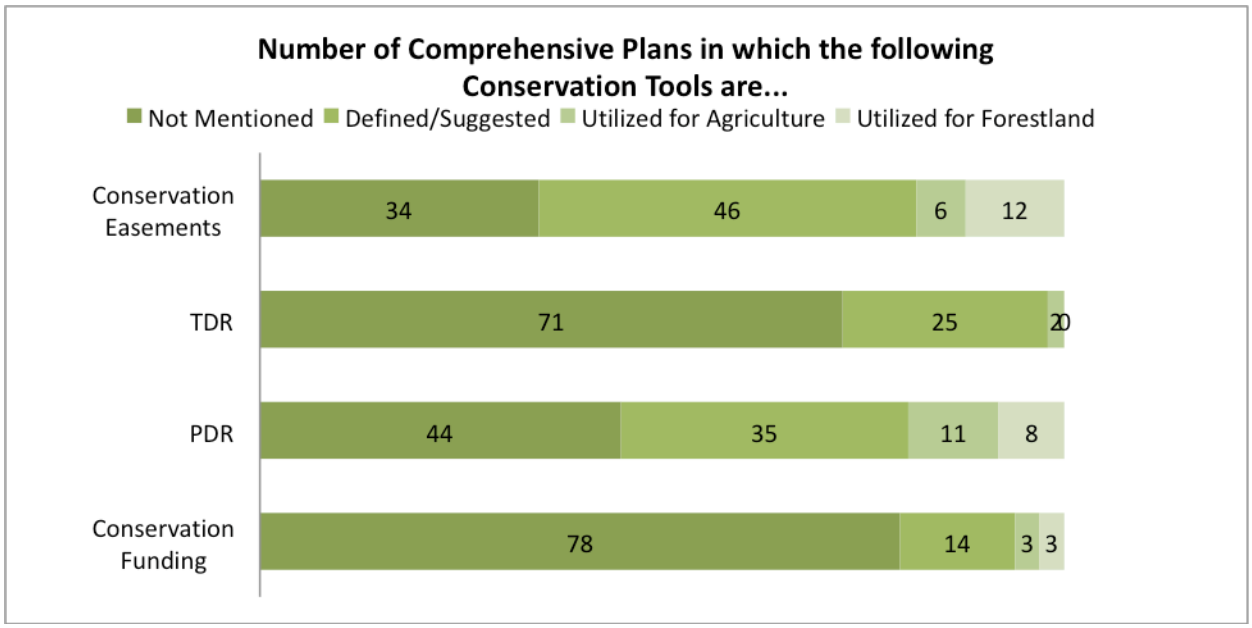
Overlay zones and special areas can be used to protect sensitive areas, water quality or other key resources. An overlay district often follows a natural feature that crosses zones, and provides additional requirements beyond the basic zoning of each parcel. Examples of overlay zones follow:

> **Henry County –** Pg. 145. "A Conservation Overlay District was established in October 1992 to protect the quality of drinking water resources"
>
> **Loudoun County** – #6, Green Infrastructure chapter. "Forests are an integral part of the Mountainside Development Overlay District regulations. The County will continue to protect forest resources through the implementation of the Mountainside Development Overlay District."
>
> **Fauquier County –** Chapter 8. Pg. 17. Overlay District. "As a supplement to the Rural Agricultural (RA) and Rural Conservation (RC) Districts, consider the development of Special Agricultural, Environmental, Historic, and Riparian Buffer Districts. Such a flexible and creative tool can be used to manage unique agricultural, environmental or historic attributes that specific land areas might hold individually or in combination... An example of one recommended alternative is the creation of a Riparian Buffer or Watershed Overlay District, wherein owners of streamside property would voluntarily implement forested riparian buffers."

Goochland County – Pg. 74-75, Strategy 6.1.1c: "Adopt a James River Bank Overlay District to protect the existing riparian buffers and encourage the restoration of the buffer where it is absent or insufficiently robust. This overlay district could also preserve the viewshed of the James River within the County."

Land Conservation

The review examined tools used by localities to permanently conserve forestland and direct development into targeted areas. These tools include conservation easements, funding and identifying priority conservation areas, the purchase of development rights (PDR) and the transfer of development rights (TDR).



Conservation Easements

A conservation easement is a voluntary legal agreement that allows landowners to continue to retain and use land while restricting further development. Easements can be used to protect the ecological, scenic, open space, or historic value of a property, and tend to support working farming and forestry activities while restricting activities that would change rural character. The details of an easement (acreage, description, use restrictions, duration) are tailored to the site and negotiated between the property owner and the organization or government agency holding the easement.

Landowners give up development rights, but retain rights of ownership, to use, sell, or transfer the property in the future. The restrictions become part of the property's deed and run with the land through the duration of the easement. In Virginia, conservation easements are most often permanent or

"in perpetuity," but may instead be established for a fixed timeframe: state code sets a minimum term at 5 years. Easements can be established through purchase, lease or donation.

Conservation easements offer a number of potential tax benefits to landowners through reduced property tax assessment, estate tax exclusion, and as a charitable deduction from income for state and federal tax. Tax benefits are maximized with easements that are donated and established in perpetuity.

Conservation easements are in use throughout Virginia, and are addressed in 64 of the 98 comprehensive plans reviewed. The Virginia Outdoors Foundation holds the majority of conservation easements in Virginia. Government agencies and local and regional land trusts and non-profit organizations such as Soil and Water Conservation Districts and the Nature Conservancy also hold conservation easements in Virginia. VDOF holds easements as well.

Because easements are voluntary deed restrictions on individual, private properties, their use is not necessarily addressed in comprehensive planning. Comprehensive plans often support the formation of easements and identify areas where easements are particularly encouraged. This study found 64 plans that discuss or express support for the establishment of easements. Of those, 12 plans indicate that easements are in use on forestland specifically. Below is a range of examples of language from plans.

> 4 – **Amherst County** – "Approximately 2,164 acres of land in Amherst County are protected by conservation easements. A conservation easement is a legal agreement in which a landowner retains ownership of his/her property while conveying certain specified rights to the easement holder. Conservation easements are usually given to a non-profit, charitable land conservation organization or a public entity. Easements can be tailored to meet the owner's wishes regarding the future use of his/her land. They can be for a specific time period or can be granted in perpetuity. Typically, a conservation easement restricts development or uses that would destroy natural, scenic, or historic areas while at the same time allowing other traditional uses such as farming. Depending upon the terms and timing of the easement, significant tax savings can accrue to the property owner granting the easement." [There are conservation easements in this county on forestland] Pg. 115.
>
> 4 – **Augusta County**– "Another mechanism currently in use in Augusta County for preserving agricultural lands is conservation easements… Land under conservation easements helps to continue agricultural vitality, preserve open space and wildlife habitat, protect natural resources, and maintain the rural character of the county. Easements are also effective tools for the preservation of historic resources." Pg. 264.
>
> 2- **Powhatan County** - Policies for Agricultural and Forest Resources, page 119: "Encourage the donation or private purchase of permanent conservation easements on significant agricultural and forestal tracts."
>
> 4 – **Rockbridge County** – "Easements provide meaningful and lasting conservation benefits while keeping the land in private ownership. Donating a conservation easement that meets the federal tax code requirements is the same as making a charitable contribution and the value of the easement may be deducted from taxable income. Additionally, savings may be seen on estate taxes and such properties may qualify for use value rates for open space under the

County's real estate tax code. As of January 2003, conservation easements have been placed on over 5757 acres in the County and are held by the Virginia Outdoors Foundation, the Valley Conservation Council and the Natural Bridge Soil and Water Conservation District." Pg. 6.

Purchase of Development Rights (PDR)

Purchase of Development Rights programs allow for governments to acquire the right to develop land. Using a PDR program, counties and cities can purchase development rights directly from willing landowners. Once the development rights are purchased, a conservation easement is placed on the property to restrict future development.

PDR programs offer localities and landowners a way to maintain the economic viability of working lands, and to permanently remove priority areas from development, directing development away from critical resources. One argument for the utility of PDR programs is that they are cost-effective in the long term, as providing services for developed areas is much more costly than purchasing easements.

To establish a PDR program, a city or county must adopt a PDR ordinance. PDR ordinances lay out the specifics of the program operation, including the criteria for ranking parcels for purchase and the method for establishing the value or price. Of the 98 comprehensive plans reviewed, 35 mention or recommend the county consider establishing a program, 11 have PDR programs in use for agriculture, and 8 local PDR programs specifically prioritize or include forestland. A range of plan excerpts is below:

4-**Albemarle** - "Purchase of development rights (PDR) is similar in effect to a conservation easement except the development rights are purchased from willing landowners by a county or other entity. Resources are identified for protection based on the Comprehensive Plan. The success of a PDR program is limited by available funds, which may be obtained from various sources. The landowner retains ownership, and the property is protected in perpetuity. The County's appointed PDR Committee has made recommendations regarding implementation of a PDR program. The County's PDR program is called ACE (Acquisition of Conservation Easements)". Open Space Planning. Pg. 178.

3-**Goochland**- "The adoption of the County's conservation easement program in 2007 and the subsequent receipt of funding for farmland Purchase of Development Rights (PDR) allow the County to pursue easements through donation or purchase. The donation of a conservation easement may offer significant tax benefits, and in Virginia, there is an option to sell tax credits if the landowner wishes to. The PDR program, made possible by a matching grant from the State Department of Agriculture and Consumer Services, allows the County to purchase development rights from landowners with working farmland. This provides a viable option for a farmer to preserve farmland in perpetuity rather than sell the property to an investor for a development activity." Appendix C – Natural, Cultural, and Historical Resources, page 17-18.

2-**Botetourt -** "County should explore issues associated with adopting a local PDR program, including possible sources of funding for such a program." Pg. 71. Policy Recommendations.

Spotsylvania County introduced a PDR program as of January 2009. The program's objectives include supporting forestal uses. It is interesting to note that the term of easement in Spotsylvania's PDR ordinance is not necessarily in perpetuity, and is defined as "not less than 20 years." As an element of a local PDR program, flexibility in the timeframe of easement can provide options for local governments to be precise in planning over time. Though less protective than an easement in perpetuity, the option of a temporary easement may remove obstacles to land conservation by reducing cost to the local government and encouraging the willingness of landowners to participate.

Identifying Priority Areas and Conservation Funding

The success of many local efforts, purchase of development rights in particular, depends almost entirely on the funds available for implementation. However, local governments are limited in the amount of debt they can incur. Further, as funding often changes on an annual basis, not all comprehensive plans include funding information. This is reflected in the chart above, which shows that only three plans discuss having utilized conservation funding specifically for forestland. Another three plans discuss having utilized conservation funding, but not for forestland. Fourteen plans define or suggest conservation funding as a future goal.

Identifying and prioritizing areas for conservation is an important first step. By identifying priority lands and including goals and priorities for funding in the comprehensive plan, localities can lay the groundwork for securing grants to support a PDR program. Here are two examples of plans that identify specific areas for conservation and show thee importance of partnerships to protect forestland:

> **Southampton County,** page 7-11. "The recently completed Hampton Roads Conservation Corridor Study (HRCCS) presents a green infrastructure-based approach to conservation planning in Hampton Roads. The summary map for the study identifies high priority areas for water quality and habitat protection and opportunities for connectivity between these areas… This network could be expanded to include prime agricultural and forested lands and parks in order to help meet Southampton County's planning goals."
>
> **Russell County** Pg. IX-4. "The County has a significant amount of land that is already in ownership of the Nature Conservancy to protect the ecosystem adjacent to the Clinch River. The County should encourage use of the Land Trust and Conservation easement programs to protect the Clinch River Watershed, The Big Moccasin Creek Watershed as well as the Big Cedar Creek Watershed. These programs will allow the land to stay in private ownership while protecting a valuable asset of the County."

Counties such as Goochland and Albemarle have used language in their comprehensive plans to help secure funding for the conservation of specific agricultural land and forestland. Other localities and regions have developed Green Infrastructure plans to identify priority areas to promote many qualities, such as wildlife habitat, water quality and ecological values. The VDOF Forest Conservation Priority map is available for localities to include in their comprehensive plans.

4 - **Albemarle County** – "The Open Space Plan adopted in 1992 describes Important Farmlands and Forests as one of the four major open space systems, along with Major Stream Valleys, Mountains, and Civic/Cultural Features. Farmlands are identified on the Concept Map as large, contiguous areas, currently open pasture, cropland, or orchards, which are not in subdivision. Forests are identified as large, contiguous areas, currently forested, which have the best soils for hardwoods, and which are not in subdivision. The Open Space Plan defines and lists farmland soils in Albemarle which are prime, unique, and locally important. It defines and lists forest soils in Albemarle according to their suitability for growing various hardwood or conifer species. The Open Space Plan also lists specific characteristics to determine the importance of farmland and forestland on a specific site." Pg. 98.

Albemarle County Acquisition of Conservation Easement (ACE) Program – "The acquisition of conservation easements program was designed to provide a financially attractive way for lower income landowners to protect family farms in Albemarle County and their unique open space resources. It represents an opportunity for landowners to voluntarily sell a conservation easement to a public agency to be held in trust for perpetuity. In turn, the agency will pay the landowner the difference between the value of the property prior to the easement and the value of the property after the easement. The difference in value reflects the land's value as protected open space (such as farmland, forestland or rural use) versus the "highest and best" use (often residential development)." Albemarle County website.

Funding for the ACE program comes from the Virginia Department of Agriculture and Consumer Services and private grants.

Goochland County received a grant from the Virginia Department of Agriculture and Consumer Services (VDACS) for approximately $450,000 to support the County's Purchase of Development Rights (PDR) program ($400,000 from 2008 and $49,900 for 2009) and with the County's own 50% match they have approximately $900,000 to support the County's PDR program on farmland and forestland. Goochland's goals and strategies for land conservation are an example of a thorough approach:

4 – **Goochland County** –Goal 6.2: "Promote the conservation of agricultural, forested, and undeveloped lands.

- Objective 6.2.1: Permanently preserve from development twenty percent (20%) of Goochland County's land area by 2010 to mirror the Commonwealth of Virginia's commitment to do the same for Virginia's portion of the Chesapeake Bay watershed.
    1. Strategy 6.2.1a: Continue to pursue conservation easement proposals through the Goochland Easement Program or through other third party land conservation organizations.
    2. Strategy 6.2.1b: Explore other funding mechanisms, such as grants or donations for the purchase of conservation lands.
    3. Strategy 6.2.1c: Use models provided by the Virginia Department of Conservation and Recreation (DCR) to identify and prioritize land for conservation. Natural Resources, page 76-77.

- Objective 6.2.3: Protect and enhance the county's natural resource infrastructure.

1. Strategy 6.2.3a: Continue to maintain a Potential Conservation Lands map that delineates sensitive environmental features in the County. These features may include, steep slopes, wetlands, riparian buffers, floodplain areas, conservation easements, and Natural Heritage Areas. This map provides one tool to assess potential impacts of development on environmentally sensitive land.
2. Strategy 6.2.3b: Assess and map the County's natural resource infrastructure to reduce wildlife habitat fragmentation. Locate core areas (i.e., natural heritage sites, conservation easements, public lands, etc.) and corridors (i.e., riparian buffers, floodplains) between the core areas, and identify strategies to protect these areas.
3. Strategy 6.2.3c: Utilize DCR's Natural Heritage Data Explorer website to conduct preliminary screenings of projects to identify potential impacts to natural heritage resources such as the terrestrial and aquatic habitats of Federal and State endangered, threatened, and rare species."

- Appendix C – Natural, Cultural, and Historical Resources, page 1: "The Conservation Lands Map has been developed to be used in tandem with other land use planning tools. This map identifies specific lands that are already protected or are in need of protection and includes areas with conservation easements, riparian buffers, surface water bodies, wetlands, steep slopes (over 25% gradient), floodplains, and Natural Heritage Resources (unique vegetation and wildlife habitats)."

Spotsylvania County's plan recommends a similar inventory to prepare the county for conservation efforts:

> 2 -**Spotsylvania County**, "Identify and inventory potential locations for Purchase of Development Rights / Transfer of Development Rights with the primary focus being upon agricultural, historical and natural resource preservation. This would provide the County with an integrated approach towards the preservation of land within the County creating connected areas of natural, undeveloped open space." Implementation Strategies, page 2. *The County's 2009 PDR ordinance includes a detailed priority ranking table to assist in consideration of potential easements.*

Transfer of Development Rights (TDR)

Transfer of development rights (TDR) programs create a market system for the transfer of some or all rights to develop from one parcel (in a "sending" district) to another (in a "receiving" district). Landowners in the sending district may voluntarily use less than the full level of their development rights. They may then sell their development rights to owners of land in the receiving district. Landowners in the receiving district may then use the additional development rights to build at a higher density than otherwise allowed by existing zoning.

The transfer of development rights enables localities to channel development into certain areas, while at the same time permanently reducing the development potential of open space and working lands.

Since the local government facilitates but does not directly purchase the rights, the cost is potentially much less than that of PDR programs. According to the Virginia Association of Counties (VaCO), Montgomery County, Maryland has protected 51,500 acres through a TDR program. If the resulting easements had instead been acquired by the county using a PDR program, the county estimates these rights would have cost $68 million.

Since participation is voluntary, the success of TDR programs depends on the market for development rights. Existing programs that offer similar density bonuses, such as wetlands protection provisions, may limit the market. Another potential drawback is their "by-right" status – if a transaction meets the requirement in the ordinance, it must be approved.

In 2009, the General Assembly enhanced the statute enabling TDR programs to make it more feasible for localities to use. A statewide workgroup has since produced a model TDR ordinance for the use of local governments in developing their programs. To establish a TDR program, a locality first must adopt a TDR ordinance. Once a TDR ordinance is in place, the local government shapes its implementation by designating the sending and receiving areas in a map to be included in the comprehensive plan.

While 27 of the plans reviewed discuss TDR, only two of the Virginia localities in the study, Arlington and Frederick counties, have developed TDR programs. Arlington's program began implementation in 2006, and does not include support for forest uses.

Frederick County adopted a TDR ordinance, which supports forest uses, in April 2010. Frederick's TDR ordinance establishes sending and receiving areas, and includes a weighting system that provides additional incentives for transferring rights from parcels in designated Agricultural/Forestal Districts and those with prime agricultural soils. The receiving district is a targeted growth area, the County's Urban Development Area (UDA).

> 3-**Frederick County** – TDR Ordinance, Page 1: "Pursuant to the authority granted by Sec. 15.2-2316.1 and 2316.2 of the Code of Virginia, there is established a transfer of development rights (TDR) program, the purpose of which is to transfer residential density from eligible sending areas to eligible receiving areas and/or transferee through **a voluntary process for permanently conserving agricultural and forestry uses of lands and preserving rural open spaces, and natural and scenic resources.** The TDR program is intended to supplement land use regulations, resource protection efforts and open space acquisition programs and encourage increased residential density where it can best be accommodated with the least impacts on the natural environment and public services by:
> A. Providing an effective and predictable incentive process for property owners of rural and agricultural land to preserve lands with a public benefit; and
> B. Implementing the Comprehensive Policy Plan by directing residential land uses to the Urban Development Area (UDA); and
> C. Providing an efficient and streamlined administrative review system to ensure that transfers of development rights to receiving areas are processed in a timely way and balanced with other county goals and policies, and are adjusted to the specific conditions of each receiving area."

The 2011 requirement for some fast-growing Virginia localities to identify Urban Development Areas and incorporate them in comprehensive plans may provide further incentive to establish TDR programs, as UDAs, once identified, can act as receiving districts.

Culpeper County's plan stresses the opportunity to link the two efforts:

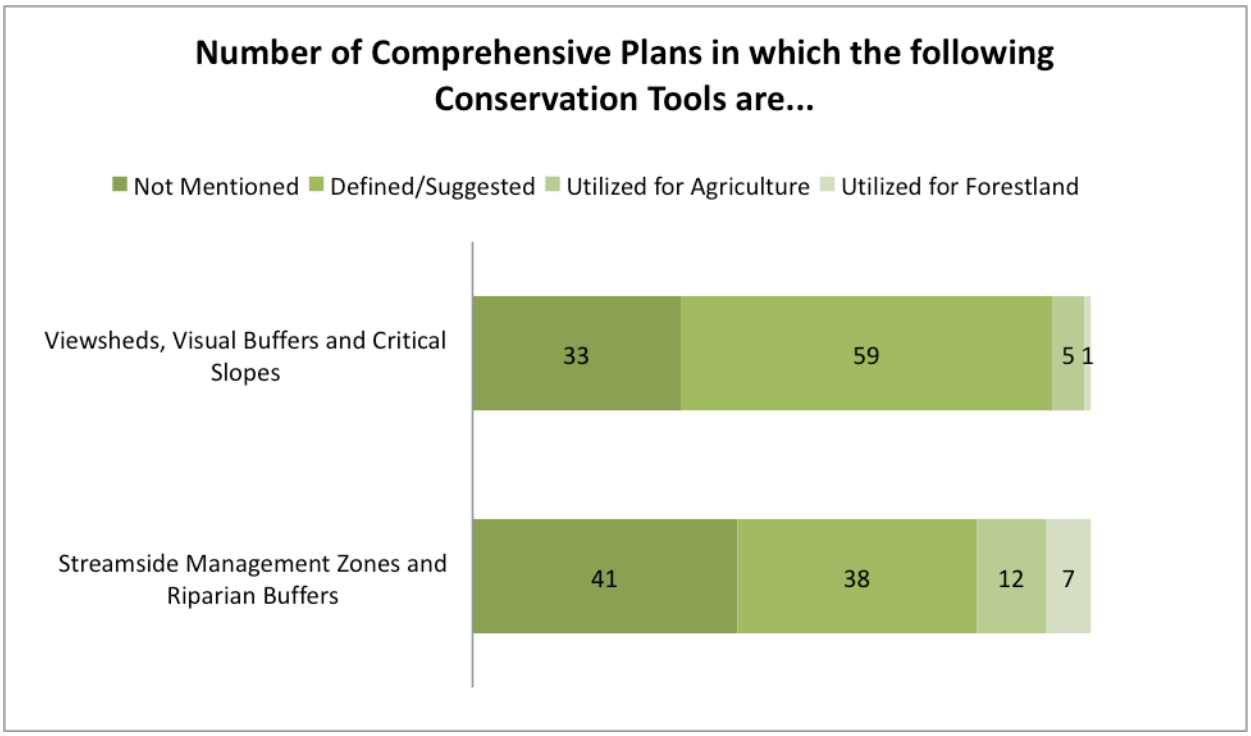
> Pg. 5-9. "In September of 2007 the Culpeper County Board of Supervisors established a countywide agricultural reserve program by which the County is able to acquire the development rights on eligible parcels of farmland. Funding should be made available for this program in order to purchase development rights and prevent further division of prime agricultural lands…As a complement to the County's newly adopted PDR program, a TDR program should be developed and implemented when economically viable. **The TDR program should also be closely tied to the urban development areas** (UDAs) which are addressed in Chapter 12 of this Plan."

Streamside Management Zones and Riparian Buffers

The review also examined language in the comprehensive plans about two measures to protect water quality: Streamside Management Zones (SMZ) and Riparian Buffers. For localities in the Tidewater area, the comprehensive plan often reflects the requirements of the Chesapeake Bay Act regarding riparian buffers and SMZs. While these localities' separate Chesapeake Bay ordinances detail the legal requirements, the plan may or may not discuss them in detail.

Guidance for streamside management zones and riparian buffers required by the Bay Act is provided in VDOF's *Silvicultural Operations:* Guidance *on the Chesapeake Bay Preservation Area Designation and Management Regulations*:

> "Because riparian buffers are considered "the last line of defense" in the protection of water quality, they are the cornerstone of the Bay Act and an important component of the Virginia Department of Forestry's BMP program. Section 9VAC 10-20-80 of the Regulations states that 'Resource Protection Areas shall include a buffer area not less than 100 feet in width located…along both sides of any water body with perennial flow.' Therefore, all water bodies with perennial flow located in Tidewater Virginia are protected with a 100-foot RPA buffer that can be partially harvested per the provisions of the forestry BMP manual. The Department of Forestry's BMP manual requires the establishment of Streamside Management Zones (SMZ) along perennial and intermittent streams and permits only limited tree removal within these areas." (Pg. 3)



The following excerpts, two from Warren and Smyth, non-Tidewater counties, and two from King George and City of Chesapeake in Tidewater, show the range of discussion of riparian buffers in comprehensive plans. Note that the excerpt from Smyth focuses on buffers on agricultural grazing lands, which is a major concern for water quality in non-Tidewater localities.

> **Warren County,** Section 6, Goal 1. - "A pre-harvest plan and map with the following guidelines should be required: 1. Property boundaries 2. Streams and drainage 3. Critical areas 4. Road and trail locations 5. Stream and drainage crossings 6. Log landings and mill seats 7. Stream-side management zones (SMZs) 8. Other environmental concerns."
>
> **Smyth County**, Pg. 14. "Significant land use has changed from cropland use to grazing land use. Water quality issues of sediment, nitrogen, and phosphorous continue to be problems due to livestock access to streams. Conservation methods to reduce pollutants to our water sources include riparian buffers with fences to keep livestock from the streams, and developing alternative watering sources. Animal waste facilities are installed on concentrated animal feeding operations, and assistance provided for nutrient management planning. The NRCS provides technical support to the locally elected Evergreen Soil and Water Conservation District Board of Directors."
>
> **King George County** Pg. 75. "Effort should be made to reduce the potential for loss of forested riparian buffers and other migration corridors, wetlands, mature forests, and to reduce the degradation of habitat from pollution. The establishment and protection of riparian forest buffers will enhance the survival of wildlife since water areas are an essential component of their existence. These buffers also enhance the fish habitat and aid in protecting water quality for the health of wildlife. Forested riparian buffers serve many other functions that enhance our lives."
>
> **City of Chesapeake**, Pg. 130. "The City also manages development of its waterways in the Chesapeake Bay watershed through the implementation of its local Chesapeake Bay Preservation Area (CBPA) Program, which seeks to address impacts to water quality from surrounding land uses. The purpose of the City's CBPA Ordinance includes preventing a net increase in non-point source pollution from new development, a ten percent decrease in non-point source pollution from redevelopment, and a 40 percent reduction in non-point source pollution from agricultural uses. To achieve this, the ordinance includes performance standards for development, redevelopment, and agriculture. The most common of these performance standards is to preserve or re-establish a 100-foot buffer adjacent to the Resource Protection Areas (RPAs), which include all tidal wetlands, non-tidal wetlands connected by contiguous surface flow and perennial water features. A map showing the location of the City's CBPA areas is included below."

Albemarle County is notable for its Bay watershed protection measures, especially as the county lies outside the Tidewater area where measures are required by the Bay Act.

> 3 – **Albemarle County** - Surface Water Standards, Pg. 37. "Protect and enhance riparian corridors in their natural condition. Maintain natural buffer areas for all land uses. Buffer areas

reduce erosion and runoff of sediment, nutrients, and pesticides from land activities adjacent to watercourses; provide stream bank stabilization by maintenance of live root systems; maintain temperature norms along watercourses; and maintain shoreline and aquatic habitats. Maintain along all watercourses buffers of undisturbed natural or established vegetation, or replanted buffers with the goal of an indigenous bottomland forest. Stream buffer widths should be adjusted based on the presence of wetlands, flood plains, adjacent critical and/or erodible slopes, guidance from the Open Space Plan, and other watershed considerations."

Viewsheds, Visual Buffers & Critical Slopes

Local measures for the protection of viewsheds, visual buffers and critical slopes can impact what activities are allowed to be practiced on working lands. Forestry practices may be restricted on land where trees enhance viewsheds, act as visual buffers between non-compatible land uses, or are located on critical slopes. These measures are intended to prevent the cutting of trees for aesthetic reasons; unfortunately they can also serve to prevent proper forest management and may reduce the landowner's ability to earn income from that portion of their property. Many county comprehensive plans contain language supporting scenic character and slopes, and some enforce this goal with ordinances. These measures may provide some disincentive for keeping land in forest.

The majority of plans reviewed, 59 in total, were found to have defined and or suggested restrictions on viewsheds, visual buffers or critical slopes. Thirty-three plans do not mention restrictions on viewsheds, visual buffers or critical slopes at all. Five of the reviewed plans include restrictions to protect viewsheds, visual buffers and critical slopes, but these measures are not specifically for working forestland. One plan, James City County's, includes restrictions on active forestland to protect viewsheds, visual buffers and critical slopes. Excerpts follow from a range of plans:

4—**James City County**

- Pg. 152. "Appropriate goals for open space and lot layout include preservation of farmland, open fields, scenic vistas, woodland, meadows, wildlife habitats, and vegetation; protection of environmentally sensitive land including wetlands, stream corridors, and steep slopes; roadway buffers; and preservation of scenic views."
- Pg. 46-47 *Chesapeake Bay Preservation Ordinance* – "On August 6, 1990, James City County became the first locality to implement fully the requirements of the Chesapeake Bay Act. Due to the County's geography and environmental sensitivity, the Act and regulations are of particular local importance, and James City County responded by designating all land within the County as a Chesapeake Bay Preservation Area. In addition, the Chesapeake Bay Preservation Ordinance prohibits land disturbing activities on slopes 25% or greater, generally limits impervious cover to 60% of a site, and requires the preservation of existing trees (except in impervious areas) over 12 inches in diameter at breast height."

3 – **Warren County**

- "Protect and conserve public and private forest resources to prevent soil erosion and damage to views, vistas, and watershed areas." Chapter 3 Pg 13.: Environment and Natural Resources; Objective E.
- "Minimize runoff and sedimentation associated with agricultural and development activities (including industrial, residential, and commercial activities) particularly in steep slope areas." Chapter 3 Pg 13: Environment and Natural Resources; Objective G.

2 – **Nelson County**

- "Promote the preservation of the viewsheds of scenic vistas as an important part of the county's tourism program." Natural, Scenic, and Historical Resources. Principle. Pg. 11
- "Protect scenic views and vistas by encouraging the siting of new buildings in conformance with the existing topography and into the existing landscape and vegetation." Rural Conservation. Principle. Pg. 14.
- "General standards for steep slopes can mitigate these possible hazards. Avoid the use of septic systems on slopes of 20 percent or greater. Roads should follow the natural topography to minimize grading, cutting, and filling. Maintain natural drainage channels in their natural state and/or stabilize natural channels to protect them from the impact of development activity. Design public utility corridors to fit the topography. Adapt development to the topography and natural setting. Excessive grading, cutting, and filling should be discouraged. As land slope increases, the rate of stormwater runoff also increases. Fertilizers, pesticides, herbicides, and other chemicals may be ineffective and can increase probabilities of surface and groundwater pollution." Pg. 14.

2 – **Pulaski County** Pg. 23. "Although less productive soils will not generate as large a timber crop, these areas are the best suited for forest cover since steep slopes and thin, erodible soils limit much of the areas' potential for other uses."

Section 2: Comprehensive Plan Summaries

Accomack County

"2008" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Executive summary. Pg. iii. "Better economic development efforts are needed to expand existing businesses and industries, including… agriculture, forestry… to provide more jobs, better wages, and increase the tax base."

2. Taxation (Use-Value, etc.)
    - Agricultural and Forestal Land Preservation. Pg. 6-5. "County currently offers land use-value taxation on agricultural land." **This could be strengthened to include forests. A 2008 study indicates that use-value taxation is also available for forest uses in the county, however, open space use is not currently eligible.**

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Agricultural and Forestal Districts. Pg. 4-27 - 22 Agricultural and Forestal Districts
    - Pg. v. Agricultural Areas- will provide an area for the production of agricultural and forestry products. The County's target outcome for this area in the long-term is to have as little new non-farm development as possible, through zoning regulations, Agricultural and Forestal Districts, cluster development, conservation development designs, and conservation easements.
    - Pg. 5-5. In June, 2006, the County amended the existing Agricultural "A" District to increase the minimum lot size (decrease the overall intensity), and provide a clustering option within the district to allow houses to be clustered away from sensitive environmental resources, including productive farmlands.
    - Pg. 5-7. "Recommended Actions: *2-a. Amend the zoning ordinance to provide incentives for clustered development to preserve open space and promote a more efficient pattern of development."*
    - Article III. Agricultural District "A". Sec. 106-55. "Area regulations. (a) The minimum lot area in the district shall be five acres, unless the cluster option is used, as set forth in

subsection 106-55(b). (b) Cluster option: Lots may be clustered at an overall base site density of one lot per five acres. (1) The minimum lot area for a cluster lot shall be 30,000 square feet and the maximum lot area for a cluster lot shall be one acre. (2) If lots are clustered, two additional bonus lots shall be allowed for the parent tract, provided that the remainder lot shall be greater than one acre. (3) Bonus lots are allowed for parent tracts of less than five acres if the minimum lot sizes are met in accordance with the clustering provisions in subsections 106-55 (b)(1) and (2). (4) The remainder lot shall not be further divided."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not mentioned in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Strategy 1: Land Conservation. Pg. 3-24. "Initiate a purchase of development rights (PDR) program within the county."
    - Strategy 1: Land Conservation. Pg. 3-24. "Consider a Transfer of Development Rights (TDR) Program."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Objective 6. Pg. 5-14. Explanation of SMZ in Best Management Practices by Agricultural and Forestry practices.
    - In-depth discussion of Riparian Buffers and river/stream water management
    - Pg. 3-33. "Preventing encroachment is compatible with efforts to protect these resources through zoning, conservation easements, and enlargement of wildlife refuges."
    - Pg. 3-35. "Explore the potential for use of conservation easements on land near areas of concern. Conservation easements would permit tourists and local residents to enjoy the biodiversity for which the Eastern Shore is famous, while also enjoying the economic benefits of the high-tech jobs and pay scales at Wallops."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Historic and Landscape Resources. Pg. 4-53. "[The county] should ensure that protection and enhancement of scenic resources, visual character and viewsheds is included in the comprehensive plan."

8. Conservation of working farms that can be broadened to include working forests
    - A 2. "The best farmland is also the best land for development and something needs to be done to balance these competing demands."
    - A-3 "Protect the rights of farmers and other landowners to use and benefit from their land"
    - Major Actions to Implement the Plan. Pg. v. "The County will enact a variety of policy, regulatory, and program tools to preserve farmland, shorelines, water resources, and other natural resources."

9. Other tools that could be broadened to include forestland
    - Use-Value taxation
    - PDR

10. Timing of Comprehensive Plan updates
    - Revised January 9, 2008

11. # of acres of forest in county
    - 128,033 acres

12. Miscellaneous/Model language
    - Agricultural and Forestal Districts. Pg. 4-22. The ordinances creating these (Agricultural and Forestal) districts state that land in the districts is "land which requires conservation and protection for the production of food and other agricultural and forestal products and as such is a valuable natural and ecological resource, providing open spaces for clean air and adequate and safe water supplies and other aesthetic purposes and is therefore valuable to the public interest."
    - Agricultural and Forestal Districts. Pg. 4-22. 2nd Paragraph. Good language from Board of Supervisor's approved amendment for each Agricultural and Forestal Area.
    - Recommended Actions. Pg. 5-18. *"Revitalize Agricultural and Forestal Districts (AFD) within the County.* The county has had a very successful AFD program, and the county has begun the process of reviewing and renewing these districts. The AFD program should be continued, promoted, and enhanced."
    - Recommended Actions. 5-18. "Monitor the effect of recent amendments to the Zoning Ordinance to ensure that they minimize obstructions to efficient and economical production of agricultural and forestal products."

Albemarle County

"1996" Comprehensive Plan

This Plan is amended continually; of special note is the Biological Resources and Biodiversity Chapter

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***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Pg. 87. "The importance of agriculture and forestry is not limited to the production value of these industries. Each farm or forestry operation provides employment and helps support other related businesses in the community. In addition, the income derived by the landowner encourages the landowner to keep the land resource intact. It is the land resource which provides the true value of agriculture and forestry to this community, with related benefits like open space for cleaner air, watershed protection and wildlife habitat; scenic rural and historic landscapes which encourage tourism; and quality of life for all residents. Maintaining agriculture and forestry also enables the County to grow at a measured and deliberate pace, and to better plan for services."

2. <u>Taxation (Use-Value, etc.)</u>
    - Pg. 98. "The Use Value Assessment (land use tax) program allows for real estate tax deferrals with reduced assessments based on the actual use of the land for agriculture, forestry, horticulture, or open space. Albemarle County has adopted the Use Value Assessment program as enabled by state law to encourage the preservation of rural lands and to relieve development pressures that might cause rural land conversion. It is important for Albemarle to continue to offer this program." – Very detailed break down follows this section.

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Pg. 98. "The RA, Rural Areas Zoning District implements the Rural Area designation through limitations on density and land uses." – Further discussion found in Rural Area section of Plan
    - Pg. 97. "The Subdivision Ordinance is not usually included as a resource protection measure, however it should be reviewed to insure that it supports rural protection policies.

Otherwise, it may inadvertently facilitate and encourage rural subdivisions that do not maximize protection of agricultural and forestlands."

- Pg. 99. Agricultural and Forestal Districts program is well defined and used by the County.
  - "Albemarle County fully supports the purpose and intent of Agricultural/Forestal Districts, and respects the commitment which landowners make when they decide to enroll property in a district. In turn, Albemarle County agrees, when possible, to protect those lands from intrusive land uses which threaten the continued agricultural or forestry use of those lands "for the production of food and other agricultural and forestal products," and "as valued natural and ecological resources which provide essential open space for clean air sheds, watershed protection, wildlife habitat, as well as for aesthetic purposes."
  - Pg. 100. Agricultural and forestal Districts Advisory Committee

    - County Code. "Each district shall have no less than twenty-five (25) acres in one parcel or in contiguous parcels. The land included in such a district shall be located entirely within Albemarle County."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Pg. 98. "The Open Space Plan adopted in 1992 describes Important Farmlands and Forests as one of the four major open space systems, along with Major Stream Valleys, Mountains, and Civic/Cultural Features. Farmlands are identified on the Concept Map as large, contiguous areas, currently open pasture, cropland, or orchards, which are not in subdivision. Forests are identified as large, contiguous areas, currently forested, which have the best soils for hardwoods, and which are not in subdivision. The Open Space Plan defines and lists farmland soils in Albemarle which are prime, unique, and locally important. It defines and lists forest soils in Albemarle according to their suitability for growing various hardwood or conifer species. <u>The Open Space Plan also lists specific characteristics to determine the importance of farmland and forestland on a specific site."</u>
   - "The acquisition of conservation easements program was designed to provide a financially attractive way for lower income landowners to protect family farms in Albemarle County and their unique open space resources. It represents an opportunity for landowners to voluntarily sell a conservation easement to a public agency to be held in trust for perpetuity. In turn, the agency will pay the landowner the difference between the value of the property prior to the easement and the value of the property after the easement. The difference in value reflects the land's value as protected open space (such as farmland, forestland or rural use) versus the "highest and best" use (often residential development)." http://www.albemarle.org/department.asp?department=planning&relpage=2465

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
   - Open Space Planning. Pg. 99. Conservation Easements – Well defined and used by the County.
   - Open Space Planning. Pg. 178. "Voluntary donation of conservation easements is an excellent method of open space and natural resource protection. The landowner who donates a conservation easement permanently protects the land, while retaining ownership and enjoyment of the property. In many cases a conservation easement may provide estate planning benefits. There is no public access to conservation easement properties. The public

benefits because areas with important open space resources are permanently protected without additional regulation, and without cost to the County. Any loss in taxes is offset by the reduced need for services."

- Pg. 99. "The Rural Preservation Development (RPD) option protects agricultural lands and forests by allowing clustering of by-right lots with a large preservation tract secured with a permanent open space easement."
- Open Space Planning. Pg. 178. Purchase of development rights (PDR) is similar in effect to a conservation easement except the development rights are purchased from willing landowners by a county or other entity. Resources are identified for protection based on the Comprehensive Plan. The success of a PDR program is limited by available funds, which may be obtained from various sources. The landowner retains ownership, and the property is protected in perpetuity. The County's appointed PDR Committee has made recommendations regarding implementation of a PDR program. The County's PDR program is called ACE (Acquisition of Conservation Easements.)
- Open Space Planning. Pg. 100. "Actively promote and support voluntary measures to protect agricultural and forestry resources. See additional strategies under Conservation Easement Program and Public Lands, regarding conservation easements, purchase of development rights (PDR) and transfer of development rights (TDR)."
- TDR is suggested in plan, but not in use.

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
    - Pg. 24. Surface Water Objective. "Protect the County's surface water through a management program that recognizes the functional interrelationship of stormwater hydrology, stream buffers, flood plains, wetlands, and human management practices.
    - Pg. 37. Surface Water Standards. "<u>Protect and enhance riparian corridors</u> in their natural condition. Maintain <u>natural buffer areas</u> for all land uses. Buffer areas reduce erosion and runoff of sediment, nutrients, and pesticides from land activities adjacent to watercourses; provide stream bank stabilization by maintenance of live root systems; maintain temperature norms along watercourses; and maintain shoreline and aquatic habitats. Maintain along all watercourses buffers of undisturbed natural or established vegetation, or replanted buffers with the goal of an indigenous bottomland forest. Stream buffer widths should be adjusted based on the presence of wetlands, flood plains, adjacent critical and/or erodible slopes, guidance from the Open Space Plan, and other watershed considerations."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
    - Pg. 107. "<u>Critical slopes</u> are included under natural resources because they require protection in order to maintain the existing balance between slope, soils, geology, and vegetation. Critical slopes are defined as areas with a slope of 25 percent or greater. Clearing, grading, building, cropping, and overgrazing of these lands can result in extensive erosion and landslides or sloughing of soil and rock; excessive stormwater runoff, increased siltation and sedimentation; loss of aesthetic resource; and, in the event of septic system failure, a greater travel distance of septic effluent…." *Regulations to protect critical slopes by directing building and septic system locations to more suitable terrain are included in the Zoning Ordinance, and a list of General Standards to be used in areas of critical slope follows.*

8. Conservation of working farms that can be broadened to include forestland
    - The sections of this comprehensive plan that include agricultural land also include forestland.

9. Other tools that can be broadened to include forestland
    - Tools provided in this plan include forestland

10. Timing of Comprehensive Plan updates
    - Plan is amended continually

11. # of acres of forest in county
    - 278,205 acres of Timberland
    - 90,000 acres of which is "non-rural" forestland

12. Miscellaneous/Model language
    - Pg. 36. "Agricultural and Forestry Best Management Practices. OBJECTIVE: Encourage BMPs to reduce nonpoint source pollution from agricultural and forestry uses. 37 The importance of public education to encourage the cooperative efforts of individual property owners has previously been noted as a major water resource protection strategy. Another major voluntary strategy for surface water is the encouragement of Best Management Practices (BMPs). Voluntary Best Management Practices are the best method to reduce non-point source pollution from agricultural and forestry uses since those uses are not easily regulated. The Thomas Jefferson Soil and Water Conservation District, the Virginia Department of Forestry, and the Agricultural Stabilization and Conservation Service administer cost-share programs

    - Pg. 88. "In addition to providing a resource base for agricultural and forestry uses, protection of agricultural and forestry resources provides related benefits. Agricultural lands and forests provide the rural character and scenic quality that distinguish this County by conserving the rural, historic, and natural landscape and open space. Protecting agricultural lands and forests provides quality of life benefits for residents and visitors, and encourages tourism. Agricultural lands and forests contribute to the natural environment. Forest watersheds are generally a good source of high quality water due to low sediment yields. Undisturbed forest areas protect critical slopes, reduce surface runoff, and protect air quality. Both agricultural and forestry areas provide wildlife habitat. Finally, agricultural lands and forests provide a fiscal benefit to the County because they provide the basis for economic activities related to agriculture, forestry and tourism, and yet consume so little in County services."

    - Pg. 79. "Forests, in particular, are an important asset for Albemarle. Many birds, mammals, reptiles, amphibians, and aquatic species depend upon this dominant habitat for their survival. Additionally, the protection afforded by the forest's leafy canopy helps improve air quality and modulates microclimate. Forested areas also protect and maintain the purity of groundwater and stream and river water. Forests serve as filters to trap sediment and absorb pollutants from overland runoff. Loss of topsoil and silt into surface waters can smother the gravel bottoms that 80 are breeding habitats of most of our stream fishes and the aquatic insect larvae that are the food for these fishes. Forests along rivers and streams

help make waterways livable for many species. For example, many shrubs, grasses, and vines grow well in moist and fertile soils of large unbroken forested areas, but may not do well elsewhere. Plant material falling into the water also provides a food source. Shade from the tree canopy helps maintain a low water temperature, and tree roots help stabilize the bank and provide shelter."

- Pg. 108. "Recognize the value of Albemarle's mountains, including protecting water quality and drinking water reservoir capacity, soil conservation, forest resources, plant and animal habitat, scenic values, tourism, and the economic impact of these resources."

Alleghany County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Forested Land. Pg. 12.: Recognition of the economic benefit of tree harvesting and timbering. Forested land contains vast wildlife populations. "The forest industry is responsible for over 62% of the total economic output and 37% of the jobs in Alleghany County."

2. Taxation (Use-Value, etc.)
    - Pg. 131. "Alleghany County adopted a Land Use Program in 1980 that allows land to be taxed at a lower rate per acre based on the "use" of the land rather than the fair market value established within the general reassessment." **Use-value taxation is enabled in Alleghany for agriculture, horticulture, forest and open space uses.**

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Agricultural/Rural Residential

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to Forestlands
    - Pg. 131. Conservation easements are defined

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection
    - Not addressed in plan

8. Conservation of Working Farms that can be Broadened to include forestland
    - Implementation. Pg. 131. "Typical conservation easements restrict development or uses on the property that would destroy the natural, scenic, or historic features of the property while allowing other traditional uses such as farming or recreation to occur."

9. Other tools that could be broadened to include forestland
    - See #5

10. Timing of Comprehensive Plan updates
    - 2012

11. # of acres of forest in county
    - 237,026 acres

12. Miscellaneous/Model language
    - Forested Land. Pg. 12. "Citizens and property owners should be encouraged to develop Forest Management Plans through the Virginia Department of Forestry to help preserve and protect our forests and farmlands."
    - Pg. 137. Environmental Objectives: "Work with the Virginia Department of Forestry to encourage citizens to develop "best management practices" relating to timber removal and for protection of our natural resources; and encourage reforestation, both natural and planted, of harvested areas."

Amelia County

"2001" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 61. "Forests are a primary element in the natural landscape and economy of Amelia County…and produce multiple environmental, economic and cultural benefits."
    - Pg. 63. "Timber has been an important component of the County's history of economic development and remains so today. Nearly three quarters of the County's land is forested, with approximately 169,000 acres or 74% of this forestland area classified as timberland or as minimally productive and commercially available in 1992 by the U.S. Forest Service"

2. Taxation (Use-Value, etc.)
    - Pg. 139. "The County will continue to make Use Value Assessment available to qualifying agricultural land. The County will explore the feasibility of making it available for forestland as well, with a possible linkage of the Use Value program to the formation of Agricultural and Forestal Districts." **As mentioned above, this measure could be strengthened to include forest lands as eligible for use-value taxation. As of 2009, the County had not yet extended eligibility for use-value taxation to forest use.**

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 42 Agricultural preservation zoning district includes parcels of forestland over 99 acres.
    - Pg. 42. Agricultural zone (definition not provided).
    - Pg. 140. The County will encourage the formation of Agricultural and Forestal Districts.
    - Pg. 123. Suggest enacting Sliding-scale zoning in Rural Residential Density **–This can be strengthened to include forests.**

4. Conservation (Funding as well as Identifying specific forestlands)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestlands
    - Pg. 140. Conservation easement is mentioned as a method to assure that land will remain available for long term agricultural and forest uses.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Surface Water Quality Protection. Pg. 136. "Encourage the protection, enhancement and provision of vegetative buffers along creek valleys."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Site Development Guidelines. Pg. 118. "Appropriate buffers should be placed between uses of different densities and intensities so as to protect the less intense use from the more intense use."
    - General Policies for Natural Resource Protection. Pg. 135. "The County will encourage buffers between clear-cut areas and existing public roads, similar to the policies already implemented by major timber companies"
    - Pg. 158. Buffers defined

8. Conservation of working farms that can be broadened to include forestland
    - Agricultural and Forestal Districts. Pg. 140. "Provide additional "right-to-farm" support".

9. Other tools that can be broadened to include forestland
    - Sliding-scale zoning

10. Timing of Comprehensive Plan updates
    - Last updated May 16, 2001

11. # of Acres of Forest in County
    - Pg. 63. 169,000 acres forestland area classified as timberland or as minimally productive and commercially available in 1992

12. Miscellaneous/Other
    - None identified

Amherst County

"2007" Comprehensive Plan

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Existing Land Use. Pg. 105. National Forest, 18% of the county's land area (57,877)
    - Agricultural/Open Space Preservation. Pg. 112. "An Agricultural district should delineate areas where production from the soil is the most important use of land. Like any production or industrial, area the noise level, odors, traffic patterns, and hours of operation are different that what is normal to a residential area. The Agricultural district should be structured to minimize the conflicts that occur between incompatible uses."
    - Agricultural and Forestal Districts. Pg. 115. "Amherst County's adoption of a local agricultural and forestal district enabling ordinance would set the stage for future district applications and would increase the county's ability to be proactive in its rural land preservation efforts."
    - Future Land Use. Pg. 119. "Conservation/100 Year Floodplains: This category includes steeply sloped lands (> 25 percent), land protected with known conservation easements and floodplain areas. Future development in these areas should be prohibited or extremely limited."
    - Future Land Use. Pg. 119. "Agricultural Limited: This category includes land areas in the rural portions of the County where agricultural and forestry uses are the dominant land use. Large lot single-family development may exist within some of these areas. Family divisions within the Agricultural Limited district shall be in accordance with the Code of Virginia guidelines for land divisions."
    - Low Density Residential. Pg. 121. Large lots should be encouraged in Low Density Residential.

4. Conservation (Funding as well as Identifying specific forestland)
    - Pg. 116. "Conservation Reserve Enhancement Program (CREP) is a voluntary initiative using state, federal, and nongovernmental funding to help solve environmental problems. The objective is to share costs and resources to address specific local environmental problems in designated target areas. Conservation Reserve Program. Specific financial incentives encourage farmers to enroll land in targeted areas in CREP contracts for designated environmental practices such as riparian buffers, grass filter strips, or wildlife habitat. Incentives can include cost-share assistance for establishing the designated practices, special rental rates, or one-time payments. A landowner may establish both a CREP contract and a riparian easement on his/her property, reaping the benefits of both programs."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Conservation Easements. Pg. 115. "Approximately 2,164 acres of land in Amherst County are protected by conservation easements." Definition also provided.
    - Purchase of Development Rights. Pg. 115. Defined, suggested but not in use.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Land and Environmental Protection. Pg. 104. "Watersheds, viewsheds, streams, and steep slopes should all receive more attention for protection."
    - Environment. Pg. 110. Definition and suggestion of the use of Riparian Easements.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Development on Ridge Tops and Steep Slopes. Pg. 111. "Steps should be taken now to ensure our views of higher elevations are not compromised. The County may wish to research and consider a mountain/ridgeline protection ordinance. The area should encompass all lands identified as containing key/critical slopes, ridgelines, ridge areas, and those scenic viewsheds."

8. Conservation of working farms that can be broadened to include forestland
    - Objective 1. Pg. 93. "Encourage and support existing businesses and industry by addressing issues affecting growth. **Strategies:** Support farms and agricultural operations in the County."
    - Future Land Use. Pg. 120. "The conflicts between farming and rural non-farm development (residential) should be minimized as the needs of farming are acknowledged and non-farm development is accommodated as a subordinate use. When nonagricultural land uses extend into agricultural areas, farms often become the subject of nuisance suits…"

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - June 11, 2007

11. # of acres of forest in county

- Existing Land Use. Pg. 105. Agricultural/Forested land is the largest land use category in the county, 30% percent of the County's land area.

12. Miscellaneous/Model language
    - Agricultural/Open Space Preservation. Pg. 112. "As Amherst County continues to grow, there will be attendant requests to rezone agricultural and forested areas to other use classifications or to allow higher residential densities in these areas. When these development requests occur, the economic and quality of life benefits of agricultural and forested land uses should be considered, as well as the adequacy of public facilities and services in the area.

Appomattox County

"2003" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Economic Development Plan. Pg. IV-3. "Forest products also provide an important source of economic vitality for Appomattox County."

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan. However, the County has not enabled use-value taxation.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. IX-1. A-1 Agricultural District

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Natural Environment Plan. Pg. III-10. "Develop land use controls that discourage development in floodplains, wetlands, areas of excessive slopes, and other such areas. Only allow development in these areas if Best Management Practices are employed."

8. Conservation of working farms that can be broadened to include forestland
    - Objective A. Pg. IX-8. "Identify, preserve, and protect existing prime agricultural lands and areas of historical significance."

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Approved in 2003

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Natural Environment Plan. Pg. III.-9. "Work with appropriate agencies and the public to insure that agricultural, forestry (including timbering), and mining activities are conducted according to Best Management Practices to minimize sedimentation in streams."

Arlington County

"2004" Comprehensive Plan

***The Arlington Plan is divided into 9 documents. None directly addresses forest conservation.**

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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****

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Not addressed in plan

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan. However, the County has not enabled use-value taxation.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Not addressed in plan

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not mentioned in plan, however, Arlington County has adopted a Transfer of Development Rights program. The program objectives do not include support for forestry, likely due to Arlington's urban/suburban development and a lack of working forests.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Five Year Review of Arlington County's Comprehensive Plan. Pg. 33. Four Mile Run Stream Restoration Master Plan & Donaldson Run Stream Restoration Project – riparian buffers
   - Arlington County Chesapeake Bay Preservation Ordinance Guidance Manual. Version 2.1. January 2005.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - None identified

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Amendments through June 2005

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language None identified

Augusta County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Described indirectly through the Goals found in #12 of this report

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 6 & Pg. 47. "Agricultural Conservation Areas are areas which have mainly farm or forest uses and have generally the lowest overall density of residential uses, have no public water or sewer service, and have most of the county's intensive agricultural operations."
        - Pg. 263. 4 districts - See Map 43. (County currently has General Agriculture (GA) and Exclusive Agriculture (XA) Zoning Districts, but working forestland is not mentioned in Comp. Plan when these districts are described).
    - Objective B. Policy 1. Pg. 50. "The county should add incentives to encourage the creation and support of additional Agricultural and Forestal Districts in the Rural Conservation and Agricultural Conservation Areas as well as to support the continuation of the existing Districts." In 2010, three districts were recorded with over 15,000 acres.
    - Pg. 111. Agricultural District
    - Pg. 300. Sliding Scale Zoning - suggests using this tool to decrease development in agricultural districts
    - Pg. 301.Conservation zoning. "The remaining open space is permanently protected. The preserved open space could be prime farmlands, riparian buffers, forests, or any other priority conservation lands. Greater set asides could also be encouraged through the use of density bonuses."

4. Conservation (Funding as well as Identifying specific forestland)
    - See #s 3 and 5

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Objective B. Policy 2. Pg. 50. "The county should support the placement of conservation easements on property located in the Rural Conservation and Agricultural Conservation Areas."
        - Pg. 266. Map 44.
    - Objective B. Policy 3. Pg. 50. "The county should establish a purchase of development rights (PDR) program to protect farmland, open space, community character, and natural resources within the county. The purchase of development rights program should encourage the placement of conservation easements on property in the Agricultural Conservation [includes forest uses] and Rural Conservation Areas." **This can be strengthened by including forests.**
    - Objective B. Policy 4. Pg. 51. "The county should explore the feasibility of establishing a transferable development rights program. *Policy 1:* Buffers. The county should strongly encourage that adequate buffers be provided on each site to provide protection and transition between uses of differing densities or intensities. Buffers should use existing topography and vegetation to the maximum extent possible but should provide additional buffer materials wherever necessary to provide adequate visual and aural protection between adjacent properties."
    - Pg. 133. The board in the Capital Improvement Plan (CIP) has established a number of funds to address ongoing capital replacement/improvements including PDR.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 84. Riparian Buffers are suggested in plan. See: *Policy 1:* **Performance Standards Table**

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 72. Objective C: "Prevent conflicts between residential, business, and industrial land uses as well as agricultural uses located in adjacent Rural Conservation and Agricultural Conservation Areas."
    - Pg. 84. Riparian Buffers are suggested in plan. See: *Policy 1:* **Performance Standards Table**

8. Conservation of working farms that can be broadened to include forestland
    - Objective D. Pg. 51. "Support programs to help ensure the transition of agricultural land ownership from one generation of farmers to the next."

9. Other tools that can be broadened to include forestland
    - Covered under other categories

10. Timing of Comprehensive Plan updates
    - Adopted April 25, 2007, amended January 28, 2009

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Agriculture. Pg. 50.

    "Goal 1: Enhance the economic strength of the county's agriculture and forestry industry.

Objective A: Maintain an organizational framework to provide leadership and advocacy for the agricultural and forestry industry.
Policy 1*:* Agriculture Industry Board. Continue to support the Agriculture Industry Board. The Agriculture Industry Board should work with the Board of Supervisors to review issues related to the preservation and
promotion of agriculture and forestry in Augusta County.
Policy 2: Director of Agriculture Development. Support the Director of Agriculture Development position. The Director should serve as staff to the Agriculture Industry Board. The Director should be responsible for agricultural program administration, leadership, and advocacy focused on sustaining agriculture programs and improving the economic viability of agriculture and forestry in Augusta County. The Director of Agriculture Development and the Virginia Cooperative Extension Service should work with landowners who want their land to remain in agricultural production to ensure that their land remains productive.
Policy 3*:* Promotion and Education. The Director of Agriculture Development and the Agriculture Industry Board should work cooperatively with the Extension Service and other state and federal agencies to provide education for agricultural landowners detailing the importance of keeping their land in agricultural and forestry production. Additionally, a program for educating non-farming residents on the benefits of the agricultural economy should be developed.

- Pg. 51. (Continued from Goal 1. Pg. 50)

Objective C: Ensure that the agricultural and forestry industry in Augusta County has available to it a wide array of methods for maintaining a viable agricultural economy.
Policy 1: Agricultural Development and Enhancement (See comp plan)
Policy 2*:* Agricultural Enterprise District (See comp plan)
Policy 3*:* Agricultural Tourism (See comp plan)

Goal 2: Protect existing agricultural and forestry operations in the Rural
Conservation and Agricultural Conservation Areas from conflicts with other land uses and from being converted to other land uses.
Policy 1*:* Establishment and Expansion of Intensive Agricultural Operations. (See comp plan)
Policy 2*:* Forest Management (See comp plan)
Policy 3*:* Permitted Uses in Agricultural Zoning Districts. (See comp plan)

Objective B: Discourage encroachment of residential land uses into areas that have good prospects for long-term farming or forestry activities.

- Pg. 53

Goal 3: Ensure that agricultural and forestry operations use environmentally sound methods.
Objective A: Support a variety of programs and strategies for farmers to ensure that their operations are both profitable and environmentally sound. **(Forest land owners could be added)**
Policy 1*:* Best Management Practices (BMPs).
Policy 2: Farm Conservation and Forest Management Plans.
Policy 3*:* Nutrient Management Plans
Policy 4: Public Education.

- Pg. 85. Continued from Goal 4.

Policy 3*:* Promote Forestry on Private Land. Promote woodlots and sound forestry management on large parcels of land outside of the county's public land (national forest and national park) to sustain

a healthy forestry economy and to help protect water quality and game and non-game wildlife. (See comp plan)

- Pg. 86. Continued from Goal 4.

Objective B: Promote agricultural and forestry operations that protect water quality and natural resources.

- Pg. 86. Continued from Goal 4.

Objective C: Raise citizen and landowner awareness about land protection and possible conflicts with agriculture and forestry."

Bath County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Mentions throughout the Plan the importance of protecting natural resources and rural lands. Plan could be strengthened by discussion the benefits of protecting natural resources in general or specifically for forests.
    - Natural Environment, page 43, the Plan does mention: "The County's timber industry rose to $381,823 in 2000 with a nearly 100% hardwood harvest. While timbering is not a dominant industry in Bath County, forest management is essential to protecting watersheds, wildlife, and outdoor recreation."

2. Taxation (Use-Value, etc.)
    - Land Use, page 82, the Plan discusses "Rural Preservation Tools" and includes: "Land use taxation, lowering the tax burden on land kept in rural uses, is the most basic incentive a locality can offer landowners to keep their land undeveloped. Bath County recently adopted Land Use Taxation as a means to mitigate the impact of rising land values and rising assessments in the rural areas of the County."
    - Not detailed in plan; however, use value taxation is enabled only for agriculture/horticulture. **Forestry and open space uses are currently ineligible for use-value taxation.** *This measure can be strengthened by including forests, but likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Land Use, page 83-84, under "Rural Preservation Tools," the Plan defines Agricultural/Forestal Districts, Large-Lot Zoning, Maximum Lot Size, Agricultural Zoning, Exclusive Agricultural Zoning, Agricultural Compatible Uses, and Sliding-Scale Uses in general. These tools are defined but not in use.

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestlands
    - Land Use, page 85, under "Rural Preservation Tools," the Plan defines PDR programs in general. This tool is defined but not in use.
    - Land Use, page 84-85, under "Rural Preservation Tools," the Plan defines Conservation Easements and mentions that they can specifically be for working farm or forestland. This tool is only defined and the plan does not indicate whether conservation easements are in use.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection
    - In "Protecting Scenic Resources": "use viewshed easements around particularly important sites."

8. Conservation of working farms that can be broadened to include forestland
    - None identified

9. Other Tools that could Possibly be broadened to include forestland
    - See #5 PDR & Conservation Easements; #2 Taxation

10. Timing of Comprehensive Plan Updates
    - 2012

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Natural Resource, "Objective" "o", page 44: "Adhere to the Virginia Department of Forestry's Code of Silviculture Best Management Practices."

Bedford County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 35. "Identifying critical features and supporting appropriate agricultural and forestry production within the County is an important step toward maintaining a pastoral surrounding that is easily accessible to all residents."

2. Taxation (Use-Value, etc.)
    - Pg. 111. "Continue the County's Land Use Assessment Taxation program for agricultural, horticultural, forest or open space uses."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 111."Support the development of Agricultural/Forestal districts throughout the County."
    - Pg. 183. Agricultural Residential & Agricultural Village zoning

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 110. PDR suggested in plan
    - Pg. 179. TDR defined

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers:
   See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.:
   See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 110. 9.F. **Agricultural Economic Development**. Consider growth and preservation of agricultural and farm lands, and natural areas as economic development opportunities, and develop plans and incentives for increasing agricultural economic development and eco-tourism.

9. Other tools that can be broadened to include forestland
    - See #5 PDR & TDR

10. Timing of Comprehensive Plan updates
    - Adopted June 25, 2007; next review should be completed by 2012

11. # of acres of forest in county
    - Pg. 61. 1992 - 288,600 acres

12. Miscellaneous/Model language
    - Objectives and Strategies. 9.2. Pg. 110. Preservation of farmland, forested land, open space, and rural character

Bland County

(No date in Plan) Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 59. "Large portions of Bland County lie within the boundaries of the Jefferson National Forest. Within this forest lie some of the best hiking, camping, fishing, and hunting areas on the eastern seaboard. The Forest Service maintains several developed camping, picnicking, and fishing areas and hiking and horseback riding trails."

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan, however, a 2010 report indicates that Bland has enabled use-value taxation for forest use, as well as for agriculture and horticulture, but not for open space.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Not addressed in plan, but the zoning ordinance includes Agricultural zoning category.
   - Pg. 76-83. Current land use is discussed but no specific land use plan or map is included.

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 91. "To encourage the implementation of good erosion and sedimentation control practices."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 80. "Approximately 75 percent of the land in Bland County has a slope of 20 percent or greater. Slopes in excess of 20 percent or greater do not preclude development. However, the

provision of services (water, sewerage, other utilities) is more difficult and therefore more costly."

8. Conservation of working farms that can be broadened to include working forests
   - Pg. 90. "To encourage the agricultural industry by protecting it from encroachment by residential, commercial, and recreational developments."

9. Other tools that could be broadened to include forestland
   - Pg. 99. "The county should look at local government subsidy programs that could be offered as assistance to the agricultural community."

10. Timing of Comprehensive Plan updates
    - Not addressed in plan

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language

Botetourt County

"2004" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 56. Existing Land Use. "Agricultural Land Use - These areas are typically used for the planting and cultivating of crops and orchards, and the raising and grazing of livestock. Buildings associated with these activities. Forestland uses consist of forested lands that are privately or corporately owned. The forested areas are typically found in the more mountainous regions of the County, particularly in northern Botetourt and the area along the Blue Ridge Parkway."
    - Pg. 56. Existing Land Use. "Federal Lands - This category consists of National Forestland that is publicly owned and managed by the Federal government. Public forestland comprises approximately 23.5 percent of the total land area in the County. Currently, the Jefferson and George Washington National Forest encompass approximately 80,000 acres of land in Botetourt County…"
    - Pg. 60. Future Land Use Map. "This category includes land areas in the rural portions of the County where agricultural and forestal uses are the dominant land use. Large lot single family development may now exist within some of these areas. Future development of these properties at densities higher than allowed by the current agricultural zoning is not encouraged." *Note that this definition is much stronger than the Existing Land Use Map's definition of Agriculture*
    - Pg. 69. Agricultural / Rural Preservation Tools – Agricultural/Forestal Districts are defined, encouraged and in use

4. Conservation (Funding as well as Identifying specific forestland)

- Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 69. Agricultural / Rural Preservation Tools- Conservation easements are defined, encouraged and in use. *This definition does not include forestland in description of what conservation easements are typically used to protect.*
    - Pg. 70. Riparian easement – Defined
    - Pg. 70. Purchase of Development rights – Defined. *This definition doesn't include forestland in description of what PDRs are typically used to protect.*
    - Pg. 71. Policy Recommendations – "County should also explore issues associated with adopting a local PDR program, including possible sources of funding for such a program."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 20. Community Opportunities. "Consider the slope and general topographic characteristics of a property when evaluating proposals for the development of Class 3 and 4 properties. (Greater than 14% slope). Encourage and require appropriate design techniques that address the challenges of developing in steep terrain."
    - Pg. 67. Policy Area Blue Ridge Parkway. "The County should work with the NPS staff to clearly identify the location of the priority viewsheds; i.e., those areas along the Parkway that, if developed, have the greatest potential to impact the Parkway's scenic qualities."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 71. Policy Recommendations – "The County should support the activities of the Valley Conservation Council and the Western Virginia Land Trust in their efforts to voluntarily preserve critical agricultural and open space areas in the County."
    - Pg. 80. Land Use Goals, Objectives & Policies- "Promote a strong and diversified industrial and commercial base which does not create significant impacts on residential areas, prime agricultural lands or public facilities."

9. Other tools that can be broadened to include forestland
    - See #5 Conservation easement

10. Timing of Comprehensive Plan updates
    - May 25, 2004

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. 68. Policy Area: Agricultural / Rural /Mountain Preservation- "When these development requests occur, the economic and quality of life benefits of agricultural and forested land uses should be considered as well as the adequacy of public facilities and services in the area. For development proposals at higher, steep slope elevations, the environmental

impacts of the development should also be considered. It is important to maintain a balance between development and preservation objectives throughout the County."

- Pg. 71. Policy Recommendations – "The County should work closely with the Soil Conservation Service and the Virginia Department of Forestry to insure that private timbering operations in the County are undertaken using approved techniques in an environmentally sensitive manner."

Brunswick County

2006 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Executive summary. Pg. ES-5. "Forestlands are perhaps the most important aesthetic, environmental, and economic resources of Brunswick County. While their annual value as a cash crop can be determined, their economic value as the scenic backdrop of the County is incalculable. They provide must [sic] of the beauty which the County offers as a residential community and tourist attraction, and are of great importance in reducing soil erosion and in creating wildlife habitats. Major stands of trees that remain along traffic arteries and between or within smaller residential neighborhoods reduce noise levels, provide a sense of privacy, create scale, protect residential values, and make urban development less noticeable by isolating smaller units"
   - Pg. ES-6. Discussion of acreage in different agricultural uses, including woodland.
   - Pg. ES-7. "Census 2000 reported 502 people employed in the agriculture, forestry, fishing and hunting, and mining industry."
   - Natural Conditions Pg. II-5. "Forests and related wood products industries have historically been an integral part of the economy of Brunswick County. In fact, Brunswick County ranks first in Virginia with an average annual (1986-2001) harvest value of $12,905,170.00. Future land use plans should include forests in the broad definition of agriculture and recognize lands best suited for forestry development. The forest resources in Brunswick County are presented in TABLE 3. TABLE 4 shows Brunswick County forest land by site class. It identifies the timber production potential of existing forest land which should be useful in studies and in setting policies dealing with prime forest lands."
   - Pg. II-5. Several tables follow that show species, acreage, productive and unproductive forestland, age, and site class for county forest tracts.

2. <u>Taxation (Use-Value, etc.)</u>
   - Implementation Strategies Pg XI-24. "Consider implementing use value taxation and support the creation of private, voluntary agricultural districts to help preserve and protect prime agricultural lands."

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>

- Agricultural/Forestal Districts: See #2
- Executive Summary Pg. ES-22. "While the future land use plan classifies areas of the County and the designated planning areas into five principal land use types, it is important to note that residential development is permitted within the agricultural areas. This residential development will either be concentrated in planned communities (subdivisions) or located as strip development (frontage lots) along the highways in order to preserve the agricultural and timber economy of the County."
- Executive Summary Pg. ES-23. "The County encourages large lot/acreage rural residential subdivisions for single-family residential type development. This type of low-density residential development (referred to by some people as minifarms) appeals to people desiring the controls and restrictions normally associated with subdivision development, coupled with larger tracts of land."
- Executive Summary Pg. ES-24. "Agricultural land is one of the most valuable of all natural resources. Of major importance, and an objective of land use planning in Brunswick County, is to identify prime agricultural land and prevent it from being developed for residential or other land uses. Once developed, it cannot easily be restored to its original condition.
  Much of Brunswick County has been retained in an agricultural land use category for the duration of the planning period. The main purpose of this land use classification is to facilitate existing and future farming operations, reduce the effects of soil erosion, and protect watersheds, in order to promote the continuation of farming as one of the most active sectors of the economy.
  Permitted uses are restricted to agriculture and others that are compatible with the existing land use pattern, such as forestry, passive recreation, and other conservation uses, as well as incidental rural residential use. The overall density of these uses should be kept at a relatively low level by maintaining minimum lot areas and allowing for only one dwelling unit (single-family dwelling) per lot. This should effectively limit development in the agricultural areas and encourage development in and on the fringe of the existing towns."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Future Land Use Pg. IX-4. Conservation classification applied to vulnerable environmental lands: "The conservation classification covers the unincorporated portions of the County which may exhibit one or more of the environmentally sensitive land conditions discussed above. The conservation area is not suitable for intensive land use development and this category of land use is intended for the conservation of water and other natural resources (forests and prime agricultural lands) of Brunswick County, thereby reducing soil erosion in the floodplain areas, preventing pollution of the major streams and rivers, and preserving the quality of open space for future generations to enjoy.
     Single-family residential development may be permitted in this district under strict minimal lot area requirements. Agriculture, forestry, passive recreation, and other conservation uses may also be permitted."

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
   - Not addressed in plan

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>

- Some implementation strategies touch on the subject of stream protection. Implementation Strategies. Pg. XI-5.
    - "Identify environmentally sensitive areas that pose constraints to development such as floodplain, wetlands, areas with steep slopes, and areas with undesirable soil conditions."
    - "Continue to provide for and require erosion and sediment control measures as land is developed."
    - "Reserve flood hazard areas for open spaces, forestry, water, and agricultural uses."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Executive Summary. Pg. ES-5. "Steeply sloping land (above 15% slope) is best suited for open space, watershed and erosion protection, and conservation purposes."

8. Conservation of working farms that can be broadened to include working forests
    - Executive Summary Pg. ES-24. "Agricultural land is one of the most valuable of all natural resources. Of major importance, and an objective of land use planning in Brunswick County, is to identify prime agricultural land and prevent it from being developed for residential or other land uses. Once developed, it cannot easily be restored to its original condition."

9. Other tools that could be broadened to include forestland
    - Agricultural zoning language should explicitly list forestry as an encouraged use.

10. Timing of Comprehensive Plan updates
    - Adopted May 8, 2007

11. # of acres of forest in county
    - 287,000 acres, 80% of the county

12. Miscellaneous/Model language
    - See forestry tables Pg. II-6 through II-8.
    - Executive Summary Pg. ES-33/34. "Goal: Promote the preservation and development of progressive, alternative, and environmentally compatible agriculture, forestry, and related industries as important economic components of the County.

      Implementation Strategies:

      a. Support research into diversifying cropland previously used for tobacco production.

      b. Identify productive land that could be classified as economically productive.

      c. Support and encourage the use of USDA Resource Conservation Service "Best Management Practices" to protect productive agriculture lands.

      d. Support the reforestation of clear-cut timber lands and rely on the Virginia Department of Forestry to give guidance and advice.

      e. Support the reforestation of clear-cut hardwood forests using hardwood plantings.

      f. Support the recruitment and siting of environmentally compatible industry and commercial establishments in areas that are already similarly developed or in public or private industrial parks to minimize the sacrifice of prime agriculture land for such development.

      g. Protect prime agricultural land.

h. Improve agricultural education and forestry management in the public school system and encourage the development of vocational education programs and facilities to support existing agricultural and timber-related industries in the County.
i. Protect ecological and otherwise fragile areas for open space, forestry, and agricultural uses.
j. Reserve flood hazard areas for open spaces, forestry, water, and agricultural uses."

Buchanan County

1994 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 3. Discussion of timber market in the past.
   - Pg. 16-18. Discussion of timber types and economic impacts.
   - Pg. 18. "Through better management techniques, such as proper pre-harvest, harvest, and post-harvest practices, the quality of this renewable resource will be improved. In addition, proper management will protect soil and water quality and enhance wildlife."

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan, however, a 2010 report indicates that Buchanan has not enabled use-value taxation.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Not addressed in plan

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 11-12. Discussion of possible measures to alleviate flooding.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Not addressed in plan

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - Adopted November 7, 1994

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language

Buckingham County

"2008" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Chapter IV – Special Policy Areas. "There are many economic benefits that open space, agricultural and forestry areas offer to the economy of the County and the region "

2. Taxation (Use-Value, etc.)

    Chapter IV – Special Policy Areas. Land-Use value taxation is mentioned as a growth management tool. It is not currently enabled for any land use type.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Chapter IV – Special Policy Areas. Agricultural/Forestal District is defined and suggested in the plan. **This measure could complement the impact of other strategies in protecting working forests from development pressures.**
    - Chapter V. Land Use Plan. "The Rural/Agricultural Preservation Area is intended to preserve and enhance the essential character and resources of rural portions of the County where agriculture and forest uses exist while accommodating some rural residential development (low density, rural in character and on private well and septic systems)….Protecting and preserving farmland, forest uses, livestock operations, wetlands, significant wildlife habitats, and water resources are of primary importance to these areas."
    - Zoning ordinance website - Agricultural District (A-1)
    - Zoning ordinance website – Agricultural Comprehensive District – "The purpose of the Rural Small Farm District is intended to maintain Buckingham County's predominately rural character and open space, and to preserve productive 'gentlemen farms and timberland operations'"

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Chapter IV – Special Policy Areas. Conservation Easements are defined and encouraged – **Does not include forestland in the definition.**
    - Chapter IV – Special Policy Areas. PDR is defined – **Does not include forestland in the definition**
    - Chapter IV – Special Policy Areas. TDR is defined - **Does not include forestland in the definition**

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - No useful language about working farms to expand upon.

9. Other tools that can be broadened to include forestland
    - See #3
    - See #5

10. Timing of Comprehensive Plan updates
    - Website says Plan was recently adopted - 2008

11. # of acres of forest in county
    - 293,886 acres of commercial forest

12. Miscellaneous/Model language: None identified

Campbell County

"2002" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - 7-9. "Campbell County has a relatively active role in forestry in terms of the volume of lumber harvested and the value of the trees involved. The Virginia Department of Forestry reports that in fiscal year 1999, Campbell County produced 5,317,000 board feet of pine lumber and 9,276,000 board feet of hardwood lumber. The combined stumpage value of the trees was $3,984,266. This places the County in the top half of all lumber producing localities in the state. A forestland assessment map from the Department of Forestry is included at the end of this chapter. It shows major land use types including agriculture and rural forests in each of the area localities. The desire to preserve land for forestry is discussed in Chapter 4."

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.
    - Pg. 4-11 Farming and Forestry: "The land use and tax policies of the County should not inadvertently create an economic incentive for large tracts of land in the rural areas to be subdivided for other uses." *This is presented as a guideline in the plan.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Agricultural zoning A-1 (found on zoning website, not in Plan)
    - Pg. 4-11 Farming and Forestry: "The zoning ordinance should continue to provide for agriculture, forestry, and related uses within rural areas; consideration should be given to limiting or segregating other permitted uses that may conflict with these activities. The ordinance should reasonably anticipate the unique needs of farming operations and appropriately address them." *This is presented as a guideline in the plan.*

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 7-11. Environmental Control Strategies. "Discourage development in areas of excessive slopes."

8. Conservation of working farms that can be broadened to include forestland
    - None identified

9. Other tools that can be broadened to include forestland
    - Not addressed in plan

10. Timing of Comprehensive Plan updates
    - Minor changes in 2009, next review should be underway by 2014.

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Land Use Goals and Objectives. Objective 2: "Preserve agricultural and forested lands in designated rural areas."

    - 4-5. Land Use Map – "The Land Use Plan is a general guide for the development of Campbell County… The Land Use Plan is intended to be used by County officials, developers, and private citizens to promote a logical pattern of development that will meet the needs of County residents, while safeguarding local resources. This plan also acts as the basis for evaluation of specific development proposals, the content of zoning and subdivision ordinances, and the expansion of public utilities and community facilities.
        - Rural (in green): These areas are characterized by farming, forestry, and low-density residential, commercial, or recreational uses. Lots are generally larger to accommodate private wells and septic systems."

Caroline County

"2006" Comprehensive Plan

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Natural resources. Pg. 4-1. "Caroline County's agricultural and forestal resources have been and continue to be important to the County" - contribute to economy, environment and quality of life.

2. Taxation (Use-Value, etc.)
    - Natural Resources. Pg. 4-1. Strategies. Pg. 2-4. "Preserve open space, agricultural lands, forestlands and the rural character of the County by…promoting land use value assessment practices."
        - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Agricultural Preservation District – From zoning ordinance PDF- "This district is intended to encourage economic development and to preserve farmland by providing for the viability of the County's agricultural sector by encouraging the orderly and responsible growth of its livestock, dairy, and poultry industry. Where permitted by the Zoning Ordinance, agricultural production activities including but not limited to tillage, crop production, harvesting, raising and pasturing of animals and intensive Agricultural operations shall be permitted uses as a matter of right subject to the standards contained herein. The regulations for this district are further designed to accommodate related activities, but only to the extent that they serve agricultural**,** forestal**,** or similar rural economic functions." **–** *This section can be strengthened by including forests at the beginning of the definition*
    - Natural Resources. Pg. 4-1. Strategies. Pg. 2-4. "Preserve open space, agricultural lands, forestlands and the rural character of the County by… Encouraging the use of conservation easements, agricultural and forestal districts and land trusts."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Forestry issues. Pg. 4-4. PDR is explained and suggested to use for protecting the forest industry.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Resource Protection Areas. Pg. 4-12. "A buffer area not less than 100 feet in width located adjacent to and landward of the components listed above, and along both sides of any tributary stream."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - "Assisting in the establishment of conservation plans for all farms. Utilizing the assistance of the Virginia Cooperative Extension Service, the U.S. Soil Conservation Service, the Colonial Soil and Water Conservation District, and other county agencies to encourage the participation of all landowners engaged in agricultural and forestal activities."

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Last update was 2008

11. # of acres of forest in county
    - 261,702 about 76% of the county

12. Miscellaneous/Model language

Carroll County

"2030" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 217. "Policy10.1: Preserve prime agriculture land, forested land and open space for its local economic benefit, scenic beauty, and place in Carroll County's heritage."

2. Taxation (Use-Value, etc.)
   - Pg. 67. "Common tax incentives include differential or preferential taxation. Differential taxation ensures that a parcel is taxed at its value for agricultural use, rather than for its potential value as developed property to reduce the tax burden on farmers. Preferential taxation taxes property at a lower rate in exchange for the property owner agreeing to not develop for an agreed upon time period in order to slow potential conversion of agricultural land to development (there also may be federal tax credits available for lands used and conserved as farms)."
   - ***Update****: A 2010 report indicates that Carroll has enabled use-value taxation for forest use, as well as for agriculture and horticulture, but not open space.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. 65. "Large lot zoning is one of the techniques in a more inclusive category of zoning techniques called agricultural zoning or agricultural protection zoning. Agricultural zoning simply requires that the minimum lot size in a designated rural zoning district is set at a large enough size to protect agricultural activities from excessive encroachment of residential and other non-agricultural land uses. In Virginia, many counties use large lot zoning. In particular, Virginia counties with a large agricultural industry rely on many farm owners and operators to help protect farms and rural areas from the encroachment of residential and other urban land uses."
   - Pg. 66. "Agricultural zoning can be used as an incentive, to encourage the location of agricultural businesses and support services in appropriate areas. It also can be used to promote the clustering of lots, homes and structures on agricultural lands in order to protect other areas for agricultural uses, and promote development on lands that have easy access to highways and are served by public water and sewer. By promoting more compact development patterns, the County can reduce the amount of land needed for new development; retain more land for conservation and agricultural purposes.

- Pg. 67. "Farm Priority Areas (FPAs) can be established, which are smaller than exclusive agricultural zoning districts, but may cross political jurisdictions. FPAs can be designed to require that any development must serve farms or farming families in the area."
- Pg. 67. "Small-Acreage Farming Areas (SAFAs) are a type of exclusive agricultural zoning district, with a minimum lot size of less than 35 acres. These areas can be established to support Community Supported Agriculture (CSA) farms, including vegetable or other specialty farms that don't require large amounts of land and may be less intensive than other commercial farming operations."
- Pg. 107. "The **Agriculture Protection Tier** is intended to support ongoing agricultural operations and preserve valuable natural resources. Policies within this tier allow sparse residential development to minimize negative impacts on agricultural operations and to minimize the demand for public services and infrastructure. Commercial uses are limited to agricultural related services and limited retail. The County also recognizes the importance of the Agriculture Protection Tier to protect farms, residents and lifestyles in the most rural areas of the County. The County's policies are designed to retain this agricultural character rather than support encroachments of urban or suburban development in these very rural areas. Some agriculture-related or service commercial uses to meet the needs of local residents may be appropriate, including some home occupations and home industry. The Agriculture Tier offers the opportunity to preserve agriculture and open space while still allowing some development through the use of conservation subdivisions and conservation easements."
- Pg. 113. "Agriculture land use: Average Density/Lot Size – 20 acres. "Farm and timber lands to be protected from encroachment of non-farm development and conversion to urban uses. Non-farm development is strongly discouraged. Rural homes on large lots, sometimes as part of rural subdivisions (a subdivision of only a few lots and very low densities)."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Pg. 95. Land use. "Development is usually discouraged in close proximity to lands that have been identified as conservation or are managed by a conservation entity such as VLCF, VDOF, DCR, and other various state federal and local organizations and agencies. These lands include:
     - lands for recreational purposes
     - lands for threatened or endangered species,
     - fish and wildlife habitat and natural areas
     - and agricultural and forestal lands and open space"

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
   - Pg. 67. "Conservation easements allow agricultural property owners to voluntarily restrict the right to develop their land. Related to this are Transfer or Purchase of Development Right (TDR) programs. These programs allow a farmer to voluntarily give up the development rights of their property, and transfer or sell those development rights to a developer in an area that is more appropriate for development. The farmer generally receives a cash payment and tax benefits, and the developer is allowed to develop at higher intensities than would otherwise have been possible. TDR programs are now permissible in Virginia."
   - Pg. 170. "There are many tools and techniques that may be used to acquire and fund open space and trails, such as conservation easement, cluster development, deed restrictions/covenants, reserved life estate, cash purchase, donation or gift, land exchange, purchase of development rights (PDR), transferable development rights (TDR), estate planning, conservation subdivision development, and intergovernmental agreements (IGAs)."

- Pg. 160. "The Plan supports protection of the Crooked Creek watershed from development. The Plan recommends policies and strategies to direct inappropriate development away from sensitive areas in the watershed. Property owners are encouraged to seek the use of Land Trust and Conservation easement vehicles that are available to them, as well as to use soil and water conservation strategies in the management of their property to increase the stewardship of the County's natural resources."

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
   - P. 89. Analysis of drainage paths rates land that is suitable for development. "'High Constraints' are locations within 500 feet of stream or river. 'Moderate Constraints' are within 500 feet and one quarter mile from drainage. 'Low Constraints' are greater than one quarter mile from drainage and are most suitable for development."
   - Pg. 93. Scenic River Analysis. "Impaired and Scenic River datasets were merged into one file. Areas within 500 feet of an impaired or scenic river received the least development suitability score, areas between 500 feet and 1/4 mile received moderate suitability score while areas outside 1/4 mile received the highest development suitability score."
   - Pg. 229. Resource Preservation Strategies.
     - Strategy 12. "Establish standards to require erosion and sedimentation control best management practices."
     - Strategy 13. "Establish standards to direct development away from stream valleys, floodways, sensitive waterways and other areas that are at high risk of water pollution or flooding."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
   - Pg. 88. Steep slopes were analyzed to determine suitability for development. "Topography was evaluated for the% of slope using GIS software. The areas of less than 15% slope were given the highest suitability rating while areas over 25% received the least suitable rating. Land in between 15% and 25% received a moderate development suitability rating."
   - Pg. 214. "Policy6.5: Protect open space, viewsheds and environmental features that contribute to the visual beauty and natural aesthetic of Carroll County."
   - "Policy6.7: Limit development activities on environmentally sensitive lands, including areas with high slopes and poor soil suitability. Depending upon the fragility of the resource, restrictions should limit or prohibit construction, grading, and vegetative clearing. Constrained land should be subtracted from land acreage on which development density is calculated."

8. <u>Conservation of working farms that can be broadened to include working forests</u>
   - Land Use Chapter focuses on protecting agricultural land and determining land that is most suitable for development. Forestry is not listed as a high priority for protection:
     - Pg. 56. "Agriculture is an intrinsic part of life in Carroll County, contributing to the County's heritage and economic health. Agriculture has been the predominant force behind the historic development and settlement patterns of the County. The County and its citizens recognize the importance of preserving and maintaining agriculture's role in the overall economy and life of the County and of preserving natural resources for the future residents of the communities in the County. Croplands and forested areas are shown in Map 2."

- Pg. 217. Policy10.2. "Protect productive agricultural lands from encroachment by incompatible residential, commercial or other intensive development."
    - Pg. 228. Strategy 10. "Provide tax incentives to encourage agriculture."
    - Strategy 11. "Develop and implement a strategic Agricultural Economic Development Plan and work program."

9. Other tools that could be broadened to include forestland
    - See #3 for Agricultural Zoning tools including Farm Priority Areas (FPAs), Small-Acreage Farming Areas (SAFAs), and the Agriculture Protection Tier.

10. Timing of Comprehensive Plan updates
    - Still in draft phase, Public Review DRAFT released July 8, 2010

11. # of acres of forest in county
    - 34,635 (11.5%)

12. Miscellaneous/Model language
    - Introduction Pg. 17. "These two major land use patterns [town and country] enjoy peaceful co-existence in the County, and the Plan will support and recognize the needs of both urban/suburban and agricultural/rural areas. The Plan supports clustering of development and other compact development forms in areas served efficiently by facilities and services while protecting prime agricultural land and allowing a rural way of life. It will support provision of different levels of service depending on the location and character of development to provide the best value and meet the expectations of residents."
    - Land Use Pg. 91. Wildfire risk assessment analyzes forestland at risk for wildfire and discourages development on or near these lands
    - Tourism Pg. 147. Promotion of ecotourism. "It is important to note that promoting developing ecotourism is only one component of a successful ecotourism development program. First and foremost, a healthy environment with connected, protected and accessible natural areas is critical. For the County to protect its ecotourism assets, it must prevent development from infringing on a critical mass of natural preserves."

Charles City County

"August 13, 2009" Comprehensive Plan Draft

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Natural Resources, page 4-23 under Forests: benefit county economically and environmentally
        - "Economically, forestry ranks second behind agriculture in contribution to the County's economy
            - Plan recognizes that all the forested land in the County is capable of producing quality trees of commercial value – according to DOF standing timber is valued at nearly $86 million in 1995 and annual harvest of wood contributed nearly $1 million to County landowners
        - Plan recognizes that forests benefit the environment by improving water quality, regulating water supply, cleaning air, providing habitat, and are also aesthetically pleasing, and provide attractive home sites and recreational areas."

    - Development Assessment, page 118: "Prime Agricultural and Forest Resources are considered Development Assets – "the management of agricultural and forestal resources is a high priority because of the importance of these lands to the local economy. Preservation of these resources is also important to maintaining the quiet, undeveloped (rural) character of the county."

2. Taxation (Use-Value, etc.)

    p. 9-7 Conservation Easement Tax Rate… "Prepare a report that addresses the pros and cons of adopting a lower tax rate for lands placed in permanent conservation easements that allow for existing farming and forestry to continue in perpetuity."
    - **Note that the County currently has not enabled use value taxation.**

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Existing Land Use Inventory, page 5-4, recognizes Agricultural Zoning (A-1) as including active and passive forestry harvesting operations and land in natural woody state

4. Conservation (Funding as well as Identifying specific forestland)
    - Land Use Strategies and Policies, page 9-7 under Rural Areas Strategy: "County citizens desire to maintain existing farming and forestry operations as they define much of the scenic and rural characteristics and are the top tax revenue generator. These areas are designated as Rural Areas in the comprehensive plan to strongly discourage their development."

    - Nothing mentioned regarding funding or identifying specific lands other than keeping these uses in Rural Areas and encouraging development in Development Centers

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 9-7. "Prepare a written assessment of the use of purchase of development rights to keep designated lands rural"
    - Conservation easement tax rate, see #2.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Much of this covered in Erosion & Sediment Control and Chesapeake Bay ordinances

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Much of this covered in County's Erosion & Sediment Control ordinance

8. Conservation of working farms that can be broadened to include forestland
    - Nothing was mentioned regarding working farms that didn't include forests – they were consistently grouped together throughout the plan

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Draft developed August 13, 2009

11. # of acres of forest in county
    - 80,000 acres or about 73% of County's land area

12. Miscellaneous/Model language
    - Goals and Objectives, page 127:
    - "Goal 2: New development will be consistent with the scenic integrity and quality of life of existing communities and be size and location appropriate, overall be compact.
    - Goal 3: Retain lands for farms and forests outside of Development Centers.
        - Preservation of Rural Areas: Rural areas should not be developed and major subdivisions not allowed.

- Rezone areas outside of Development Centers and Neighborhood Service Areas to prohibit major subdivisions and development not associated with existing uses. Objective: Encourage residential and light commercial development that is compatible with surrounding uses, and does not further degrade the rural character of the area."

Charlotte County

"2030" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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The main section of this report provides an overview for each of these topics and examples from other plans.

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 2-24. "Virginia agriculture generates approximately $36 billion annually in total sales for the state. Together, agriculture and forestry are the state's number one industry, contributing more than $47 billion to the state economy and representing more than 15% of total state employment (from Virginia Department of Agriculture and Consumer Services). As is most rural counties, agriculture is the foundation of Charlotte County's economy, both in culture and land use."
   - Pg. 2-26. Discussion of the agricultural and forestry economy including land uses, farm size, and trends.
   - Pg. 2-27/28. "Forestry and wood products is the second major element of Charlotte County's economy. Figure 2-34 illustrates timber harvest revenues in Charlotte County. Revenue was more than $8 million in years 1997, 1998, and 2000. Although revenue declined in 2001, it was still more than $5 million. Table 2-26 summarizes the forestry industry's overall economic contribution to Charlotte County in 1999, as estimated by the Virginia Department of Forestry." (Includes a detailed table showing Forest Industry's Economic Contribution to the county).
   - Pg. 2-28. "Charlotte County's land area is approximately 68.7% forest (Table 2-2, Figure 2-9), and the county realizes significant economic impact from the products of that land. The Virginia Department of Forestry estimates that every dollar that landowners receive for their timber generates more than $35.00 for the state's overall economy. Charlotte County relies heavily on its rural land to support its population. Loss of forest land will result in loss of both economic vitality and environmental stability in the county. Therefore, Charlotte County's leaders need to seek a balance between growth and development, and forest land retention."
   - Pg. 2-31 Trends. "Forestry – Another significant part of the county's economy; harvest income decreasing but forest products manufacturing sector remains strong."

2. <u>Taxation (Use-Value, etc.)</u>
   - Implementation Strategies. Pg. 6-3. "Conduct a study of future county financial needs and tax structure, including land value assessment policy, and farm machinery taxation."
   - *A 2010 report indicates that use-value taxation is not specifically enabled in Charlotte.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. 2-4. "Figure 2-6 is the current zoning district map. As shown on the zoning map, the county is almost completely an agriculture zone outside the towns, with very small industrial zones north and south of Keysville, adjacent to the southern border of Drakes Branch, and in the Wylliesburg area."
   - Pg 4-3. Rural, Agricultural, and Forestry Area:
     - "Purpose: To provide maximum flexibility and freedom for uses compatible with the rural environment while safeguarding against such uses as might be objectionable to most rural residents.
     - Policy: Not encourage development (as defined above) in this area, while encouraging activities that will help maintain the profitability of agriculture and forestry enterprises."

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Implementation Strategies Pg. 6-3. "Join farmers and government and private organizations to encourage and participate in programs to preserve and protect productive agriculture and forestry lands – for example, Best (land) Management Practices, reforestation programs, conservation easements, agricultural and forestry districts, agriculture enterprise zones, purchase of development rights, transfer of development rights, Virginia Farm Bureau FarmLink Program, cooperatives, land trusts, Federal Farm and Ranchland Protection Program, and U.S. Forest Service Watershed Forestry Program."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 3-5. Goal: "Preservation and enhancement of county scenic vistas"

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - November, 2006

11. # of acres of forest in county
    - 68.7% of the county is forest cover

12. Miscellaneous/Model language
    - Pg. 3-2. Issue: "Preservation of economically viable agriculture and forestry industries in Charlotte County
        - Goal: Preserve the productive agriculture and forest land and facilities in Charlotte County
        - Goal: Preserve economically viable agriculture and forestry enterprises in Charlotte County
            - Strategy Promote public support for agriculture through schools and community education, including awareness of and tolerance for the normal side-effects of agricultural activity
            - Strategy: Create a water quality and use plan that will protect agriculture and forestry lands, and will provide water for future new crop types
            - Strategy: Create a county land use policy that will protect existing agriculture and forestry activities, and will encourage the orderly and responsible growth of animal and plant industries
            - Strategy: Include rural enterprises and farm-based businesses in the economic development process
            - Strategy: Participate in private, state, and federal programs to protect and enhance agriculture and forestry land, production, and interests"

    - Pg. 6-3. "Agriculture and Forestry Recommended Actions for Implementation
        - Use soil capability information as part of land use planning and zoning decisions. (Planning Commission)
        - Establish appropriate area and land use buffer zones to protect productive agriculture and forestry lands and their watershed areas. (Planning Commission)
        - Join farmers and government and private organizations to encourage and participate in programs to preserve and protect productive agriculture and forestry lands – for example, Best (land) Management Practices, reforestation programs, conservation easements, agricultural and forestry districts, agriculture enterprise zones, purchase of development rights, transfer of development rights, Virginia Farm Bureau FarmLink Program, cooperatives, land trusts, Federal Farm and Ranchland Protection Program, and U.S. Forest Service Watershed Forestry Program. (All)
        - Conduct a study of future county financial needs and tax structure, including land value assessment policy, and farm machinery taxation. (County Administrator)
        - Conduct a study of current and future water requirements for agriculture, municipal, and commercial use, including ways to protect and preserve agriculture water supplies. (County Administrator)
        - Encourage organizations such as the Charlotte County Farm Bureau, Extension Service, Farm Service Agency, Soil and Water Conservation District, etc., to support and participate in the "Agriculture in the Classroom" program. (Public Schools Division)
        - Use the results of the Virginia Extension Service's agriculture situation analysis reports in future agricultural planning, land use planning, and zoning decisions. (Planning Commission, County Administrator)
        - Participate in programs to provide information and assistance to farmers in order to increase production and/or plant alternate crops (both food and non-food crops.) (Extension Office, County Administrator, USDA FSA)

- Encourage farmers to consult the Longwood Small Business Development Center to receive assistance when starting a new rural enterprise or a farm-based business. (County Administrator)
- Participate in programs to improve agricultural marketing initiatives such as farmers' cooperatives and local farmers' markets. (Extension Service, Farm Bureau, County Administrator)"

City of Chesapeake

"2026" Comprehensive Plan

This summary provides excerpts of the city comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the city's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the city's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the city is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans. This city is part of the ***Chesapeake Bay Watershed****. See Section 1 and #6 below for Bay watershed information.*

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - There is much language about preserving "natural areas" and "open spaces" and the social, economic, and environmental benefits of doing such. However, the plan rarely directly mentions the benefits of forestry and forestlands.
     - Pg. 19. "Chesapeake in the future will continue to value its natural legacy of waterways and adjacent open spaces as a design opportunity and amenity in its future growth and development. The natural pattern of waterways and wooded wetlands will become the backbone of a system of greenways that both link and buffer development areas and population centers throughout the City. They will provide recreational amenity, help clean the air and water and provide overall "green relief" within easy access of all residents and businesses in the future. The waterway and greenway network will become an organizing network for future growth as it has in other classic city designs, such as Boston's "emerald necklace" and Washington's "wedges and corridors." Chesapeake will become a City noted for the quality of the natural legacy it has preserved, as much as for the quality of its built environment.
     - Pg. 86. Rural Character District Design Principles: "Farming, forestry and compatible rural economic development should be encouraged as a way to make the [rural] district economically self-sufficient and part of a 'working rural landscape.'"
     - Pg. 232. "Chesapeake residents value highly their outdoor environment and its quality. The quality of life enjoyed by City residents is enhanced by the wealth of natural, cultural, historic and open space resources. They cherish the opportunity to enjoy the outdoors by visiting parks, participating in activities at community recreation centers, traveling scenic roadways, viewing farms and forested land, and enjoying a myriad of educational programs."

2. <u>Taxation (Use-Value, etc.)</u>
   - Not mentioned in plan, however, *a 2010 report indicates that Chesapeake has enabled use-value taxation for forest use, as well as for agriculture and horticulture, and open space.*

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. 71. Land Use Plan Designations:
     - Conservation: "Environmentally sensitive areas. These areas have been planned for conservation due to highly sensitive conditions. Areas delineated by identifying those areas that have at least 2 of the following criteria:
       -100 year flood plain (Source: FEMA Flood Plain Maps)
       -Highly erodible soils (Source: Chesapeake Soil Survey)
       -Designation as a wetland by the National Wetlands Inventory (Source: U.S. Fish and Wildlife Service)"
     - "Rural / agriculture based land use pattern. Permits farming and livestock operations, aquaculture, silviculture. Supporting commercial (i.e. businesses whose primary purpose is to provide support to the farming community such as feed and seed stores, farm machinery sales and repair) "
   - Pg. 73. Rural Overlay District. "The purpose of the Rural Overlay District is to preserve and protect the rural character of the southern portion of the City. The current Zoning Ordinance provides for densities no greater that one unit per three acres. Development in this overlay should be consistent with the design guidelines of the Rural Character District (see the Design element of this Plan).
     The City has advanced efforts in rural preservation such as the creation of the Open Space and Agriculture Preservation Program (OSAP), which is a development rights purchase program, and the creation of a clustering ordinance that may be used to minimize development impacts on the rural landscape. Other conflicting regulations and policies, however, have resulted in a gradual erosion of the rural character of the area. For example, subdivision regulations encourage the "stripping" of rural roadways which not only destroys the rural landscape, but creates land use compatibility problems with the adjacent agricultural uses and promotes and inefficient consumption of land resources.
     As a follow upon to this Plan, a comprehensive strategy will be developed and implemented to sychronize [sic] the City's rural preservation efforts. This strategy must address the coordination of the following ordinances, policies, and programs into a cohesive rural preservation strategy:
       - Rural Design Guidelines
       - Public Facilities Manual
       - Open Space and Agriculture Preservation Program
       - Subdivision Ordinance
       - Zoning Ordinance
       - Cluster Ordinance"

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Pg. 86. "Important natural features such as waterways and wooded corridors should be identified and preserved whenever possible and these areas should be a priority for future public and private land protection efforts. Priority should also be given to the areas and corridors identified in the region's Southern Watershed Area Management Plan (SWAMP)."

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>

- Pg. 152. "The most balanced strategy for habitat enhancement and preservation is to utilize the City's existing programs. Utilizing the City's existing open space and agricultural preservation program can provide permanent protection through an existing City purchase of development rights program. Establishing conservation corridors based on the recommended conservation corridors contained in the City's Southern Watershed Conservation Plan and Chesapeake Bay Preservation Area program would provide a logical, scientifically-based approach to conservation corridor design, because these programs have identified the most environmentally sensitive areas."

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
   - Extremely detailed water pollution control plan Pg. 124-135. Some excerpts:
     - Pg. 130. "The City also manages development of its waterways in the Chesapeake Bay watershed through the implementation of its local Chesapeake Bay Preservation Area (CBPA) Program, which seeks to address impacts to water quality from surrounding land uses. The purpose of the City's CBPA Ordinance includes preventing a net increase in non-point source pollution from new development, a ten percent decrease in non-point source pollution from redevelopment, and a 40 percent reduction in non-point source pollution from agricultural uses. To achieve this, the ordinance includes performance standards for development, redevelopment, and agriculture. The most common of these performance standards is to preserve or re-establish a 100-foot buffer adjacent to the Resource Protection Areas (RPAs), which include all tidal wetlands, non-tidal wetlands connected by contiguous surface flow and perennial water features. A map showing the location of the City's CBPA areas is included below."
     - "Retention of the 100-foot buffer area is deemed to achieve a 75% reduction of sediments and 40% reduction of nutrients. To maintain their pollutant removal integrity, development in these buffer areas is prohibited. In the City's designated Intensely Developed Areas, encroachment into the 100-foot buffer area is allowed in conjunction with the use of stormwater management Best Management Practices (BMPs) and low impact development techniques. A map of the City's IDAs is included below."
     - Pg. 131. "The purpose behind an IDA designation is to focus development activities where development has already been concentrated and is supported by existing infrastructure. In exchange for increased flexibility with buffer requirements offered by an IDA designation, the City's *CBPA Specifications Manual* recommends incorporating methods of improving water quality protection over time. These methods could include: consolidating surface parking, breaking up expanses of impervious cover; and revegetation measures of previously impervious surfaces. These are examples of what is popularly known as "low impact design." These low impact design requirements and others are included in the City's *CBPA Specifications Manual*.
     - Pg. 135. "The City should encourage the establishment of vegetated riparian buffer areas over time by creating incentives for redevelopment and infill development in the City's highly urbanized areas. The City will pursue funding for purchasing and establishing riparian corridors, in order to provide passive recreational opportunities for City residents, as well as enhance the area's water quality through preservation of floodplains, wetlands, and adjacent buffer areas."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>

- Land Use and Design Goals Pg. 66. "Preserve and maintain the visual quality and ecological functions of the open space system centered on waterways and other important natural resources."

8. Conservation of working farms that can be broadened to include working forests
   - City Form and Development Pg. 20. "Rural – Chesapeake will retain a well-defined and protected belt of rural landscape surrounding the more developed portions of the City. The rural area will not be a mere buffer zone, but a thriving working landscape, with programs that encourage new farming economy enterprises and rural industries that are compatible with the preserved rural character of the area."
   - Pg. 86. "The Rural Character District should be an area of preserved farmland, natural areas and small-scale rural communities and compatible employment uses. It is designed to support the goals of protecting working farmland and providing an open, rural landscape as a relief to the built up and developed areas of the City."

9. Other tools that could be broadened to include forestland
   - Pg. 154. "City's Open Space and Agriculture Preservation (OSAP) Program should be funded and target potential conservation corridor areas for participation in the OSAP program."

10. Timing of Comprehensive Plan updates
    - March 9, 2005

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. 87. Open Space System. **"**Providing a high quality of life for the residents and employees of Chesapeake will rely on creating an integrated and accessible system of outdoor amenities, including active recreation areas, passive natural areas and sufficient "green relief" for the developed portions of the City. Chesapeake is fortunate to have within its boundaries extensive and environmentally significant natural resources such as the Great Dismal Swamp and the Northwest River. It also has a network of many smaller waterways and natural corridors that interlace the developed areas and provide an unprecedented opportunity to create an open space network within the City. Open space and access to it are key indicators of community quality of life and Chesapeake should place a high priority on creating and maintaining this open space framework as an amenity to all residents and visitors in the City."
    - Pg. 117. "Beyond the fundamental understanding that clean air, water, and soil is necessary for good health, Chesapeake citizens and their elected leaders recognize that wise use and careful management of the City's environmental assets is necessary for a good quality of life, thereby ensuring a vibrant future for the City. The City's abundant natural resources create local character, attract and retain commerce, provide recreational opportunities for its residents, and protect public health and safety."

    - Pg. 150. "The preservation of habitat is broadly defined as the place where a plant or animal species naturally lives and grows; or consists of the characteristics of the soil, water, and biologic community (other plants and animals) that make this possible. Habitat enhancement and preservation is important, because it is necessary for the survival of native species, maintains

natural ecological processes, sustains air and water resources, and contributes to the health and quality of life for Chesapeake residents."

- Pg. 151. "The City's landscaping ordinance also provides a venue to further preserve and enhance the integrity of its natural habitat areas. Although the City landscaping ordinance specifies tree canopy requirements for new development, the City does not have a master forestry plan. Such a forestry plan together with the landscaping ordinance can provide a comprehensive forestry program which can help preserve high priority woodland tracts as well as enhance the functionality of impacted habitat areas."

Chesterfield County

"2010" DRAFT Comprehensive Plan

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Specific goals and objectives aim to preserve forests and farms for their economic importance (Chap 6 p 8).
    - "The preservation of natural resources can mitigate many of the negative impacts that development may have on the environment. Protecting wildlife habitats can preserve local ecosystems; forested areas absorb carbon emissions, therefore improving air quality; while preserving resource protection areas can have a direct impact on protecting the water quality of local drinking water sources and the Chesapeake Bay." (Chap 9, p 2)
    - "Countryside generally is the location of the largest areas of green infrastructure, including both large tracts of forested land and agricultural land. The environmental health of the developed portions of the county depends on the preservation of countryside areas for local agriculture, wildlife habitat, and water quality recharge areas, just as the significant recreational opportunities provided in these areas enhances the quality of life for Chesterfield County residents." (Chap 9 p 4)

2. Taxation (Use-Value, etc.)
    - GI 3.4.1 **Property Taxes**. "Support the preservation and economic viability of production and working lands through the property tax policies of the county." (Chap 9, p. 9)
        - Not directly mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - GI 2.4.1 **Agricultural Zoning**. "Develop a more comprehensive range of zoning categories or designations that support agricultural preservation to better enable the county to coordinate rural land uses with overall Comprehensive Plan goals and objectives." (Ch. 9 p 7)
    - The Land Use Chapter notes that development in countryside should be clustered and should occur in conservation subdivisions "that maximize open space protection by locating structures on 25%-40% of the property, remaining lands should be permanently protected through conservation easements." (Chap 3, p 14) – No specific mention of zoning

- GI 1.4.3 **Farmland Preservation. "**Establish farmland preservation techniques such as purchase or transfer of development rights, zoning for agricultural preservation, and agricultural stewardship programs." (Chap 9 p 6) – **Could be expanded to include forestry**
- Zoning Ordinance PDF notes existence of and uses permitted in Agricultural Zone (A) and Conservation Subdivision Residential Districts

4. Conservation (Funding as well as Identifying specific forestland)
    - GI 2.1.1 **Conservation Easements. "**Encourage the dedication of conservation easements on both private and public lands with the assistance of non-profit and other private sector organizations." (Chap 9 p 7)
    - GI 1.4.1 **Prime Agriculture and Forest Land.** "Identify and encourage the conservation of prime agriculture and forest land." (Chap 9 p 6)

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to Forestlands
    - GI 2.1.1 **Conservation Easements. "**Encourage the dedication of conservation easements on both private and public lands with the assistance of non-profit and other private sector organizations." (Chap 9 p 7)
    - **Farmland Preservation**. "Establish farmland preservation techniques such as purchase or transfer of development rights, zoning for agricultural preservation, and agricultural stewardship programs." (Chap 9 p 6) – **Could be expanded to include forestry**
    - GI 3.4.2 **Transfer of Development Rights.** "Support the preservation of production and working lands through the development and implementation of purchase or transfer of development rights programs."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Stream buffers are mentioned
    - See county's Chesapeake Bay Ordinance for more on stream buffers and steep slopes.

7. Viewsheds/Visual Buffers/Critical Slopes Protection
    - **Steep Slopes**. "Discourage development along steep slopes to prevent soil erosion, downstream flooding and habitat destruction."(Chap 9 p 6)

8. Conservation of Working Farms that can be Broadened to include forestland
    - **Farmland Preservation**. "Establish farmland preservation techniques such as purchase or transfer of development rights, zoning for agricultural preservation, and agricultural stewardship programs." (Chap 9 p 6)

9. Other tools that could be broadened to include forestland
    - See #3 and #5

10. Timing of Comprehensive Plan updates
    - March 3, 2010 Working Draft

11. # of acres of forest in county Not addressed in plan

Clarke County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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Section 1 of this report provides an overview for each of these topics and examples from other plans.
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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Not addressed in plan

2. Taxation (Use-Value, etc.)
   - Pg. I – 26. "The Clarke County Commissioner of Revenue classifies land for the purpose of taxation based on actual use, following criteria established by the Virginia Department of Taxation. Two of these classifications are applied to agricultural land and are differentiated based on acreage." *Not detailed in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. I – 26. Agricultural – Open Space – Conservation (AOC) Zoning District "This district provides zoning regulations to control land use. It was established by the County Board of Supervisors in 1980 and was applied to most of the Valley portion of the County."
   - Pg. I – 26. Agricultural District
   - Pg. I – 27. Agriculture (cropland/pasture) Land Cover
   - Pg. I – 28. Sliding-Scale Zoning – In use for Agricultural/Open Space/Conservation (AOC) Zoning District and Forestal/Open Space/Conservation (FOC) Zoning District.
   - Agricultural and Forestal districts are enabled and in use in Clarke County. As of 2010, the County recorded two districts with over 28,000 total acres.

4. Conservation (Funding as well as Identifying specific forestland): Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. II – 6. Pg. Policy 12. "Encourage and expand support for, the Conservation Easement Purchase Program**,** both philosophically and financially, to protect natural resources important to preserving soils, watersheds**,** air and water quality, scenery, and natural habitats."
   - Pg. II-6. "Ensure that the natural and/or cultural features of properties held in recorded Conservation Easements and state designated scenic rivers are protected when

reviewing land use decisions, such as rezoning, special use site plan, and subdivision requests on adjacent properties."
- Pg. II – 3. Transfer of development rights – *Suggested in plan for future implementation*

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - II – 5. Policy 6. "Protect local and regional water resources through application of the Chesapeake Bay Management Regulations to environmentally sensitive areas such as perennial streams, floodplains, wetlands, steep slopes, and highly erodible soils."
   - 11-6. Policy 10. "Establish specific performance guidelines to include riparian buffers for Chesapeake Bay Resource Protection and Resource Management Areas regarding land use and development related activities."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - II – 6. Policy 9. "Promote the placement of scenic easements on lands adjoining or visible from roads designated as Scenic Byways and protect the scenic value of those lands when making land use decisions and plans."

8. Conservation of working farms that can be broadened to include forestland
   - See Chapter III. Agricultural Land Plan is extensive but does not include forestland.

9. Other tools that can be broadened to include forestland
   - II – 6. Policy 13. "In response to requests for rezoning land for more intensive use, encourage the placement of land use easements on important scenic, historic, open-space, conservation, agricultural, or wildlife-habitat lands as a component of the rezoning actions."
   - Pg. I – 26. Agricultural Land
   - Pg. I – 27. Agriculture (cropland/pasture) Land Cover

10. Timing of Comprehensive Plan updates March 20, 2007

11. # of acres of forest in county Not addressed in plan

12. Miscellaneous/Model language
    - **II – 4. Objective 2. "**Preserve the natural beauty and protect the ecology of forested areas to ensure that development in those areas is in conformance with their environmental limitations through the following policies and the Mountain Land Plan."
    - **Policies "**Promote multiple uses of forested land … such as outdoor recreation, wildlife habitats, watershed protection, and timber harvesting." (See II-4 for other policies)
    - Agricultural Land Plan – "Clarke County has been, and continues to be, a predominantly rural and agricultural environment. Agriculture is the defining characteristic of the County. It is Clarke County's most significant economic, cultural, and historic feature. The Agricultural Land Plan… seeks to:
      1. Minimize the impact of nonagricultural residential development;
      2. Minimize the size of parcels created for residential purposes in rural areas;
      3. Keep residual tracts as large, and therefore as agriculturally viable, as possible; and
      4. Provide for residential growth within the designated growth area."

Craig County

"2002" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Agriculture. Pg. 28. "Much of the scenic beauty of Craig County comes from its agricultural and forestland uses."

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan. However, no uses are enabled for use-value taxation.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 52. "The County should study an Agricultural and Forestal District Ordinance or a Land Use Assessment Ordinance as a means of assisting farmers to afford to stay in business." *This section can be strengthened by including forests, but likely reflects the County's many acres of commercial forests.*

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 29. "It will be important for the County to find ways of assisting farmers retain their farmland and resist development pressures."

- Agricultural and Rural Conservation. Pg. 47. "Encouraging good stewardship of these areas will serve various purposes. First, conservation of agricultural areas will ensure that agriculture remains a viable element in the County's economic structure. Agriculture is an important part of the County's heritage and current way of life. Second, conservation of the county's rural areas will help preserve important watersheds. Third, conservation will help maintain low density of settlement of these areas. Fourth, conservation will help to hold the land in an open condition to accommodate future county needs. Strip development along highways in areas designated as agricultural and rural conservation areas on the Land use Map should be discouraged."

9. Other tools that can be broadened to include forestland
    - See #3 Land use assessment

10. Timing of Comprehensive Plan updates
    - **Began review and update process in 2010**

11. # of acres of forest in county
    - 160,000

12. Miscellaneous/Model language
    - None identified

Culpeper County

"2010" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Woodland Features. Pg. 4-10. "In addition to commercial timber opportunities, wooded areas also provide the following: watershed protection through storm water management and erosion control; aesthetic and scenic opportunities; air pollution and noise reduction; groundwater recharge areas; and recreation."
    - Pg. 5-1 "Farming and Agriculture are primary sources of income and employment in Culpeper County, as they have been for most of its history. Farmland represents nearly half of the land use in the County, although that percentage has declined over the last five years due to residential and commercial growth. In 2002, 51.3% or 125,121 acres of the County's total land mass was in farm use. In 2007, that number had declined to 45.7% or 111,370 acres. Although 13,751 acres of farmland were lost, the total number of active farms in Culpeper County decreased to 667. In 2007 cropland accounted for 50% of farmland in Culpeper County, with pasture accounting for 28%, woodland 18%, and other uses 4%."

2. Taxation (Use-Value, etc.)
    - Taxation. 10-1. "Agricultural and forestal land uses comprised approximately 60.8 percent of the total land area in Culpeper County in 2009. This is a decrease of approximately 2.3 percent since 2003. Agricultural land subject to land use taxation encompasses 37.1 percent of the County, while forestal use encompasses 23.7 percent (see Table 10.1). There are 2,549 parcels in the land use tax program as of mid-2009."
    - As of 2008, Culpeper County had enabled use-value taxation for agriculture, forestry, and horticulture, but excluded open space as an eligible use.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Agricultural & Forestal Districts. Pg. 5-6. "Agricultural and Forestal Districts are established under guidelines set forth by the Code of Virginia, §15.2-4300, to protect agricultural and forestal lands. Districts are initiated by local landowners on a voluntary basis. There are approximately 49,485 (as of June 5, 2009) acres of land in fifteen

Agricultural and Forestal Districts in Culpeper County (see map 5.1) representing 20.53% of total County land. The newest Agricultural and Forestal District, Point of Fork, was created in June 2007."

- Pg. 14-7. "The Agricultural and Forestal District program outlined in Chapter 5 provides for voluntary restrictions on development in order to protect farm and forestland. This program should not only be maintained, it should be strengthened through the introduction of greater incentives to enroll."
- Although not mentioned in plan, the Culpeper County Agricultural/Forestal District Ordinance requires newly created subdivisions adjacent to property within an existing agricultural and forestal district to provide buffers from the property lines inside of the newly subdivided parcel wherever there is Agricultural/Forestal land directly adjacent.
- Agricultural Zoning District (67% of county land), Rural Area District (21% of land).

4. <u>Conservation (Funding as well as Identifying specific forestlands)</u>
    - Not addressed in plan

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestlands</u>
    - PDRs. Pg. 5-9. "In September of 2007 the Culpeper County Board of Supervisors established a countywide agricultural reserve program by which the County is able to acquire the development rights on eligible parcels of farmland. Funding should be made available for this program in order to purchase development rights and prevent further division of prime agricultural lands." *This could be broadened to include forestland.*
    - Pg. 5-9. As a complement to the County's newly adopted PDR program, a TDR program should be developed and implemented when economically viable. The TDR program should also be closely tied to the urban development areas (UDAs) which are addressed in Chapter 12 of this Plan.
    - Pg. 14-7. Conservation easements are being utilized increasingly by private property owners in order to protect land and realize tax benefits. The County should encourage, and facilitate to the extent possible, the establishment of such easements.

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
    - Pg. 4-4 – 4-5. Buffers are discussed in Hydrology section under surface hydrology.
    - Pg 4-18. Implementation Strategy 6. "In order to protect the water supply the County will require that a natural vegetated buffer areas of at least 200 feet be provided along Lake Pelham and Mountain Run Lake, at least 100 feet shall be provided along primary creeks and streams leading into those Lakes, and at least 50 feet shall be provided along tributaries to the lakes and to those creeks and streams. Adequate mechanisms are needed in development proposals to insure that these areas remain and be maintained in a natural state."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
    - 9-6. "Encourage development that is located, situated, and buffered so as to maintain a high degree of the existing physical and visual integrity while still recognizing the appropriate development as outlined in the Future Land Use Plan (see Chapter 11)."

    - Pg. 4-11. "[As shown in diagram 4.1] a large portion of the County is wooded. Retention of this acreage will help ensure that the environmental quality of the community is

protected. Areas that are managed for commercial timber operations should use Best Management Practices (BMP) and should enact a reforestation plan. Areas under development should provide plans that indicate preservation of the existing woodland features and re-vegetation of areas that are denuded in order to reduce the erosion, sedimentation, and storm water runoff impacts on downstream areas. Retention of existing woodlands on slopes greater than 15% is encouraged."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 5-10. "Protect farming operations from encroachment of incompatible land uses."
    - Pg. 12-4. "Active farm land is also a community asset and should be protected."

9. Other tools that can be broadened to include forestland
    - PDR (See #5)

10. Timing of Comprehensive Plan updates
    - Written in 2010

11. # of acres of forest in county
    - 57,713.72 acres, 23.7% of county

12. Miscellaneous/Model language
    - Pg. 4-11. "As shown in diagram 4.1, a large portion of the County is wooded. Retention of this acreage will help ensure that the environmental quality of the community is protected. Areas that are managed for commercial timber operations should use best management practices and should enact a reforestation plan."

    - Pg. 4-30. "Recommend to forestland owners, through the Virginia Extension Agent, that they develop a forest conservation plan which addresses timber stand improvements, utilization of damaged timber, sound harvesting techniques, pest control and reforestation practices."

    - Pg. 5-10. "Encourage woodland landowners to develop and use a woodland conservation plan which addresses timber stand improvement, utilization of damaged timber, sound harvesting techniques, pest control and reforestation."

    - Goal. 5-10. "Protect, Promote, and enhance Agricultural and Forestry as a Land Use.
        1. Maintain and encourage continued enrollment of land in Agricultural and Forestal Districts.
        2. Protect farming operations from encroachment of incompatible land uses.
        3. Structure plans and ordinances to ensure appropriate development of lands adjoining agricultural areas.
        4. Weigh the value of land use and policy decisions on agriculture.
        5. Encourage landowners to convert marginal pasture or cropland to forestland.
        6. Encourage woodland landowners to develop and use a woodland conservation plan which addresses timber stand improvement, utilization of damaged timber, sound harvesting techniques, pest control and reforestation.
        7. Encourage landowners to utilize the forestry practices offered in the Chesapeake Bay Cost Share Program.

8. Study the feasibility of implementing a Transfer of Development Rights (TDR Program, in order to discourage growth in areas of prime farmland." – **This could be broadened to include forests.**

Cumberland County

"2006" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 51. Land Use Plan. "…farming and forestry are major forces in the local economy with $28.3 million in agricultural receipts ($25.7 million in livestock/poultry receipts and $2.56 million in crops) and over $5.2 million in forestry."

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture, horticulture, and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)

    - Pg. 63. Agricultural / Forestal districts are suggested in plan.
    - Pg. 63. Future Land Use Map. Rural/Agricultural Area – "Recognizing that one of its richest assets is agricultural, forestal and rural lands, Cumberland wants to protect these areas and natural resources and to ensure that a rural quality of life is maintained. By limiting subdivisions and suburban style growth in these areas, agricultural and forestal production may continue as well as the conservation of natural and historic resources. Land conservation tools such as conservation easements, PDR programs and other tax incentive programs, may be used to encourage minimal development in these areas."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 63. Conservation easements are suggested in the plan.
    - Pg. 63. PDR – suggested in plan. ***Update**: Cumberland has adopted a PDR program as of 2009. The current ranking criteria could be strengthened to include working forests.*

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - Agriculture: **"**It is the goal of this comprehensive plan to protect and develop the agricultural interests within Cumberland County.
        - Objective 1: Preserve prime farmland within Cumberland County.
        - Policy: Working with individual farmers, the Farm Bureau, the U.S. Farm Service Agency, and other agencies, identify and inventory all prime farmland within Cumberland County."

    - Pg. 71. Objective 2: "Encourage the preservation and expansion of the agricultural economy.

      Policy: County ordinances, regulations & policies will be aligned with this goal.
      Policy: Explore the development of new agricultural product opportunities.
      Policy: Explore the development of new agricultural industries supporting local farming including those relating to processing of agricultural produce, packaging, marketing and transportation.
      Policy: Encourage the use of best management practices in the conduct of all farming activities.
      Policy: Strengthen agricultural education in the public schools."

9. Other tools that can be broadened to include forestland
    - Tools mentioned in #5 already include forestland

10. Timing of Comprehensive Plan updates
    - August 15, 2006

11. # of acres of forest in county
    - 135,560 acres of forestland in 1999

12. Miscellaneous/Model language

Dickenson County

2008 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 23-25. Discussion of timber types, amounts, and harvesting practices. "Through better management techniques, such as proper pre-harvest, harvest, and post-harvest practices, the quality of this renewable resource will be improved. In addition, proper management will protect soil and water quality and enhance wildlife."

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan, however, a 2010 report indicates that Dickenson has not enabled use-value taxation.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Not addressed in plan

4. Conservation (Funding as well as Identifying specific forestland)
   Not addressed in plan
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 76. "Areas with slopes in excess of 20 percent are generally considered unsuitable for urban type development. This presents severe development problems, and a suitability analysis should be performed before any land is developed in Dickenson County."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - 2008

11. # of acres of forest in county
    - 182,045 (86%)

12. Miscellaneous/Model language

Dinwiddie County

"2006" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Natural Conditions. Pg. xii. Lists economically important species found within the county and that this renewable resource provides benefits for the county from monetary income to recreational beauty.
    - Economy. Pg. xiv. Employment in the agricultural, forestry… sector grew from 1990 to 2000.

2. Taxation (Use-Value, etc.)
    - Land Use Development Goals. Pg. xi. "Study current and potential taxing structures and alternatives, especially for large timber holdings …to more equitably spread the tax burden."
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture, horticulture, and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. xi-5. "Permit large land owners, i.e., timber companies, agricultural land under cultivation, etc., in urbanizing areas to continue functioning under favorable zoning classification if this action does not impose an undue economic or development hardship upon the County."
    - Pg. xxii. Agricultural zone

4. Conservation (Funding as well as identifying specific forestland)
    - Pg. xxxi. "The remaining land in the County is in the Rural Conservation Area (see Map X-1) and is to remain in the following least intensive land use categories: low density residential, agricultural, and natural Conservations areas."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland

- Pg. xi. "Study the development and use of transfer of development rights provisions as a tool to manage and direct growth in designated areas."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Private Recreation and Open Space. Pg. xxii. "Timberland also provides a buffer zone between urbanized and rural areas."
   - Agricultural and Timber lands. Pg. xxii. "Encourage forestry operators to maintain vegetative buffers between cleared areas and public roadways in order to preserve the scenic beauty of the County."
   - Pg. xxvii. Steep slopes are defined, erosion potential is discussed, erosion and sedimentation control techniques are required of most land-disturbing activities.

8. Conservation of working farms that can be broadened to include forestland
   - Agriculture. Pg. ix-4. "It becomes increasingly difficult for the farmer to retain land in agricultural use as suburban-type development pushes farther into rural sections. Such development tends to increase the assessed value of adjacent land. Faced with higher costs of operation and higher taxes, the farmer is under considerable pressure to sell his holdings.
   - Objective F. Pg. xii. "Maintain and enhance the agriculture and farming resources as an integral sector in the county."
   - Pg. xi-2. "Limit the number and intensity of permitted uses, to include residential structures, in agricultural zoning districts."
   - Pg. xi-2 "Protect existing agricultural operations from conflicts with other land uses."
   - Pg. xi-2 "Establish a pattern of residential and commercial development that causes minimal conversion of agricultural land or disruption to agricultural areas."

9. Other tools that can be broadened to include forestland
   - See # 5- TDR

10. Timing of Comprehensive Plan Updates
    Current plan is 2006

11. # of acres of forest in county
    - 244,049 acres

12. Miscellaneous/Model language

Essex County

"2003" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Pg. 29. Forest Resources. "The forest industry in Essex County is an important component of the County economy and County rural character…The patterns of ownership and management of forest resources are important when considering forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are an excellent filter area for wetlands groundwater recharge. Forests also form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas serve as an effective visual and noise buffer between land uses. Best management practices for the timber industry ensure the conservation of the County's extensive forest resources."
    - Pg. 46. Forestland Use. "The economic value of the forest to Essex County is great. Private landowners receive over 2 million dollars annually for timber harvested in the County…The wood that is harvested in this County helps to support 22 sawmills, 5 planning mills, 5 treatment plants, 4 pulpwood concentration yards, 2 pallet manufactures, and 5 pulpmills."

2. <u>Taxation (Use-Value, etc.)</u>
    - Pg. 47. Forestland Taxation. "Currently forestland taxation ranges from $400 to $1600 per acre depending on its location, timber size, and value. There is **no land use [tax]** in Essex County; however, the Code of Virginia permits Forestal Districts to be established if requested by a landowner to a locality. Timber harvesting and reforestation are not limited and are protected by the Right to Practice Forestry Law... This law does not restrict the landowners right to develop the property nor does it exempt it from regulations under the Chesapeake Bay Preservation Act."
    - ***Update**: A 2008 report indicates that Essex has enabled use-value taxation for forest use, agriculture and horticulture and open space uses.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 8. "State statues permit landowners voluntary formation of agricultural and forestal district. Encouraging landowners to create such districts further the comprehensive plan objectives for preserving farmland, forestland and rural character."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Pg. 122. Designation of Resource Management Areas. "The implementation of the RMA goals will be accomplished by specific provisions in the County zoning, subdivision, erosion and sedimentation control, and floodplain ordinances. Implementation will also rely on an effort to improve the capacity of staff and general public through supporting educational opportunities related to managing and enforcing the Chesapeake Bay Program."
    - Pg. 131. Resource Protection Policies. "It is the policy of Essex County to maintain measures for buffering all stream systems that are within the RPA in the County for a distance of 100 feet from the impacts associated with development activities to insure protection of surface of water quality in all County streams. Such measures for streamside buffering shall include requiring protection of streamside (riparian) forest cover where it exists, through proper implementation of BMPs and encouraging re-establishment of forest cover or reforestation where it does not presently exist along the streams."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 98. Highway Corridor Enhancement District. "Increased buffering requirements to screen unattractive buildings from view which provide for a mix of canopy, understory tree and shrub level planting
    - Pg. 143. "Slope regulations should be enacted" – Suggested in plan
    - Pg. 120. "Buffer areas of undeveloped vegetated land that are managed to reduce the impact on water quality of land disturbing operations in adjacent areas. Vegetated buffer areas provide a wide variety of environmental benefits, including sediment control, nutrient assimilation, stream back stabilization, in-stream temperature maintenance, flood control and protection, groundwater recharge area protection, and runoff volume reduction."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 78. Goal: "Protect the land resources necessary to support the County's Agricultural and timber harvesting industries and maintain and enhance its rural character." **This section and points below could be strengthened by including forests.**

- Objectives: "Limit consumption of land for residential development in agricultural areas using density limitations and clustering techniques."
- "Preserve the County land base of productive agricultural soils in rural areas for farming."
- "Minimize the conflicts which can occur between farm activities and residential development. Establish provisions in the Zoning Ordinance which support the farmers "right to farm" in the Agricultural Preservation and Country-side plan districts."
- "Support economic development programs which facilitate diversification of the agricultural economy and products, enhance farm product marketing or in other ways assist farmers to maintain an economically viable industry."

- Pg. 89**.** The list of concepts could be broadened to include Agricultural/Forestal Preservation Districts (not just agricultural).
- Pg. 96. Agricultural Preservation District - **This section could be strengthened by including forests.**
  - "To minimize future impacts on the County for costs of services, and to maintain the agricultural land base necessary to support a continued viable agricultural economy this district substantially limits residential development"

9. <u>Other tools that can be broadened to include forestland</u>
   - See # 2 land use tax

10. <u>Timing of Comprehensive Plan updates</u>
    - Completed April 2003

11. <u># of acres of forest in county</u>
    - 105,000 acres

12. <u>Miscellaneous/Model language</u>
    - Pg. 71. "Guide future development into efficient and serviceable form which is protective of the County's predominantly rural character."
      - "Conserve farmland, forested areas, open space, and rural character"
    - Pg. 73. "Protect and enhance the natural resources and environmental qualities of the County through measures which protect the County's natural resources and environmentally sensitive lands and waters."
      - "Conserve forest resources within the County while supporting the timber harvesting industry as an important component of the County economy."

Fairfax County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture and horticulture use.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - As of 2010, Fairfax listed 30 Agricultural and Forestal Districts with a total of over 3,200 acres. Note that many of these are "local" AFDs, which differ in size requirements (20 instead of 200 acres minimum per parcel).

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 11. Land Use. Land Conservation- Conservation easement – in use
    - Pg. 11. Land Use. Land Conservation - Open Space/Historic Preservation Easements Program – in use

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 8. Policy Plan. Policy L. "In order to augment the EQC (Environmental Quality Corridor) system, encourage protection of stream channels and associated vegetated riparian buffer areas along stream channels upstream of Resource Protection Areas (as designated pursuant to the Chesapeake Bay Preservation Ordinance) and Environmental Quality Corridors. Where applicable, pursue commitments to restoration of degraded stream channels and riparian buffer areas."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 8. Policy Plan. "Encourage the preservation of wooded areas and steep slopes adjacent to stream valley EQC areas."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 2. Land Use. Open Space – "Fairfax County should support the conservation of appropriate land areas in a natural state to preserve, protect and enhance stream valleys, meadows, woodlands, wetlands, farmland, and plant and animal life. Small areas of open space should also be preserved in already congested and developed areas for passive neighborhood uses, visual relief, scenic value, and screening and buffering purposes."

9. Other tools that can be broadened to include forestland
    - Pg. 11. Land Use. Land Conservation. "In order to take advantage of open space/conservation easements as land conservation tools, the Board of Supervisors established the Fairfax County Open Space/Historic Preservation Easements Program... This program is committed to conserve natural and heritage resources as allowed by the Code of Virginia, such as open space, sensitive environmental resources, trees, scenic vistas, historic sites and recreation uses such as trails"

10. Timing of Comprehensive Plan updates
    - 2007

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. 16. Policy Plan. Environment. "The retention of environmental amenities on developed and developing sites is also important. The most visible of these amenities is the County's tree cover. It is possible to design new development in a manner that preserves some of the existing vegetation in landscape plans. It is also possible to restore lost vegetation through replanting. An aggressive urban forestry program could retain and restore meaningful amounts of the County's tree cover."

Fauquier County

"1992-2010" Comprehensive Plan; Plan chapters have been reviewed and updated over time

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Chapter 2. Pg. 13. "The forestlands within the County not only provide raw materials for forestal industries and an economic income for forestland owners, they also provide environmental benefits to all of the people who reside within the County. These benefits include watershed protection, soil erosion and stream sedimentation control, recreational opportunities, air pollution and noise modification, screening for privacy, wildlife habitats, and general visual beauty."

2. <u>Taxation (Use-Value, etc.)</u>
    - Chapter 4. Pg. 16. "Special Land Preservation Assessment Taxation (Land Use Assessment)- The Land Use Assessment program allows the County to reduce the amount of taxes one pays on properties engaged in agricultural, horticultural, or forestal production in order to promote the preservation of these types of land uses…The Land Use Program continues to help the County maintain its goals of preserving agricultural and open space in its planned rural areas. Presently, of the 25,549 parcels in the County, 3,726 are in the Land Use Program covering 266,485 acres."

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Chapter 4. Pg. 12 Agricultural District (RA)
    - Chapter 4. Pg. 12. Conservation District (RC) – "contains those mountains which are environmentally sensitive, have physical limitations, and contain much of the County's timber resources. The regulations are designed with emphasis on the conservation of those areas to minimize the potential adverse impacts of development while providing for compatible very low density residential uses."
    - Chapter 4. Pg. 15 Agricultural/Forestal Districts – defined and in use
    - Chapter 4. Pg. 15. Conservation Easements- defined and in use
    - Chapter 8. Pg. 12. Sliding-Scale zoning- defined and in use
    - Chapter 8. Pg. 14. The County's Subdivision Ordinance currently defines a large lot division as any division where all the parcels are fifty (50) acres or larger

4. Conservation (Funding as well as Identifying specific forestland): See #5

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Chapter 8. Pg. 6. Purchase of Development Rights- defined and suggested in plan. *Update: Fauquier has adopted a PDR program, and it is active for farmland. This program could be strengthened to further protect working forests.*
    - Chapter 8. Pg. 6. Creation of a Fauquier County Agricultural and Forestal Land Trust- This would be a private nonprofit organization, which would work closely with the County to offer a vehicle for landowners who want to protect their farm, forestal and open space by putting their land in a private trust.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Chapter 8. Pg. 19. The plan recommends that the county "Adopt appropriate recommendations from the Chesapeake Bay Act Protection Ordinance"
    - See also #12 Overlay District

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Chapter 2. Pg. 13. Steep Slopes. "Although steeply sloping areas can provide breathtaking vistas and are often sought after for residential development, they are also areas of special concern and are very sensitive to development. Generally, steep sloped areas are quite susceptible to erosion. The amount of susceptibility and erosion which may occur varies according to the amount of rain, length of slope, ground, cover, grade, and the erosion characteristics of the soil type. For example, erosion from a 25% slope can be as much as 15 times that from a 4% slope."
    - Chapter 8. Pg. 19. Place further restrictions on land disturbing activities on steep slopes.

8. Conservation of working farms that can be broadened to include forestland
    - Chapter 8. Pg. 4. "If the rural areas in the County are to be maintained, agriculture and the agricultural based economy must be sustained and enhanced. Two major themes for sustaining agriculture are: 1) the agricultural economy should be economically sound, and 2) agriculture must be anchored in laws and governmental policy that shape the pattern of urban and suburban development to channel new residential, commercial and industrial facilities into those areas that do not conflict with the conduct of agricultural affairs. The County needs to nurture agriculture and help preserve the land resource for future farming opportunities through actions and programs under its control and domain. That is the objective of this plan for the Rural Areas."

9. Other tools that can be broadened to include forestland

10. Timing of Comprehensive Plan updates Unknown, as plan has been updated continually.

11. # of acres of forest in county
    - 1992 - 175,188

12. Miscellaneous/Model language

- Chapter 8. Pg. 17. Overlay District. "As a supplement to the Rural Agricultural (RA) and Rural Conservation (RC) Districts, consider the development of Special Agricultural, Environmental, Historic, and Riparian Buffer Districts. Such a flexible and creative tool can be used to manage unique agricultural, environmental or historic attributes that specific land areas might hold individually or in combination. Those attributes could include, for example, specific agricultural/forestal district areas, or any combination of prime agricultural soils, woodlands, historic buildings or land, valuable views, unique vegetation or habitats, water supply/resources (e.g., potential reservoir areas), sensitive wetland and associated resources, and mountainside resources. An example of one recommended alternative is the creation of a Riparian Buffer or Watershed Overlay District, wherein owners of streamside property would voluntarily implement forested riparian buffers."

Floyd County

2002 Comprehensive Plan (updating as of Jan 2011)

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 10. "Forested lands comprise 55% of the County's land area. Eastern white pine, yellow poplar, hickory and oaks are the predominant species which provide a most valuable resource. The tree growth potential in the County is excellent due to the adequate rainfall and deep fertile soils. The forests support a diverse and changing forest industry including balled and burlapped nursery stock, Christmas trees, and products for the medical and floral industries. While logging and saw-milling have generally declined due to foreign competition, nursery businesses have grown dramatically. Therefore, many County residents continue to depend upon the forests for their living. In addition, the forests provide many intangible benefits which combine to make Floyd an attractive place to live and work. Forest beauty, hunting, hiking, erosion control, groundwater recharge and wildlife are all benefits enjoyed by the residents and visitors to Floyd County."

2. Taxation (Use-Value, etc.)
   - Only mentioned within the definition of Ag/Forestal districts in Appendix B. However, a 2010 report indicates that Floyd has enabled use-value taxation only for agriculture, horticulture and open space. **Forestry is currently ineligible for use-value taxation.** *This measure can be strengthened by including forests, but likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Zoning is not addressed in the plan. A future land use plan is identified with agricultural and conservation land use areas. Zoning ordinance was not available online, though it is referenced a few times in the plan.
   - Pg. 67. "Encourage cluster development, so that residential development is more dense leaving a large common space."
   - Appendix B. Definition of Ag/Forestal Districts and suggested as implementation measure.

4. Conservation (Funding as well as Identifying specific forestland)

   See # 5

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 68. "Encourage conservation easements which ensure farming use."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 67. "1.1.C Recognize Little River and other streams as valuable resources:
        - Increase public awareness and consideration of voluntary assessment tools and "best practice" resources to land owners and recreational users.
        - Encourage needed land management changes to remove Dodd Creek from impaired waters list."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 76. "Development on steep slopes should be in compliance with erosion and sedimentation requirements."

8. Conservation of working farms that can be broadened to include working forests
    - Pg. 81. "Encourage owners of prime and locally important farmland to preserve these areas for high agricultural productivity by the use of conservation easements or agricultural district."

9. Other tools that could be broadened to include forestland
    - Pg. 68. "Improve profitability of farming:
        -Encourage specialty niche products.
        -Encourage cooperation and coordination among farmers.
        -Review tax policy for possible incentives and relief."

10. Timing of Comprehensive Plan updates
    - Fall 2002, currently updating

11. # of acres of forest in county
    - 143,873 acres (55% of the County's land area)

12. Miscellaneous/Model language
    - Pg. 68. 1.2.C "Conserve Forests:
        - Encourage best management practices.
        - Encourage reforestation avoiding mono-culture, which is more prone to disease."

Fluvanna County

"2009" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 13. "The income from timber sales has provided the incentive for the non-industrial, private landowner to own land and grow a timber resource. Cleaner air, water, and a myriad of other ecoservices are a no cost byproduct of responsible forest management. As an alternative to this valuable ecoservice, the cost to clean the air and water with technology would be significantly higher than the value of the forest products sold… Aside from economic and aesthetic benefits, forests contribute many ecoservices like storm water management (both quality and quantity), wildlife habitat protection, minimization of erosion, groundwater recharge, carbon sequestration, and pollination."

2. Taxation (Use-Value, etc.)
    - Pg. 20. Clear definition provided; use-value taxation is enabled for forest use, as well as for agriculture, horticulture, and open space
    - Pg. 25. Course of Action. "Continue land use valuation taxation and other fiscal programs to alleviate economic burdens on owners of land used for agricultural, horticultural, forest, or open space purposes."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 21. Agricultural/Forestal District – Clear definition provided and used by the County
    - Agricultural District A-1

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 23. Conservation Easements – Defined and used in the County. **Definition can be broadened to include forestland**

- Pg. 65. Action Strategies. "GOAL 4 — Develop Transfer of Development Rights (TDR) and Purchase of Development Rights (PDR) regulations"
    - "Establish a PDR policy that allows the County to purchase development rights for property that has been identified as being in the public interest to preserve."

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
    - Pg. 18. "Riparian buffers; the forested area along stream banks are the best use of land near streams, however, many of the County's rivers and streams do not have adequate riparian buffers or the buffers are threatened by development. Riparian buffers filter nutrients, sediments, and other pollutants before they can enter a waterway. The U.S. Department of Agriculture recommends that over 80 percent of nutrients and sediments be captured by a hundred-foot-deep forest buffer. Additionally, riparian buffers offer a great habitat for plants and animals.

    Pg. 26 "Stringently enforce federal, state, and local regulations regarding land use, stormwater, erosion and sediment control, wetlands, litter, and so on."

    Pg. 27. "Require riparian buffers adjacent to waterways to protect local and regional water resources such as perennial streams, floodplains, wetlands, steep slopes, and highly erodible soils."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
    - Pg. 15. "Open spaces also help to preserve and protect natural features such as groundwater recharge areas, steep slopes, and wildlife habitat"
    - Pg. 27. Manage, protect and enhance surface water resources**.** "Protect local and regional water resources such as perennial streams, flood plains, wetlands, steep slopes, and highly erodible soils." **–These are suggested in the plan and could be paired with policies**

8. <u>Conservation of working farms that can be broadened to include forestland</u>
    - Pg. 49. Rural Preservation. "Development in the rural preservation areas should consist of farmland, preservation zones, or otherwise environmentally sensitive land with scattered housing."

9. <u>Other tools that can be broadened to include forestland</u>
    - See #5 Conservation Easement

10. <u>Timing of Comprehensive Plan updates</u>
    - March 18, 2009

11. <u># of acres of forest in county</u>
    - 131,182 acres

12. <u>Miscellaneous/Model language</u>
    - Pg. 25. "Protect farm and forest landowners from conflicting adjacent land uses."

Franklin County

"2025" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 1-12 through 1-14. Description of the forest type and ownership as well as the benefits of forestland. Excerpt: "Franklin County's forest resource is important for wildlife habitat, watershed protection, outdoor recreation, weather modification, as well as a source of raw materials for the wood industries throughout the County. These industries include veneer and woodtreating plants, sawmills, and a pulpwood concentration yard. Also dependent on the forest are several companies manufacturing such products as modular homes, cabinets, doors, and windows.
     Many people depend upon the forest either directly or indirectly for their income. Some of the products harvested each year include sawlogs, pulpwood, veneer logs, firewood, posts, poles, and Christmas trees."
   - Pg 1-21. "Over 63 percent of the County's land mass is forested, providing aesthetic, environmental, and economic benefits to the County. Thirty-two million board feet of sawtimber and nearly ten million cubic feet of pulpwood are cut each year providing considerable revenues to the County's farmers. A number of County residents are dependent on jobs in lumber and wood-related industries that can utilize local forests. Forest protection and management are important land use and resource preservation tools that need the continual support of citizens and their elected representatives."
   - Pg. 12-12. "Forestlands in the County are fundamental and vital part of the County's character, and are a productive use of large tracts of rugged terrain. Forestland provides numerous recreational activities and plays an important role in tourism. Not only are forestlands important for economic perspective, but a wildlife habitat. Forestry should remain an important land use for the future, and County policies should seek to protect and preserve forest interests."

2. <u>Taxation (Use-Value, etc.)</u>
   - Pg. 12-12. Policies for Farmland. "Farmland Preservation: Provide incentives to discourage the conversion of active agricultural land to other uses through continued use value assessment and taxation. Investigate the use of State of Virginia purchase of development rights, transfer development rights, and other measures for farmland preservation."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - As of the writing of this plan no countywide zoning ordinance existed.
   - The plan has a future land use section that sets a land use framework for the county. Forestland (see pg 12-13) and Conservation Area (see pg. 12-17) are both designated land uses and delineated on future land use map (map #38).
   - Pg. 12-14. Rural Residential Land Use Policy 6. "Cluster development in new subdivisions should be encouraged to preserve land area to be devoted to open space, active recreation, preservation of environmentally sensitive areas, or agriculture."

4. Conservation (Funding as well as Identifying specific forestland)
   - Pg. 1-21. "The following areas have been designated, or identified, as critical habitat or wildlife management areas: Fairystone Farms, located at the common border of Henry, Patrick, and Franklin Counties—a portions of which is in Franklin County; the Philpott Wildlife Management Area, with 4,750 acres—a portion of which are in Franklin County; the Turkeycock Mountain Area, made up of 20,000 acres, of which approximately half are in southeastern Franklin County—portions of which have been established as the Turkeycock Wildlife Management Area in Franklin and Henry Counties; and Grassy Hill Natural Area Preserve with 1,392 acres, located on State Route 919 in the Grassy Hill section of the County just west of the Town of Rocky Mount and becoming the state's 27th natural area preserve."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. 11-10. Strategy 19.0b. "Study the development and possible implementation of a Purchase of Development Rights Program.
   - Strategy 19.0e. "Study the development and possible implementation of Transfer Development Rights."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg 11-9. "Strategy 17.0k Work with regulatory agencies in order to draft an ordinance to minimize negative impacts of new construction along stream banks and water bodies."
   - Strategy 17.0q. "Consider County funding for farmers to implement TMDL guidelines."
   - Pg. 12-12. Strategies for Farmland. "Nutrient Management Plans: Promote Best Management Practice (BMP) for agriculture to minimize nutrient run-off in Franklin County."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 11-0. "Goal: Preserve and promote forests, farmland, open space, viewsheds, wildlife corridors, greenways and rural roadscapes."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland
   - See #2

10. Timing of Comprehensive Plan updates
    - May 22, 2007

11. # of acres of forest in county

- 266,733 acres of commercial forest land – 60% of entire county

12. Miscellaneous/Model language
    - Pg. 7-9. Strategies. "Work with the Virginia Department of Forestry (VDOF) to review local zoning and subdivision ordinances to identify areas to include wildfire mitigation principles.
    - Pg. 11-10. Objective 19.0. "Develop incentives, ordinances, and programs to encourage the preservation of farmland and forestland."
    - Pg. 11-11. Objective 23.0a. **"**Develop an effective public education program to improve and encourage conservation of the County's farm, forest, and wildlife resources.
        - Educate the public on available options for conservation easements through land trusts and environmental advocacy organizations. "
    - Pg. 12-12. Policies for Forestland:
        - "Investigate land use policies that will ensure contiguous tracts of forestland are preserved to ensure forest for economic, tourism, recreation activities, and wildlife habitation."
        - "Forestry activities should be conducted in accordance with Forestry Best Management Practices (BMP) to prevent adverse impacts such as erosion and siltation on watersheds."
        - "Forestal Operations: Ensure flexible but effective siting standards for forest operations, including but not limited to saw mills, lumber concentration yards, and trucking operations."

Frederick County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 6-162. "Forests provide a major contribution to maintaining the rural character of the County. In addition, they protect watersheds of our streams, provide wildlife habitat, and affect our climate. Forestry makes a major contribution to the local economy. Our forestland helps support almost 20 forest related industries in the county which employ approximately 750 full time workers."

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture, horticulture, and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - 5-52. "Encourage significant agricultural and forestal areas to be included in agricultural and forestal districts."
    - 6-162. 3 Agricultural and Forestal Districts: "Frederick County has three Agricultural and Forestal Districts which comprise 16,788 acres. The largest of these districts is the South Frederick Agricultural and Forestal District, consisting of 15,016 acres. The South Frederick Agricultural and Forestal District was established in 1980 and was renewed for the third time in 1995. The 1995 renewal placed 218 parcels, managed by 90 landowners within this district. The South Frederick Agricultural and Forestal District is located in the Back Creek Magisterial district, south of Northwestern Pike (Route 50 West) and west of the City of Winchester and the towns of Stephens City and Middletown. Two new Agricultural and Forestal Districts were established in 1995. The Double Church Road Agricultural and Forestal District contains 1,405 acres within 39 parcels, managed by 21 property owners. The Refuge Church Agricultural and Forestal District contains 367 acres within 12 parcels, managed by six property owners. Both districts are located in the Opequon Magisterial District, east of Interstate 81 and south of Fairfax Pike (Route 277).
    - The three Agricultural and Forestal Districts preserve a significant amount of prime agricultural soils within the limestone belt of Frederick County. The establishment and renewal of these districts provides an opportunity for the agribusiness community to

conduct long range planning efforts for the management of their operations (including more than 4,000 acres of orchards), while providing a reserve of agricultural land." *Update: This quote is from the 2007 Plan, and three districts are still in place as of 2009. The Refuge Church District is reported as discontinued, while a new Red Bud District has been established.* ***All three districts were renewed in 2010, with three additional districts created in 2010 (Albin, Apple Pie Ridge, and South Timber Ridge).***

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not mentioned in current plan, however the county adopted a PDR program as of 2008 with state grant funds. This built upon the county's Conservation Easement Authority, established in 2005. Both programs' objectives include protection of forestlands.
    - ***Update****: On April 28, 2010, the Board of Supervisors adopted the Transfer of Development Rights (TDR) ordinance and program. The County's TDR program provides opportunities for both land preservation and increased densities within targeted growth areas such as the County's Urban Development Area (UDA). The County's TDR ordinance includes forestry uses, but implementation is just beginning.*

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 6-180. "Continue to use buffers and screening to separate different uses. When possible, uses of different types should be separated by natural or man-made barriers such as stream valleys, woodlands, or highways."
    - Pg. 5-50. Current zoning district regulations limit the amount of steep slopes, wetlands, floodplains, mature woodlands, sinkholes, and natural stormwater detention areas that can be disturbed at the time of development. Other requirements can be developed to protect groundwater from urban sources of pollution.

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 6-166. Rural Area Issues. "How should the county support and promote agriculture? How much and what type of development can be permitted in the rural areas without causing irreversible harm to either the environment, the agricultural industry, or the rural character of the county?"
    - Pg. 6-190. "Include the promotion and support of local agriculture in general economic development policies and activities.
    - Pg. 6-190. "Regulations should be developed which are aimed at protecting agricultural operations and preserving prime agricultural land."
    - Pg. 9-276. "Work with local farmers, agricultural organizations, and agriculturally related businesses to develop economic development strategies in relation to agriculture. Emphasis should be placed on developing markets for local agricultural products."

9. Other tools that can be broadened to include forestland None identified

10. Timing of Comprehensive Plan updates
    - **Update in progress as of 2010**

11. # of acres of forest in county
    - 124,624 acres

12. Miscellaneous/Model language
    - None identified

Giles County

"2005" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 7. "Forests are considered to be a renewable resource that can, under proper management, provide continuous yields or timber, wildlife, and provide recreational and aesthetic benefits as well. Forests also assist in controlling runoff and erosion and provide a habitat for fauna and flora, which are beneficial to man. "

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture, horticulture, and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Conservation District (C-1) Pg. 69. "Protects areas of the County where human activities, left unrestricted, have a high potential for adversely impacting the environment and the safety and welfare of the public by accelerated soil erosion, reduced water quality, inappropriate uses of land, and generally the uneconomical provision of public services and facilities."
    - Agricultural and Limited Uses District (A-1)
    - Rural Residential/Agricultural District (RRA-1) Pg. 69. "...identified as the most valuable for the production of food, fiber, and water resources."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 60. "Continue the enforcement of the zoning ordinance as it pertains to the presence of natural hazards, view scapes, air and water resources, energy, slope and floodways."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 56. "Identify and protect prime farmland through future land use planning, open space planning, public facility location, and other land use development tools".
    - Pg. 57. "Encouragement of plans that minimize conversion of prime farmland to other land uses should be given priority consideration in the development of the County's Zoning Ordinance as it is being developed in Strategy 1.1.1."

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - 2005

11. # of acres of forest in county
    - 176,775 acres

12. Miscellaneous/Model language
    - None identified

Gloucester County

"2001" Comprehensive Plan

County is currently reviewing Plan. The following information is based on the 2001 Plan.

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Appendix B. Pg. 57. "Forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are a filter area for groundwater recharge. Forests form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas serve as an effective visual and noise buffer between land uses."

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture and horticulture.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 44. "Rural Countryside District – Intended to maintain and conserve rural character and farmlands in County areas consistent with Comprehensive Growth Management Plan objectives… The conflicts between farming and rural residential development should be minimized as the needs of farming are acknowledged as a subordinate use… Agricultural land refers not only to tilled fields, but also to open fields, pastures, and woodlands which are either prospects for additional farm acreage or are valuable as they are for their many contributions to the environment and to the rural appearance of the County."
    - Pg. 45. Resource Conservation District (RC-2) – "Should include 'Resource Protection Areas' (RPAs) as defined by the recently adopted Chesapeake Bay Preservation Act.
        - Pg. 46. "Clearing of woodlands and forests should be minimized to the extent possible."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Appendix A. Pg. 23. "Chesapeake Bay Preservation Areas: The RPA must include a vegetated buffer, extending 100 feet from the landward side of the other RPA features"
    - Appendix B. Pg. 4 Description of local program elements for Chesapeake Bay Act compliance, including designation of RPAs and all remaining areas in entire county as RMAs; Pg. 26. "A 100 foot vegetated buffer shall be retained if present and established where it does not exist"

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Appendix B. Pg. 16. "Planning guidelines generally rate areas with longitudinal slopes less than 15 percent as suitable for development, depending on other factors such as erosion, drainage, and soil types. In most instances, areas with slopes greater than 15 percent are less suitable for construction or require careful design consideration and treatment."
    - See county's Chesapeake Bay Preservation ordinance for more on steep slopes.

8. Conservation of working farms that can be broadened to include forestland
    - There was not language to be broadened

9. Other tools that can be broadened to include forestland
    - Pg. 44. Rural Countryside District

10. Timing of Comprehensive Plan updates
    - **County is currently amending Plan**

11. # of acres of forest in county
    - Appendix B. Pg. 58. 1991 – 94,613

12. Miscellaneous/Model language
    - Pg. 20. Natural Resources. Goals: To conserve and manage Gloucester County's natural resources and community assets.
        - Objective 3: "To conserve prime agricultural and forested lands and guide residential, commercial, and industrial development to areas suitable for urban growth."

    - Pg. 166. Table III. "Development Type: Single Family. Landform: Wooded Slopes
        i. Where single family residential development locates on wooded slopes, the following goals and implementation techniques are recommended:

    Goal: Minimize Visual Impact
    Implementation techniques:
        1. Structures should not be placed on ridge lines
        2. Trees on ridgelines should not be removed

    Goal: Minimize Site Disturbance

Implementation techniques:

1. Roads should follow existing contours
2. Disturbances for the construction of roads, basins, and other improvements should be kept to a minimum
3. Disturbance on individual lots should be limited
4. Building envelopes should be limited and located in the most suitable areas for development.
5. Areas outside building envelopes should be restricted against development
6. Building envelope should avoid steep slopes
7. Natural vegetation on each site should be preserved to the maximum extent possible"

Goochland County

"2009" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Natural Resources, page 72: "Goochland's abundance of forested, agricultural, and riverfront land supports diverse wildlife habitat, 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."
      Page 74: "By concentrating growth and higher density development within the villages, the County can protect its forested and agricultural land resources. **Current zoning options, such as the Rural Preservation District, promote clustered development and preservation of open space. Conservation easements and a local purchase of development rights program provide landowners the opportunity to protect land in exchange for tax credits or monetary compensation**. When linked to other protected lands, conservation easements can provide a network of "green infrastructure" to mitigate the fragmentation of wildlife habitat."

    - Appendix C – Natural, Cultural, and Historical Resources, page 14-15: Forest Resources: "The County's forests are a critically important renewable resource. Their importance to our community ecologically, economically, and socially should be emphasized, and policies and regulations that maintain forest resources are essential to ensuring a high quality environment for County residents.
        i. ***Ecological Benefits*** - Woodlands help maintain water quality by filtering and trapping sediments and absorbing pollutants from surface flows and runoff. Woodlands act as natural buffers along the James River, major tributaries, and perennial and intermittent streams and reduce excess nutrients like nitrogen and phosphorus from polluting County waterways. Tree root systems help maintain clean groundwater by absorbing some pollutants. Forests also provide unique ecosystems for a variety of plants and animals and provide food, shelter, cover, and residence for a wide variety of wildlife. Woodlands also support

public health through the reduction of noise, air, and visual pollution and help moderate air temperature and artificial glare.

ii. ***Economic Benefits*** - There has been a steady decrease in the total volume of timber sold - down almost 30% from 1986 to 2005. The report, Virginia's Forests Our Commonwealth (2001), explains how $41.82 of economic value is generated from each dollar paid to a landowner for timber harvested through services such as harvesting, primary and secondary processing, transportation, construction, and marketing. Using this multiplier, the value of the County's 2005 timber harvest ($1,270,501) to the overall economy is nearly $53 million. These figures calculate only a portion of the total contribution forests provide to the economy and do not include values for hunting, recreation, or tourism or for air quality, water quality, and aesthetic benefits. From September 2006 to November 2007, there were 38 timbering jobs recorded, totaling almost 3,000 acres of harvested timber.

iii. ***Aesthetic Benefits*** - Trees and wooded areas enhance the living and working environment for County residents. Woodland areas are an essential element in promoting and preserving the rural character and appearance and support the lifestyle and traditions that make the County unique. In addition, woodland areas screen unpleasant or distractive views which minimize their impacts.
The most recent coverage data (2005) shows the County is still primarily forested. The County's forest composition is estimated to be 86% hardwood and 14% pine. The western part of the County continues to possess the most forested land, while development in the eastern portion of the County slowly decreases the amount of forested land.
Most forested lands in Virginia are privately owned, and most parcels average about 75 acres or less in size. Goochland County mirrors the State. Except for a small portion owned by the County, timber ownership in the County remains with private landholders. A shift in ownership trends began in 1992, when forest product corporations started selling holdings in the County to timber investment management organizations and real estate investment trusts. While many of these entities continue to maintain professionally managed forests, this could change if more profitable options become viable for their investors."

2. <u>Taxation (Use-Value, etc.)</u>
   - Implementation, page 96: **Preferential Tax Assessment** –"Goochland County has land use value assessments for agricultural, horticultural, and forest use in the land use program. This is an incentive program for land owners that are not planning to change the use of their property. This program provides tax relief to property owners by assessing property at a lower value. This program reduces the tax burden for farmers and allows them to continue farming at a lower tax rate; thereby providing an economic incentive to maintain agricultural and forestal lands and slow down the conversion of farmland and forests to residential and commercial uses."

   - Appendix C – Natural, Cultural, and Historical Resources, page 19: *Property Tax Reduction* – "The County's land use program provides tax incentives for landowners with land in agricultural, horticultural, and forestal uses. Forestlands must be greater than 20 acres, and agricultural lands greater than 5 acres to be considered. A change in land use or zoning for participating acreage incurs a roll back of the deferred taxes for

up to five years. Over 90,000 acres (48% of County's total area) qualifies for the land use program."

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Land Use, page 48-49: Goal 2.4: "Rural Enhancement Areas: Designate Rural Enhancement Areas and protect rural character in these areas."
    - <u>Objective 2.4.2</u>: *Support regulations and policies that limit development options in Rural Enhancement Areas.* **Strategy 2.4.3c: "**Continue to require RP and RR zoning districts to protect open space while allowing low density residential uses:
      Rural Residential District (RR):
        - Minimum five-acre lots
        - Minimum 25% open space – Protect open space with a perpetual easement

      Rural Preservation District (RP):
        - Minimum two-acre lots/Maximum five-acre lots
        - Minimum 50% open space (preservation tract)"
    - Strategy 2.4.4a: "Review and amend the **Forestal-Conservation-Open Space District (F-C)** to make it a workable alternative in Rural Enhancement Areas. "
    - **Strategy 2.4.2d: "**West of Lickinghole Creek, consider applications for RP or Forestal Conservation – Open Space zoning districts case–by-case as follows:
      • Encourage more than 50% of land area be included in preservation tract.
      • Reduce permitted density on a sliding scale as follows:
        - For the initial 50 acres (acres 1-50), density as regulated by ordinance;
        - For the next 100 acres (acres 51-150), reduce density by 10%;
        - For remaining acreage (over 150 acres), reduce density by 20%.

            a. **Strategy 2.4.3d:** Consider offering more options for use of the preservation tract in RR or RP districts subdivisions. Options could include: **Active agricultural and forestry uses**
            b. Recreation"

Objective 2.4.6: *Protect and enhance agricultural, equestrian, and other assets in Rural Enhancement Areas.*

- **Strategy 2.4.6a: "**For proposed development in Rural Enhancement Areas, incorporate design elements which protect or enhance agricultural, equestrian, and other assets. Options may include:
  • Encourage continuance of existing agricultural activities
  • Provide bridle paths where appropriate
  • Protect rural view sheds and other elements which support rural character
  • Consider desirable park and recreation uses within required open space as part of residential development in rural areas"

- Appendix C – Natural, Cultural, and Historical Resources, page 17-18: "<u>Best Management Practices for Land Conservation,</u> Land preservation easements can also be encouraged through zoning, such as the Rural Preservation (R-P) and Rural Residential (R-R) zoning districts. The R-P District requires at least 50% of the site be dedicated to an open space easement held jointly between the homeowners and a public entity. The R-R district requires at least 25% open space with the option of dedicating the open space to an easement."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
    - Natural Resources, page 76-77: Goal 6.2: Promote the conservation of agricultural, forested, and undeveloped lands.
        i. Objective 6.2.1: "Aim to permanently preserve from development twenty percent (20%) of Goochland County's land area to mirror the Commonwealth of Virginia's commitment to do the same for Virginia's portion of the Chesapeake Bay watershed.
            1. Strategy 6.2.1a: Continue to pursue conservation easement proposals under the County's conservation easement and Purchase of Development Rights programs or through other third party land conservation organizations.
            2. Strategy 6.2.1b: Explore other funding mechanisms, such as grants or donations for the purchase of conservation lands.
            3. Strategy 6.2.1c: Use models provided by the Department of Conservation and Recreation (DCR) to identify and prioritize land for conservation."
        ii. Objective 6.2.3: "Enhance planning efforts which protect the county's natural resources.
            1. Strategy 6.2.3a: Continue to maintain the Conservation Lands map that delineates sensitive environmental features in the County. These features may include, steep slopes, wetlands, riparian buffers, floodplain areas, conservation easements, Natural Heritage Areas, or other elements. This map provides one tool to assess potential impacts of development on environmentally sensitive land.
            2. Strategy 6.2.3b: Assess and map the County's natural resources to reduce wildlife habitat fragmentation. Locate core areas (i.e., natural heritage sites, conservation easements, public lands, etc.) and corridors (i.e., riparian buffers, floodplains) between the core areas, and identify strategies to protect these areas.
            3. Strategy 6.2.3c: Utilize DCR's Natural Heritage Data Explorer website to conduct preliminary screenings of projects to identify potential impacts to natural heritage resources such as the terrestrial and aquatic habitats of Federal and State endangered, threatened, and rare species."
    - Appendix C – Natural, Cultural, and Historical Resources, page 1: "The Conservation Lands Map has been developed to be used in tandem with other land use planning tools. This map identifies specific lands that are already protected or are in need of protection and includes areas with conservation easements, riparian buffers, surface water bodies, wetlands, steep slopes (over 25% gradient), floodplains, and Natural Heritage Resources (unique vegetation and wildlife habitats)."

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestlands</u>
    - **Strategy 2.4.5b:** Explore implementing a transfer of development rights program.

    - Appendix C – "Natural, Cultural, and Historical Resources, page 16: Forest Resources: To protect and encourage working forestlands, the **Virginia Department of Forestry accepts conservation easements**. Forested tracts that provide the greatest benefits to

water quality and are at the highest risk for conversion to other land uses are targeted for easements. For consideration, a tract must meet certain criteria including a minimum size of 50 acres and over 75% in forest cover."

- Appendix C – "Natural, Cultural, and Historical Resources, page 17-18: Best Management Practices for Land Conservation, *Conservation Easements* - Placing land under a protective easement is an effective way to protect land from development. Easements allow land to continue to be privately owned while strictly limiting uses to protect land for the public good...Adoption of the County's conservation easement program in 2007 and the subsequent receipt of funding for farmland Purchase of Development Rights (PDR) allow the County to pursue easements through donation or purchase. The donation of a conservation easement may offer significant tax benefits, and in Virginia, there is an option to sell tax credits if the landowner wishes to. The **PDR program,** made possible by a matching grant from the State Department of Agriculture and Consumer Services, allows the County to purchase development rights from landowners with working farmland. This provides a viable option for a farmer to preserve farmland in perpetuity rather than sell the property to an investor for a development activity." **– This could be strengthened by including forests.**

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Natural Resources, page 74-75: Goal 6.1: Maintain a safe and adequate water supply and protect water quality.
        i. "Objective 6.1.1: Proactively protect surface water resources from pollution.
            1. Strategy 6.1.1a: Establish riparian buffers along streams and wetlands to protect water resources from nutrient and sediment loadings. These buffers should restrict new development from:
                a. At least 100 feet from the edge of perennial streams and contiguous wetlands.
                b. At least 50 feet from the edge of intermittent streams.
                c. Provide an additional 25 foot building setback measured from the inland boundary of any stream or wetland buffer.
            2. Strategy 6.1.1b: Identify stream bank and slope erosion problem areas.
                a. Coordinate with Federal, State, and Local agencies for planning and implementation assistance.
                i. Explore possibility of grant funding for specific projects and volunteer opportunities to encourage environmental stewardship within the community.
            3. Strategy 6.1.1c: Adopt a James River Bank Overlay District to protect the existing riparian buffers and encourage the restoration of the buffer where it is absent or insufficiently robust. This overlay district could also preserve the viewshed of the James River within the County."

- Development Trends and Current Conditions under Natural Resources, page 20: "Development encroaching on streams, wetlands, and riparian forests alongside the James River increases the potential for excess nutrient and sediment runoff. Clearing of land next to these sensitive areas denudes the vegetated buffer that acts as a natural filter, slows runoff, and provides wildlife habitat."

- Appendix C – Natural, Cultural, and Historical Resources, page 6-7: Best Management Practices for Water Resources- *Riparian Buffers –* "Riparian buffers are areas of undisturbed/restored vegetation along streams and wetlands that provide a natural, effective protection for water resources. These strips of grass, shrubs, and trees along river and stream banks filter and slow stormwater runoff and provide a transition zone between water and land uses. Typically, the most effective buffers are composed of a large tree canopy and underlying trees and shrubs. A 100-foot wide riparian buffer has been determined to provide a 75% reduction in sediment run-off and a 40% reduction in nutrients, and in Virginia, is regarded as a sufficient buffer width to protect water quality. While seemingly simple, riparian buffers can be complex ecosystems which:
  Prevent stream bank erosion
    - Stabilize the bank
    - Reduce stormwater velocity

  Trap and absorb sediment and nutrients from stormwater runoff
  Increase groundwater recharge
  Protect adjacent property/structures from flooding
  Create wildlife and aquatic habitats
    - Provide unpolluted habitats
    - Improve plant/animal diversity
    - Maintain water temperature

  Provide areas for recreational opportunities and open space
    - Hiking trails, bikeways, fishing, camping, and bird watching

  Improve aesthetics and contribute to rural character
    - Forested buffers provide a "green screen" along waterways
    - Maintain privacy for riverfront landowners
    - Block views of development and structures

  The Rural Preservation (R-P) zoning district is the only district currently requiring a riparian buffer. Development standards for the R-P District require new development to be at least 100 feet from the edge of perennial streams and at least 50 feet from the edge of intermittent streams."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Natural Resources, page 76: Goal 6.2: Promote the conservation of agricultural, forested, and undeveloped lands.
     i. "Objective 6.2.2: Consider aesthetic impacts on the community for selected silvicultural activities.
        1. Strategy 6.2.2a: **State regulations regarding clear cutting do not address impacts on adjacent properties or public views from rights-of-way from the degradation of the previously forested areas. The County should pursue regulatory changes to supplement existing State regulations."**

   - Appendix C – Natural, Cultural, and Historical Resources, page 8: "Best Management Practices for Water Resources- *Steep Slopes*: Agricultural and forestry operations are exempt from erosion and sediment control regulations but are recommended to follow applicable BMPs presented by the State's Department of Agriculture and Department of

Forestry. Cost-share incentives are available to landowners who voluntarily implement BMPs on their property."

8. Conservation of working farms that can be broadened to include forestland
    - Land Use, page 56: Goal 2.9.0: "Agricultural Development – Support a diverse and stable agricultural base that contributes to the economy and supports the rural character of the County:
        i. Objective 2.9.1: Preserve working farms and protect them from more intense development.
        ii. Strategy 2.9.1a: Market and provide information about purchase of development rights, conservation easement, and other opportunities available to farmers.
        iii. Strategy 2.9.1b: Market the land use assessment program for reducing taxes to the farming community.
        iv. Strategy 2.9.1c: Work with the Monacan Soil and Water Conservation District, develop and implement a plan to obtain support for farmers from State, Federal, and private sources to enable working farms to remain viable.
        v. Strategy 2.9.1d: Market the County's agricultural and natural resources as amenities and destinations.
        vi. Strategy 2.9.1e: Educate the public about the importance of farmland preservation."

9. Other tools that can be broadened to include forestland
    - None identified.

10. Timing of Comprehensive Plan updates
    - Plan dated February 3, 2009

11. # of acres of forest in county
    - Not included in this Plan.

12. Miscellaneous/Model language: None identified

Grayson County

2005 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 28. "Timberland has been important to the area since settlement. Today over fifty percent of the land remains timberland. While the timberland has changed due to insect, disease, fire, and timber harvesting, it continues to be important to the local economy. Timberland is one of Grayson County's natural resources. Setting guidelines to maintain viable timberlands is essential to insuring a quality environment for Grayson County. Ecologically, timberlands help maintain good water quality. Timberland filters, traps sediments, and absorbs pollutants from overload, runoff, and subsurface flow. Timberlands act as natural buffers along the New River, smaller perennial intermittent streams by preventing excess nutrients, like nitrogen and phosphorous, from entering and polluting our waterways. Tree roots help maintain clean ground water. Timberland provides essential ecosystems for a variety of plants and animals. It provides food, shelter, cover, nesting, and bedding areas for a wide variety of wildlife. Several rare or threatened species of plants can be found within the timberlands throughout the County. Timberland plays an economic role in the community, based on timber severance taxes paid from 1996 to 2001, which averaged 2.5 million per year to Grayson County landowners for timber sold. The 1995 publication, Virginia's Forest Our Commonwealth describes how $48.64 of economic value is generated from each dollar paid to a landowner for timber stumpage through such services as primary and secondary processing transportation, harvesting, construction, and marketing. Using this multiplier, the value of the timber harvested averaged $121,600.00 in economical activity. These figures do not include values such as hunting, recreation, tourism, air quality, and aesthetic benefits, which are important to our economy. Socially, timberland provides a pleasant environment for Grayson County residents to live and work. It promotes public health and safety through the reduction of noise, air, water, and visual pollution. Timberland promotes and preserves the appearance, life styles, and traditions, which have existed in Grayson County for decades."
   - Pg. 54. "The *Jefferson National Forest* extends throughout Grayson County and offers many easy access points to the forest and its numerous camping, picnic, and recreation facilities which are located throughout the area. Most of the trail facilities are open for use throughout the entire calendar year. Seasonal hunting and fishing is allowed in the Jefferson National Forest with state licenses and federal stamps (most of the land within the Jefferson National Forest Purchase Boundary is in private ownership). The diversity of the vegetation and elevation of the area

provide a variety of wildlife habitat equal to any in the Middle Atlantic States. Big game hunted in the forest includes deer, bear, and turkey. Grouse, quail, dove, rabbit, and squirrel are also hunted in season. More than 160 species of birds live here or migrate through the forest."

- Pg. 55. "The *Matthews Forest* is one of the newest additions to Virginia's State Forest System and was made possible through a land donation by Mr. and Mrs. Jack Matthews. Located near the City of Galax, this 154-acre forest is used for American chestnut research, demonstration of white pine management, watershed protection education, hiking/nature trail, and serves as a wildlife sanctuary. Area schools are encouraged to use the nature trail for educational field trips."

2. Taxation (Use-Value, etc.)
   - Use-value taxation and Ag/Forestal Districts defined page Pg. 65. **The County has not enabled use-value taxation.** *This likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Ag/Forestal Districts see #2

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. 65-66. "Some generally accepted protection measures for agriculture and forested lands include the following:
     - *Conservation / Open-Space Easements* may be donated by the landowner to the Virginia Outdoors Fund, other federal or state agencies, or to an authorized private charitable organization.
     - A *Purchase of Development Rights* (PDR) program is similar to conservation or open space easement, but the easement is purchased rather than donated. Financial incentives such as a PDR program can encourage rural landowners unable to afford a gift of development rights. The PDR program allows owners to preserve their land as an alternative to sale for development."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 94. Goals to protect agriculture and natural resources. "To protect stream valleys, hills and mountain slopes from erosion and sedimentation by encouraging best management practices during development activities."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 6. "Where topographic slopes exceed 20 percent certain types of development are likely to create acute erosion, water runoff, and water quality issues."
   - Pg. 7. "Mountainous terrain is abundant in Grayson County. Over 60 percent of the land within the study area has an average slope exceeding 20 percent. Consequently, the availability of property that is suitable for intensive development is limited. Thin soils and steep topography also create additional difficulties that are associated with erosion, water quality, and sanitary sewage."

- Pg. 64. "The following are generally accepted guidelines for the development of severe slope and can serve to substantially mitigate the above-noted hazards:
    - Minimize the use of septic systems on slopes of 20 percent or greater.
    - Roads should follow the natural topography to minimize grading, cutting, and filling.
    - Minimize road construction in areas of 15 percent or greater slope.
    - Maintain natural drainage channels in their natural state and/or stabilize natural channels to protect them from the impact of development activity.
    - Design public utility corridors to fit the topography.
    - Adapt development to the topography and natural setting. Excessive grading, cutting, and filling should be discouraged.
    - Slopes of greater than 20 percent are not generally conducive to agricultural and forestal uses.
    - As land slope increases, the rate of storm-water runoff also increases. Fertilizers, pesticides, herbicides, and other chemicals may be ineffective and can increase the probability of surface and groundwater pollution."

8. <u>Conservation of working farms that can be broadened to include working forests</u>
    - Pg. 99. Recommendation #2. "Consider available incentives such as land use taxation to continue farmland ownership so the farming tradition can continue in Grayson County. (Responsible parties: Board of Supervisors, Commissioner of Revenue, and the Extension Service)"
    - Recommendation #5. "Explore other ways to increase agricultural revenue. Develop or attract agribusiness companies to serve the local economy. Investigate cooperative agri-tourism programs aimed at direct marketing of local farm products. State and regional agencies should be asked to target market these types of products. (Responsible parties: Extension Service, Chamber of Commerce, Grayson County Economic Development Office, Grayson County Tourism Office, and Wytheville Community College)"

9. <u>Other tools that could be broadened to include forestland</u>

10. <u>Timing of Comprehensive Plan updates</u>
    - January 13, 2005

11. <u># of acres of forest in county</u>
    - Pg. 59. "Grayson County's total land area is approximately 443 square miles, for a total of 283,305 acres of land. Of that total, more than 50 percent of all land is identified as 'woodlands.'"

12. <u>Miscellaneous/Model language</u>
    - Pg. 93-94. "In a declining economy agriculture becomes increasingly important to Grayson County. Agriculture and open space defines the land use, lifestyle, and character of Grayson County. The farmlands of the county add significantly to its aesthetic quality and to its reputation as one of the most beautiful counties in the state. The natural resources of the county are inseparable from its agricultural resources. The wise use and conservation of the county's water, mineral, and timber resources are of prime importance. Grayson County's goals for agricultural and natural resources are:
        - To identify and protect highly productive agricultural lands from conflicting land uses;
        - To encourage retention of agricultural lands and timberlands where appropriate;

- To promote the use of conservation practices to reduce the impact of soil disturbance or natural resource extraction activities on surrounding land uses;
- To protect stream valleys, hills and mountain slopes from erosion and sedimentation by encouraging best management practices during development activities;
- To promote wise use of all natural resources;
- To promote sound development practices that protect surface and ground water supplies for present and future residents of the county."

Greene County

"2003" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not addressed in plan

2. Taxation (Use-Value, etc.)
    - Pg. 5. Land Use Taxation - used by County. Use-value taxation is enabled for forest use.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 5. Agricultural/Forestal Districts – used by County. As of 2010, there are 7 districts with a total of over 15,000 acres.
    - Pg. 9. "Create a category of Rural Residential zoning (RR-1), which includes the same provisions by right and with special use permit as the current A-1 zone." **–***Recommended in plan*
    - Pg. 9. "In conjunction with the adoption of a Rural Residential Zone, revise A-1 and C-1 zoning ordinances to preserve the benefits of those designations, promote retention of rural open space and reduce suburban development densities currently allowed by right in A-1." **–***Recommended in plan*

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 17. "Encourage establishment of watershed design standards to include minimizing the creation of impervious surfaces that increase run off problems and reduce the land's ability to recharge the underground reserve. Other considerations could be vegetative

open channels to convey and treat run off and bio-retention areas for storm water treatment." **–** *Recommended in plan*

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 16. Recommendations for mountain resources and critical slope protection
        - "Encourage builders, land owners, and homeowner associations to adopt general standards of conservation and slope protection when building on or near a mountain resource. Discourage clearing and grading on critical slopes which results in erosion, landslides, increased storm water runoff, silt and sedimentation in surface water."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 8. Goals and objectives. "Encourage the protection of scenic, natural and historic resources, farmlands and open space."
    - Pg. 24. "Support State funding for conservation of farmland" **–** *Recommended in plan*

9. Other tools that can be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - 2003

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language: None identified

Greensville County

"2008-2028" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Not addressed in plan

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan, however *a 2010 report indicates that Greensville has enabled use-value taxation for agriculture and horticulture, but not forest and open space.* **Forestry is currently ineligible for use-value taxation.** *This measure can be strengthened by including forests, but likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. 37. Land use plan identifies areas for rural residential development and conservation areas. No specifics about lot size are mentioned for each area.

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Not addressed in plan

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - May 19, 2008

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language

Halifax County

2007 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. II-1. "Forestlands are perhaps the most important aesthetic, environmental, and economic resources of Halifax County. While their annual value as a cash crop can be determined, their economic value as the scenic backdrop of the County is incalculable. They provide most of the beauty which the County offers as a residential community and tourist attraction, and are of great importance in reducing soil erosion and in creating wildlife habitats. Major stands of trees that remain along traffic arteries and between or within smaller residential neighborhoods reduce noise levels, provide a sense of privacy, create scale, protect residential values, and make urban development less noticeable by isolating smaller units."
   - Pg. ES-13. "Forests and related wood products industries are a vital part of the economy and natural appeal of Halifax County. Halifax County ranks 18th in the State with respect to average annual harvest value as of 2005 of $7,459,933. This value has likely increased over the last three years."
   - Pg. II-1. "The area's forest resources have a variety of potential uses, such as primary and secondary manufacturing, industrial energy, and construction. Other economic activities associated with the forest industry include harvesting, transportation, and marketing. The total output from forest product industries are of great value and economic significance. An economic study conducted by the Virginia Department of Forestry in 1985 revealed that one-fourth of the employment base in the Southern Piedmont is heavily dependent upon the forest industry. The economic analysis also concluded that every dollar of standing timber acquired from Virginia landowners generates $27.65 in economic activity. Observations such as these help to emphasize the value of area forest resources. The many small establishments in the lumber, wood products and- furniture industries account for one in five manufacturing jobs. The areas forests also provide other social and economic benefits such as serving as recreational facilities. They also contribute to improved air and water qualities, and provide watershed protection from soil erosion."
   - Pg. II-2 through II-6 include a number of tables showing the type, size and quality of timberland in the county, followed by description of forestry trends in the county/

2. Taxation (Use-Value, etc.)

- Pg. VIII-5. "Consider employing differential assessment based on land use in order to more accurately tax according to the cost of services incurred."
- ***Update****: A 2010 report indicates that Halifax has enabled use-value taxation agriculture and horticulture, but not forest and open space.* **Forestry is currently ineligible for use-value taxation.** *This measure can be strengthened by including forests, but likely reflects the County's many acres of commercial forests.*

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. VII-16. "The vast majority of the land in Halifax County falls into the agricultural, forested, or open space category, with some large tracts dedicated to recreation and conservation. Unnecessary fragmentation of large acreage tracts is an issue that should be dealt with, perhaps through zoning and/or subdivision ordinance amendments. Haphazard fragmentation of tracts to accommodate one or two houses can lead to interference with the expansion of existing agricultural operations of the initiation of new agricultural endeavors."
   - Pg. ES-46. "Rural areas, which are predominantly used for agricultural, forested, open spaces, and conservation areas are expected to remain undeveloped with the exception of very low density residential type development associated with farming operations. The County may consider promotion (of the establishment) of agricultural and forestry easements to protect and preserve agricultural and forested lands. Industrial growth is not anticipated in these areas. Commercial growth is not anticipated in these areas with the exception of small community based retail stores serving existing clusters of residential development. Such development will likely occur at crossroads and be limited to convenience store type establishments. Farm service related commercial establishments may also occur in these areas. Commercial establishments catering to eco-tourism or outdoor, nature based sports and activities may also locate in the areas to serve residents and visitors alike."
   - Pg. VII-12/VII-13. Agricultural Land Use Category. "Much of Halifax County has been retained in an agricultural, forested, or open space land use category for the duration of the planning period. The main purpose of this land use classification is to facilitate existing and future farming operations, reduce the effects of soil erosion, and protect watersheds, in order to promote the continuation of farming as one of the most active sectors of the economy and to protect forested area and open spaces for the benefits they offer.
     Permitted uses are restricted to agriculture and others that are compatible with the existing land use pattern, such as forestry, passive recreation, and other conservation uses, as well as incidental rural residential use. The overall density of these uses should be kept at a relatively low level by maintaining minimum lot areas and allowing for only one dwelling unit (single-family dwelling) per lot. This should effectively limit development in the agricultural areas and encourage development in and on the fringe of the existing towns."
   - Pg. VIII-3. "Consider requiring clustering of development using increased densities as incentives when subdivisions are proposed in agricultural/forested areas to promote the preservation of agricultural and forested lands."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Pg. VII -13. "Conservation Land Use Classification. Halifax County's natural environment is one of its most valuable assets, and at the same time one of its most vulnerable. There are extensive watersheds, areas subject to flooding, wetlands, unsuitable soils, wildlife, and woodland areas located throughout the County. Primary environmental concerns arising from this combination of circumstances include deforestation, surface and ground water impacts, soil erosion, storm

water runoff from built surfaces, destruction of wildlife habitat, loss of agricultural acreage, and destruction of property and loss of life due to flood waters.
The conservation classification covers the unincorporated portions of the County which may exhibit one or more of the environmentally sensitive land conditions discussed above. The conservation area is not suitable for intensive land use development and this category of land use is intended for the conservation of water and other natural resources (forests and prime agricultural lands) of Halifax County, thereby reducing soil erosion in the floodplain areas, preventing pollution of the major streams and rivers, and preserving the quality of open space for future generations to enjoy. Single-family residential development may be permitted in this district under strict minimal lot area requirements. Agriculture, forestry, passive recreation, and other conservation uses may also be permitted."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. VIII-4. "Consider implementing a program to purchase development rights and work with private and public organizations to obtain funding for purchase of high priority properties."
   - Pg. VIII-5. "Encourage the use of conservation easements in urban, suburban, and rural areas."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. VIII-25. "Encourage compliance with and use of controls, standards, and best management practices which reduce and prevent pollution, soil erosion, and stream degradation."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. II-7. "Level or nearly level land (0-5% slope) is well suited for all types of development. Rolling or gently sloping land (5-10% slope) is best suited for residential development on large lots. Steeply sloping land (above 15% slope) is best suited for open space, watershed and erosion protection, and conservation purposes."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - September 24, 2007

11. # of acres of forest in county
    - 361,953 acres, or about 68.2% of the County's 530,416 total acres

12. Miscellaneous/Model language
    - Pg. VIII-3. "Implementation Strategies for Agriculture and Forestry:
      - Support the reforestation of clear-cut timber lands and rely on the Virginia Department of Forestry and forestry professionals to give guidance and advice.
      - Support and expand voluntary incentive-based programs to encourage reforestation efforts and conservation of agricultural lands.
      - Consider making companies and individuals with a Forest Management Plan (including reforestation) eligible for differential tax assessment to encourage continued agricultural production and discourage residential subdivision in agricultural areas.
      - Consider deferring property tax payments until after harvest of forest products.

- Consider incentives to plant hardwoods and make timber stand improvements such as allowing deferment of taxes on hardwood stands for the time period after the typical pine harvest until hardwood harvest.
- Consider adoption of recommendations made by the Virginia Division of Forestry and its committees in order to manage the production, harvesting, and marketing of timber resources.
- Delineate agriculture/forestal and rural residential zones on future land use map(s) and zoning maps.
- Support programs and initiatives to improve agricultural and forestry management education in the public school system and encourage the development of vocational education programs and facilities to support existing agricultural and timber-related industries.
- Support programs and initiatives to protect fragile ecological and environmentally sensitive areas for open space, forestry, and agricultural uses.
- Consider amendments to the subdivision ordinance to prohibit or discourage clear cutting of subdivisions lots."

City of Hampton

2006 Comprehensive Plan

This summary provides excerpts of the city comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the city's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the city's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the city is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

*The main section of this report provides an overview for each of these topics and examples from other plans. This city is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. EN-2. "Our community's health and quality of life is directly affected by its environmental surroundings and their condition. The environmental component of the Plan will identify those features (e.g. waterways, wetlands, open space, and natural areas, urban forests, etc.) and the measures for management and protection."
   - Pg. EN-2. "Sensitive areas such as wetlands, forested areas, and plant and animal habitats are vulnerable to the impacts of development. Such environmental amenities add to Hampton's unique beauty and physical characteristics, as well as its environmental health."
   - Pg. EN-3. "Promote a thriving 'urban forest' that provides ecological, economic, and aesthetic benefits for Hampton."
   - Pg. EN-12. "*Urban Forest* - A healthy forest is beneficial to the urban environment by reducing storm water runoff and erosion and sedimentation, improving air quality, and offering wildlife habitat. In addition, tree cover mitigates climatic effects and provides energy efficiency value (e.g. windbreak, shade, etc.) and physiological value (e.g. shelter, screen, aesthetics, etc.). By enhancing the city's appearance and increasing property values, trees are a valuable landscape resource (see Land Cover map). There are approximately 12,027 acres of forested area within the city, which accounts for 35.8% of total land area"

2. <u>Taxation (Use-Value, etc.)</u>
   - Not mentioned in comp plan, however, a 2010 report indicates that Hampton has enabled use-value taxation for agriculture and horticulture, but not forest and open space.

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Not addressed in plan

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>

- Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. EN-17. Mentions the establishment of Chesapeake Bay Preservation Areas. More details to be found in the Chesapeake Bay 2010 Comprehensive Plan Amendment.
   - Pg. EN-17. "The Commonwealth of Virginia, through the Department of Conservation and Recreation, requires that localities have an active E&S control program. Hampton's Erosion & Sedimentation program includes development plan review and site inspection to ensure regulatory compliance with applicable regulations. From construction entrances to silt fences and landscaping standards, the City's E&S program reduces development impacts on local water quality."
   - Pg. EN-18. "A TMDL report is currently under development for the Back River. Likely sources of contamination in this watershed include pet wastes, sewage, and storm water runoff. Once this report is complete the City will have to work with the State and neighboring localities to create a strategy for addressing these sources of contamination."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Not addressed in plan

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - February 8, 2006

11. # of acres of forest in county
    - 12,027 acres, 35.8% of total land area

12. Miscellaneous/Model language
    - Pg. EN-3. "In general, environmental protection efforts in one direction often affect other areas. For example, urban forestry and beautification efforts have a positive impact on reducing litter. Urban forestry efforts have a positive impact on reducing energy costs and improving water quality. Protecting water quality protects recreational fishing."
    - Pg. EN-23. "EN Policy 15: Promote the creation and implementation of an urban forest renewal program that protects existing trees and plants new trees."

Hanover County

"2007-2027" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Nothing mentioned directly recognizing the Economic, Environmental, and Social Benefits of forestland.
        - Land Use Page 7. "**Goal 6:** To protect natural and cultural resources while providing for adequate areas to accommodate planned growth.
            - <u>Objective 2:</u> Evaluate the benefits of preserving productive agricultural and forestal land for such use as watershed protection, recreation, floodplains, scenic natural beauty and protection of historical resources. Protect the County's natural features from development, such as prime agricultural soils, excessively steep slopes, flood prone areas, and major stream valleys with unusual and sensitive ecologies."
        - Economic Development, page 205
        - Relative major objectives: "Create industry recruitment targets for the County, including technology based manufacturing, information technology, professional services, distribution, agricultural and forestry related industries, and tourism."
        - Related Action, page 207: "Support for the agricultural and forestry industries can be provided in several ways. One method of support is through developing and maintaining a database tracking the level of agricultural and forestry activity in the County. Another method of support is to promote locally produced products to a national audience through a partnership with the Virginia Department of Agriculture, the Virginia Economic Development Partnership, and the local Agricultural Extension Office. A final method of support is to facilitate an agricultural summit, which would bring experts in the latest land preservation techniques, forestry, and new crop possibilities to Hanover County."

2. <u>Taxation (Use-Value, etc.)</u>
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture, horticulture, and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Land Use Page 2, "Since 1996, the Board has revised the requirements of the **Agricultural zoning district** to change the density from 1 unit/6.25 acres to 1 unit/10 acres. To address the issue of lost density for agricultural property owners, two new zoning districts were created: an agricultural-residential district and a rural conservation district. Both offer low-density residential opportunities, but the **rural conservation district (the RC) also requires preservation of no less than 70% of the property**. While both districts allow the same density, only the RC provides for maintenance of viable agricultural land in addition to the clustering of homes on a small portion of the property."
    - "A new designation on the ***Conservation and Phased Suburban Development Plan* map**, Rural Conservation, provides for long-term protection of the rural character of the County, setting aside over forty percent (40%) of the area of the County as a means of ensuring that the rural heritage of the County is maintained, and that the agricultural and forestal operations within the County remain viable into the future."

    - Land Use, Page 5. "**Goal 1**: To recognize the interdependent relationship between rural and suburban areas of the County, provide for preservation of agricultural and forestal uses in rural areas, and provide for development of residential, commercial, and industrial uses in suburban areas.
        i. Objective 6: The rural areas of the County should remain agricultural and forestal in character and density. Development of rural areas should reserve agricultural areas solely for agricultural use and other accessory residential or other land uses in conjunction with agricultural activities. Non-agricultural uses should be allowed only where land is not suitable for agricultural purposes or where the use can be shown to be a benefit to the community."

    - Land Use Page 7. "**Goal 5:** To protect and maintain current agricultural/forestal areas.
        i. Objective 1: Preserve prime and important agricultural and forestal lands.
        ii. Objective 2: Restrict the intrusion of inappropriate residential, commercial, and industrial uses into rural areas where such development would compete with prime and important agricultural and forestal uses.
        iii. Objective 3: Identify remaining agricultural and forestal operations and encourage their long-term preservation through techniques such as the Purchase of Development Rights and the creation of **Agricultural and Forestal Districts**, Conservation Easements, and Open Space Districts."

    - Future Land Use, page 165. **Rural Planning Areas**: "Outside of the Suburban Service Area are the Rural Land Use Areas, comprising both the transitional area and the Rural Conservation area. The predominant land uses in the rural areas would be expected to be:
        i. Agricultural and Forestal operations of all types.
        ii. Accessory land uses complementary to agriculture and forestry.
        iii. Low density residential development in existing areas with vested rights and on marginal lands not indicated to be in conflict with agricultural and forestal development, at current densities (both 10-acres and 6.25 acres per lot) within the transitional area, and at the 10-acre density in the conservation area.

iv. Open space to accommodate public parks

- **Right to Farm and Right to Practice Forestry**
  i. In general, the rural areas of the County have the "right to farm" and should be protected from inappropriate development. Protection of prime agricultural and forestal lands may be accomplished through consideration of various means, including use of open space zoning, which clusters development. By channeling suburban growth into the Suburban Service Area, and by protecting the rural character of the County through both application of open space development and designation of conservation areas, the random pattern of subdivisions in the rural areas should be stabilized."

4. Conservation (Funding as well as Identifying specific forestland)
   - Land Use Page 7 "**Goal 5:** To protect and maintain current agricultural/forestal areas.
     - Objective 3: **Identify remaining agricultural and forestal operations and encourage their long-term preservation** through techniques such as the Purchase of Development Rights and the creation of Agricultural and Forestal Districts, Conservation Easements, and Open Space Districts."
   - "**Goal 6:** To protect natural and cultural resources while providing for adequate areas to accommodate planned growth.
     - Objective 1: **Identify productive agricultural and forestal land** based on recent soil and forestal surveys, and designate significant areas of such land on the *Conservation and Phased Suburban development Plan* map for preservation in rural areas."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Land Use Page 7. "**Goal 5:** To protect and maintain current agricultural/forestal areas.
     i. Objective 3: Identify remaining agricultural and forestal operations and encourage their long-term preservation through techniques such as the **Purchase of Development Rights** and the creation of Agricultural and Forestal Districts**, Conservation Easements**, and Open Space Districts."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - See riparian buffers in #9
   - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Nothing included

8. Conservation of working farms that can be broadened to include forestland
   - See #9. SWCD

9. Other tools that can be broadened to include forestland
   - Public Works page 155
   - LAND STEWARDSHIP – SWCD: "The Hanover-Caroline SWCD is provided local funding from Hanover County. In return for local financial support, the District undertakes a number of programs and projects to benefit the citizens of Hanover County. The District

administers the agricultural regulations of the state mandated Chesapeake Bay Preservation Act (CBPA). This is accomplished by helping farmers to install and maintain riparian buffers, manage fertilizer and chemical use through the implementation of Soil and Water Quality Conservation Plans, and reduce sediments to waterways through the implementation of Best Management Practices (BMPs). The District provides cost-sharing and tax credit incentives to farmers that apply BMPs to their land. Under the VA Best Management Practices Cost-share and Tax Credit Program, farmers in Hanover County have been able to install waste management systems for dairy and poultry manure, grazing systems for cattle, permanent vegetation on cropland, stabilization of critical erosion areas, nutrient management on cropland, and riparian and field buffers. The district promotes soil conservation through its no-till equipment rental program, which is available to all landowners within the district boundaries. The district also offers technical assistance in the investigation and resolution of water quality complaints lodged with the VA Department of Agriculture and Consumer Services."

10. Timing of Comprehensive Plan updates
    - This Comprehensive Plan was adopted in 2007, so the next review should take place by 2012.

11. # of acres of forest in county
    - Not included in this Plan

12. Miscellaneous/Model language
    - None identified

Henrico County

"2009" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Not addressed in plan

2. <u>Taxation (Use-Value, etc.)</u>
    - Not mentioned in plan; however, use-value taxation is enabled for forest use, as well as for agriculture, horticulture, and open space uses.

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Land Use Chapter 5. A-1 Agricultural Zoning District
    - P 62: Cluster/Conservation Subdivisions – "The primary conservation areas should include the most severely constrained lands, where development would typically be restricted under current codes, such as wetlands and floodplains. Secondary conservation areas should include locally significant features of the existing landscape. These secondary areas may include the following features:
        - Mature woodlands
        - Hedgerows, freestanding trees or tree groups
        - Wildlife habitats and travel corridors
        - Prime farmland
        - Groundwater recharge areas
        - Greenways and trails
        - River and stream corridors
        - Historic sites and buildings
        - Scenic view sheds"
    - Pg 39: "Promote a continuation of the historic rural pattern, including farms, pasture land, and preserved natural and historic sites as the desired character for these areas. Accommodate new residential development but encourage it to occur on either very large lots, or in a conservation subdivision format."

4. Conservation (Funding as well as Identifying specific forestland)
    - Pg 194: "Pursue Recreation Access Roadway funds, Community Development Block Grants, Land and Water Conservation Funds, Virginia Trail Funds, and other potential sources of funding to reduce the local cost of acquisition and/or facility construction."
    - Pg 311: "Encourage the rezoning of properties in the 100-year floodplain to the 'C-1' Conservation District as may be designed to implement this plan, in order to protect these environmentally sensitive areas and to minimize stormwater control problems."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestlands
    - Pg 38: "Encourage the preservation of private open space by supporting the use of conservation and open space easements to preserve land use in each Land Use Group/Classification, provided such easements do not adversely impact planned infrastructure or the pattern of development in the area."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg 119-121. Discussion of Chesapeake Bay Preservation Act
    - Pg. 153. Stormwater detention is explained as a preventive measure that homeowners can use.
    - Pg. 278. Erosion and sediment control ordinance

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - P. 128: "Elevations in the county range from sea level along the lower James River to about three-hundred forty (340) feet above sea level on the highest ridges in the western section of the county. Slopes in the county may be categorized in the following four (4) groups:
        - **Very steep (greater than 25 percent)** – If disturbed by construction or forest removal, widespread failure of the slope is highly probable. These slopes may be better used as natural areas, trails and observation points. Land in this category is the least suitable for development.
        - **Steep (16-25 percent)** – If plant cover is removed, these slopes are highly susceptible to erosion and gully formation. Special design consideration is required for buildings on slopes greater than fifteen percent (15%). Development on these areas is suitable with restrictions to manage erosion.
        - **Moderate (5 to 15 percent)** – These slopes will support residential and agricultural land uses; if misused, they are susceptible to serious erosion. These areas are moderately suitable for development.
        - **Gentle (less than 5 percent)** – These slopes will sustain the most intensive use with the least erosion management needed; however, it is common in the flat areas of the county to encounter drainage problems where standing water can collect.

      Locating and categorizing these slopes is useful for gauging the degree of caution required to evaluate and recommend a particular site for development. The Physical Constraints to Development Map shows the areas of the county with slopes in excess of fifteen percent (15%) considered steep and very steep slopes.
      Generally, the Coastal Plain Province consists of broad, nearly level and gently sloping ridges. Steep slopes occur more frequently in the Piedmont Province than in the Coastal Plain Province. Areas of steep slopes may present limitations to certain

types of development. The presence of steep slopes in combination with particular soil types may have the potential for severe erosion or slope failure.
Steep slopes are located in four (4) general areas of the county. They are scattered along the James River; in the vicinity of Horse Swamp; along bluffs adjacent to the Chickahominy floodplain; and in the southeastern corner of the county."

8. Conservation of working farms that can be broadened to include forestland
   - None identified

9. Other tools that can be broadened to include forestland
   - Pg 39: "Promote the idea of agriculture as a desirable use, subject to potential change and transition to other more intense uses. While the open nature of agriculture is enjoyed by many, and the open space is a valued community amenity, discourage the view of agriculture as permanent open space, and do not expect farmers to carry the burden of providing this amenity."

10. Timing of Comprehensive Plan updates
    - Henrico County Vision 2026, Adopted August 11, 2009

11. # of acres of forest in county
    - Not included in plan

12. Miscellaneous/Model language
    None identified

Henry County

"1995-2010" Comprehensive Plan

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It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 17. "In addition to being important components of the local economy, forestal and agricultural resources provide many other benefits to the County. For instance, these resources (with appropriate conservation practices) help protect the integrity of the local watersheds and, therefore, drinking water supplies. They also provide scenic resources, open space, wildlife habitat and help preserve the area's traditional rural character. Finally, preservation of these industries will help slow their conversion to low density residential uses, and therefore help stem rising service delivery costs to outlying residential areas."
   - Pg. 19. "Woodland owners realized a combined income of approximately 1.5 million dollars in 1993, providing a major contribution to the County's economy."
   - Pg. 38. Discussion of employment by industry.

2. <u>Taxation (Use-Value, etc.)</u>
   - Pg. 148 "In 1981, the County adopted a Land Use Taxation Program to help preserve agricultural land through fair taxation methods (see Agriculture). This program is based on the premise that these lands should be taxed on their current use rather than at market value."
   - ***Update****: A 2010 report indicates that Henry has enabled use-value taxation for forest use, as well as for agriculture and horticulture, but not for open space.*

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. 23. "Encourage the wise use of land resources through zoning incentives that promote cluster development. Update the County development ordinances to provide greater incentive for clustering."
   - Pg. 145. "A Conservation Overlay District was established in October 1992 to protect the quality of drinking water resources"
   - Pg. 147-148. Discussion of Density Bonuses: "This planning tool is intended solely for use in rural areas. Essentially, the density bonus approach offers developers the chance to develop in higher densities, in exchange for residential subdivision design that better achieves the County's policies for the development of rural areas."
   - Pg. 149. Definition of Ag/Forestal Districts, Definition of Conservation Easements.

- Pg. 156. "Consider increasing the minimum lot size in the agricultural zoning district to reduce residential sprawl in outlying areas of the County."
- Pg. 156. "Revise land development ordinances to increase flexibility and allow for clustering of development."

4. Conservation (Funding as well as Identifying specific forestland)
   - Pg. 14. The Conservation Overlay

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. 23. "Promote preservation of these areas through non-regulatory approaches such as conservation easements, purchase of development rights (PDR), and density bonuses."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 16. Conservation Overlay: "The Overlay establishes a 50 foot buffer from any "live" stream or reservoir. Many localities also use vegetative buffer strips to protect their water resources. In essence, these buffers slow water runoff as it enters waterways and filters out much of the nonpoint source pollutants that the runoff carries."
   - Pg. 22. "Support ASCS, SCS, and Department of Forestry programs and policies that promote soil and water conservation and reduce nonpoint source pollution."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 4. Table of slope classifications and suggested land use. Slopes of 25% or more "unsuitable for any type of intensive development… a permanent vegetative cover should be established."
   - Pg. 156. "Mitigate development impacts on water quality by establishing setbacks or buffers from water bodies."

8. Conservation of working farms that can be broadened to include working forests
   - Pg. 22. "Discourage the conversion of prime and important farmlands to other land uses."

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - 1995

11. # of acres of forest in county
    - 176,780 acres, or approximately 70%, of the County

12. Miscellaneous/Model language
    - Pg. 23. "Request the EDC to analyze marketing needs of the agricultural and forestal industry and recommend programs supporting the industry."
    - Pg. 23. "Support the Virginia Cooperative Extension Service's efforts to identify, publicize, and provide technical assistance for alternative agricultural/forestal activities in the County. Assist in the identification of activities particularly adaptable and marketable in Henry County."

Highland County

"2007" Proposed Comprehensive Plan

***The Plan reviewed for this document is the Proposed Plan. Draft was presented to the Highland County Board of Supervisors on Sept. 25, 2007.**

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****

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Economy section. "Agriculture and forestry provide 7% of the jobs in Highland but have been instrumental in developing the natural character of the county"
    - Land use goals section: "Goal 3: Maintain viable commercial, agricultural and forestry sectors when making land use decisions."

2. Taxation (Use-Value, etc.)
    - Land Use Verbiage section. Land use taxation is described and encouraged for future use by the county. Also reflected in Objective LS-3: "Explore alternative taxation to help preserve agricultural land and production." *This can be strengthened by including forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Land Use Verbiage Section. Large lot zoning, Agricultural zoning and Agricultural/Forestal Districts are discussed. The drawbacks of each are identified; including the risk of encouraging sprawl through large-lot zoning and the risk of decreased tax base with use-value taxation in AFDs.
    - Strategies:LS-2 "Encourage creation of exclusive Agricultural and Forestal Districts."

4. Conservation (Funding as well as identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestlands
    - Land Use Verbiage Section. Conservation easements are described. Description includes benefits of protecting farm land and forestland.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Land Use Verbiage Section. "Highland should ensure that development on ridge tops is closely scrutinized for cost/benefit of tax revenue vs. degradation of environmental features of the land and rural character of the county, while also considering land owners' rights."

8. Conservation of Working Farms that can be broadened to include forestland
    - Land Use Verbiage section. Rural Land Protection Programs. "With a clear goal, specific programs or initiatives can be targeted to address agricultural issues and farmland protection. Some counties have appointed an Agricultural Task Force to research local challenges and develop recommendations. This can lead to such steps as evaluating tax policy, reviewing zoning regulations, or establishing a purchase of development rights program."

9. Other tools that can be broadened to include forestland
    - See # 3- Large-lot zoning

10. Timing of Comprehensive Plan updates
    - Currently in review stage

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - None identified

Isle of Wight County

"2008" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Pg. 2-34. "Forests support not only an industry in the County but are an important feature of the County which affords environmental protection. The patterns of ownership and management of forest resources are important when considering forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are an excellent filter area for groundwater recharge. Forests also form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas serve as an effective visual and noise buffer between land uses. Best management practices for the timber industry ensure the conversion of the County's extensive forest resources."
    - Pg. 3.6. Discussion of the economic value of timber and forestlands.
    - Pg. 3.6. Discussion of the ecological benefits of forestland

2. <u>Taxation (Use-Value, etc.)</u>
    - Pg. 3.6. "Virginia's farmland taxing policies provide that property being farmed is assessed and taxed at farm use values." Use-value taxation is also enabled for forests.
    - Pg 2-27: Preferred shoreline land uses can be given a reduced property tax rate to provide an incentive to maintain those uses. Such uses might include those which place the least amount of land at risk or remain unimproved. Such areas might include open space, forestland, and farmland.

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Pg. 3.7. "Three separate Agricultural and Forestal Districts have been established throughout the County."
    - Pg. 3.7. Definition of Agricultural/Forestal Districts
    - Pg. 3.7. "Rural Agricultural Conservation (RAC) District was created to protect the agricultural industry from sprawling residential development that displaces substantial areas of farmland for a small number of dwelling units."
    - Pg. 4.16. Rural/Agricultural Conservation District

- Pg. 4.17. Sliding Scale Zoning and Large Lot Zoning
- Pg. 4.17. Clustering/Density Bonus

4. Conservation (Funding as well as Identifying specific forestland)
    - Pg. 3.8. "In May 2005, the County Board of Supervisors adopted an ordinance that allows for the establishment of the Purchase of Agricultural and Forestal Conservation Easements (PACE) Program. The PACE Program is another effort to preserve existing agriculture and forest land." *The PACE program specifically includes forest land, identifies target areas and includes funding for easements.*

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - See #4

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 2-42. "Enact slope density regulations. A steeply sloped site cannot support the same development density as a flat site. Permitted density should decrease as slope increases. Limit grading activities in proportion to slope vulnerability." *Suggested in plan*

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 3.1. "By better managing the form of future development in the County, Isle of Wight can make significant strides to protect and preserve the agricultural industry and the rural character of life which is so important to all County residents. While preserving the land base to support agriculture in the County is important, assessing opportunities to strengthen and enhance the ongoing economic viability of the agricultural industry is also important. Establishing a balance between accommodating future growth while maintaining and enhancing the agricultural industry and rural character is a primary objective of this Plan."

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Adopted October 16, 2008

11. # of acres of forest in county
    - Pg. 3.5. 2001 97,990 acres of timberland

12. Miscellaneous/Model language
    - Pg. 3.8. Discussion of Agricultural Conservation Planning Consideration and Issues.

James City County

2009 Comprehensive Plan

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Environment, page 54 under "Forestland": "Forests contribute more than wildlife habitat and timber. Tree roots have been proven to be the best natural device to hold streamside soil in place. Forested riparian buffers are particularly valuable for improving water quality and preserving biological diversity. These forested areas filter runoff before it enters the waterway, stabilize eroding areas, and provide wildlife habitats for many sensitive species. Deforestation that is not part of an overall forestry management plan, such as that typically associated with development is a significant environmental and aesthetic concern and impacts the County's wooded character."

    According to the VEC, in 2000 an average of 92 employees was associated with agricultural activities in James City County while the average weekly wage was approximately $323. In 2007, the average employment number was down to 48 employees and the average weekly wage declined to approximately $252

    - In "Economic Development Goals, Strategies, and Actions" (page 20-22):

    Support traditional agricultural and forestal uses where they exist through continued and improved ordinances and policies favorable to such uses.

2. Taxation (Use-Value, etc.)
    - The plan does not mention the use-value taxation for land that is not in an Agricultural/Forestal District. However, land use taxation is enabled for agriculture-horticulture and forestry uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 91. "The Agricultural and Forestal District (AFD) program in James City County is a formal method of assembling tracts of land into large, contiguous parcels for the purpose of short- or long-term conservation...Currently there are almost 18,000 acres in the AFD program. The AFD program does not prohibit activities that have the potential to negatively impact the County's visual quality (i.e., timbering)."

- *There is no mention in the Plan of specific "conservation, agricultural, large lot, sliding scale, etc." zoning, but the county does have* "The Primary Service Area policy," a defined growth area: "a principal tool used by the County to manage growth. The PSA is the area where the County encourages most growth to occur and where the bulk of public facilities and services will be provided over the next 20 years. The PSA has as its main goal to promote the efficient delivery of public facilities and services." See also Natural Areas policy in #12.

4. Conservation (Funding as well as Identifying specific forestlands)
   - Nothing mentioned that is directly related

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. 91:

   "The Purchase of Development Rights (PDR) program was established **in James City County in 2001. The program is voluntary for landowners interested in** preserving their property and allows landowners to enter into agreements to sell the development potential of qualifying property to the County while maintaining the right to continue to own and use the property. Property in the PDR program is put into a conservation easement that places permanent limits on future development of the property and binds all subsequent owners of the property. To date more than 460 acres have been protected through this program."

   "1.3.3. Operate programs which seek clear title to or conservation easements over environmentally sensitive lands throughout the County in partnership with willing property owners."
   County's PDR program and ranking criteria are geared toward farmland and agricultural uses, could be strengthened to include forest uses.

   - "Investigate the benefits and feasibility of developing and implementing a Transfer of Development Rights (TDR) program that would allow the transfer of development rights from sending areas to receiving areas. Monitor the status of Transfer of Development Rights programs in Virginia." **In 2010, the County is continuing to examine the feasibility of a TDR program through public outreach.**

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 69. "The County's Chesapeake Bay Preservation Ordinance requires that agricultural buffers be managed to prevent concentrated flows of surface water from breaching and noxious weeds from invading the buffer area. The ordinance also sets a goal of 40% reduction in nonpoint source pollution from agricultural uses. To help achieve this goal, the ordinance states that land used for agricultural activities shall have a soil and water quality conservation plan based upon the *Field Office Technical Guide* of the U.S. Department of Agriculture Soil Conservation Service."
   - Pg. 79. 1.1.15. "Increase education and use of sound policies such as watershed planning, agricultural BMPs, erosion control measures, stream bank buffers, and other nonpoint source controls in order to minimize negative effects of urban development and agricultural practices on water quality."

   - The county has developed watershed management plans for Powhatan Creek and Yarmouth Creek. These are listed as "Other Conservation Tools" listed in the

Environment section, page 46-47 under Natural Resources Protection and Management.

7. Viewsheds/Visual Buffers/Critical Slopes Protection
    - Pg. 152. "Appropriate goals for open space and lot layout include preservation of farmland, open fields, scenic vistas, woodland, meadows, wildlife habitats, and vegetation; protection of environmentally sensitive land including wetlands, stream corridors, and steep slopes; roadway buffers; and preservation of scenic views."
    - Pg. 46-47 *Chesapeake Bay Preservation Ordinance* – "On August 6, 1990, James City County became the first locality to implement fully the requirements of the Chesapeake Bay Act. Due to the County's geography and environmental sensitivity, the Act and regulations are of particular local importance, and James City County responded by designating all land within the County as a Chesapeake Bay Preservation Area. In addition, the Chesapeake Bay Preservation Ordinance prohibits land disturbing activities on slopes 25% or greater, generally limits impervious cover to 60% of a site, and requires the preservation of existing trees (except in impervious areas) over 12 inches in diameter at breast height."

8. Conservation of working farms that can be broadened to include forestland
    - See #5 PDR

9. Other tools that can be broadened to include forestlands: None identified

10. Timing of Comprehensive Plan Updates
    - 2009

11. # of acres of forest in county
    - Pg. 54. The Plan mentions the 2002 Forest Inventory that states that 54,140 acres of land in the County (approximately 59% of total land area) are forested. Since 1992, this represents a decrease of 17 percent or 10,816 acres. At present growth rates, loss of forestland is a major concern to the County. Virtually all of James City County has been cleared or farmed several times since 1607. In some cases, high value stands of trees have become established.

12. Miscellaneous/Model language
    - Pg. 46 *Natural Areas Policy* – "In January 1992, the Virginia Division of Natural Heritage completed work on a Natural Areas Inventory of James City County, York County, and the City of Williamsburg. Of the resulting 25 natural areas, 16 are located in the County. The Natural Areas Inventory report provides the County with detailed management recommendations for each natural area. The County has developed a policy that applies to rezoning and special use permit applications for development. Landowners are encouraged to contact and work with the Virginia Division of Natural Heritage for any development plan located within a natural area."

King and Queen County

"2006" Comprehensive Plan

****Appendix C, Dragon Run Watershed Management Plan, contains model language for many of the following topics. This language could easily be included in the County's Comprehensive Plan.**

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****

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 23. Dragon Run Watershed Management Plan. "Since forested riparian buffers provide effective water quality protection and wildlife habitat, forested lands exhibit low nutrient input to adjacent streams relative to other land uses in the watershed. Therefore, forest stewardship plans have the potential to significantly influence the health and profitability of the watershed's forests. To benefit landowners and the local economy and to preserve the rural landscape and the natural resources in the watershed, the Dragon Run Steering Committee **recommends** promotion and implementation of forest stewardship plans prior to timber harvesting." – ***This language could be broadened to include all of the County's forests***
    - Pg. 24. Dragon Run Watershed Management Plan. "Forestry supports 'one of the largest manufacturing industries in the state ranking first in employment, first in wages and salaries, and accounts for $1 out of ever $8 of value added through manufacturing. Forestry and farming are key industries in the Dragon Run Watershed." – ***This language could be added to Chapter 3 - Agricultural, Livestock, and Forestal Activities***

2. Taxation (Use-Value, etc.)
    - Pg. 3. Land use taxation is suggested in the plan for preserving farm and forestland
    - Pg. 18. Dragon Run Watershed Management Plan. Sliding scale property tax rate

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Appendix A. Pg. 3. Resource Management Area (RMA) – Includes streams, adjoining wetlands, related environmentally sensitive areas and 100-foot buffer areas landward from these sensitive areas
    - Pg. 18. Dragon Run Watershed Management Plan Agricultural and Forestal Districts are suggested in the plan.

- Pg. 18. Dragon Run Watershed Management Plan. Sliding scale zoning is suggested in the plan to preserve forests and farmland within the Dragon Run watershed.

4. Conservation (Funding as well as Identifying specific forestland)
    - Pg. 23. Dragon Run Watershed Management Plan. "Since forested riparian buffers provide effective water quality protection and wildlife habitat, forested lands exhibit low nutrient input to adjacent streams relative to other land uses in the watershed. Therefore, forest stewardship plans have the potential to significantly influence the health and profitability of the watershed's forests. To benefit landowners and the local economy and to preserve the rural landscape and the natural resources in the watershed, the Dragon Run Steering Committee **recommends** promotion and implementation of forest stewardship plans prior to timber harvesting." **– Language about conserving forestland in the Dragon Run Watershed**

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 3. Purchase of Development Rights is suggested in the plan for preserving farm and forestland.
    - Pg. 18. Dragon Run Watershed Management Plan. Conservation Easements are suggested in the plan for protecting forests and farmland, and the natural resources within the Dragon Run watershed.
    - Pg. 18. Dragon Run Watershed Management Plan. Purchase of Agricultural Conservation Easements are suggested in the plan for protecting forests and farmland, and the natural resources within the Dragon Run watershed.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 13. Appendix A. "Regulations of the Chesapeake Bay Preservation Areas and BMPs (Best Management Practices) both focus on raising the quality of storm water discharge into state waters. The focus is on both managing the quantity and quality of runoff water through use of holding ponds, filtering with a buffer zone, and setting performance standards for reducing the amount of chemicals in the runoff water.
    - Pg. 22. Dragon Run Watershed Management Plan. "The **recommended** approach encompasses a variety of methods and materials. Education would focus on field experiences that incorporate activities designed to address critical watershed issues (e.g. wetland and habitat values, biodiversity, water quality and quantity, riparian buffers)."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 1 Appendix A. "Appendix A will identify areas of the County that impose physical constraints and/or limitations to development including: (1) lands that are subject to flooding; (2) lands that have steep slopes, mostly located along major streams, such that they serve as a limitation to development; lands that have soils unsuitable for sewage disposal; and (4) lands that, because of public policy, are protected or restricted from development."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 3. Chapter 3. The language found in the County's Plan that refers to farms also refers to forestland.

9. Other tools that can be broadened to include forestland
    - *Conservation Easements* as mentioned in the Dragon Run Watershed Management Program
    - *Agricultural/Forestal Districts* as mentioned in the Dragon Run Watershed Management Program
    - *Sliding Scale zoning* as mentioned in the Dragon Run Watershed Management Program

10. Timing of Comprehensive Plan updates
    - February 13, 2006

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. 2. "The preservation of existing agricultural and forestlands by protecting them from excessive fragmentation, development, and incompatible uses is essential, as is innovative and attractive design and thoughtful placement of both residential and commercial development."
    - Pg. 23. Dragon Run Watershed Management Plan. Explanation of Forest Stewardship Plan. "The Virginia Department of Forestry prepares Forest Stewardship Plans for up to 200 acres at no cost to landowners. Beyond 200 acres, the Department charges fees, so it may be cost effective for a consulting forester to develop a Forest Stewardship Plan."
    - Pg. 25. Dragon Run Watershed Management Plan. "For the natural resource-based industries to continue to thrive, the watershed communities **should** develop a regional capacity to produce value-added forest and farm products to capture additional value locally. With funding from the Virginia Coastal Program, the Dragon Run Steering Committee is sponsoring a study of potential sustainable economic development opportunities within the watershed."

King George County

"2006" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Not addressed in plan

2. Taxation (Use-Value, etc.)
   - Key Policies/Implementation Strategies for Future Development and Preservation. Pg. 20. "Encourage agricultural and forest preservation through the maintenance of land use taxation, and careful review of rezoning requests."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - See #5
   - Pg. iii. "Rural Development Areas - are the areas of the County, which are largely agricultural and forestal with dispersed residential and rural business uses. These areas are planned to remain rural, with only very low-density residential uses permitted in addition to agriculture and forest activities.
   - Pg. 9. "Encourage individual property owners to be aware of the various options and techniques available to preserve properties, including historical and open space conservation easements, agricultural and forestal districts and restrictive covenants."
   - Key Policies/Implementation Strategies for Future Development and Preservation. Pg. 19. "Implement large lot and/or sliding scale zoning in the areas currently zoned agricultural to promote the preservation of the prime agricultural lands in this Area." – *This is suggested in the plan, but not in use*
   - Comprehensive Plan Map 4 includes zones.

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to Forestlands
    - Land Use Plan. Pg. 23. "Support the use of financial incentives, including state and federal tax incentives, to direct and better manage growth, including use value taxation and conservation easements."
    - Pg. 25. "Implement policies and programs aimed at encouraging the retention of compatible agricultural and forest activities, including use-value assessment, agricultural and forestal districts, conservation easements, etc."
    - Pg. 29. "Encourage individual property owners to be aware of the various options and techniques available to preserve properties, including historical and open space conservation easements, agricultural and forestal districts and restrictive covenants."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Key Policies/Implementation Strategies for Future Development and Preservation. Pg. 19. "Encourage vegetative shoreline stabilization practices along the Rappahannock River including the restoration of the natural riparian buffer and the planting of marsh grasses. The Local Wetlands Board should encourage vegetative practices when reviewing applications for shoreline stabilization projects."
    - Pg. 75. "Effort should be made to reduce the potential for loss of forested riparian buffers and other migration corridors, wetlands, mature forests, and to reduce the degradation of habitat from pollution. The establishment and protection of riparian forest buffers will enhance the survival of wildlife since water areas are an essential component of their existence. These buffers also enhance the fish habitat and aid in protecting water quality for the health of wildlife. Forested riparian buffers serve many other functions that enhance our lives."
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Pg. 28. "Discourage development in environmentally sensitive areas such as those that are predominantly characterized by steep slopes and highly erosive soils, flood plains, wetlands and critical habitat for ecologically or economically important plant and animal species.
    - Key Policies/Implementation Strategies. Pg. 20 "Adopt in the County's land use ordinances "performance standards" for development on steep slopes"

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 25. When rural land is to be developed with residential uses, strongly encourage very low-density development that provides permanent agricultural conservation easements to ensure a low density, rural land use pattern.

9. Other tools that can be broadened to include forestland
    - See #5

10. Timing of Comprehensive Plan updates
    - Plan is dated 2006, so next review should be completed by 2011.

11. <u># of Acres of Forest in County</u>
    - 70,130 acres

12. <u>Miscellaneous/Model language</u>
    - Pg. 23 "Encourage the use of best management practices to minimize soil erosion by: promoting public awareness of the benefits of best management practices; assisting in the establishment of conservation plans for all farms and forestry operations
    - Pg. 28. "Encourage resident participation and regional cooperation in the preservation of all natural resources, such as forests, farmland, wildlife, and air quality and wildlife habitat.
    - Pg. 26. "Encourage landowners, by providing information, to prepare forest management plans in conjunction with the Virginia Department of Forestry."

King William County

"2003" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. II-9. "They [forests] are the major source of cleansing the air by "recycling" oxygen from carbon dioxide. They serve as the mainstay for the prevention of erosion. Financially, they are a major asset to the County's economy with its timber and wood-products industries, which have been promoting sound conservation practices for many years. The aesthetic and climatic factor of shade from winter cold and summer heat cannot be overlooked. Finally, the forests provide a habitat to the abundant wildlife and flora of the County."

2. Taxation (Use-Value, etc.)
    - Pg. VIII-11. Goals. Use value taxation is suggested in the plan, and a 2008 report indicates it is enabled for forest use, as well as for agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. VII-7. Future Land Use Areas. "Agricultural, Forestal and Conservation Areas: These areas represent the lowest densities for residential uses and are loosely defined as parcels over ten (10) acres in size and containing the majority of the farms, forests, and conserved lands of the County."
    - Pg. VII-23. Agricultural Conservation District (A-C) – Suggested in plan

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. VIII-11. Implementation Strategies. "Uniformly enforce the Chesapeake Bay Preservation Area (CBPA) criteria providing for vegetated buffers along shorelines."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. VIII-23. Strategy. "Promote land use policies that discourage developers from disturbing land on steep slopes. Avoid developing any land that slopes more than 15 percent." Although this is more restrictive, see also county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Pg. VIII-11. Strategy. "Consider zoning provisions that would result in the preservation of natural, continuous buffers for wildlife habitat."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. VIII-1-1. Goals. "Support programs and efforts to insure that agriculture-related activities be allowed, consistent with reasonable public safety and property rights."
    - Pg. VIII- 1-1. Goals. "Utilize zoning to delineate agricultural areas for low-density development and to direct new residential development to locate in and adjacent to established residential areas."

9. Other tools that can be broadened to include forestland
    - Pg. VIII-1-1. Goals. "Evaluate alternative tax structures such as land use taxation as tools to promote agricultural land preservation."

10. Timing of Comprehensive Plan updates
    - Plan last updated in 2003, so review should have been completed by 2008, and again in 2013.

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. II-9. "The preservation and protection of the County's forests are of prime concern based on survey responses and comments made by citizens at public meetings."

    - Pg. VIII-1-1. Goals. "Support programs and efforts to promote woodlands as one of the best preventions of soil and pollutants from entering the Bay."

      Pg. VIII-1-1. Goals. "Support programs and efforts to educate landowners about forest management. Support programs and efforts to preserve woodlands. Support programs and efforts to maintain the existing forestland as a buffer against erosion and incompatible land uses, as a filter along waterways, as groundwater recharge areas, and as a prime natural resource.

Lancaster County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 2-6.Prime Farmlands:
        - The introduction of the section discusses the economic, environmental and social benefits of agriculture, specifically farms. **– This section can be strengthened by including forests.**
        - (Later in the Prime Farmlands paragraph) "Areas of undeveloped, pervious land, such as *woodland* and farmland, are necessary for the purposes of aquifer recharge. It is because of these important roles that the 1992 Comprehensive Plan identified farmlands as resources that are worthy of conservation and preservation."

2. Taxation (Use-Value, etc.)
    - **Use-value taxation is enabled in Lancaster only for agricultural and horticultural uses, and excludes forestry.**
    - Pg. 2-13. Investigate Feasible Methods of Preserving Prime Farmland - Expansion of the existing land use taxation program **– This can be strengthened by including forests.**

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Agricultural Limited (A-1) & Agricultural General (A-2) - *found on zoning website*
    - Pg. 7-6. Exclusive Use Zoning/Agricultural Conservation Zoning Districts – "Some communities establish agricultural conservation zoning districts that are very restrictive in the range of uses that they allow. In many agricultural conservation zoning districts, only farming or forestry (and other similar uses that have minimal development impact) are allowed." - **Suggested in plan for future implementation**
    - Pg. 7-7. Sliding Scale zoning **– Suggested in plan for future implementation**

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 2-15. "Encourage the creation of permanent conservation easements
    - Pg. 2-15. Investigate the concept of a Purchase of Development Rights (PDR) program consistent with state guidelines to receive matching funds to purchase permanent easements on farm and forestland.
    - Pg. 2-15. Investigate the concept of a Transfer of Development Rights (TDR) program consistent with state guidelines to direct development away from farm and forestland and toward already developed areas."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 2-1, 2-2. Chesapeake Bay Preservation Section discusses Resource Protection Areas (RPAs) and Resource Management Areas (RMAs). All areas of the County outside the designated RPAs are considered RMAs. The section also discusses the use of Forestry BMPs.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 2-4. Steep slopes are defined and locations throughout the county are provided.
    - 7-12. Vegetative Buffers are suggested in the plan for future implementation
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 7-19. "Rural areas include those areas that the County wants to retain as farmland and open space. Locations include prime farmland areas and land that is unsuitable for development due to environmental constraints" - **Suggested in plan for future implementation.**
    - Pg. 2-15. Goal #4 "Preserve the industry of farming in Lancaster County"

9. Other tools that can be broadened to include forestland
    - See #2, Taxation, #3, Zoning, #5 – Conservation Easements

10. Timing of Comprehensive Plan updates
    - 2007

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - None identified

Lee County

2003 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 46. Occupational classifications.
   - Pg. 91. "Efforts should be made to improve the quality of the County's timber stand, and multiple use management practices should be adopted. Such an approach would allow Lee County to more successfully compete in the tourist and outdoor recreation industry through the end of the century. An acceptable balance should be achieved among all aesthetic, recreation, and economics of the County's National Forest areas."

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan. Lee County has not enabled use-value taxation. *This likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. 93. Description of Agricultural (A-1) zoning.

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.

- Pg. 7. "Areas with slopes in excess of 20 percent are generally considered unsuitable for urban type development…."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - 2003

11. # of acres of forest in county
    - 68.7% of the County's land area

12. Miscellaneous/Model language

Loudoun County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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***

Loudoun County has a very extensive and thorough Comprehensive Plan with far too much information to include in this summary. Directly related information is included here, but there is extensive information regarding rural policy and agriculture that could be valuable.

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - #1 in the General Plan Strategy, Green Infrastructure:
      "**An overarching change in this Plan is the integration of Loudoun's natural, environmental, cultural and heritage resources into a unified Green Infrastructure strategy.** The Green Infrastructure will shape land uses throughout the County in all policy areas. It will be a structuring element of development, with its features becoming a part of every new project through the use of conservation design as the preferred project planning technique. The County is committed to the preservation and enhancement of its Green Infrastructure assets for their economic value and contribution to the quality of life of present and future residents."

    - In the "Green Infrastructure Chapter," under "E. Forests, Trees and Vegetation":
      "Loudoun County has some of the state's best hardwood stands for lumber and veneer production. The County's forests and trees also improve air and water quality, offer important habitat for birds, small mammals and other wildlife, and are excellent buffers between communities. Forests and trees conserve energy by providing shade and evaporative cooling through transpiration. They also reduce wind speed and redirect airflow; reduce stormwater runoff and soil erosion; and can increase real property values. Riparian forests along streams provide the greatest single protection of water quality by filtering pollutants from stormwater runoff, decreasing stream bank erosion, and maintaining the physical, chemical, and biological condition of the stream environment.
      Because forests and trees are such a valuable resource in Loudoun, they will be protected for current and future use and enjoyment by establishing a Tree Preservation Ordinance that protects large forest areas, urban forests and individual trees, while preserving existing vegetation and protecting plant and wildlife habitats.

Existing vegetation is a superior habitat resource for new tree plantings because they retain essential ecosystem components that support tree and forest re-growth. **The County will require tree conservation plans to be submitted and approved for each developing parcel at the time of the initial land development application.** These plans should be reviewed for conformance with minimum viability standards and the likelihood of long-term forest, tree and vegetation survival."

- In the "Green Infrastructure Chapter," under Forests, Trees and Vegetation Policies": #1. The County will seek and encourage—through incentives—the preservation, protection, and management of forest resources for their economic and environmental benefits.
  #5. The County will promote the preservation of forested areas through the use of Agricultural and Forestal Districts, easements and other voluntary means."

2. Taxation (Use-Value, etc.)
   - In the "Green Infrastructure Chapter," under "Prime Agricultural Soil Policies": "1. The County will utilize the **Use Value Assessment Program**, Agricultural and Forestal Districts and other incentive-based efforts at its disposal to encourage preservation of Prime Agricultural Soils for agricultural uses. The County will improve the Use Value Assessment Program and will develop and implement additional incentive-based regulations, if necessary, to better achieve these purposes."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - For Agricultural/Forestal District information, see #2 above as well: In the "Green Infrastructure Chapter," under Forests, Trees and Vegetation Policies": "The County will promote the preservation of forested areas through the use of Agricultural and Forestal Districts, easements and other voluntary means."
   - In the "Green Infrastructure Chapter," under "Prime Agricultural Soil Policies": "2. Where development is allowed on prime agricultural soils, the County will require cluster development so that the development will take place on the least desirable soils on the site and the prime soils will be available for agricultural purposes. The quality of soils will be considered in the conservation design process established by the Zoning Ordinance."

4. Conservation (Funding as well as Identifying specific forestlands)
   - In the "Green Infrastructure Chapter," under Forests, Trees and Vegetation Policies": "7. Tree protection will be encouraged along roadways to allow trees to provide shading, reduce peak storm flows, and contribute to the enhancement of the Green Infrastructure.
     8. The County will develop and adopt a Tree Preservation Ordinance for the three Policy Areas in the County as a priority.
     9. The County will inventory and map, and create and maintain a database of trees and indigenous vegetative resources to be preserved or managed in accordance with County standards. The inventory will include, but not be limited to, old growth forests, significant tree stands, specimen trees, heritage trees, and State or National Champion trees.

10. The County will develop and apply incentive-based approaches to encourage the preservation of existing vegetation and wildlife habitat on developing properties as a priority**.**
11. The County will explore the protection of inventoried flora, vegetative cover, and plant communities through both regulation and incentive-based approaches."

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestlands</u>
   - In the "Green Infrastructure Chapter," under "Prime Agricultural Soil Policies":
     - 5. "The County will seek the preservation of prime agricultural soil resources for agricultural, horticultural, and forestal use through regulatory and incentive programs such as **the Purchase of Development Rights (PDR) program."**
     - "The County's Purchase of Development Rights (PDR) program compensates property owners who voluntarily agree to sell the right to develop their land. The PDR program protects agricultural, natural, historic, and scenic resources and seeks to retain open space in the Suburban Policy Area." **This could be strengthened to explicitly include forestry.**

   - In the "Implementation" Chapter under "Open Space": "Until a formal program is in place, the County will guide development to desired areas through conservation design and the purchase of open space easements. The purchase of easements for additional density has been referred to as voluntary transfer of density, and not to be mistaken with a formal TDR program."

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
   - Nothing mentioned that is directly related.

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
   - In the "Green Infrastructure Chapter," under Forests, Trees and Vegetation Policies":
     "2. Forests and indigenous vegetation will be preserved on steep slopes (greater than 25 percent). On moderately steep slopes (15-to-25 percent grade), clearing will be limited to only essential clearing necessary for home construction, road construction and utility installation. Silviculture activities may be allowed on moderately steep slopes provided that an approved Forest Management Plan is implemented.
     3. The submittal and approval of a Forest Management Plan will be required prior to any land development. This plan will demonstrate a management strategy that ensures the long-term sustainability of any designated tree save areas.
     4. The County will require property owners pursuing silviculture operations to develop Forest Management Plans using resources available through the Virginia Department of Forestry.
     6. Forests are an integral part of the Mountainside Development Overlay District regulations. The County will continue to protect forest resources through the implementation of the Mountainside Development Overlay District."

8. <u>Conservation of working farms that can be broadened to include forestland</u>

- The "Rural Policy Area" chapter has an extensive amount of information on agriculture and related policies. There is too much to include here, but could be referenced for language supporting working forests.

9. Other tools that can be broadened to include forestland
    - See #5 PDR & TDR

10. Timing of Comprehensive Plan updates
    - The current Plan is from 2007, and should be reviewed by 2012.

11. # of Acres of Forest in County
    - Not addressed in plan

12. Miscellaneous/ Model language: None identified

Louisa County

"2006" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. III-7. Economic Impacts. "Stumpage, the money paid to forest landowners for the right to harvest their standing timber, averaged 3.2 million dollars per year for the years 1992 through 1996. Value added activities such as logging, primary processing at mills, secondary processing into finished products, transportation of forest products, construction, marketing, and induced economic impacts from wages, add value to the local economy in both employment and income. A 1995 Virginia Department of Forestry study estimated that for every dollar of stumpage received by forest landowners, $28.16 is generated by value added activities, and another $20.48 is generated by induced economic impacts… Total employment from forest industries in Louisa 1998 is 457."

    - Pg. III-8. Benefits of Agriculture and Forestry. "Agriculture and forestry are major contributors to Louisa County's economy through the sale of products, employment, and the generation of support activities. Agriculture and forestry also provide related benefits such as protection of public water supply watersheds; preservation of the natural landscape and open space, and less costly service delivery needs than would be required by scattered residential subdivision development in rural areas. The farm and forestland have traditionally contributed to the quality of life in Louisa County. They provide the rural character and scenic quality, which distinguishes these areas from urban and suburban regions. Forests help recharge ground water and clean it for drinking, absorb carbon dioxide from combustion, and provide oxygen. One acre of flat forestland collects enough water in ground water recharge to provide a one-year supply of 2.75 homes every year. One mature tree absorbs approximately 13 pounds of carbon dioxide a year. For every ton of wood a forest grows, it removes 1.47 tons of carbon dioxide and replaces it with 1.07 tons of oxygen."

2. Taxation (Use-Value, etc.)
    - IV-17. Land use taxation. "…Louisa County Ordinance specifies that real estate meeting certain criteria be given special tax consideration. Properties devoted to agricultural, horticultural, forest or open space use as outlined in the Code of Virginia "Special Assessment for Land Preservation" are subject to a reduction in real estate taxation. The

purpose of the land use taxation is to preserve agricultural and forestry industries by providing a financial incentive…"

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. IV – 12. Transfer to Land Trust Ownership defined and suggested in plan.
    - Pg. IV – 15. Agricultural/Forestal Districts is defined. There are 26 in the county.
    - Pg. V – 72. "All land that is currently zoned A-1, is within an Agricultural-Forestal District and/or is great than 5 acres in size should remain in agricultural/forestal use unless within designated commercial/industrial, residential, resort development zones."
    - From link on County's zoning and planning page. Agricultural District (A-1), Agricultural District (A-2).

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. IV-14. Purchase of development rights is defined and suggested in plan
    - Pg. V-33. Conservation Easements are defined and suggested in plan
    - Pg. IV – 12. Conservation Easements are defined and suggested in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. IV-12. Planning Tools: The plan recommends that the County "Require that naturally vegetated streamside buffers be preserved during and after construction activities. Minimize clearing for development and require additional natural plans and trees for adequate buffering of streams. Naturally vegetated buffers provide the best filtration system for stormwater runoff and therefore the best protection for stream water quality. Where possible, they should be retained and protected in the natural state. A second priority is to replace or provide buffers where absent." A detailed description of the benefits of stream buffer systems follows.

    - Pg. IV-17. Stormwater management is defined and funding sources – local stormwater utility – "Such a utility functions like any other public service district and its existence reinforces the concept that control of non-point source pollution is fundamentally no different than the services provided by other public utilities…"

    - Pg. V-31. "Objective IV-E: Decrease Non-Point Sources of Pollution to Protect Water quality of The Rivers and Streams Flowing Through Louisa County By Adopting Standards for Development" This section suggests that the County:
        - Strategy 2. Create Stream Management Zones (SMZ) as recommended in the Virginia Department of Forestry BMPs for Water Quality in Virginia Handbook.
        - Strategy 4. Encourage resource conservation along major rivers and streams and lakes and reservoirs, including the South Anna River, North Anna River and Little River."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.

- Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - Language referring to the conservation of farms also included forestland. No language was identified that applied to farmland but not forestland.

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Last updated 2006, review should take place by 2011.

11. # of acres of forest in county
    - Pg. III-6. 1992- 228,500 acres

12. Miscellaneous/Model language
    - Pg. II-5. Goal Four: "To preserve and protect the natural resources in Louisa County. Louisa County has numerous natural resources: agriculture and forested lands, views and vistas, historic sties, rivers and streams. These assets will remain assets with attention and care from the County residents and governments. This goal should be accomplished through development standards and voluntary measures. Partnerships among the various state agencies working in Louisa County can support these efforts with their expertise."

    - Pg. III-6. Harvest/Reforestation. Discussion of forestland harvesting
    - Pg. III-7. Sustainable Rural Forestland. Discussion of the effects of population density on sustainable forestry practices.

    - Pg. III-7. Land Trends. Effect of land transfers on forestland.

    - Pg. III-8. Challenges facing the Forest Industry. "The challenges facing the stewards of Louisa's forestland are two fold:
        - To protect the suitable forestland base from further fragmentation;
        - To maintain and enhance forest productivity on those lands suitable for sustained forest management."
    - "Development pressures from urban/suburban expansion are cited as major challenges to agriculture and forestry. Residential development in the rural portion of Louisa County has effects, both direct and indirect, on agricultural and forestal activities."
    - "The diminishing number of suppliers, a shortage of farm/forestry workers, and the aging of the farmers and forest landowners, themselves are challenges to farming and forestry in the future. "

    - Pg. V-30. "Agriculture and forestry, as industries, are important to the economy of Louisa and the preservation of Louisa County's rural character. Land is a non-renewable resource, which should be preserved for future generations. Increased efforts to preserve agriculture and forestal lands and industries should be centered on town approaches:
        - Promotion of agricultural and forestal industries by the County of Louisa; and

- Protection of farm and forestland areas through zoning regulations and voluntary techniques." Strategies follow

- Pg. V-38. Objective V-C: Promote forestal uses within the Watershed Management Area. "Forestal uses have been shown to provide the best buffering for water resources. These may be promoted through designated land uses and the use of land use taxation.
    - Continued support of Louisa county's commitment to land use taxation is recommended to protect water quality provided Best Management Practices are used;
    - Conservation easements in the Watershed Management Area should be encouraged."

Lunenburg County

2006 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Not addressed in plan

2. Taxation (Use-Value, etc.)
   - Pg. 104. "Tools most commonly used to influence the timing and location of growth are zoning, subdivision standards, use value assessments and taxation, and public facility decisions."
   - *Lunenburg County has not enabled use-value taxation. This likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. 99-102. Future land use plan is described.
   - Pg. 103. "Any future growth and development patterns must provide both requirements and incentives for the conservation of land. Specifically, Lunenburg County's agricultural zoning district should be evaluated and, if necessary, amended to limit not-agricultural uses; lower by – right residential densities to no more than one unit per two acres or more; and, provide strong incentives such as clustering and density bonuses to develop property in a manner that conserves the agricultural and forestal resources."
   - Pg. 103. Definition of Agricultural and Forestal Districts.

4. Conservation (Funding as well as Identifying specific forestland)
   - Pg. 104. Definition of Conservation Easements.
   - Pg. 105. Definition of Conservation Reserve Program and Conservation Reserve Enhancement Program.

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. 105. Definition of PDR.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 104. Definition of Riparian Easements.

- Pg. 107. "Within the limits of the law, the County and towns should monitor local agricultural practices as they apply to water quality, and provide resources and assistance to agricultural landowners who wish to take advantage of conservation opportunities such as riparian buffer and easement programs."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Not addressed in plan

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - November 2006

11. # of acres of forest in county
    - 211,760 acres

12. Miscellaneous/Model language

Madison County

"2006" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Natural Resource Protection. Pg. 56. "Madison County is endowed with an abundance of regionally significant natural resources, a rich cultural heritage and incomparable scenic beauty. Clean and available water, clean air, forest cover and farmland, wildlife habitat, cultural landscapes and other open spaces are all critical assets; once lost, they are difficult to replace, and in many cases are irretrievable. Agriculture, forestry and tourism - the major economic activities of the County - are highly dependent on the protection of soil and water resources and conservation of open spaces; so too are the opportunities for traditional outdoor recreation activities including hunting, fishing, and hiking. Thus, the quality of these natural resources, and the standards for their conservation, have a direct and immediate impact on the economic vitality, the health and wellbeing, and the quality of life for the residents of Madison County. In the face of the accelerated consumption and fragmentation of open land, the fundamental importance of these resources to the County's economy and the health and welfare of her citizens necessitates a strategic and holistic approach to their conservation."

2. Taxation (Use-Value, etc.)
    - Pg. 53. Major Strategies. "Encourage and promote agricultural and forestal land use taxation as a tool to maintain and utilize agricultural and forestal lands."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Major Strategy 1.Pg. 58. "Provide incentives for establishment of Agricultural and Forestal Districts to buffer working lands from incompatible adjoining land uses."
    - Pg. 73. Agricultural zone and Conservation zone
    - See subdivision regulations for schedule of allowable subdivisions in Agricultural and Conservation zones, currently a limit of 4 parcels created in 10 years.

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Major Strategies 2. Pg. 55. County is encouraged to establish a Purchase of Development Rights program or Transfer of Development Rights

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 57. **Objective 2.** "Major Strategies 4. Develop and implement a Rural Residential Policy to guide development in areas of the county with identified high priority agricultural, historic, scenic and environmentally sensitive conservation values."

9. Other tools that can be broadened to include forestland
    - See # 3. Pg. 73. Agricultural zone and Conservation zone can be broadened to include forestland.

10. Timing of Comprehensive Plan updates
    - Adopted December 14, 2006

11. # of acres of forest in county
    - 2002 – 126,078 acres

12. Miscellaneous/Model language
    - "Pg. 54 **Goal 1**: Maintain agricultural and forestry as leading industries in the county in terms of gross revenue and employment

    Objective 1: Promote, support and encourage the economic viability of agriculture, forestry, and related industries.
    Major Strategies:
    1. Complete elimination of the tax on farm and forest harvest equipment.
    2. Maintain the current plan of land use taxation, as the best way under current tax law to recognize the contribution that agriculture and forestlands make to a fiscally sustainable local government and a strong local economy.
    3. Encourage the elimination of the estate tax at all levels of government.

    Objective 2: Promote and encourage agricultural and forestry enterprises that enhance and improve profitability. (See comp plan for Major Strategies 1-8)
    Goal 2: Maintain agricultural and forestry as the primary land use in the County.
    Objective 1: Develop a plan for providing land owners options for the voluntary preservation of farm and forestland. (See plan for Major Strategies 1-6).
    Objective 2: Establish a system for developing and implementing all plans which includes input from the agricultural and forestry industries."

(Pg. 57) **Objective 2.** Major Strategies 4. Develop and implement a Rural Residential Policy to guide development in areas of the county with identified high priority agricultural, historic, scenic and environmentally sensitive conservation values.

Goal 2: Promote and sustain agricultural and forestry as the highest priority industries in the county by integrating economic development, land use policies and conservation incentives to lessen the impact on natural resources and to encourage open space uses.

(Pg. 58) **Objective 2:** Support and implement programs that encourage agricultural and forestry industries.
Major Strategies 2. Support "Right to Farm" and "Right to Practice Forestry" legislation to protect production rights."

Mathews County

"2009" Draft Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - "Forestry, fishery and ecotourism opportunities offer residents quality employment and wages while integrating sustainable business practices that protect and renew natural resources. Seasonal visitors who appreciate Mathews' traditional heritage and natural environment are attracted to the County."
    - Pg. 21. Table showing employment percentages by industry. Ag, forestry, fishing and hunting, mining.
    - Pg. 39. "In 2005, forests accounted for approximately two-thirds of County land. Figures for 2007 for Mathews County indicate that the production value of timber was approximately $250,000."
    - Pg. 102. "The environment of Mathews County is the major contributor to the overall quality of life and general economy of the County. The area's natural resources – waterways, shorelines, wetlands, forests, fields, flora and fauna provide sustenance and quality recreation for County residents, businesses and visitors."
    - Pg. 103. "Of particular importance worthy of greater conservation efforts are the maritime forests of Mathews County. These forests are important coastal habitats that are now challenged by climate change and rising sea levels. They are important because of their ability to tolerate salinity, stabilize soils, withstand coastal storms, and provide refuge habitat. The documented maritime forests in Mathews County are shown on the map on the following page."
    - Pg. 142. "Mathews County has a strong community heritage in agriculture, aquaculture and forestry. These natural resource trades remain important economic sectors and should be encouraged and supported in order to maintain community character and prosperity."

2. Taxation (Use-Value, etc.)

    Not mentioned in plan; however, use-value taxation is not enabled for any uses. This is likely due to the county's tax base in commercial forest.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 142. **Rural Agriculture/Forestal "**This land use category is proposed to include much of the County that is oriented to large-tract agriculture and forests. Lot sizes for agriculture should be a minimum of 5 acres in size; lot sizes for forestal operations should be a minimum of 10 acres in size. These large lots are needed in order to maintain the rural nature of the county, preserve important agricultural areas and forests, and respect the varied constraints for development. Land uses included within this category would include agriculture, forestry, and accompanying very low density residential."
    - Pg. 154. **Rural Preservation/Conservation "**Rural Preservation/Conservation areas include public open space, natural preserves, and areas that should have carefully managed development or be conserved because of special ecosystems or natural conditions. These areas include dedicated conservation areas that are public set-asides for recreation and natural conservation. Other areas noted for preservation/conservation are areas that may be influenced by storm surge or possible rising sea levels over the next twenty years. Generally, further development in these areas should be carefully considered and limited to protect pubic and private investment and to minimize potential flood damages. Appropriate land uses would include open space, passive recreation, low-intensity residential development, and carefully managed agriculture, forestry or aquaculture."
    - Pg. 169. "Amend the County zoning ordinance to increase lot sizes for rural agriculture and forested lands. Consider using agricultural and forestal districts to preserve the lands for production."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 142. "Encourage landowners to consider conservation easements for their properties."
    - Pg. 31 "Investigate the use of increased density, transfer of development rights, or other enabled development tools that can encourage grouped development or help achieve specific housing targets. Revise zoning ordinance, as appropriate."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 142. "Protect the environment by promoting and encouraging the use of best management practices and riparian buffers in agriculture and forestal operations."
    - Pg. 156. "Amend the County erosion and sediment control ordinance to address better management of forest and agriculture activities, particularly with respect to vegetation removal, buffers, and site stabilization."
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.

- See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

8. Conservation of working farms that can be broadened to include forestland
    - None identified

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - December 30, 2009 Draft

11. # of acres of forest in county
    - 65,500 acres, 62% of landcover

12. Miscellaneous/Model language
    - None identified

Mecklenburg County

2005 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 38. "Objective. Encourage agricultural and forestry as leading economic alternatives to manufacturing."
   - Pg. 45. "Throughout history Mecklenburg County has been a rural area with the majority of land used for agricultural or forestry purposes. It is then imperative that the county remain a clean and environmentally sound county to help support agriculture. This goal should b attained for aesthetic purposes as well as for agricultural purposes. To help achieve this goal the county should be concerned about what type of adverse environmental impacts new industries might have on the community."

2. Taxation (Use-Value, etc.)
   - Mecklenburg County has not enabled use-value taxation. *This likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Not addressed in plan

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.

- Not addressed in plan

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - 2005

11. # of acres of forest in county
    - 235,735 acres

12. Miscellaneous/Model language

Middlesex County

"2009" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Chapter 2. Pg. 52. "Apart from their obvious economic market value, forests also serve as erosion and sedimentation inhibitors, wildlife habitat, and recreation areas. Equally important is the aesthetic value provided by forests and the role they play in contributing to the "rural character" that Middlesex residents and visitors find appealing, thus bolstering general land values throughout the County."

2. Taxation (Use-Value, etc.)
    - Chapter 7. Pg. 113. "Zoning, subdivision standards, use value assessments and taxation, and public facility decisions are the tools most commonly used by counties to influence the timing and location of growth."
    - Although not detailed in the plan, use-value taxation is enabled in the county for forest uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 139. Action Step 9. "Adopt a local agricultural and forestal district ordinance as a first step in establishing agricultural and forestal districts in the County." ***Update**: A 2009 report indicates the county currently has 12 AFDs with over 41,000 acres.*
    - Chapter 8. Chapter V. Pg. 138. Resource Husbandry districts.
    - Chapter 7. Pg. 123-126. "Possibility for new zoning districts: Agricultural/Conservation Zone – agricultural and forestal uses are the dominant land use. Residential development in these areas would have one or more of the following characteristics:
        - Lower densities – densities equivalent to a minimum lot size of 10 acres or greater should be considered for agricultural conservation areas and densities equivalent to a minimum lot size of 20 acres or greater should be considered for forestal conservation areas
        - A limitation on the number of new lots that can be created from a parent tract through the minor subdivision process during a specified period of time – a maximum of 1 – 3 lots should be considered per 1-3 year period.

- A requirement that all new major subdivisions within this area be rezoned for development as "residential clusters". Sometimes called "conservation subdivisions", this technique clusters allowable densities on one portion of the original parent tract, reducing development costs, and leaving large portions of the parent tract to continue functioning as a farms or forests. This technique of land development was originally popularized by Randall Arendt and his colleagues in "Rural by Design" and "Conservation Design for Subdivisions". The county should consider a new zoning district for this form of subdivision with Agricultural/Conservation Areas."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Chapter 7. Pg. 114. Conservation Easements defined
    - Chapter 7. Pg. 114. PDR defined, Pg. 139. Action Step 11. "Initiate a purchase of development rights program for the County, and identify a funding source for the program."
    - Chapter 7. Pg. 115. TDR defined

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Chapter 7. Pg. 108. Resource Protection Area. "A 100 foot wide buffer area located adjacent to and landward of perennial tributary streams and the other above RPA features."
    - Chapter 7. Pg. 109. "Land development and disturbance activities in Chesapeake Bay Preservation Areas must generally limit land disturbances to a minimum, maintain a 100 foot buffer from protected water and wetland features, strictly control erosion and sediment on the site, preserve natural vegetation to the greatest extent possible, minimize impervious coverage, and manage stormwater runoff generated by the development."
    - Chapter 7. Pg. 120 – 122. "Consistency with the Bay Act is of great importance in determining the Future Land Use Map. Many of the environmental features that determine CBPA designation of land (highly erodible and permeable soils, excessive slope, floodplains, wetlands, etc.) are individually in and of themselves physical environmental concerns and constraints deserving special attention."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Chapter 2. Pg. 18. Slopes defined. Pg. 19. Slopes mapped.
    - Chapter 2. Pg. 47. Erosion and Sediment Control Ordinance explained, Erodibility Index defined.

8. Conservation of working farms that can be broadened to include forestland
    - Chapter 7. Pg. 104. "In Middlesex County the balancing test must also be applied to the issue of whether to try to preserve agricultural/open space land or release it to unrestrained development. Agriculture is a land use activity which has supported

Middlesex economically for generations. Furthermore, it may be even more important to recognize that agricultural lands are a major element of the open space which defines the rural nature of the County. This particularly visible component of the country scene contributes directly to the quality of life and satisfaction its residents enjoy. In addition to contributing to the quality of human life, the rural nature of the County provides a diversity of habitats for a wide variety of wildlife species. These factors also contribute positively to the value of developed property throughout the area."

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - December 1, 2009

11. # of acres of forest in county
    - 49,882 acres

12. Miscellaneous/Model language

- Chapter 8. Pg. 136. Objective EN-O-3. "Protect the natural and rural character of the County by encouraging the retention of forests, agricultural lands, and open-space areas. Chapter 8. Pg. 138. Objective LU-O-3. Enhance the rural and environmental character of the County through the preservation of agricultural and forestal lands, wetlands, flood hazard areas, and Chesapeake Bay Resource Protection Areas."

Montgomery County

"2004" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Not addressed in plan

2. <u>Taxation (Use-Value, etc.)</u>
   - Pg. 140. Use-Value Assessment/ Land Use Assessment - defined and suggested in plan. *Update: A 2008 report indicates that use-value assessment is enabled for forest use.*
   - Pg. 149. "Tax Incentives for Riparian Buffer Easements. Provide a tax exemption for land designated as a riparian buffer, if held under a perpetual easement. Riparian buffers protect streams and shorelines from erosion and prevent sedimentation of waterways. Article 5, Ch. 36 of Title 58.1 of the Code of Virginia." – *Suggested in plan*

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. 139. Agricultural/Forestal Districts defined -"To encourage agricultural/forestal district participation and to reflect the 8-year commitment by landowners, the County should consider local tax incentives above and beyond those currently provided through the Land Use Assessment program." *Montgomery has 12 AFDs with over 41,000 acres.*
   - Pg. 141. "Strengthen the quality of the Agricultural and Forestal District (AFD) management plan review to ensure that water quality goals are an essential element on properties in the AFD. Enlist the assistance of Extension Service, the Skyline Soil and Water Conservation District and other advisory bodies in clarifying the review process."
   - Pg. 21. "The new zoning ordinance, adopted in December of 1999, introduced the County to sliding scale zoning and eliminated large-scale, "by right" residential development, on lots as small as 1/2 acre, in the agricultural zone. The sliding scale specified the number of lots that could be created by right, based on the acreage of the original (parent) parcel. The revised zoning ordinance provided the tools to allow the County to take a more proactive approach to planning."
   - The County has A-1 Agricultural District, but this information is not included in the Comprehensive Plan – found on County Planning website.

- Pg. 139. Rural Cluster Zoning: Rural Cluster Zoning allows a relatively significant amount of residential development to occur in rural and farming areas while at the same time ensuring that such development is designed and laid out to have the least possible impact on the landscape and to preserve large chunks of open space land even after development is complete. **–Currently, the County uses compact development in R-3 zoning. Instead of required clustering, this creates a residual area post-subdivision.**
- Pg. 36. "Resource Stewardship Area Community Design: New residential development proposed in Resource Stewardship Areas should be clustered, or exhibit other conservation design principles, to preserve on-site natural, cultural, historic, scenic, open space or environmental resources. The County will vigorously support "Right to Farm" policies in Resource Stewardship Areas to protect existing farms and farmers from nuisance complaints from neighboring rural residents. Plats for new residential lots located in the Resource Stewardship Area shall disclose that the preferred land use in the immediate vicinity of the new lot is agriculture, forestry, and related uses"
- Pg. 37. "Rural Area Land Uses: The preferred land uses in Rural Areas are rural residential development and agriculture. Rather than promoting new rural residential development in Rural Areas, the County seeks to maintain the rural character of existing rural residential developments. The County also seeks to maintain existing agricultural uses in Rural Areas. The County will continue to promote farmland retention programs, such as agricultural and forestal districts, in Rural Areas. – **This can be strengthened by including forestland retention.**

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
    - Not addressed in plan

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
    - Pg. 139. Conservation Easements defined

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
    - Pg. 141. "Floodplain Ordinance**:** Enhance the floodplain ordinance to require that riparian buffers remain undisturbed at a specified distance from the edge of all streams with a designated floodplain (e.g. minimum of 100 feet).
    - Pg. 141. "Environmental Quality Corridors: Develop an Environmental Quality Corridor (or Water Quality Corridor or Creek Overlay District like Blacksburg) that requires the preservation of riparian buffers as a foundational component." **– Suggested in plan**
    - Pg. 142. "Where appropriate, require rezoning and special use permit applicants to describe in general detail the natural character of significant creeks, rivers, lakes, and ponds (as characterized on United States Geological Survey Maps) located on the property, as well as the 100-year floodplain. Require applicants for such rezonings and/or special use permits to explain how the significant surface water bodies and related shorelines to be retained upon completion of the project will be protected during construction." – **Suggested in plan**
    - See #2 for proposed riparian buffer tax exemption

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 138. Goal. "Maintain the agricultural land in various types of active production and discourage its conversion to other land uses."

9. Other tools that can be broadened to include forestland
    - See # 4. Rural Area Land Uses

10. Timing of Comprehensive Plan updates
    - 2004 Plan, so review should be complete in 2009-2010

11. # of acres of forest in county: Not addressed in plan

12. Miscellaneous/Model language: None identified

Nelson County

"2002" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not directly addressed in plan; related in plan to county's "heritage and character."

2. Taxation (Use-Value, etc.)
    - Pg 14. Goal – "Protect productive agricultural and forestal land." Principle – "Promote voluntary measures such as Agricultural Forestal Open Space designations and voluntary dedication of easements as undeveloped land."
    - Pg 15. "Principle – Continue the Land Use Taxation as an incentive for continued agricultural productivity." *Although this language could be broadened to include forests, a 2008 report indicates that land use taxation is enabled for forest use.*
    - Appendix. Pg. 5. Land use taxation is further explained

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Appendix. Pg. 5. Planning Implementation Tools. Agricultural and Forestal Conservation Districts - defined with benefits: "The County is able to more accurately plan land use in the region, since the owner agrees not to convert the property to a more intensive use for the duration of the contract. The rural nature of the landscape is maintained and the tax rates remain low since residential development is slowed and county resources are not overburdened."
    - Pg. vi. Rural and Farming District – "Would promote agricultural uses and compatible open space uses but discourage large scale residential development and commercial development that would conflict with agricultural uses. The Rural and Farming District would permit small scale industrial and service uses that complement agriculture. Protection of usable farmland should be encouraged. Clustering of any new development in areas of a site without prime or productive soils will enhance the protection of prime or productive soils for future agricultural uses."
    - Pg. 42. Future Land Use map. Rural and Farming area.

4. Conservation (Funding as well as Identifying specific forestland)
    - Planning Implementation Tools. Pg. 3.: Conservation Planning defined
    - Planning Implementation Tools. Pg. 4.: Conservation easements defined

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Appendix. Pg. 4. Planning Implementation Tools. PDR defined in plan. ***Update****: County has adopted a PDR program. Language in PDR ordinance includes forest protection.*
    - Appendix. Pg. 4. Planning Implementation Tools. Conservation Easement defined.
6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Design Standard 4. Pg. 9. "Require that naturally vegetated streamside buffers be preserved during and after construction activities. Minimize clearing for development and require additional natural plants and trees for adequate buffering of streams."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Natural, Scenic, and Historical Resources. Principle. Pg. 11. "Promote the preservation of the viewsheds of scenic vistas as an important part of the county's tourism program."
    - Rural Conservation. Principle. Pg. 14. "Protect scenic views and vistas by encouraging the siting of new buildings in conformance with the existing topography and into the existing landscape and vegetation."
    - Pg. 14. "General standards for steep slopes can mitigate these possible hazards. Avoid the use of septic systems on slopes of 20 percent or greater. Roads should follow the natural topography to minimize grading, cutting, and filling. Maintain natural drainage channels in their natural state and/or stabilize natural channels to protect them from the impact of development activity. Design public utility corridors to fit the topography. Adapt development to the topography and natural setting. Excessive grading, cutting, and filling should be discouraged. As land slope increases, the rate of stormwater runoff also increases. Fertilizers, pesticides, herbicides, and other chemicals may be ineffective and can increase probabilities of surface and groundwater pollution."

8. Conservation of working farms that can be broadened to include forestland
    - Economic Development Principle. Pg. 6. "Encourage the protection of prime farmland from development that would reduce its long term viability as part of the agricultural economy."

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Adopted October 8, 2002
    - As of 2011, County is beginning review process.

11. # of acres of forest in county
    - 233,316 acres

12. Miscellaneous/ Model language
    - Goals. Pg. iii. "Protect productive agricultural and forestal land."
    - Land Use Plan. Pg. iv. "Maintaining the rural character and ensuring the protection of current and future agricultural and forestal land are essential to preserving the heritage and unique character of Nelson County."

New Kent County

"2003" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - **Agriculture and Forestry, page 19, in Economic Factors:**
   - "Forests provide clean water, clean air, carbon sequestration, temperature abatement, wildlife habitat and recreational opportunities. Forests are the dominant feature in the landscape of the County and represent the foundation of the County's rural character. According to the U.S. Forest Service data from 1992, New Kent County forests covered over 98,000 acres or 72 percent of the County's land mass. The Virginia Department of Forestry has operated the New Kent Forestry Center on Route 60 since 1952. The Center grew in the 1960s and 1970s to become the largest single-species nursery in the world. Today, pine production is split between three Virginia Department of Forestry nurseries in the state, but the Center still produces 16-20 million loblolly pine seedlings and 1.5 million white pine and hardwood species each year. The value of timber harvesting in the County is reflected in Table 11, on the following page:
   - **Timber Harvest Value in New Kent County**

Year	Total Value	Total Acreage Cut
1986	$1,048,458.00	not available
1990	$1,595,977.00	not available
1995	$1,291,647.00	1,844
1996	$2,373,788.00	965
1997	$1,404,530.00	1,737
1998	$2,177,649.00	2,919
1999	$1,879,231.00	832

   - A Forestland Assessment Map prepared by the Richmond Regional Planning District Commission indicates that while there are still significant areas of rural forestland in New Kent County, population density in the western and southern parts of the County is expected to take large areas of forestry permanently out of timber production. In addition, Chesapeake Forest Products has been selling its forest tracts to private individuals who may or may not continue timber production.
   - While agriculture and forestry contribute significantly to the community's rural character, economic changes in those industries have produced immense pressure on their continued economic viability."

- **Fiscal Impact of Agriculture and Forestry, page 48**
  - "The County Extension Office estimates the value of agricultural crops in the County to be $4.2 million from approximately 11,000 acres of productive farmland. Approximately half of these crop sales are from the production of corn and soybeans. Opportunities exist for increased production of vegetables and other products that can be marketed in the neighboring urban centers.
  - From 1990 to 1999, the value of the timber harvest in the County fluctuated between $1 million and $2.4 million annually. As reported by K.W. Poore & Associates, U.S. Forest Service data from 1992 indicated that forests covered approximately 98,000 acres or 72 percent of the County's land mass. The state Forester has indicated that these figures only include prices paid to the land owner for stumpage, while the value of finished wood products is approximately 27 times this amount. High quality hardwoods can have a timber value approximating $3,000 per acre, but with a substantially longer growing cycle."

2. Taxation (Use-Value, etc.)
   - **Use-value tax assessment is enabled for forest use, but not for open space use.**
   - **Taxes in General : "**Given an estimated real estate value of approximately $3,000 per acre of agricultural and timberland in the County, the following per acre estimates of local tax revenues from these enterprises can be derived. While farming is an increasingly capital intensive business, farm equipment is tax exempt in the County **(some measures could be broadened to working forestlands)**.

   - Tax Revenues from Agriculture and Forestry (per acre):

Enterprise	*Annual Real Property Taxes*	*Annual Business/ Personal Property Taxes*	*Total Annual Local Taxes*
Agriculture	$24	0	$24
Forestry	$24	0	$24

- The economic value to the County from agriculture and timber transcends the generation of local tax revenues. Perhaps the greatest economic value to the County from the enterprises derives from keeping this land out of the residential development inventory. Most of the prime agricultural land, in particular, is located in proximity to the Pamunkey River in areas that are not suitable for commercial development, but are prime for housing development. Given the previous estimate of an operating loss to the County of approximately $1,000 per year for each new tract home, and the fact that agriculture and forestry demand virtually nothing in the way of local services, keeping this land in agricultural production represents a gain to the County well beyond local tax collections. In addition, agriculture and timberland is indeed the essence of rural character, the maintenance of which is a centerpiece of the Comprehensive Plan."

  Resource Protection, page 60:

  "Goal 1: Conserve, protect and preserve the quality of the County's air, water, soil, wildlife habitat and scenic views through responsible stewardship of the land.
  - Objective F: Provide incentives for conservation land use planning.
    - Strategies, 8: Encourage the use of agricultural and forestal districts or land use taxation to allow rural lands to remain in an undeveloped state."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - **Resource Protection, page 60:**
    - "Goal 1: Conserve, protect and preserve the quality of the County's air, water, soil, wildlife habitat and scenic views through responsible stewardship of the land.
        1. Objective F: Provide incentives for conservation land use planning.
            1. Strategies, 8: Encourage the use of agricultural and forestal districts or land use taxation to allow rural lands to remain in an undeveloped state."

4. Conservation (Funding as well as Identifying specific forestland)
    - Nothing specific to working forestlands, but in general:
    - **Resource Protection, page 60:**

      "Goal 1: Conserve, protect and preserve the quality of the County's air, water, soil, wildlife habitat and scenic views through responsible stewardship of the land. Objective F: Provide incentives for conservation land use planning – Strategies:
    - Adopt clustering and open space development techniques as an option for residential developments and provide incentives for their use.
    - Promote the use of tax credits for open space protection.
    - Promote the use of conservation easements on private property.
    - Seek enabling legislation to allow for public purchase and private trading of development rights.
    - Develop a continuing dialogue with organizations such as the American Farmland Trust and local land conservancies.
    - Act as a clearinghouse for information on available government and private conservation programs.
    - Continue to improve the County's Geographic Information system (GIS) to identify and delineate sensitive environmental areas.
    - Utilize the services of the Colonial Soil and Water Conservation District to identify opportunities that support land use performance that protect and improve local natural resources."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - **Resource Protection, page 60:**

      "Goal 1: Objective F, Strategies, 3: Promote the **use of conservation easements on private property." Update:** *County has adopted a PDR program as of 2006, and forest protection is included in the PDR ordinance.*

6. SMZ (Streamside Management Zones) Protection/Riparian Buffer
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - **Resource Protection, page 60:**
    - "Goal 3: Promote environmentally responsible waterfront development in the County.

      Objective A: Carefully consider stream bank erosion issues.

      Strategies, **2**: Ensure that waterfront redevelopment projects do not degrade and, if possible, enhance existing water quality through the use of such techniques as French drains, mulch and vegetative buffers, etc."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - **Resource Protection, page 60:**
    - "Goal 1: Conserve, protect and preserve the quality of the County's air, water, soil, wildlife habitat and scenic views through responsible stewardship of the land.
        - Objective H: Develop a development review process that emphasizes 'letting the land do the planning.'
            - Strategies, 3: Discourage excessive grading and significant changes to the natural land forms during the development process by incorporating slope protection measures into the County's development ordinances.
    - **Resource Protection, page 60:**
    - Goal 2: New Kent County's water resources should be of the highest possible quality.
        - Objective F: Reduce the amount of impurities reaching the County's water resources due to surface water runoff and erosion.
            - Strategies:
                a. Continue to apply the performance standards in the Virginia Erosion and Sediment Control Handbook.
                b. Continue to require that commercial and industrial developments undergo site plan review.
                c. Require the use of Forestry Best Management Practices in connection with timber harvesting in the County.
                d. Continue to limit development on slopes greater than 15 percent and to prevent development on slopes greater than 20 percent."

8. Conservation of working farms that can be broadened to include forestland
    - None identified

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - This Plan is from 2003, so the next review should be performed by 2013.

11. # of acres of forest in county
    - 98,000 acres or 72 percent of the County's land mass

12. Miscellaneous/Model language
    - None identified

Northampton County

"2006" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 69-70. "Goal: Ensure the continuation of forestry as an industry and the preservation and establishment of woodlands for their aesthetic and ecological value." *See also #12*

2. Taxation (Use-Value, etc.)
    - As of 2010, use-value taxation is no longer enabled for any use. AFDs (*See #3*) still qualify for use-value assessment.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 21. Agricultural/Forestal Districts – "The County will continue to promote farmland-retention programs, such as Agricultural and Forestal Districts, in Rural/Agricultural Areas."
    - In 2009, Northampton had 13 active AFDs with a total of 8,092 acres enrolled. Since use value tax assessment was discontinued, the number of AFDs has risen to 49, totaling 37,800 acres as of March 2011.

4. Conservation (Funding as well as Identifying specific forestland)
    - Pg. 19. Conservation Areas - "These are areas with significant environmental sensitivity, and/or those areas that are currently protected from development. They are established to minimize flooding impacts, maximize ground-water-recharge capacity, and to protect key natural resources, such as migratory-bird habitats and coastal waters."
        - "Private and public land-conservation efforts, farmland-retention programs such as agricultural and forestal districts, and programs related to retention of seafood production should be focused in Conservation Areas."
    - Pg. 21. Rural/Agricultural Areas. "Rural/Agricultural Areas are those areas of the County that are predominantly in agricultural and forestal uses and are not served by public utilities… These areas include active agricultural operations, related forest uses and some scattered low-density rural residential uses."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 48. Continue to support and promote the county's Purchase of Development Rights program. *County adopted a PDR program in 2006, and forest protection is included in the PDR ordinance.*
    - Pg. 48 "Evaluate **potential establishment of a Transfer of Development Rights program**."
    - Pg. 72 Study incentives to encourage conservation easements.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 71. "Enforce buffer zone widths set forth in the zoning ordinance along the bayside and seaside waterfront."
    - Pg. 74. "Draft and adopt a vegetative cover ordinance, for non-agricultural uses, in order to maintain vegetative buffers that will filter pollutants and reduce sedimentation to protect surface- and ground-water quality." *Suggested in plan*
    - Pg. 70. Promote programs and efforts to maintain the forestland as a buffer against erosion and incompatible land uses, as a filter along waterways, as groundwater recharge areas, and as a prime natural resource that prevents sediments and pollutants from entering tidal and fresh surface waters.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 15. "The agricultural industry in the County is recognized as a vital segment of the economy and farmland is protected from encroachment by sensible land-use planning and through local and statewide programs."

9. Other tools that can be broadened to include forestland
    - See #4. Conservation Areas

10. Timing of Comprehensive Plan updates
    - Last updated 2008-2009

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. 69-70. "Goal: Ensure the continuation of forestry as an industry and the preservation and establishment of woodlands for their aesthetic and ecological value.
        - Implementation Strategies: Encourage the Eastern Shore Community College to offer a forest- management curriculum.

- Encourage best-management practices for utilization of low-grade hardwoods and reforestation of cut-over pine areas.
- Utilize advice of forestry personnel locally and on the state level to control disease and insect damage, especially to old growth and cut-over stands.
- Promote programs and efforts to educate landowners about forest management.
- Support programs and efforts to preserve and protect forests and woodlands including support and funding for Gypsy Moth Monitoring programs, and support funding for the immediate harvest of affected timber damaged by catastrophic weather events.
- Assure that areas of timber harvest be enrolled in a forest management program through the Virginia Department of Forestry, and that the property owner selling the timber be responsible for the maintenance of existing natural drainage ways impacted by timber harvest operations.
- Promote programs and efforts to maintain the forestland as a buffer against erosion and incompatible land uses, as a filter along waterways, as groundwater recharge areas, and as a prime natural resource that prevents sediments and pollutants from entering tidal and fresh surface waters.
- Consider land-use techniques and zoning provisions to maintain and improve migratory bird habitats and continuous buffers for wildlife habitat."

Northumberland County

"2006" Comprehensive Plan

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as for agriculture, horticulture and open space use.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Not addressed in plan

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 3:5. "Conservation Easements should be encouraged to protect farmland, forests, riparian zones, natural areas and historic sites. These easements ensure current owners that usage of their property according to their wishes is guaranteed into perpetuity and provide financial benefits to landowners who protect their land."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 5:19. **"**Chesapeake Bay Act - The Resource Protection Area Regulations: established in the Chesapeake Bay program will be continued. These regulations provide immediate protection to all tidal wetlands along the shores of streams and to known non-tidal wetlands adjacent to tidal wetlands. As a practical matter, the protected areas extend to most of the major and minor creeks and branches that run throughout the County. This protection area includes a buffer area around all previously defined wetlands which acts

as a vegetative *strainer* to pollutants that may otherwise be carried to streams and wetlands by surface runoff and groundwater discharge."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - Pg. 2:3. "Adopt land use policies with incentives and restrictions that encourage developers to avoid building sites located on steep slopes." - **suggested in plan**
    - Pg. 2:3. "Where development on slopes cannot be avoided, policies may require that mitigating engineering solutions be installed to reduce disturbance of the slopes. The Erosion and Sediment Control Ordinance and Chesapeake Bay Preservation Act Regulations are major tools in implementing this strategy." – **suggested in plan**

8. Conservation of working farms that can be broadened to include forestland
    - The plan consistently discusses farmland preservation in conjunction with forestland preservation.

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - 2006

11. # of acres of forest in county
    - 72,000 acres

12. Miscellaneous/Model language
    - Pg. 3:4. "Agricultural and forested lands should be managed and conserved to preserve the quality of these resources. The potential degradation of water quality through improper operation should be minimized. Agriculture and farming operations are to be conducted under a program designed to minimize water pollution. This policy may be implemented through:
        - (a) Best Management Practices: that promote an effective method of controlling point and non-point pollutant levels consistent with the State's environmental quality goals.
        - (b) Nutrient Management Practices: that provides optimum nutrient application rates, times and methods based on soil analysis results and expected crop yields.
        - (c) Soil and Water Conservation Plans: designed to reduce soil erosion and to prevent excessive levels of nutrients and pesticides from entering the groundwater and Chesapeake Bay.

Nottoway County

"2006" Comprehensive Plan

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***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Not directly addressed in plan
    - NR-78 "Nottoway County's harvest value for pine and hardwood for the last reporting period of 2001 was $15,876,046… During that period, Nottoway produced 29,474,000 board feet of pine lumber and 14,491,000 board feet of hard lumber…"

2. <u>Taxation (Use-Value, etc.)</u>
    - Not mentioned in plan; however, use-value taxation is enabled only for agriculture, horticulture and open space uses. This excludes forest use. This measure can be strengthened by including forests, but likely reflects the revenue value of the County's many acres of productive forests.

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Land Use Plans. Pg. LU-116. "Agricultural Zoning District is established to provide areas for agricultural and conservation areas from the encroachment of uses which represent a major portion of Nottoway County's economic base. The intent of this district is to provide and protect agricultural and conservational areas from the encroachment of uses which are not compatible with them."
    - Land Use Plans. Pg. LU-116. "Conservation District- Covers the unincorporated portions of the county that are occupied by open spaces with a rural character. This district is established to conserve these open spaces in order to facilitate existing and future general farming operations, conservation of water and forest resources, and maintenance of a distinctly rural environment."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - None identified

9. Other tools that can be broadened to include forestland
    - See #2

10. Timing of Comprehensive Plan updates
    - 2006 Plan should be reviewed by 2011

11. # of acres of forest in county
    - 137,206 acres

12. Miscellaneous/Model language
    - Pg. I-123. "Goal: To preserve our county's natural resources not only for our citizens today but for future generations to come. Strategies: Ensure that our Zoning Ordinances define natural, wildlife habitat, watershed, agricultural and timberland areas."

Orange County

"2009" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 27-28. Provides reasons for the economic, environmental, and social benefits

2. Taxation (Use-Value, etc.)
    - Pg. 28. Use-Value taxation is suggested in plan for forestland
    - Pg. 90. **"Extend the opportunity for land use taxation to forested land in all areas designated as Agricultural."** *Suggested in plan*
    - 2008 report indicates that use-value taxation is enabled for forest uses, but not enabled for open space uses. Enabling use-value taxation for open space uses could extend the measure to all forested lands as suggested in the plan.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 75. 94% of the county is zoned for Agricultural use
    - Pg. 87. "Preserve and protect agricultural and forestal lands by identifying them and using the varied tools of Agriculture and Forestal District designation, Purchase of Development Rights programs, and Conservation Easements." *A 2010 report indicates that there is currently one active agricultural/forestal district in the County, consisting of 668 acres.*
    - Agricultural Conservation. Pg. 86. "This land use category covers areas of the county that are best suited to farming, have significant forest cover, are under public or private easement, and encompass historically sensitive areas or areas that are environmentally sensitive due to topography or other unique physical characteristics."

4. Conservation (Funding as well as Identifying specific forestland)
    - Pg. 28. "Increase funding for the Va. Land Conservation Foundation to conserve forestland."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 61. "Adopt and promote a purchase of development rights program, to include the pursuit of state grant monies available for such a program."

- Pg. 60. "Develop a program of incentives to motivate farmers to keep their land in agriculture and forestry**,** including the establishment of agricultural/forestal districts, land use taxation, and purchase of development rights."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 91. "Residential development shall include buffers or natural shielding from major thoroughfares to preserve the rural, natural appearance of the county."
   - Pg. 94. "Mixed use development shall be provided with buffers or natural shielding from major thoroughfares to preserve the natural appearance of the county. Signage on major thoroughfares shall be restricted."
   - Pg. 98. "Protect the County's natural features from development, such as agricultural soils, excessively steep slopes, flood prone areas, and major stream valleys with unusual and sensitive ecologies."

8. Conservation of working farms that can be broadened to include forestland
   - Pg. 88. "By policy, there will be no extension of public water and sewer into areas designated as Agricultural except to resolve existing public health concerns."
   - Pg. 89-90 "Development of rural areas should reserve agricultural areas solely for agricultural use and other accessory residential or other land uses in conjunction with agriculture activities. Non-agricultural uses should be allowed only where land is not suitable for agricultural purposes or where the use can be shown to be a benefit to the community."
   - Pg. 88. The Agricultural section – "This land use category covers areas of the county that are predominantly rural, featuring scattered agricultural activities" **Could be broadened to include forest or working forest in the definition.**

9. Other tools that can be broadened to include forestland
   - Agricultural Conservation. Pg. 86. "This land use category covers areas of the county that are best suited to farming, have significant forest cover, are under public or private easement, and encompass historically sensitive areas or areas that are environmentally sensitive due to topography or other unique physical characteristics."

10. Timing of Comprehensive Plan updates
    January 27, 2009

11. # of acres of forest in county
    - 2002-112,734 acres

12. Miscellaneous/Model language
    - Pg. 87. "Evaluate proposed development against the benefits of preserving productive agricultural and forestal land for such use as watershed protection, recreation, floodplains, scenic natural beauty and protection of historic resources."

Page County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not directly addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as for agriculture, horticulture and open space use.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 1-67. Policy 3.21. – "Encourage and support the implementation and expansion of county *agricultural and forestal districts* by providing information on the benefits and incentives to farmland owners and farm organizations and by other means." **– Although the measure extends to forests, this language can be strengthened by including forests.**
    - Agricultural and forestal districts: Although not mentioned in the plan, Page currently has one active district consisting of over 1900 acres as of 2009.
    - Pg. 2-149. "Woodland Conservation (W-C) is intended to perpetuate the "rural atmosphere, open space, and scenic landscape" of that area of the county. This district is established for the specific purpose of conserving natural resources, protecting fragile environmental areas, reducing soil erosion, protecting existing farmland. It covers mountain and *heavily forested areas*, and other areas of open space uses such as recreation, flood plans, and farms." **– Although the measure includes forested area, forestland could be further emphasized.**
    - Pg. 2-150. Agricultural District (A-1).

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 1-64. Policy 2.14. – "Encourage and facilitate the donation of open space and *conservation easements* on land that is identified as having important scenic, historic, open

space, conservation, agricultural, or wildlife-habitat qualities through tax incentives and other means." **– Could be broadened to include forestland**

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 2-60. "Policies should be developed for storm water management, flood and erosion control, riparian buffer zones and on-going surface and groundwater management."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 1-64. Policy 2.13. – "Encourage the preservation and protection of views from Skyline Drive and George Washington National Forest"
   - Pg. 1-68. Policy 4.4. – "Discourage intensive residential development on steep and excessive slopes with a grade greater than 16%."

8. Conservation of working farms that can be broadened to include forestland
   - Pg. 1-66. Policy 3.3. - "Encourage agricultural operations and productivity and ensure the preservation and availability of the county's rural lands for the continued production of crops and livestock."
   - Pg. 1-66. Policy 3.4. – "Encourage and protect agriculture as the primary land use in rural areas"

9. Other tools that can be broadened to include forestland
   - See #3 – Agricultural and Forestal Districts

10. Timing of Comprehensive Plan updates
    - April 21, 2009

11. # of acres of forest in county

    There are 106,674 acres of forestland in Page County. These acres are distributed as follows:

Private Ownership	41,996 acres (39.4%)
County/Towns	246 acres (0.2%)
State	90 acres (<0.2%)
Federal	60,342 acres (60.3%)

12. Miscellaneous/Model language
    - Pg. 1-63. Policy 2.8. – "Promote multiple uses of forested land that are non-intensive and compatible, such as outdoor recreation, wildlife habitats, watershed protection, and selective timber harvesting."
    - Policy 2.9. – "Ensure that development on forestland is compatible with the environmental features of that land and does not diminish natural and scenic values."
    - Policy 2.10. – "Encourage best practices for forest management including reforestation."

Patrick County

2011 DRAFT Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 4-26. "Over 67 percent of the County's land mass is forested, providing aesthetic, environmental, and economic benefits to the County. According to the 2007 forest statistics from the Virginia Department of Forestry, just over ten million board feet of sawtimber are cut each year providing considerable revenues to the County's farmers. However, the most recent data from the Virginia Department of Forestry (VDOF) reports a trend toward less forest industry ownership with more ownership by timber industry management organizations (TIMOs) and by private landowners with smaller parcels. The rise of transportation, energy costs, and other expenses, the forest industry is sending less timberland to mills for production and selling off forestland to TIMOs like banks and private equity firms for development and private industry investments….. A number of County residents are dependent on jobs in lumber and wood-related industries that can utilize local forests. Forest protection and management are important land use and resource preservation tools that need the continual support of citizens and their elected representatives."

2. <u>Taxation (Use-Value, etc.)</u>
   - Not addressed in plan

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Not addressed in plan. There is a zoning ordinance draft on the county's website but it does not appear to have been officially adopted.

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Pg. 4-25. "Natural areas are areas to be left in a natural state in order to preserve their scenic, geological, and ecological values. Two such areas in Patrick County have been so identified by the Virginia Commission on Outdoor Recreation—the Busted Rock area and the Pinnacles of Dan-Townes and Talbott Area. These 3,000 acres, containing some of the most in accessible portions of the Busted Rock Area, should be protected as a natural area from future development demands."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. 4-20. Definition of Easements.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 4-24 – 4-25. "Widespread agricultural, forestal and rural residential activities across the watersheds have produced erosion and then sedimentation from the soils over the area. Siltation in streams has been observed. More enforcement of erosion and sedimentation control ordinances, more active promotion of the use of Best Management Practices, and comprehensive future land use planning and supporting ordinances all should be applied to protect the soils in the watershed and to prevent sedimentation of the watershed streams."
   - Pg. 4-25. "Four major rivers flow through the County – the Smith, Dan, Mayo, and Ararat Rivers….. Watersheds of all these streams should be protected from pollution using Virginia Best Management Practices, the voluntary non-point pollution prevention program."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 2-19. Discussion of NPS project to rate views from Blue Ridge Parkway. "Through this project, officials hope to better comprehend where development is threatening the national scenery. The Parkway generates about $2.2 billion in tourist revenue to those surrounding counties, with $700 million spent in Virginia."
   - Pg. 4-25. "The Blue Ridge Parkway viewshed should be protected from development activities by the establishment of adequate buffers.

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - 2011 draft

11. # of acres of forest in county
    - 200,194 acres (2007 data)

12. Miscellaneous/Model language

Pittsylvania County

2010 DRAFT Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Chapter 2 Pg. 12. "Apart from their obvious economic market value, forests also serve as erosion and sedimentation inhibitors, wildlife habitat, and recreation areas. Equally important is the aesthetic value provided by forests and the role they play in contributing to the 'rural character' that Pittsylvania residents and visitors find appealing."
   - Chapter 2 Pg 13. "The average annual harvest value of forest products in Pittsylvania County is relatively high when compared to ninety-eight other counties in Virginia. Pittsylvania ranks 8th with the 1986-2001 average annual harvest value of $5.21 million dollars. Brunswick County tops the state's production with an average annual production of over $12 million dollars. In 2007 the total value of harvest forest products in the county was approximately $9 million dollars, with $5.4 million dollars being derived from pine products and $3.6 million dollars from hardwoods."

2. Taxation (Use-Value, etc.)
   - Chapter 8 Pg. 10. "Pittsylvania County has a 'Land Use' program that is a type of Use Value Assessment and Taxation Program developed in accordance with the Code of Virginia. The program is designed to benefit rural, agriculturally related taxpayers who want to keep their land in agricultural production. If the property meets the established criteria, the land is taxed based on its 'use value" instead of the fair market value. The program is intended to reduce the pressure to sell and develop rural property. Leaving the property in agricultural and forestry production also helps the County maintain its rural character, open spaces and scenic values."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Chapter 2 pg. 7. **"**It is very important that land development, as well as agricultural and forestry activities, be undertaken with an understanding of the importance in protecting the County's watersheds. In identified water supply source areas, conservation zoning and effective erosion and sediment control practices are particularly important." (zoning map shows designated conservation districts)
   - Chapter 8 Pg. 11. Definition of Agricultural/Forestal Districts.

- Chapter 8 Pg. 22. Objective 3 Strategy 2. "Adopt a local agricultural and forestal district ordinance as a first step in establishing agricultural and forestal districts in the County."
- Chapter 8 Pg. 14. Future Land Use Map. (Zoning ordinance shows Agricultural zoning A-1). "Agricultural and Rural Residential - This category is characterized by agriculture, farming, forestry, open space and low density residential, commercial or recreational uses. Residential lots should be larger to accommodate private wells and septic systems and the extension of public water and sewer into these rural areas should generally not be expected. Lots should also be larger to maintain the rural, open space atmosphere, with an option for cluster developments with smaller lots. Residential development should accept the agricultural nature of these areas and accept the environmental conditions associated with agricultural activities. Local commerce and service needs can be met through small business cluster areas scattered throughout the rural area."
- Chapter 8 Pg. 23. "Adopt zoning and subdivision ordinance revisions to allow and promote cluster subdivisions within the County."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Not addressed in plan

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
   - Chapter 2 Pg. 23. "Support the use of conservation easements to protect and preserve open space, agricultural areas and environmentally sensitive areas where such uses are compatible with the Future Land Use Map."
   - Chapter 8 Pg. 23. "Consider development of a purchase of development rights program for the County, and identify a funding source for the program."
   - Chapter 8 Pg. 11. Definition of Conservation Easements.
   - Chapter 8 Pg. 23. "Support efforts of conservation organizations and the Virginia Outdoors Foundation to acquire and provide stewardship for locally obtained conservation easements where such land conservation and preservation is compatible with the Future Land Use Plan and approved by the Planning Commission."

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
   - Chapter 2 Pg. 14. "Both timber harvesting and farming activities have the potential to produce non-point sources pollutants that can contaminate ground and surface waters, and increase sedimentation in streams and lakes. These two activities are exempt from local control under the Virginia Erosion and Sediment Control Law. There are other state and federal regulations that are designed to reduce this non-point source pollution and the County should support these programs to create vegetated buffers and the use of best management practices."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
   - Chapter 2 Pg. 3. "Slopes of 15 percent or greater present constraints for many types of development, as well as erosion problems for farming operations. Steep slopes may be difficult to build upon because of the greater likelihood of erosion resulting from land disturbing activities, which contributes to sedimentation and pollution of stream. The areas excluded from intensive development for reasons of excessive slope should be used primarily for forestry, recreation, and scenic areas." Pg. 4 includes a map of slopes and a description of appropriate uses in each slope category.

- Chapter 2 Pg. 17. "Pittsylvania County's visual landscape should be considered a significant resource and be treated as an essential part of, and receive equal consideration with, the other resources of the County. It is important to protect significant sites, vistas, and highway corridors. Also, there are direct links between the benefits of visual resources and the development of tourism and outdoor recreation activities."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - Working Draft – 2010

11. # of acres of forest in county
    - 43 percent of county land

12. Miscellaneous/Model language
    - Chapter 8 Pg. 9. "When future development requests require Commission review and Board of Supervisors approval, the economic and quality of life benefits of open space and agricultural and forest land uses should be considered, as well as the adequacy of public facilities and services in the area. The environmental impacts of the development should also be considered. It is important to maintain a balance between development and preservation objectives throughout the County."

Powhatan County

"2003" Comprehensive Plan

This Comprehensive Plan is largely unchanged from the 1998 Plan, with only minor changes.

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - **Economic Value of the Forest, page 47. "**In 1995 private landowners in Powhatan County received approximately $2 million dollars for their harvested timber product. In 1985, landowners in the County received approximately $5.4 million for their timber. The 1985 publication Virginia's Forest and Its Common Wealth describes how value is added to each dollar paid to a landowner through harvesting, processing, transportation, construction, and marketing. The publication illustrates how each dollar paid to a landowner for wood generates approximately $27.65 in final value to the State's economy. Using this multiplier, the value of the 1985 Powhatan County timber to the State's economy is nearly $60 million. It is relatively easy to see why timber, which is the largest cash crop in the State, is so important to the County and to the Commonwealth. There are presently two sawmills, two millwork plants, and two pulpwood yards in Powhatan that utilize harvested material. However, timber is also purchased by the forest products users that are not located in the County."

    - **Natural Resource Forest Values, page 47. "**Besides being a simple cash crop, the County's forest areas have many additional benefits. The thick foliage creates a sight and sound barrier, which enhances many residential areas. The foliage reduces the torrential pounding of the soil by rain. Tree roots hold the soil and prevent eventual erosion. Powhatan County forests, as a watershed for the James River, Appomattox River, and numerous small ponds and lakes, provide clean water for fishing, canoeing, and residential use. Powhatan County forests are rich with wildlife and provide hunters, bird watchers, hikers, and photographers a wonderful outdoor experience."

    - **Land Use Opportunities, page 32: "**Land use opportunities fall into two major categories: those that represent opportunities for conserving valuable natural and cultural features, and those that represent opportunities to increase the value of real property through development of residential, commercial or public structures. Opportunities include:

- **Existing Forests.** Forested land exists throughout the County and provides not only a valuable and important natural resource for habitat and timber harvesting, but also a "backdrop" for a scenic, rural environment for existing and new residential uses."

- **Countywide Planning Policies and Actions, page 119**
  - **Agricultural, Forest and Natural Resources *(Countywide): "***The County's major objectives for agricultural, forest and natural resources are:
    - **Protect the Public Health and Safety.** Clean air and water are important contributors to the public health.
    - **Protect and Improve Economic Strength.** The County's agricultural, forest and natural resources are a fundamental element of its economic base. In order to continue, the economic strength of the farming and forestry industries must be maintained and enhanced, and the natural ecosystem must be protected to support those economic resources.
    - **Protect the Integrity and Character of Rural Land Resources.** The County's agricultural, forest and natural resources are a key component of the County's "rural character" that is so highly valued by citizens.
    - **Protect the Function of Valuable Natural Systems.** Citizens rely on groundwater supplies for drinking water. Other components of the ecosystem are also critical to County's quality of life and economic system, including clean air, sound surface water systems, and healthy wildlife habitats.
    - **Manage Transitions in Land Use to Ensure Compatibility.** As rural residential development continues, agricultural and forestal lands will be converted to more intense uses. These changes will put pressure on agricultural and forest activities, as well as cause negative impacts on natural systems. These pressures must be effectively mitigated if the resources are to remain functional for local citizens and the region."

2. <u>Taxation (Use-Value, etc.)</u>
   - **Land use taxation (Use-Value Assessment). Page 47**, "an assessment practice which helps preserve farmland and timberland, has been in effect since January 1, 1976. Any parcel with (a) 20 acres (b) 400 woody merchantable stems to the acre and (c) access to logging will qualify for the land use tax. In 1997, a parcel under the land use tax is taxed at a value of $400 per acre rather than at the assessed value, which is typically higher. Currently, land use taxation is applied to 85% of the County's commercial forest property."

   - **Agricultural and Forest Resources, page 119**
     - Policies for Agricultural and Forest Resources
       - *"The County will…* Provide Use-Value Assessment to qualifying agricultural and forestal lands"

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - **Land Use Pattern and Characteristics, page 34:**
     - **"Agricultural and Forest Uses.** Although agricultural and forestal uses continue to be the predominant land uses in the County, the amount of land in active agricultural use has declined steadily during the past decade in conjunction with the increase in rural

residential land uses. Forested lands are also experiencing continued pressure from development."

- **Current Zoning Regulations, page 36-37:**
  - Agricultural District (A-1) **"**The Agricultural District pertains to the majority of land in the County. It was established to provide space for agricultural uses, which comprise an important part of the economy of the county. The intent was to permit lands best suited for agriculture to be used for agricultural purposes and to prevent encroachment of incompatible land uses on agricultural lands. The minimum lot size for dwellings in the A-1 District is 10.0 acres for subdivisions of three to ten lots, 2.0 acres for subdivisions on private roads serving no more than two lots or for a one-time, "single-cut" subdivision, and 1.0 acre for a lot created for gift to an immediate family member.
  - Rural Residential District (R-R) The rural residential district is intended to meet the demand for large lot development while preserving the rural character and agricultural lifestyle in certain areas of the County. The minimum lot size for dwellings is 10.0 acres."

- **Agricultural/Forestal District (AFD), page 39:**
  - "The Agricultural Forestal District is not an official Zoning classification. It is a classification of land use wherein the property owner agrees with the County to leave his/her property in agricultural, forestal, open space, or recreational use. In exchange, the property owner is granted "use value" taxation for a specified length of time, usually ten (10) years. The County has adopted 13 such districts totaling 9,954 acres. These are shown on the County's official zoning map, and on the map of existing generalized zoning in this plan. (Figure I-5)" ***Update****: In 2010, 9 districts were reported totaling approximately 7,500 acres.*

- **Agricultural and Forest Resources, page 119**
  - Policies for Agricultural and Forest Resources
    - *"The County will…* Encourage the voluntary formation of new **Agricultural and Forestal Districts**, and additions to existing Districts"

4. Conservation (Funding as well as Identifying specific forestland)
   - **Goals for the County's Future, page 87:**
     - **"Agricultural, Forest and Environmental Resources Goals**
       - Conserve agricultural and forest resources for the economic and environmental benefits they provide to County citizens.
       - Protect the function, quality and integrity of ground and surface water resources for the natural resource and public water supply benefits they provide to County citizens."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - **Agricultural and Forest Resources, page 119**
     - Policies for Agricultural and Forest Resources
       - *"The County will…* Encourage the donation or private purchase of permanent **conservation easements** on significant agricultural and forestal tracts"

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers

- **Agricultural and Forest Resources, page 119**
  - Policies for Agricultural and Forest Resources
    - *"The County will…* Encourage landowners to refrain from clear-cutting timber within 100 feet of the James and Appomattox Rivers and within 50 feet of any actively flowing creek or stream."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - **Agricultural and Forest Resources, page 119**
     - Policies for Agricultural and Forest Resources
       - *"The County will:*
         - Encourage landowners to maintain buffered areas of existing tree cover between areas that have been clear-cut and public rights-of-way.
         - Encourage the use of Best Management Practices (BMPs) for agricultural and forestal activities.
         - Encourage landowners who wish to harvest their timber to develop a Forest Management Plan in cooperation with the Virginia Department of Forestry"

8. Conservation of working farms that can be broadened to include forestland
   - None identified

9. Other tools that can be broadened to include forestland
   - **Rural Preservation Policy Area, page 93:**
     - **Conservation Easements "**For all major subdivisions in this (Rural Preservation Area) area, the County will require that conservation easements be established on residual parcels greater than 20 acres at the time of subdivision in order to stabilize the character and intensity of the property and to protect neighboring properties and public infrastructure.
       - Such conservation easements:
         - will establish limitations that run with the land that prohibit further subdivision or substantial non-farm development on the tract;
         - may be held by the County or by a Homeowners Association, or by another entity acceptable to the County
         - shall be established for a minimum of 40 years duration, and may be in perpetuity"

10. Timing of Comprehensive Plan updates
    - This Plan was last updated in 2003. We found no information regarding an update on the County's website.

11. # of acres of forest in county
    - **Forest Resources, page 46-47**
      - **Land Ownership. "**Powhatan County contains a total land area of 174,081 acres. 127,162 are classified as commercial forestland or land capable of producing a timber crop and not developed into an alternate use. With approximately 20,000 in cropland, 107,000 acres would be in trees. Approximately 85% of this forest resource is owned by private non-industrial landowners. There are 37 parcels large than 400 acres equaling

34,000 acres in the County. There are also 265 parcels larger than 100 acres equaling 48,581 acres. Such parcels give the County a rural nature. The County's forest resource is experiencing pressure from development. This is evident by the increase in the number of taxable land parcels. In 1985 there were 7,579 parcels compared to 10,076 in early 1994 and 11,042 in 1997.

- **Forest Composition and Management.** Powhatan County's timber resources are typical of Piedmont Virginia. Approximately 5,000 acres of natural pine are found on abandoned agricultural land. This pine consists of Virginia pine and shortleaf pine and for forest management purposes should be clear-cut whenever it is merchantable. Following the harvest, the area can either be allowed to grow into natural hardwood or be replanted into loblolly pine. Loblolly pine plantations in the County consist of approximately 28,000 acres and much of this acreage has either been thinned or is approaching an age that would entail a removal of a portion of the trees on each acre. This partial harvest improves the wildlife habitat and increases the growth on the remaining trees. Upland hardwood and bottomland hardwood are the predominant timber types in the County and consist of northern red oak, southern red oak, white oak, hickory, sweet gum, yellow poplar, and many other associated species. The hardwood stands are emerging from decades of poorly planned partial harvests between 1940 and 1970. The hardwood harvests now are usually well-planned partial cuts, recommend and conducted by professional foresters. Because of this attention by private landowners, the entire forest resource in Powhatan County is improving in health and productivity."

12. Miscellaneous/Model language: None identified

Prince Edward County

"2005" Comprehensive Plan

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 80, Objective # 3 under Land Use: "Recognize the importance of agricultural and forestry uses to the economy and culture of Prince Edward County."

2. Taxation (Use-Value, etc.)
    - Pg. 90. "Retain the County's agricultural land use assessment program." ***Use value taxation is currently enabled for only agriculture and horticulture.*** *This excludes forestry, and the measure can be strengthened by including forests, but likely reflects the County's acres of commercial forest.*
    - The Sandy River Reservoir Zoning Overlay, adopted in 2009, includes provision for use-value taxation for forestry activities within the overlay district.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 57. Agricultural/Forestal District defined and used.
    - A-1 Agricultural Conservation Zone and A-2 Agricultural Residential Zone (This was not included in the Plan, but was found on the County's website)
    - Pg. 60: "Recommendations" section: "The County's zoning and subdivision ordinances should be revised to include provisions to require and/or allow for the use of cluster housing and other conservation design techniques."

4. Conservation (Funding as well as Identifying specific forestland)
    - P. 90 Objective 2. Provide financial and other incentives for agricultural and forestry land conservation.

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 57. Conservation Easement defined
    - Pg. 58. Riparian Easements defined – "Specifically, the landowner agrees to restrict uses that would harm the riparian zone and works with the easement holder to develop a

management plan to ensure riparian zone protection. Typically this is done by establishing and maintaining vegetation and limiting livestock access to the stream."

- Pg. 59. Purchase of Development Rights defined.
- Pg. 90. "Adopt a local purchase of development rights (PDR) program based upon the Virginia model ordinance prepared by the Virginia Department of Agricultural and Consumer Services."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - See #5
   - **Update**: *County has since adopted Sandy River Reservoir Overlay as recommended on page 82 of the plan*

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.

   Not mentioned in Comprehensive Plan: 2009 Sandy River Reservoir Zoning Overlay includes provision for steep slopes protection within the overlay district.

8. Conservation of working farms that can be broadened to include forestland
   - None identified

9. Other tools that can be broadened to include forestland
   - See # 5 Conservation Easement; #2 Taxation

10. Timing of Comprehensive Plan updates
    - 2005

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. 55. "When future development requests require Commission review and Board of Supervisors approval, the economic and quality of life benefits of open space and agricultural and forestland uses should be considered as well as the adequacy of public facilities and services in the area. The environmental impacts of the development should also be considered. It is important to maintain a balance between development and preservation objectives throughout the County."

Prince George County

"2007" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - **Forest Resources, page 22:**
     - "Forests are an important part of the natural landscape and economy of Prince George County. They provide habitats for many plant and wildlife species, natural resources for outdoor recreation, protection from erosion, and sedimentation, groundwater recharge areas and visual buffers between land uses.
     - Forests cover over 74% of the County's landscape. These forested areas are owned primarily by private individuals or private corporations. A very small percentage is owned by the State or Federal government Over 50 percent of County timberland is composed of the yellow pine forest types. Of the hardwood species, the oak, hickory and gum trees are predominant. Of the 98 timber producing localities in Virginia, Prince George ranks 21st in total value of timber products. These products have an average annual harvest value exceeding 3.6 million dollars in 2006. Direct and indirect forestry related employment in the Tri-Cities area exceeded 2000 jobs in 2007 with a total harvest value in excess of 73 million dollars.
     - The current annual growth quantities are more than the cut quantities at this time. Over 7500 acres of land in the County have been reforested between 1994 and 2003. Timber growth potential is excellent in Prince George County. Good forest-management practices and forest-fire prevention must be maintained and continued to realize this potential. These two objectives are particularly important as continued County development permanently removes land from forestry potential and woodland home sites increase the risk of forest fires."

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Existing and Future Land Use, Page 127 – defines Agricultural and Forestal Districts in general, but not specific to the County

- Goals, page 148: "Objective #3 Enhance the rural and environmental character of the County through the preservation of agricultural and **forestal lands**, wetlands, flood hazard areas, and Chesapeake Bay Resource Protection Areas."
    - Relative Strategies:
        - "2. Adopt a local agricultural and forestal district ordinance as a first step in establishing **agricultural and forestal districts** in the County."
        - "5. **Adopt zoning and subdivision ordinance revisions** to allow and promote cluster subdivisions within the County."

- Existing Land Use, Page 128-129 – **general information on Designation of County Planning Areas**: "As stated earlier, previous County comprehensive plans have designated four planning areas that served as a geographic basis for the County's growth policies. One of these planning areas, Prince George, is the County's designated growth area. The remaining three areas have been designated in previous plans as areas where residential growth would not be encouraged or supported, in effect, conservation areas. Conservation policies for these three areas were identical. This plan proposes two planning areas (Map 18). In the northern portion of the County, the Prince George Planning Area will continue to be the County's designated growth area. County codes and policies will encourage the majority of the County's residential, commercial and industrial growth to be located in this area. The southern and eastern portion of the County will be a single planning area known as **Rural Conservation Planning Area**. **This area will be the County's designated conservation area with codes and policies for this area designed to achieve conservation and preservation objectives.** The Prince George Planning area, as designated in this plan, is smaller in acreage than the PGPA designated in the County's 1999 plan. Recent analysis by the Crater PDC determined that under current zoning regulations there is sufficient vacant acreage within the current limits of the PGPA to accommodate over seventy years of anticipated residential growth. This acreage includes over 2300 acres of land currently zoned R-1. Reducing the size of the County's designated growth area will allow the County to further focus its investments in public facilities."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
    - Not addressed in plan

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
    - "Existing and Future Land Use, Page 127 – defines **Conservation Easements** in general, but not specific to the county

    - Existing and Future Land Use, Page 128 – defines **PDRs** in general, but not specific to the County

    - Goals, page 148: Objective #3 Enhance the rural and environmental character of the County through the preservation of agricultural and **forestal lands**, wetlands, flood hazard areas, and Chesapeake Bay Resource Protection Areas.
        - Strategies:

- 3. Support future efforts of local conservation organizations and the Virginia Outdoors Foundation to acquire and provide stewardship for locally obtained **conservation easements**.
- 4. Initiate a **purchase of development rights** program for the County, and identify a funding source for the program." *Suggested in plan for future implementation*

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
   - Existing and Future Land Use, Page 127 – defines **Riparian Easements** in general, but not specific to the County
   - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
   - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

8. <u>Conservation of working farms that can be broadened to include forestland</u>

9. <u>Other tools that can be broadened to include forestland</u>
   - None identified

10. <u>Timing of Comprehensive Plan updates</u>
    - This Plan was adopted in 2007, so the next review will be completed by 2012.

11. <u># of acres of forest in county</u>
    - Approximately 126,000 acres

12. <u>Miscellaneous/Model language</u>

Prince William County

"2008" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - ENV-11. "Continue to support and implement the Agricultural and Forestal District program to preserve farmland and woodland areas in the County."
    - ENV-9. Long Range Land Use Classification. The Rural Area. "This is the area of Prince William County in which are contained agricultural, open space, forestry and large-lot residential land uses, as well as occasional small-scale convenience retail centers and community facilities. Large-lot residential cluster development – contained within or abutted by large tracts of permanent open space – is an alternative residential pattern permitted in the Rural Area." *This part of the plan does not include the zoning ordinances that regulate the Rural Area.*

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

- ENV-7. "Encourage the preservation of a natural buffer of existing woodland or forestation area of a least 50 feet along each side of all waterways that are not otherwise protected under the Chesapeake Bay regulations or similar legislation."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.
    - ENV-5. "Discourage development adjacent to a perennial stream in the following areas:
      • Wooded slopes of 25 percent and greater with highly erodible soils, permeable soils or marine clay soils.
      • Wooded slopes of 25 percent and greater having a continuous area of 10,000 square feet.
      • Wooded slopes of 15 percent and greater with highly erodible soils, permeable soils, or marine clay soils.
      • Wooded 100-year floodplain.
      • Non-wooded slopes of 25 percent and greater with highly erodible soils, permeable soils, or marine clay soils.
      • Non-wooded slopes of 25 percent and greater having a continuous area of 10,000 square feet
      • Non-wooded slopes of 15 percent and greater with highly erodible soils, permeable soils or marine clay soils.
      • Non-wooded 100-year floodplain."

8. Conservation of working farms that can be broadened to include forestland
    - LU-9. "The purpose of the Rural Area designation is to help preserve the County's agricultural economy and resources, the quality of the groundwater supply, and the open space and rural character presently found there." – **This could be broadened to include forestland**

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - 2008
11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - None identified

Pulaski County

"2007-2009" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 22. "The County's forest lands offer considerable recreational opportunities for residents in the local area and region."
   - Pg. 22. "The overall diversity of land use and terrain in Pulaski County provides good habitats for a variety of fish and wildlife."
   - Pg. 22. Discussion of Endangered wildlife
   - Pg. 23. "The visual enhancement provided by the County's trees and forests offer an aesthetic and economic attraction to people and businesses. The forests also play a vital role in producing clean water for household and industrial use, moderating run-off and stream flows, and in reducing potential flood levels."
   - Pg. 29. Discussion of economic benefits of Jefferson National Forest tourism.

2. <u>Taxation (Use-Value, etc.)</u>
   - Pg. 67. Objective 4.1-2. "The County should continually evaluate land practices, promoting those that are beneficial to the environment or are low impact uses, for property tax purposes and through other incentives."
   - ***Update**: A 2010 report indicates that Pulaski has enabled use-value taxation for forest use, as well as for agriculture and horticulture, but not open space.*

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. 62. Objective 1.6-4. "Encourage Cluster Development in areas where prime soils and other important soils may be located to provide for continued farming activities."
   - Pg. 67. Objective 4.2-1. "The Planning Commission should prohibit development in particularly sensitive natural areas through application of its Conservation Zoning District."
   - Zoning ordinance includes Agricultural District (A-1) and Conservation District (C-1).

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>

- Not addressed in plan

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
   - Pg. 67. Objective 4.1-1. "Wherever possible, greenbelts should be retained, particularly: in flood prone areas, on ridgelines, in historic resources, and to protect scenic vistas. The Planning Commission should evaluate preservation measures to be used to retain open space such as:
     - Agricultural/forestal districts - Prime farmland identification
     - Land banking - Conservation easements
     - Private/Non-profit conservation programs

     This evaluation should be in the context of an open space plan in accordance with guidelines prepared by the Department of Conservation and Recreation Resources, Division of Planning."
   - Pg 67. Objective "4.2-2. The Planning Commission should carefully plan and manage the density of development which occurs in close proximity to Claytor Lake through Planned Unit Development, conservation easements, and other mechanisms."
   - Pg. 68. Objective 4.5. "Encourage the Use of Conversation or Open Space Easements in appropriate areas."

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
   - Pg. 64. Objective3.2. "Reduce erosion and sedimentation of the County's streams, rivers and lakes."
   - Pg. 64. Objective 3.2-7 "The County should work with other organizations to provide buffering around surface water areas to reduces [sic] erosion and runoff associated with land development."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
   - Table 4 Pg. 15. Slope limitations for development - slopes over 20 percent: "Development causes major erosion problems by increasing runoff velocity. Major site engineering is necessary. This land is suitable for recreation, wildlife management, and watershed protection. It is generally unsuitable for cultivation."
   - Pg. 16. "Cluster development should be encouraged on steeper slopes (up to 20 percent) because of the efficient use of land."
   - Pg. 23. "Although less productive soils will not generate as large a timber crop, these areas are the best suited for forest cover since steep slopes and thin, erodible soils limit much of the areas' potential for other uses."
   - Pg. 67. Objective 4.1-1. "Wherever possible, greenbelts should be retained, particularly: in flood prone areas, on ridgelines, in historic resources, and to protect scenic vistas."

8. <u>Conservation of working farms that can be broadened to include working forests</u>
   - Pg. 60. Objective 1.1-6. "The County should encourage public and private initiatives that support the local farm industry including local foods programs, agricultural education, and incentives for local farmers to continue active production."
   - Pg. 62. Objective 1.6. "Support the Agricultural Business Community. Recommended Strategies:
     - 1.6-1 Provide information related to programs offered by Regional, State, and Federal Agencies to allow additional business opportunities for the farming community.
     - 1.6-2 Explore alternative partnerships to increase the profitability of local farms, including eat local incentives utilizing County produced foods.
     - 1.6-3. Provide incentives allow for the continued operation of farms in the County."

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - October 13, 2009

11. # of acres of forest in county
    - 118,971 acres (58% of county)

12. Miscellaneous/Model language
    - Pg. 23. "The wildlife habitat condition of Pulaski's forests and role of the forest product industry in the local economy may be improved in the future by:
        - Increasing markets for forest products, particularly as the stands grow into the sawtimber size class.
        - Increasing recognition by landowners of the benefits of forest and wildlife management."

Rappahannock County

2004 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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***

1. Recognition of the Economic and/or Other Benefits of forestland
    - Chpt. 6. pg. 74. "Central to Rappahannock County's definition of itself are the Blue Ridge Mountains and foothills, among the oldest on earth, and its largely pristine intact ecosystem. Rappahannock's agricultural, forestry and tourism industries are critically dependent upon the careful nurturing of these natural resources. To acknowledge this unique status, we the people of Rappahannock declare it to be a "scenic county" and all goals, principles, and policies will reflect and devolve from this fundamental recognition." – *Although this statement captures the importance of forests to the county's vision, we found no specific language about the direct economic or environmental benefits of forests.*

2. Taxation (Use-Value, etc)
    - Chpt. 8. pg. 101. County uses a taxing system on agricultural, forestry, horticultural, and open space and recreation land based upon their use value rather than full market value. Includes a rollback tax payment when land is changed to other purposes.
    - Principle 1. Policy 13.: "Support use-value taxation and other fiscal programs that help to alleviate economic burdens on owners of agricultural, horticultural and forested land and continue land use planning to protect agricultural land from escalating assessments."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural /Forestal Districts)
    - Principle 1. Policy 9.: "Approve the creation of voluntary agricultural and forestal districts that meet the provisions and procedures of the Code of Virginia 1950"
    - Chpt. 8. pg. 101.: Agricultural and Forestal Districts: "Creation of Agricultural and Forestal Districts … can enhance the County's agricultural base and serve to promote new development in preferred locations."
    - Map 10.: Agricultural and Forestal Districts. As of 2009, recorded 9 districts with over 18,000 acres.

4. Conservation (Funding as well as Identifying specific forestland)
    - Six Elements of Regional Vision. Pg. 96.: "A dedicated state and local funding for natural resource protection will be secured" *Suggested in plan for future implementation*

5. PDR (Purchase of Development Rights)/ TDR (Transfer of Development Rights)/ Conservation Easements related to forestland
    - Six Elements of Regional Vision. Pg. 96.: "The region will seek additional authorizations for programs such as impact fees, transfer of development rights…"
    - Six Elements of Regional Vision. Pg. 96.: "Agriculture will be supported as a key feature of the region through…A regional program for the purchase of development rights (PDRs) and open space easements."
    - Principle 1. Policy 11. "Sponsor a Purchase of Development Rights (PDR) program to facilitate the preservation of important agricultural lands that cannot be preserved through other means." ***Update:*** *The County has adopted a PDR program, and the ordinance language includes forestry uses.*

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Principle 3. pg. 78. Recognize the County's rivers as one of the most significant environmental resources and provide for their protection by:

    a) Encouraging greenbelts along the rivers.
    b) Informing the public of the benefits and values of preserving the river corridor.
    c) Controlling development in areas adjacent to the rivers that may include development restrictions such as setbacks, buffers, or other means, or limitations on water withdrawals and/or effluent discharges.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - The County Comprehensive Plan and Existing Zoning. Pg. 106.: **"**County sought viable planning tools and design guidance to manage and reduce potential visual and environmental impacts to the County's rural and scenic character."

8. Conservation of working farms that can be broadened to include forestland
    - Principle 1. Pg. 75. "To the maximum extent possible, separate or buffer incompatible land uses from agricultural lands and operations". Land Use and Growth Management. Pg. 93. "To successfully manage growth and land use to achieve this vision, our region and communities will employ a range of regulatory, incentive, and financial tools to protect farmland, historical buildings and sites, and open space…"
    - Local Powers Authority. Pg. 99. "To successfully manage growth and land use to achieve this vision, our region and communities will employ a range of regulatory, incentive, and financial tools to protect farmland, historical buildings and sites, and open space,"

9. Other tools that can broadened to include forestland
    - Principle 1. Pg. 76. "Upon requests for rezoning land for more intensive use, encourage the placement of open-space easements on important scenic, recreational, historic, open-space, conservation, wooded, water resource, agricultural, and wildlife-habitat lands as a reciprocal benefit."

10. Timing of Comprehensive Plan updates
    - Current plan 2004

11. # of acres of forest in county
    - 1992 - 105,446 acres; much more detailed information in plan.

12. Miscellaneous/Model language
    - Principle 2. Pg. 77. “Preserve the natural, historic, recreational and scenic values, along with the healthy economy of the forested land and resource preservation districts so as to ensure that development in those areas is in conformance with their natural beauty and environmental limitations.”

    - Principle 7. Pg. 81. “Promote only economic growth that assists in maintaining our existing balance and is compatible with the environmental quality and rural character and does not adversely affect active farm operations, forestry operations, residential neighborhoods, the tourist industry, and the county's fiscal stability.”

Richmond County

"2001" Comprehensive Plan

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not directly addressed in plan

2. Taxation (Use-Value, etc.)
    - Part I. Pg. 20. "Richmond County presently administers a Land Use Taxation Program protecting prime farmland and forested land."
    - Part V. Pg. 11. Taxation Policies – further explains land use taxation "in which certain lands can be used for agricultural, horticultural, forestry, or open space and recreation purposes…"

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Part II. Pg. 20. A-1 Agriculture
    - Part III. Pg. 8. (30) Recommendations. **"To investigate the advantages and disadvantages of sponsoring Agricultural and Forestry Districts** in Richmond County"

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan, see #12 for site assessment for prioritizing uses.

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Part V. Pg. 13. Conservation Easements – Defined and suggested in plan. "An easement may be given by the landowner for the purpose of preserving open space, which may be wetlands, marshlands, agricultural land, woodland, and other scenic or open spaces." Cont. pg. 14. "Local governments can hold easements and Richmond County should investigate the ramifications of holding easements as a means of protecting natural and cultural resources. The County should also become an active proponent of the use of conservation easements.

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Part I. Pg. 12. Chesapeake Bay Preservation Ordinance "The RPAs are comprised of tidal wetlands, tidal shores, non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams, and a 100 foot buffer adjacent to these features and along both sides of all tributary streams. The resulting RPAs comprise 20.4% of the County's non-water area."
    - Part III. Pg. 9. Recommendations. (45) "Continue to administer regulations in the [Chesapeake Bay Preservation] RPAs and RMAs designed to prevent destruction of wetlands and to enhance their value by filtering runoff through buffers and managing development to minimize runoff from land use."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Part III. Pg. 7. Recommendations. (23) "To promote the user of natural vegetation for shoreline stabilization wherever practicable."

8. Conservation of working farms that can be broadened to include forestland
    - The recommendations in this plan for conserving working farms also include conserving forested land.

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - Adopted March 20, 2001

11. # of acres of forest in county
    - Part I. Pg. 19. "As of the most recent 1991 Forest Survey conducted by the U.S.D.A. Forest Service, there were approximately 76,279 acres of forested land in Richmond County."

12. Miscellaneous/Model language
    - Part I. Pg. 20. "The Richmond County Board of Supervisors has endorsed development of a Land Evaluation Site Assessment (LESA) program. A LESA program can provide analysis of particular properties to determine the potential best suited use of the property. The Land Evaluation (LE) rates the quality of soil for agricultural use incorporating four existing U.S. Department of Agriculture (USDA) rating systems; land capability classification, important farmlands classification, soil productivity, and soil potential."
    - Part IV. Pg. 2. "Primary agricultural **(including forestry)** lands should be protected. Development should be allowed only if the best and most productive cultivated and forestlands are not divided and/or taken out of production. Intensity of use, density, lot size and other factors should be carefully considered and tailored to suit particular parcels of land. By structuring regulations to promote the maintenance of existing farm land and allowing the development of adjoining lands, both the farmer and developer will benefit."

Roanoke County

"2005" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not directly addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Chapter 6. Pg. 1. "Conservation: A future land use area of particular environmental sensitivity due to topography, existence of unique land characteristics, conservation/open space/greenway easements, soil types or location with respect to other State or Federally preserved lands. Typical resources would include wetlands, ridgelines, mountainsides, scenic views from the Blue Ridge Parkway and Appalachian Trail, identified greenway corridors, productive agricultural lands, historical and cultural resources and threatened or endangered species habitats."
        - Land Use Types. "Forest and Wood Products - Tree farms, forest nurseries and reforestation services."
        - Existing Land Use Patterns – "Locations where agricultural, recreational, and forestal uses are predominant and are encouraged to expand."
        - Existing zoning – "Locations where agricultural zoning is in effect."
    - Chapter 6. Pg. 3. "Rural Preserve: A future land use area of mostly undeveloped, outlying lands. These rural regions are generally stable and require a high degree of protection to preserve agricultural, forestal, recreational, and remote rural residential areas."
        - "Existing land use pattern - Locations where agricultural, recreational, and forestal uses are predominant and are encouraged to expand."
        - "Existing zoning - Locations where agricultural zoning is in effect."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Chapter 3. Pg. 46. The plan recommends that the county "Protect steep slopes and ridgelines. Develop design guidelines and regulations for development on steep slopes. These should include provisions for "slope maintenance bonds", and should determine a slope above which development should not be allowed. The precise slope percentage should be determined after Chapter 3: Land Use Issues more research and analysis is conducted but should be specified in the future zoning ordinance amendment."
    - Chapter 5. Pg. 8. "There are various options for mountains and ridgetop development policies ranging from identifying and preserving steep slopes that should not be developed to adapting the density of development to the terrain so that as slope increases, allowed density decreases. In addition, various design guidelines should be evaluated to minimize land disturbance, encourage retention of existing vegetation and appropriate architecture that blends with the natural surroundings. Another option is to provide legal and financial mechanisms for the acquisition of open space and conservation easements in these areas."

8. Conservation of working farms that can be broadened to include forestland
    - "If agricultural resources have value to the community, then planning strategies and preservation techniques must be pursued that will allow farming to survive and remain financially feasible under changing economic and market trends. The challenge entering the next century will lie in community and citizen-based efforts to develop balanced, equitable and widely supported approaches to preserve the rural and agricultural areas of the County."
    - Chapter 6. Pg. 11. Resource Preservation. "Encourage the preservation of agricultural lands. These farms have economic, educational, open-space and cultural value."

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan updates
    - 2005

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - None identified

Rockbridge County

"2003" Comprehensive Plan

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Introduction. Pg. 1. Agricultural and Forestal lands… "Provide the direct economic benefit of production while indirectly preserving open space and rural character which positively impacts tourism, outdoor recreation, wildlife habitat and quality of life."
    - Pg. 9. "The preservation and enhancement of agriculture and forestry is a fundamental cornerstone of the social, environmental, economic and cultural character of Rockbridge County. The Plan shall establish Rural Preservation Planning Areas for the purpose of delineating and guiding land use policies for these areas."

2. Taxation (Use-Value, etc.)
    - Zoning. Pg. 3. "County allows qualifying lands to receive a reduced assessment under a program known as Land Use. Categories of land use assessment include agricultural, forestal and open space lands."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 5. Land development regulations in 1997 allowed for Agricultural and Forestal Overlay Districts.
    - Agricultural zoning - 75% or 291,829 acres
    - Pg. 8. Future Land Use Map. "The Rural Planning Areas provide a vehicle by which prime agricultural and forestry lands, mountain areas, natural and scenic resources, critical watersheds, sensitive environmental areas, and other large tracts of land of rural character within the County may be preserved and maintained. It is the intent of this district to promulgate existing farm and forestry operations, conserve natural features and vegetation, eliminate scattered residential uses on small lots demanding public services, protect river frontages and water recharge areas, promote new agricultural and forestry production, and encourage the conservation and maintenance of sensitive environmental areas."

4. Conservation (Funding as well as Identifying specific forestlands)
    - See #5 for PDR program/funding

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Recent Activities and Actions. Pg. 6. "In 2003 the County adopted a purchase of development rights program. Titled the Rockbridge Easement Agreement Program (REAP)" *This program's objectives include protection of working forests.*
    - Pg. 6. "As of January 2003, conservation easements have been placed on over 5757 acres in the County and are held by the Virginia Outdoors Foundation, the Valley Conservation Council and the Natural Bridge Soil and Water Conservation District."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - None identified

9. Other tools that can be broadened to include forestland
    - None identified

10. Timing of Comprehensive Plan Updates
    - Land use chapter was revised and adopted in 2003

11. # of Acres of Forest in County
    - Not addressed in plan

12. Miscellaneous/Other
    - Land Use goals. Pg. 10. "Agricultural and forestal areas shall be given priority in the land use planning process over the potential for 'leapfrog' urban development in outlying areas of the County."
    - Pg. 10. "Endorse the Virginia Department of Forestry's recommended forest management practices."

Rockingham County

"2006" Comprehensive Plan

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***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Not directly addressed in plan

2. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 2-80. Agricultural/Forestal Districts defined, in use and encouraged
    - Pg. 2-12. "The formation of Agricultural and Forestal Districts is encouraged within the Agricultural Reserve."
    - Section II. Existing Zoning A-1, A-2.

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 2-12. "Encourage the use of voluntary land preservation techniques that will help maintain the existing landscape, including the leasing, sale or donation of conservation easements, the establishment of private land trusts, exclusive agriculture zoning and Agricultural and Forestal Districts."
    - Pg. 2-80. Purchase of development rights defined and encouraged

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 2-71. "Consider amending the Zoning Ordinance to limit development, clearing or grading on steep slopes, especially those of 25% or greater."
    - Pg. 2-73. "Consider the impact on views in land use decisions."

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 2-12. "Rockingham County considers agriculture both an essential way of life and a significant sector in its economy. One of the primary goals of the Comprehensive Plan is to preserve the agricultural industry and economy. The Agricultural Reserve is planned for agricultural uses and uses that support agriculture as a viable way of life and economic enterprise."
    - Pg. 2-21. "Goal 3. Preserve the Agricultural Industry and Economy.
        - *Strategy 3.1: Retain rural character by continuing agricultural use as the predominant land use."*

9. Other tools that can be broadened to include forestland
    - Pg. 2-80. Purchase of Development Rights

10. Timing of Comprehensive Plan updates
    - 2006

11. # of acres of forest in county
    - 50,000 acres

12. Miscellaneous/Model language
    - None identified

Russell County

2010 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. II-13-14. Discussion of timber resources.
   - Pg. VII-12. "Based on Virginia Division of Forest Data in 2007 $1.5 million was paid to Russell County landowners for timber sold. The VDF has other publications that describe how much value is added (14 to 44 times) from the processing of our forest products.
     The forest land in the county has importance beyond its economic impact. It has ecological and social importance as well.
     Ecologically, woodlands help maintain good water quality, because they filter and trap sediments. They absorb pollutants from runoff overland and from subsurface flows. The forest land in the Clinch River drainage basin acts as a buffer for the river and its tributaries by preventing excess nutrients like nitrogen and phosphorous, from entering and polluting the waterway.
     The woodland in the Clinch River drainage also provides food, shelter, nesting, and bedding for an ecosystem that has been reported as ranking #1 in the world by the Nature Conservancy."

2. Taxation (Use-Value, etc.)
   - Pg. VII-13. "The County adopted a Special Assessment ordinance in 1979. This ordinance allows the county to assess taxes on Agricultural, Horticultural, and Forest land based on its use value as opposed to its fair market value."
   - ***Update**: A 2010 report indicates that Russell has also enabled use-value taxation for open space.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Currently no zoning ordinance exists.

4. Conservation (Funding as well as Identifying specific forestland)
   - Pg. IX-4 . "In 1999, the General Assembly and the governor established the Virginia Land Conservation Foundation to help fund protection of Virginia's natural and cultural resources. Funds from the foundation are used to establish permanent conservation easements and to

purchase open spaces and parklands, lands of historical and cultural significance, farmlands and forests, and natural areas. State agencies, local governments, public bodies and registered non-profit groups are eligible to receive matching grants from the foundation."

- Pg. IX-4. "The County has a significant amount of land that is already in ownership of the Nature Conservancy to protect the ecosystem adjacent to the Clinch River. The County should encourage use of the Land Trust and Conservation easement programs to protect the Clinch River Watershed, The Big Moccasin Creek Watershed as well as the Big Cedar Creek Watershed. These programs will allow the land to stay in private ownership while protecting a valuable asset of the County."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Conservation Easements see #4

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. VII-14. Discussion of slope constraints. "More than 50% of land in Russell County has a slope of 20 percent or greater."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - July 2010

11. # of acres of forest in county
    - 170,104 (55.72%)

12. Miscellaneous/Model language

Scott County

2006 Comprehensive Plan

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 14. "One of Scott County's most valuable, and most apparent, natural resources is its forest lands."
   - Pg. 15. "On one hand, the county's residents need areas in which to hunt, forested streams and reservoirs to fish, camping and hiking areas, picnic spots and wildlife habitats."
   - Pg. 14-16. Discussion of clean air, types of timber, quality of forest lands.
   - Pg. 22-24. Discussion of labor force and employment by sector.

2. Taxation (Use-Value, etc.)
   - *Scott County has not enabled use-value taxation. This likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Not addressed in plan

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 61. "Areas with slope in excess of 20 percent are generally considered unsuitable for urban type development due to costs and varying stability of slopes...."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - Adopted April 5, 2006

11. # of acres of forest in county
    - 216,000 acres in 2000

12. Miscellaneous/Model language

Shenandoah County

"2005" Comprehensive Plan
County is currently updating Plan

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***

1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - **Natural Resources, page 10-12:**
        - "The forests of Shenandoah County are one of its most precious resources. These woodlands add to the economic vitality of the County, its natural beauty, and to the quality of life for its residents. **The County's woodlands are used for recreation, watershed and wildlife management, and for a variety of forest products.**
        - Shenandoah County's woodlands are dominated by the Upland Hardwood – Southern Pineforest type. The most common tree species in this forest type include: white oak, black oak, chestnut oak, scarlet oak, northern red oak, pignut hickory, bitternut hickory, mockernut hickory, red maple, white ash, tulip tree, Virginia pine, shortleaf pine, pitch pine, table mountain pine, white pine, eastern hemlock and black gum. The forests are dominated by sawtimber-size trees which are16 inches in diameter or greater in size. Major forest pests affecting the health of these trees include the gypsy moth, southern pine bark beetle and hemlock wooly adelgid.
        - The commercial quality and value of these trees vary greatly depending upon the soil types which underlay these woodlands. There are many acres of forests growing upon shale derived soils that are of very low quality and value. Conversely, trees growing on limestone soils, or river bottom alluvial soils, are of very high quality and value. It is these better quality soils that make Shenandoah County a leader in the world market of fine hardwood products.
        - From 1986 through 1992, cumulative harvest revenues for Shenandoah County landowner averaged approximately $380,000. **Beginning in 1993, and through the end of 2001, these same annual harvest revenues have significantly increased to $1,380,000.** The reasons for this one million dollar increase in annual revenues can be attributed to an improved global hardwood market, an increased demand for hardwood products, a decrease in timber harvested from National Forests and the recognition of the superior quality of Shenandoah Valley hardwoods. **For every $1.00 landowners receive for their timber, an additional $35.39 of "value added**

dollars" is generated for Virginia's economy. Shenandoah County relies upon its rural landscapes to support its population and, in part, its economy. Yet trends for the county show increasing fragmentation and parcelization of once manageable forested acreage. The loss of productive forestland equates to a possible decline in the economic viability of the county due in part from the decreased revenues generated by traditional forest products. **The county should seek a balance between managed growth and the retention of productive forestland."**

- **Land Use, page 4:** "The George Washington - Jefferson National Forest contains approximately 77,681 acres of land in Shenandoah County, located along both the western and eastern boundaries in the two mountain ranges. It represents almost 24 percent of the entire land area of the County that will basically be preserved in its natural state and as managed timber land, thereby contributing to the County's air and water quality."

2. <u>Taxation (Use-Value, etc.)</u>
    - Page 20: "There is a need to track the status of agricultural and forestal districts, and of land that is placed in use-value taxation. With over half of the districts due for renewal in 2005, there is also a need to review the requirements for such districts and how they affect land use decisions in the County."

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Agricultural and Forestal Districts are in use, with 21 districts recorded as of 2010 with over 45,000 acres.
    - Land Use, page 15 under Zoning:
        - "The Conservation District (C-1) covers parts of the County which contain various open uses such as forests, recreation areas, the George Washington National Forest, and farms. It is designed to promote the protection of such open lands and to protect the natural resources.
        - The Agriculture District (A-1) is designed to preserve the character of those areas where the major uses are agriculture and related uses, and is located primarily in a wide belt running northeast-southwest through the center of the County. Residential uses are allowed in the conservation and agricultural districts as well as the residential districts. The required minimum lot size was raised to 3.5 acres in 2003 to reduce the number of lots that could be developed on agricultural land. Individual manufactured homes (single-wide or double-wide) are also allowed by right, and manufactured home parks are allowed by Special Use Permit. [Forestry practices are a by right use and therefore permitted in A-1 district.]
        - Two new districts were enacted in 2004: the Rural Residential - Conservation District (RR-C) and the Rural Residential - Agriculture District (RR-A). The purpose of these districts is to provide opportunities for low-density residential lots in areas of the county where there are primarily open uses, such as forests, recreation areas, lakes or streams, agricultural and other low-intensity uses predominate. Uses not consistent with the existing character of the districts are not permitted."

    - Growth Management, page 6-7 under Land Use:
        - "OBJECTIVE B - Maintain the rural and open space character of areas outside of the public service areas.

- STRATEGY 1) - Confine urban forms of land development to the public service areas.
- STRATEGY 2) - Maintain a low average density of dwelling units in agricultural and conservation areas by establishing a maximum number of dwelling units per 100 acres or fraction thereof.
- STRATEGY 3) - Adapt the cluster housing concept for subdivisions and set the open space requirement to 70%.
- STRATEGY 4) - Encourage rural property owners to place their land in agricultural or forestal districts.
- STRATEGY 5) - Encourage the use of conservation, scenic, historic and other voluntary easements to permanently preserve land.
- STRATEGY 6) - Consider the purchase of development rights of strategically located high quality rural property."

4. Conservation (Funding as well as Identifying specific Forestlands)
   - Not mentioned in Plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Growth Management, page 7 under Land Use:
     - "STRATEGY 5) - Encourage the use of conservation, scenic, historic and other voluntary easements to permanently preserve land.
     - STRATEGY 6) - Consider the purchase of development rights of strategically located high quality rural property."
   - ***Update****: Shenandoah County adopted a conservation easement PDR program in late 2007. Program language and criteria are supportive of working farms. This could be broadened to include forests.*

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Land Use, page 11: "Because of the amounts of land involved, non-point source pollution potential from agricultural and forestal uses is one major concern for the quality of water in Shenandoah County. This could take the form of erosion and sedimentation, plant nutrients from failed septic systems, animal waste and fertilization, and toxic substances such as herbicides, pesticides, and pathogens. To avoid these problems, **it is important that Best Management Practices (BMPs) be utilized for agricultural and forestal activities**."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Nothing relevant in the plan

8. Conservation of working farms that can be broadened to include forestland
   - Growth Management, page 9 under Economy:
     - "OBJECTIVE C - Maintain and promote the role of agriculture as part of the basic economy of the County:
     - STRATEGY 1) - Provide the means to preserve agricultural land through such measures as Agricultural & Forestal Districts, conservation easements, purchase of development rights, zoning laws and tax incentives.
     - STRATEGY 2) - Promote the health and growth of agriculture as an industry.
     - STRATEGY 3) - Encourage diversity in agricultural production.
     - STRATEGY 4) - Encourage better marketing of agricultural products.

- STRATEGY 5) - Provide agricultural educational opportunities for our youth."

9. Other tools that can be broadened to include forestland
    - See #5 PDR

10. Timing of Comprehensive Plan updates
    - Update currently ongoing (as of 2010)

11. # of acres of forest in county
    - "There are 184,400 acres of forestland in Shenandoah County. The majority of these acres belong to private landowners, both residents of the County and also absentee owners. There are also federal landholdings (George Washington – Jefferson National Forest), state lands (Devil's Backbone State Forest) and county lands (County parks) located within the boundaries of Shenandoah County. Following is a table displaying the data for each of these ownership classes:

    - FOREST OWNERSHIP IN SHENANDOAH COUNTY

Ownership	Acres	Percent of Total Forestland
Private	116,500	63%
County & Local Gov.	300	.2%
State	400	.2%
Federal	67,200	36%"

12. Miscellaneous/Model language

    - Land Use Concerns, page 11-12: "**A further serious concern for the county is the loss of prime forestland to development.** Many of the most productive sites, which grow some of the finest hardwoods on the world market, are presently being subdivided for development, rendering the included wooded acres as "unmanageable". These subdivided forests are deemed "unmanageable" due to several factors including: the economies-of-scale of forest harvesting operations, the lack of significant acreage on which forest management techniques can be practiced, and the changing attitudes of landowners who now own these smaller parcels of forestland. Quite often owners of small plots of forestland manage them solely for the purpose of beauty and passive outdoor recreation. The objectives of small-acreage landowners differ significantly from those folks who own larger parcels of land where traditional forest management and outdoor recreation activities are practiced and openly accepted."

Smyth County

2005 Comprehensive Plan

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 16. discussion of timber types and harvesting/sales in the county.
   - Pg. 17. "There are important wildlife habitats in the county including two areas designated for protection: 1) Clinch Mountain Wildlife Management Area, and the 2) Saltville well fields. There are numerous endangered and threatened animal and plant species in the county. In many cases, silvicultural activities (those activities associated with tending to the forest) can disturb plant and animal habitats."

2. <u>Taxation (Use-Value, etc.)</u>
   - Pg. 77. "Continue the use-value ("land use") taxation program for agricultural, forested, horticultural, and open space lands in the county, but evaluate the effectiveness of the program as a tool for agricultural land preservation and consider the use of updated soil mapping or other changes to improve the program."

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. 21. "Encourage the establishment of Agricultural and Forestal Districts and conservation easements as voluntary measures by landowners to protect their forestlands."
   - Pg. 71. "Encourage innovative design techniques in residential development, such as "cluster development", that reduce development costs, yet conserve natural resources"
   - Pg. 59-77. Existing a future land use maps and descriptions show agricultural and conservation land use designations. Zoning map and ordinance (from county website) also show these as zoning designations.
   - Pg. 77. "Promote the Agricultural and Forestal District Program and other voluntary conservation programs, such as conservation easements, as a means for landowners to preserve productive farmlands and forested areas."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Conservation Easements See #3

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. 14. "Significant land use has changed from cropland use to grazing land use. Water quality issues of sediment, nitrogen, and phosphorous continue to be problems due to livestock access to streams. Conservation methods to reduce pollutants to our water sources include riparian buffers with fences to keep livestock from the streams, and developing alternative watering sources. Animal waste facilities are installed on concentrated animal feeding operations, and assistance provided for nutrient management planning. The NRCS provides technical support to the locally elected Evergreen Soil and Water Conservation District Board of Directors."
   - Pg. 21. "Encourage the use of federal and state funds by area farmers and property owners for streambank management practices."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 67. "The major constraint to development in Smyth County has been and will continue to be slope. Approximately 58 percent of the county has slopes of 15 percent or greater. (See Map 1.1 in first chapter). Although slopes in excess of 15 percent and greater do not exclude development, the provision of services is more difficult and more costly. The costs of constructing and maintaining roads are higher. The use of septic systems for sewage disposal is generally limited due to unsuitable soil drainage, yet, in some instances, public sewage treatment systems are economically unfeasible due to distance and construction cost. Achieving proper erosion and sediment control during and after construction is also an additional cost factor."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - October 2005

11. # of acres of forest in county
    - 178,103 (61% of county land)

12. Miscellaneous/Model language
    - Pg. 21. Forest and Wildlife Resources:
      "Objectives:
      - Protect the county's timberland resources from overuse and misuse
      - Encourage the protection of plant and animal habitats affected by forestry and logging activities that interfere with the natural biodiversity of the region

      Strategies:
      - Support the enforcement of state and federal regulations on logging operations by the Virginia Department of Forestry or other responsible agencies.
      - Encourage local landowners to seek technical assistance from the Virginia Department of Forestry regarding the proper use of their timber resources.

    - Encourage the participation of local landowners in the Forest Stewardship program and "showcase" exemplary land management plans."
- Pg. 57. "Work with the U.S. Forest Service and Hungry Mother State Park to actively promote the use of federal and state recreational facilities by tourists"

Southampton County

"Vision 2020" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Pg. 7-3. "Agricultural and forested lands dominate the land cover in Southampton County and represent a rural heritage that is expected to continue into the future…Trees are of great importance in reducing soil erosion and in creating wildlife habitats, in addition to maintaining the rural character of the County."
    - Pg. 3-6. "In addition to traditional agriculture, forestry is an important part of the Southampton County economy... As the County develops, both forestry and agriculture will be affected by land conversion."
    - Pg. 7-11. "An abundance of forested areas provide the County with natural beauty as well as economic and environmental benefits. Southampton County's position as a rural locality with plentiful green space will allow it to set aside areas that should be preserved for recreation, environmental quality, and wildlife habitat when development pressures increase. As development pressures increase it will be critically important to plan for the protection of these significant natural systems and the county's rich agricultural heritage."

2. <u>Taxation (Use-Value, etc.)</u>
    - Briefly mentioned in plan on page 9-19. Use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Pg. 9-5. Implementation strategy "M": Study mechanisms whereby voluntary agricultural and forestal districts may be assembled. *AFDs are not currently in use.*
    - Zoning Ordinance. Agricultural zones (A-1 and A-2) include forestry; Floodplain districts.
    - Plan includes future land use map, with land use classifications including "Agriculture/Forest/Open Space/Rural Residential," page 8-3; and Conservation, page 8-4.
    - Pg. 9-17. Plan calls for major revisions to subdivision ordinance, and recommends cluster provisions. *Update: Subdivision ordinance revised as of 2009, specifies environmental screening, for elements including tree lines and clear-cutting.*

4. Conservation (Funding as well as Identifying specific forestland)
    - The plan identifies wetland and riparian corridors as critical for conservation.
    - The Nature Conservancy's Southern Rivers program and land acquisition from International Paper is discussed on pages 6-3 and 7-10.
    - The Hampton Roads Conservation Corridor Study is mentioned on pages 6-3 and 7-11 as a tool to prioritize conservation:
      "The recently completed Hampton Roads Conservation Corridor Study (HRCCS) presents a green infrastructure-based approach to conservation planning in Hampton Roads. The summary map for the study identifies high priority areas for water quality and habitat protection and opportunities for connectivity between these areas… **This network could be expanded to include prime agricultural and forested lands and parks in order to help meet Southampton County's planning goals**" page 7-11.

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 9-5, Implementation Strategies for Agriculture and Forestry:
      "N. Encourage the donation of conservation easements and communicate the benefits of the programs to landowners.
      O. Consider support of programs and initiatives by private and public organizations to purchase development rights."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 7-2, 7-3. Wetlands, floodplains, wooded swamps defined/discussed.
    - Pg. 7-11 "The [Hampton Roads Conservation Corridor Study] corridor system identified in Southampton County buffers the Blackwater, Nottoway and Meherrin Rivers and many of their tributary streams."
    - The County's zoning ordinance includes floodplain districts.

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 7-2. "Approximately 7% of the soils in Southampton County have slopes of 6% or greater, and about 2% are classified as highly erodible soils. Generally, soils with slopes of 15% or greater are concentrated in small pockets near rivers and streams."

8. Conservation of working farms that can be broadened to include forestland
    - Forestland is included throughout the plan's discussions of conservation.

9. Other tools that can be broadened to include forestland
    - None identified.

10. Timing of Comprehensive Plan updates
    - Current Vision 2020 plan completed March 2007. A review should be completed by 2012.

11. # of acres of forest in county
    - Page 7-3. "Of the approximately 386,000 acres that make up the County, 176,414 acres or 45.7% are devoted to forests."

12. Miscellaneous/Model language

- Page 9-4. Implementation strategies for agriculture and forestry:
    - "D. Support the reforestation of clear-cut timberlands and rely on the Virginia Department of Forestry to give guidance and advice.
    - F. Support programs and initiatives to protect prime agricultural land and improve agricultural education and forestry management education in the public school system and encourage the development of vocational education programs and facilities to support existing agricultural and timber-related industries."
- The plan sets substantial guidelines for consideration of land use and development proposals, some examples follow:
    - Page 9-2. "The natural environment: How a proposed development or development allowed by an amendment might affect air quality, water quality, flooding, erosion, important natural areas, etc.;
    - Important natural resources: How a proposed development or the development allowed by an amendment might threaten or enhance the continued availability and efficient use of finite natural resources for agriculture or forestry;"

    - Goals under Growth Management, implementation strategies for future development (page 9-15):
        - "C. Discourage the subdivision of property and the construction of houses in areas that will result in the loss of valuable farmland and interfere with agricultural practices on adjacent farmland.
        - P. Encourage the provision of water, sewer, and residential services within planned development areas to funnel growth into these areas."

Spotsylvania County

"2008" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   Economic Development Element, page 4: **Agriculture and Forestry:**
   - "Historically, agriculture and forestry have been important components of the Spotsylvania County economy. Today, they comprise 70% of the land use in the County, the majority (52%) of which is forestland. According to 1997 statistics, agricultural land comprised 18% of total land use; however, only 15,280 acres were actually used for crop production.
   - Although the relative economic importance of agricultural and forestal activities has declined as the commercial and industrial base has grown, they are still highly valued as providers of local employment and goods, as well as for providing natural resource protection and scenic amenities in the County. The economic, environmental and aesthetic role of farm and forest resources makes their protection and promotion important to the Spotsylvania community. In addition to land use controls, one of the best ways to preserve these resources is to promote activities to enhance the economic viability of the agricultural and forestal industries.
   - An important part of the County's economic development strategy should be the promotion of the agricultural and forestal industries. This would include efforts to attract businesses able to utilize local products for the production of finished goods. Furthermore, the economic development department could help to promote the purchase of local agricultural and forestal products through wholesale or retail markets."

2. <u>Taxation (Use-Value, etc.)</u>
   - Use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.
   - Development Districts, page 16: Land Use Policies: Agricultural/Forestal District
     - "2. **Use value taxation** ('land use') and other existing agricultural programs such as agricultural and forestal districts will be retained to assist in maintaining the viability of farming and silviculture."

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
    - Development Districts, page 2: "**Agricultural/Forestal District**: the purpose of this district is to maintain and conserve the rural character of farm and forestlands in the County. Land uses which conflict with farming and forestry activities will be minimized. No public services or infrastructure should be provided which might encourage residential or other nonagricultural development."
    - Development Districts, page 15: **Environmental Policies: Agricultural/Forestal District**
        - "1. Investigate the feasibility of granting **bonus densities** to property owners who agree to maintain at least 50 farmable acres or similar set asides of forestland under permanent open space and agricultural or forestal easements.
    - Development Districts, page 16: **Land Use Policies: Agricultural/Forestal District**
        - 1. The County will support a 'right to farm' policy whereby it will protect farmers through land use and zoning regulations that limit development that could interfere with agricultural or forestry operations.
        - 9. Promote the preservation and development of progressive, alternative, and environmentally compatible agriculture, **forestry** and related industries as important economic components of the District.
        - 12. Encourage landowners to manage and maintain their woodland for multiple uses such as timber and firewood production, wildlife habitat, recreation, and scenic quality."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
    - Future Land Use, page 8: Goal 1: Maintain Our Quality of Life, Objective 1: Regulate Land Use Categories:
        - "Policy 4: **Conservation Overlay**, The County should identify properties to be considered for designation as Conservation Overlays. These areas could potentially contain wildlife habitat areas, hydric soils/wetlands, streams, bodies of water, special vegetative communities, areas within a public water well radii of 500 feet, 100-year floodplain areas, and other areas subject to environmental or topographic constraints."
    - Development Districts, page 15: **Environmental Policies: Agricultural/Forestal District**
        - "3. Identify and preserve prime agricultural and forestland and make greater utilization of Agricultural/Forestal Districts."
    - Implementation Strategies, page 2:
        - "Identify and inventory potential locations for **Purchase of Development Rights / Transfer of Development Rights** with the primary focus being upon agricultural, historical and natural resource preservation. This would provide the County with an integrated approach towards the preservation of land within the County creating connected areas of natural, undeveloped open space."

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
    - Future Land Use, page 8: Goal 1: Maintain Our Quality of Life, Objective 2: Natural Resource Protection:
        - "Policy 4: **Conservation Easements**, Areas determined to need protection through the Environmental Impact Study process should be placed into a permanent conservation easement."

- Development Districts, page 15: **Environmental Policies: Agricultural/Forestal District**
    - "Investigate the feasibility of granting bonus densities to property owners who agree to maintain at least 50 farmable acres <u>or similar set asides of forestland</u> under permanent <u>open space and agricultural or forestal easements</u>."
- Implementation Strategies, page 2:
    - "Introduce a **Transfer of Development Rights (TDR)** ordinance**.** This would enhance Spotsylvania County's attempts to preserve open space within the rural areas of the County and concentrate development within the Primary Development Boundary."

- ***Update: Since adopting this plan,*** *Spotsylvania County has introduced a PDR program as of January 2009. The program's objectives include supporting forestal uses, but the county is just beginning implementation. It is interesting to note that the term of easement in the PDR ordinance is not necessarily in perpetuity: "not less than 20 years."*

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
    - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

8. <u>Conservation of working farms that can be broadened to include forestland</u>
    - None identified; farms and forests are paired consistently in the plan.

9. <u>Other tools that can be broadened to include forestland</u>
    - None identified

10. <u>Timing of Comprehensive Plan update</u>
    - 2008

11. <u># of acres of forest in county</u>
    - Not addressed in plan

12. <u>Miscellaneous/Model language</u>
    - None identified

Stafford County

"2008" Comprehensive Plan

***County is in the process of revisions, there is not enough information available to make updates to this document. This review is based on the 2008 version.**

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 171. "In addition to being an important natural resource, the forestland of Stafford County is an essential part of protecting the environmental quality of the whole community. The forestland provides a habitat, nesting ground and food source for the area's wildlife. Forestland also provides an area for water recharge, prevents runoff and soil erosion and filters pollution, playing a prime role in the prosperity Stafford's natural environment. An economic benefit from the forestland is the renewable resource it provides. The County forests harvest deciduous hardwoods, mixed soft woods and pine."

2. <u>Taxation (Use-Value, etc.)</u>
   - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture and horticulture use. Open space use is not eligible for use-value taxation.

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. 56. "<u>3.4.2. RURAL AREAS</u> *Agricultural* - areas reserved for traditional agricultural activities, to provide for their continuation and preservation of rural character. Permits residential development with a minimum lot size of 3 acres. Comparable Zoning District: A-1
   - Pg. 95. "The **A-1** District allows for a greater number of uses, which are associated with agriculture and large lots, such as mulching facilities, sawmills, nurseries and slaughterhouses. The District occupies more than half (53.1%) of the County and is dominant in the western half and southeast portion of the County. "
   - Pg. 95. "The **A-2** District is intended as a transition between agriculture and more intense development. Single-family homes and community facilities are permitted on lots of at least one acre. The largest A-2 area is located around Brooke Road near Marlborough Point. Many of the A-2 areas exist as pockets within the A-1 District."
   - **County Code. Chapter 28 Zoning Ordinance. Article V Residential Cluster Provisions**. The purposes of this article are:

(1) To encourage the protection and preservation of environmentally sensitive portions of sites and agricultural lands in the county;

(2) To encourage development in a manner which lessens the cost of infrastructure;

(3) To provide incentives for clustering residential development in the most appropriate locations;

(4) To encourage more efficient and aesthetic use of open space;

(5) To encourage the reservation of open space for scenic and recreational uses;

(6) To create and encourage the use of a variety of development choices to satisfy the changing needs of the county;

(7) To offer flexibility to the developer in his approach and solution to land development problems.

This article shall apply to cluster developments, which are areas of residential development under unified ownership or control and which are to be developed and improved as a whole under a comprehensive cluster development plan. The provisions of this article will allow residential dwellings to be developed in clusters, subject to the provisions of section 28-75, Density and dimensional requirements, with less than the minimum lot area and setbacks required by article III, General District Use Regulations and Standards, for conventional subdivisions, but without any increase in the total allowable density as specified by this chapter."

3. Conservation (Funding as well as Identifying specific forestland)
   - Not available

4. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not detailed in plan, however in 2009 the County developed a **pilot PDR program**. The program's objectives include forest uses, however implementation is just beginning.

5. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

6. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - See county's Chesapeake Bay Ordinance for more information on stream buffers and steep slopes.

7. Conservation of working farms that can be broadened to include forestland
   - Not available

8. Other tools that can be broadened to include forestland
    - Not available

9. Timing of Comprehensive Plan updates
    - Currently being updated

10. # of acres of forest in county
    - Pg. 171. In 2000 there were 100,000 acres

11. Miscellaneous/Model language
    None identified

City of Suffolk

"2026" Comprehensive Plan

This summary provides excerpts of the city comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the city's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the city's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the city is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans. This city is part of the ***Chesapeake Bay Watershed****. See Section 1 and #6 below for Bay watershed information.*

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
   - Pg. 5-28. Woodlands – "Forestry remains a vital part of the economy for southern Suffolk. Large acreage of forestlands, primarily pine plantations, are actively managed and harvested for wood products. These monotypic stands often include more diverse plant communities along stream corridors, drainageways and within hardwood swamps. The most sizeable natural forest community is located within the Great Dismal Swamp, which covers approximately 38,000 acres within the City."
   - Pg. 5-29. Wildlife Habitat – "The cover types of forestlands, farmlands and wetlands, as well as rivers and waterbodies, combine to provide a wide range of habitats for fish and wildlife. As the City continues to develop, the relatively large tracts of farmlands, woodlands and wetlands are converted to smaller parcels of residential property or urban lands. This development has resulted in "fragmented" habitat that supports a lower diversity of wildlife species."

2. <u>Taxation (Use-Value, etc.)</u>
   - Pg. 5-37. Action 5-1F. "Consider increasing the minimum qualifying acreage for *Land Use Valuation* for open space as allowed by state code."
   - ***Update****: A 2010 report indicates that Suffolk has enabled use-value taxation for forest use, as well as for agriculture and horticulture, and open space.*

3. <u>Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)</u>
   - Pg. 3-5. Existing Zoning Map: Conservation zone (41,692 acres) and Agricultural zone (163,248 acres). Description of uses can be found on Pg. 3-32.
   - Pg. 3-39. Action 3-3C: "Continue the use of cluster developments to preserve and protect the natural environment with revisions to allow for more community-usable open space."
   - Pg. 5-37. Action 5-1D: "Continue to support the plans and policies set forth in the 2018 Comprehensive Plan to limit extensive residential development in the Agriculture (A) district by not permitting major subdivisions as an allowed use in the Agriculture (A) district and by requiring major subdivisions to have public water and sewer."

4. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg 5-37. "Action 5-1B: Examine the opportunities for a purchase of development rights (PDR) or conservation easements program and begin to establish a financing mechanism to fund such a program through the Capital Improvement Program (CIP)."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 5-6. List of strategies to reduce water pollution from agricultural land uses: "*Riparian Forest Buffer* Riparian forest buffers are areas of forested land adjacent to streams, rivers, marshes or shoreline that form the transition between land and water environments. This practice often becomes the last means of intercepting pollutants in the form of sediment or chemicals in runoff or shallow groundwater before it enters the streams."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include working forests
    - See #3, Action 5-1D.

9. Other tools that could be broadened to include forestland
    - Pg. 5-37. Action 5-1A: "Create an agricultural development board as an advisory committee to the City Council and Planning Commission"

10. Timing of Comprehensive Plan updates
    - April 5, 2006

11. # of acres of forest in county
    - 155,852

12. Miscellaneous/Model language
    - Pg. 7-34. "With its diversity of land use and range of environmental character, Suffolk has the opportunity to develop an interconnected system of greenways, trails, open space and waterways. This system can help to meet multiple goals of this Plan, as it can help to provide buffering and environmental protection as well as serving as a recreational opportunity not only for citizens, but also for tourists. Planning for this network of resources should begin immediately, in order to identify critical lands and connections."

Surry County

"2000" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

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*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 8 "Agricultural and Timberland; Goal: Preserve existing prime agriculture and timberlands from conflicting demands for use, thus maintaining the agriculture and timber segments of the economy."
    - Pg. 8 "Agricultural and Timberland; Objective: Improve the area of…forestry management in the public school system. Develop career and technical education programs and facilities to support existing…forestry related industries in the county."
    - Pg. 8 "Agricultural and Timberland; Objective: Promote timber harvesting and reforestation methods which insure good environmental practices, land conservation, forest fire prevention and visual quality."
    - Pg. 16 I. Forest Resources "Forest resources play an important role in the economic and physical well-being of the county. The importance of the forestlands in maintaining a viable forest industry. Providing the protection and maintenance of watersheds, providing the necessary habitat for wildlife and furnishing the environment necessary for the enjoyment of a great variety of outdoor recreational experiences must be emphasized."

2. Taxation (Use-Value, etc.)
    - Pg. 30 VIII Agriculture and Timberlands; C. Agricultural and Timberlands Issues "Farmland is being taxed at market value. This value is based on the assumed marketability of the land. Farmers need tax relief. The Commonwealth of VA has enacted tax laws which provide for farmland to be taxed according to its current use rather [than] some abstract market value. **However, Surry County has not enacted this Farm tax relief measure**."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 21 Zoning "A-R Agricultural-Rural Residential District; A-L Agricultural Limited; HP Historic Preservation District"
    - Pg. 21 Zoning "Most of the county is zoned A-R…The purpose…is to encourage continued agricultural and forest uses…However, this zoning has been abused…Being

primarily…agricultural…permits the uncontrolled placing of [mobile] homes throughout the county. This problem needs to be addressed."

4. Conservation (Funding as well as Identifying specific forestland)
    - Pg. 9 "Agricultural and Timberland; Objective: Establish…forestland trusts."
    - Pg. 11 "Historical Preservation and Conservation; Objective; Reserve ecologically fragile areas for …noncommercial forest…"
    - Pg. 16 I Forest Resources "Recently there has been a decline in timber…because of...over cutting…There is a growing…concern for reforestation in the county."

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 30 VIII Agriculture and Timberlands; D. Agricultural and Timberlands Opportunities " There are available…timber lands in Surry County. Through land designation, conservation programs, land use controls and the purchase of land development rights, there might be some encouragement to preserve …timberlands. These will serve to maintain the desired rural character of Surry County."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Not addressed in plan

8. Conservation of working farms that can be broadened to include forestland
    - Pg. 9 "Agricultural and Timberland; Objective: Promote and protect family owned and operated small farms."

9. Other tools that can be broadened to include forestland
    - See #2 Taxation

10. Timing of Comprehensive Plan updates
    - Pg. 6 Revisions to the Comprehensive Plan occurred in 7/1979; 3/1981; 1988; and 4/1997.

11. # of acres of forest in county
    - Pg. 16 I. Forest Resources "…approximately 133,958 acres of commercial forestland. Approximately 99.9 percent of Surry's commercial forestlands are privately owned, with 1,100 acres under public ownership."

12. Miscellaneous/Model language
    - Pg. 30 VIII Agriculture and Timberlands; C. Agricultural and Timberlands Issues "Virginia Forestry Department practices are not supportive of a sustained healthy timber land economy. The Commonwealth of Virginia's regulations do not require reforestation of timberlands after the timber has been cut."

Sussex County

2004-2005 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. IV-9 – IV-11. discussion of economic value of forests. "Forests and related wood products industries are a vital part of the economy and natural appeal of Sussex County. Sussex County ranks second (to Brunswick County) in the State with respect to average annual harvest value (1986-2001) with a value of $9,734,702.00."
   - Pg. IV-16. "Future land use planning should include forests in the broad definition of agriculture and recognize lands best suited for forestry development. The forests produce timber products, provide recreational opportunities, provide food and shelter for wildlife, and protect the area's water resources."
   - Pg. VIII-4. "The value added to the economy of Sussex County by the forest industry is considerable. Value added includes all of the salaries paid to employees of wood producing and wood using businesses, profits from wood products and the value of the forest use for recreation (camping, hunting, hiking, etc.) from the original stumpage value."

2. Taxation (Use-Value, etc.)
   - Plan does not address use-value taxation directly, however it is somewhat alluded to on Pg. IV-16. "New opportunities to support and encourage additional agricultural diversification should also be explored by the County. Agricultural lands should share equitably in the tax burdens of the County. However, tax pressures cannot be so great as to cause lands to default to less desirable uses."
   - Sussex County has not enabled use-value taxation. *This likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. X-1 – X-4. Description of land use categories including Agricultural and Conservation areas.
   - Pg. X-40. Objective 11, Pg. X-50, X-56, X-60 Objective 15. Potential for Large-Lot Zoning, depending on parcel size: "Allow for only one (1) dwelling unit per parcel of land."

- Pg. X-27. Objective 8. "Develop local mitigation criteria and concepts that may include but are not limited to cluster subdivision design, enacting local buffers, impervious surface limits, and effective innovative storm water management alternatives."

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg. X-30. Objective 3. "Consider creating landscaping provisions, requiring vegetated riparian buffers, providing for cluster subdivision design, setting impervious surface limits, and requiring storm water management in the zoning ordinance (when developed) to assist in improvements of water quality."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. X-39, Objective 4. "Identify the environmentally sensitive areas that pose constraints to development such as floodplains, wetlands, areas with steep slopes, and areas with undesirable soil conditions."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - October 20, 2005

11. # of acres of forest in county
    - 230,509 acres (73% of county)

12. Miscellaneous/Model language
    - Pg. X-24. Objective 6. "Improve agricultural education and forestry management in the public school system. Develop vocational education programs and facilities to support existing agricultural and timber-related industries in the County."
    - Objective 7. "Protect ecological and otherwise fragile areas for open space, forestal and agricultural uses."
    - Objective 8. "Reserve flood hazard areas for open spaces, forestal, and agricultural uses."

Tazewell County

2008 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 49. "Tazewell County supports the concept that proper management of forested property can protect soil, water quality, and wildlife. Erosion and sediment control practices that at least adhere to guidelines outlined by the Department of Conservation and Recreation are important to maintain while conducting forestry activities."
   - Pg. 67. "Timber is another economic asset within Tazewell County. The wood products industry has struggled in recent years, however the natural resources within the county make this potential economic driver worthy of note and assessment today and for the future." This description is followed by table showing wood products by cubic foot.

2. Taxation (Use-Value, etc.)
   - Not addressed in plan in comp plan, however, a 2010 report indicates that Tazewell has enabled use-value taxation for forest use, as well as for agriculture and horticulture, and open space.

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - There is currently no existing zoning ordinance.
   - Pg. 51. "Encourage the establishment of Agricultural and Forestal Districts and conservation easements as voluntary measures by landowners to protect their forestlands."
   - Pg. 78. Future land use map, designated land uses: "B. Forestal High resource value areas based on soil types, environmental sensitivity, or other unique land characteristics. Includes areas that are used for mining and gas production."

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland

- Pg. 48. "Tazewell County may also pursue various state and national programs that support land preservation. One such program is the Transfer/Purchase of Development Rights (TDR and PDR) program. This program is an economic and conservation tool to protect valuable farmland, forestland, and sensitive environmental areas in the county."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 50. "Adopt Ridgeline Protection Ordinance language in to county ordinance structure."

8. Conservation of working farms that can be broadened to include working forests
   - Pg. 50. "Support farm services agency Conservation Reserve Easement Program (CREP)"

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - 2008

11. # of acres of forest in county
    - 40,244 acres

12. Miscellaneous/Model language
    - Pg. 50. "Protect the county's timberland resource from overuse and misuse while encouraging the protection of plant and animal habitats.
      - Support the enforcement of state and federal regulations on logging operations by the Virginia Department of Forestry or other responsible agencies.
      - Encourage local landowners to seek technical assistance from the Virginia Department of Forestry regarding the proper use of their timber resources.
      - Encourage the participation of local landowners in the Forest Stewardship program and "showcase" exemplary land management plans."

Warren County

"2005" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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1. <u>Recognition of the Economic, Environmental, and Social Benefits of forestland</u>
    - Pg 13 Chapter 3: Environment and Natural Resources; Objective E. "Protect and conserve public and private forest resources to prevent soil erosion and damage to views, vistas, and watershed areas."
    - Pg 102 Section 6 "Background: The Shenandoah River and the Blue Ridge Mountains are important County scenic assets. The land within sight of the river qualifies the river for formal scenic designation by the State. The Blue Ridge Mountain range, in its entirety, is recognized as a uniquely important resource. Because the tourist industry is a major element in the County' s economy, views from the Skyline Drive and along County roads are important attractions.
    - The Shenandoah River and its tributaries, the forest regions, and the variety of wildlife, make Warren County an exceptional area. Development must be chosen carefully to maintain the County' s rural character and historic resources.
    - Year-round streams and wet weather streams are common throughout Warren County, especially in the mountain areas. Because of their steepness, mountain lands are particularly susceptible to erosion. Improperly cut, or clear-cut forest areas, result in an increase of run off causing erosion, silting of streams, and storm drainage problems. The forest cover adjacent to streams and rivers, is essential to maintaining of Warren County's natural ecosystem.
    - Increased run-off results in streams' higher peak flows causing channel enlargement. The material removed by streams during channel enlargement is deposited in relatively level reaches downstream. Any enlargement results in out-washes of rock and silt into the Shenandoah River.
    - Such activity substantially diminishes the river's scenic value. Silt and the nutrient it carries is harmful to aquatic life.
    - Pre-planned forest activity is a key feature to ensuring the ecosystem's continued health.
    - The water quality and forest areas must be maintained with the minimum influence from man. This will ensure that the water's condition, the health of animals and plants that live in and depend on the water, in addition to the natural environment will be maintained."
    - Pg 104 "Summary: The timber resources of Warren County are an important aspect of our environment and lifestyle. The unrestricted cutting of timber can lead to serious

environmental problems. However, the County recognizes the timber industry's economic value to the local economy. To balance the interests of residents as well as those of the timber industry, the County permits logging operations provided the appropriate conservation measures are used to protect the environment."

2. Taxation (Use-Value, etc.)
    - Pg 16 Section 4: Rural Character and Agricultural Preservation; Objective A "Maintain land use classifications in the taxing of agricultural and forestal properties."

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg 17 Section 4: Rural Character and Agricultural Preservation; Objective C "Develop buffer zones to reduce potential conflicts between cluster developments and non-compatible uses such as farming and large commercial or industrial development."
    - Pg 39 "A break down of Warren County' s zoning designations reveals that 89,744 acres is currently zoned Agricultural. The areas designated as Residential-One (R-1), contain 11,184 acres. The Rural Residential (RR) district contains 455 acres. The Suburban Residential (SR) district contains 165 acres. There are 110 acres in the Village Residential (VR) district. Warren County has 592 acres zoned as Commercial. Industrial zoning covers 1,714 acres of the County. The remainder of the County is land owned by the Federal Government, comprising 23,835 acres. The total Warren County acreage is 141,215.2 acres. The Town of Front Royal encompasses 5,897 acres of this total."
    - Pg 83 "Zoning Related Incentives - Develop zoning criteria that will encourage cluster development while discouraging both residential and commercial strip development. Priority consideration should be given to cluster housing development with the minimum number of outlets to state and County roads, with broad tree and greenway buffers between the structures and public roads."
    - Pg 90 "Agricultural and Forestal District Expansion - Encourage expansion and addition of voluntary Agricultural and Forestal Districts throughout rural areas. A district is currently being proposed for the Bentonville/Overall area."
    - Pg 103 Implementation "Ordinance Revision – Continue to require as part of the County' s Zoning Ordinance that commercial forest activities, including sale of trees, in residential areas be conducted in accordance with the guidelines established in the Virginia Department of Forestry' s latest edition of *Logger's Guide*. To prevent clear-cutting, there shall be no cutting of trees with a diameter of eight inches or less (25-inch circumference). No commercial forest cutting in residential areas should occur without County review. A pre-harvest plan and map with the following guidelines should be required:
        - Property boundaries
        - Streams and drainage
        - Critical areas
        - Road and trail locations
        - Stream and drainage crossings
        - Log landings and mill seats
        - Stream-side management zones (SMZs)
        - Other environmental concerns

      The following should also be included:
        - Road and trail specifications
        - Harvesting equipment to be used

    - Timing of the harvest
    - Logging contract specifications
    - Special planning for wet areas
    - Obstructions, such as rock outcroppings

    When and where best management practices will be used"
- Pg 103 "Stream Buffer Zones - Designate stream buffer zones to protect water quality. Establish buffer zones along streams where commercial logging operations and other development activities are occurring. Establish buffer zones along streams where commercial logging operations and other development activities are occurring."
- Pg 104 "Timber Resources **-** Commercial and non-commercial forest cutting should be conducted to ensure long term forest viability and to minimize negative environmental impacts, particularly along streams, rivers, and wetlands. Water resources can be protected by providing buffer zones along these environmental features."

4. <u>Conservation (Funding as well as Identifying specific forestland)</u>
    - Pg 90 "State/Federal Program Participation - Encourage rural property owners and farmers to participate in State and Federal Programs designed to foster resource conservation. Such programs could include: Agricultural Cost-Share and Conservation Easements."

5. <u>PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland</u>
    - Pg 90 "State/Federal Program Participation - Encourage rural property owners and farmers to participate in State and Federal Programs designed to foster resource conservation. Such programs could include: Agricultural Cost-Share and Conservation Easements."

6. <u>SMZ (Streamside Management Zones) Protection/Riparian Buffers</u>
    - Pg 13 Chapter 3: Environment and Natural Resources; Objective E. "Protect and conserve public and private forest resources to prevent soil erosion and damage to views, vistas, and watershed areas."
    - Pg 13 Chapter 3: Environment and Natural Resources; Objective F. "Protect the important natural function of rivers, streams, and floodplains by encouraging appropriate use and preservation of natural vegetation."
    - Pg 61 Section 4: Floodplain "Nearly 4% of the total land area in Warren County (or 5,940 acres) has a high probability of flooding because its slope is less than 3%. This area includes the Shenandoah River floodplain."

7. <u>Viewsheds/Visual Buffers/Critical Slopes Protection, etc.</u>
    - Pg 13 Chapter 3: Environment and Natural Resources; Objective E "Protect and conserve public and private forest resources to prevent soil erosion and damage to views, vistas, and watershed areas."
    - Pg 13 Chapter 3: Environment and Natural Resources; Objective G "Minimize runoff and sedimentation associated with agricultural and development activities (including industrial, residential, and commercial activities) particularly in steep slope areas."
    - Pg 15 Section 2: Environmental Aspects of Land Use in Warren County; Objective C "Encourage and, where possible, enforce architectural and site design standards that blend with, and take advantage of, the natural environment. This should include the retention of natural drainage patterns where they reduce flooding and erosion and the maximum retention of wooded areas, views, and vistas."

- Pg 15 Section 2: Environmental Aspects of Land Use in Warren County; Objective E Identify and seek to retain significant views and vistas along the Skyline Drive and County roads."
- Pg 17 Section 4: Rural Character and Agricultural Preservation; Objective E "Utilize natural topographic features and/or planting screens to shield development from public roads and adjoining properties, thereby preserving scenic vistas and rural character."
- Pg 17 Section 4: Rural Character and Agricultural Preservation; Objective F "Avoid significant modification of the existing terrain and prohibit development of environmentally sensitive areas, such as floodplains and steep slopes exceeding 10%. Require special permits for development for slopes over 15%."
- Pg 54 Implications of Slope: Industrial/Commercial/Other Development "Industrial and commercial land uses should be located on gently sloping land, preferably with no more than a 7% slope that is capable of being graded without excessive expense. Public land uses, such as schools, churches, hospitals, and cultural facilities should also be located on slopes of not more than 7%. Although residential land uses can be located on a variety of terrain including fairly level, rolling, and hilly sites; steep sites and very level, low or poorly drained areas should be avoided. According to use, many recreational activities have minor limitations as to slope and often include land not practical for other uses. Picnic areas or the growth of appropriate crops could be located in low lying floodplains, while hiking trails may extend up steep mountain slopes."
- Pg 55 Implications of Reduced Clear Cutting "On a building site, clearing only the area necessary for construction and related amenities retains natural drainage patterns, reducing potential for erosion. Keeping mature greenery can provide immediate beauty from adjoining areas and within the site, while reducing the need for new planting. This provides immediate aesthetic and potentially monetary value. Selective cutting of forest areas for lumber or firewood leaves growth necessary to prevent erosion, and retains the basis for natural reforestation. While allowing profit from the timber, this practice significantly increases the land's value as building sites, or for future timber harvest. Reasonable controls should be formulated to reduce exploitation of forestland."
- Pg 83 "Views/Vistas, Tourism, and Rural Character - To preserve views from the
- Skyline Drive and vistas along County roads, both vital to tourism and rural character, discourage clear cutting and unnecessary tree cover and other natural vegetation reduction by application of best management practices. Encourage cluster development and discourage strip development."

8. <u>Conservation of working farms that can be broadened to include forestland</u>
    - Pg 80 Implementation "Agriculture - Protect and enhance prime agricultural soils from erosion and encourage marketing of local produce."

9. <u>Other tools that can be broadened to include forestland</u>
    - None identified

10. <u>Timing of Comprehensive Plan updates</u>
    - None identified

11. <u># of acres of forest in county</u>
    - Pg 104 Section 7: Public Lands Background "The northern end of the Shenandoah National Park is located within Warren County. About 14,000 acres of the park, representing 10% of the County's land area, are located within Warren County."… "The George Washington

National Forest has approximately 6,200 acres located within Warren County's western portion."

12. Miscellaneous/Model language
    - Pg 18 Section 6: Forestland Management and Preservation; Goal "To preserve the community' s rural character and preserve forestland, and other environmentally sensitive areas, by managing and maintaining forest resources during the development process."
        - Objective A "Adopt performance standards and a review process for the commercial and noncommercial forest cutting of any area exceeding one acre."
        - Objective B "Develop standards to protect ridgelines."
        - Objective C "Provide limited forest cutting in stream, wetland, and river areas."
    - Pg 75 Section 9: Forest Resources "Trees provide lumber for our houses, fuel for our fireplaces, shade for our comfort, fruit for our tables, and beauty to enjoy. Collectively, they act as windbreaks, prevent erosion, filter the air, and provide oxygen. In spite of this, the general attitude is to destroy all, or most trees, as a first step in development. With due care for site design and its man-made amenities, a more attractive and valuable development will result, while retaining views and natural drainage patterns.
        - Ownership patterns and forest resource management are important when considering forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are an excellent filter for groundwater recharge. Forests also form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas are an effective visual and noise buffer between land uses. Best management practices ensure the conservation of the County's extensive public and private forest resources.
        - A majority of Warren County land is well suited for forestry. The Soil Conservation
        - Service has identified small portions in the eastern, western, and southern sections as being poorly suited for woodland. While much of Warren County has soil suitable for forestry, the largest forests exist in areas where the soil is least productive for forestry uses.
        - Land in the County' s central and eastern section is the most favorably suited for forestry.
        - Soils in these areas have a high potential for growing both pine and hardwood species. The terrain ranges from nearly level to moderately steep. Natural wood lots consist of mixed stands of oak, locust, black walnut, ash, sycamore, hemlock, black locust, hickory, and yellow poplar.
        - Small areas in the County' s extreme western, northeastern, and extreme southern sections are poorly suited for forestry. In these areas terrain ranges from sloping to very steep. Natural wood lots consist of mixed stands of oaks, pines, black locust, hickory, red maple, hemlock, and yellow poplar."
    - Pg 13 Chapter 3: Environment and Natural Resources; Objective E. "Protect and conserve public and private forest resources to prevent soil erosion and damage to views, vistas, and watershed areas."
    - Pg 15 Section 2: Environmental Aspects of Land Use in Warren County; Objective F "Encourage unnecessary reduction of tree cover and other natural vegetation while allowing for reasonable land use."

- Pg 15 Section 2: Environmental Aspects of Land Use in Warren County; Objective G "Encourage tree planting along public roads to preserve rural character and value."
- Pg 16 Section 4: Rural Character and Agricultural Preservation; Goal "Preserve the County' s rural character by preserving open space, as well as agricultural and forestlands."
- Pg 82 "Preserve Natural Vegetation - Expressly prohibit site clear-cutting, thereby preserving natural vegetation and trees during development. Require the protection of mature trees and vegetation preservation during development. If tree removal is unavoidable, require replacement plantings. Encourage generally accepted good forest management practices when private logging operations are anticipated. Where vegetation is removed, require grass seeding for erosion control."

Washington County

2008 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 56. Employment by industry statistics including forestry

2. Taxation (Use-Value, etc.)
   - Pg. 107. "Encourage landowners of forested, open, and agricultural lands to utilize the Virginia Conservation Easement Act and the Act for Special Assessment for Land Use Preservation to receive land use assessment taxation."
   - ***Update**: A 2010 report indicates that Washington has enabled use-value taxation for forest use, as well as for agriculture and horticulture, and open space.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. 114-115. Current zoning ordinance was last updated in 1986. The comp plan suggests this plan be updated and makes recommendations for new zoning provisions. Some of the suggestions include:
     - "Limited Agricultural District (A-1) – The intent of this district is for various open uses, such as farms, forests, parks, lakes or mountains, and is established for the specific purpose of facilitating existing and future farming operations, conservation of water and other resources. The current A-1 Agriculture District is poorly designed, and is not user friendly.
     - General Agricultural District (A-2) – The intent of the district is to cover that portion of the County into which urban-type development could logically expand as the need occurs. This district is currently established for the specific purpose of providing for the orderly expansion of urban development into territory surrounding incorporated areas. The current A-2 Agricultural District is poorly designed and is not user friendly.
     - Conservation and Recreation District (CR) – This District is intended for the preservation of open space for recreation and other compatible uses with limited growth.
     - Highland Recreation District (HR) – The current County Zoning Ordinance states that the intent is to keep the use of privately owned land in harmony with the Mount Rogers National Recreation Area's rural American theme. The HR District is intended to not

permit intensive development. The primary uses will be forestry, agriculture, and certain recreational activities appropriate to the mountains"

- Pg. 85. "Large lot zoning is the most widely used farmland protection technique. It establishes a large minimum lot size, usually five acres or more, for non-agricultural residential development."

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Pg. 107. Agricultural strategies. "Encourage the use of conservation easements, land trusts, and open space easements."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 65. "The slope of land plays an important role in determining the suitable use and development of property. Moderate slopes (10% - 20%) and areas of extreme slope (20% or more) may limit higher density development from occurring. These limitations include a risk of erosion and the difficulty in installing private septic sewer systems."

8. Conservation of working farms that can be broadened to include working forests
   - Agricultural goals Pg. 106:
     1. Preserve and protect the agricultural landscape and prime agricultural lands.
     2. Insure the continuation of the agricultural industry in Washington County.
     3. Insure that local regulations are farm friendly and can increase the viability of agriculture.
     4. Farmland will be respected as a viable and desirable land use and as an important component of the local economy.
     5. The County shall foster and promote a diverse and sustainable agricultural economy as an integral part of its activities to conserve and preserve agricultural lands.

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - Dec 16, 2002

11. # of acres of forest in county
    - Not addressed in plan

12. Miscellaneous/Model language
    - Pg. 101. "Agricultural and forestry activities should be conducted in accordance with the best management practices for soil and water conservation."

Westmoreland County

"2009" Draft Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

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13. Recognition of the Economic, Environmental, and Social Benefits of forestland
    - Pg. 32. "Both the harvesting of timber and the manufacture of wood products are important sectors of the local economy. The average annual harvest value between 1986 and 2001 was $5,203,966, with a significant decrease in 2007."
    - Pg. 20. Employment by Occupation: Farming, Fishing, Forestry: 7.0%

14. Taxation (Use-Value, etc.)
    - Not mentioned in plan; however, use value taxation is enabled for forest use, as well as agriculture, horticulture and open space uses.

15. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
    - Pg. 91. Agricultural/Forestal Districts are encouraged
    - Pg. 71. Open-Space subdivision described and encouraged.
    - Pg. 39-41. Discussion of large lot zoning vs. clustering
    - Zoning Ordinance. Rural Conservation (RC) and Agricultural Conservation (AC) zoning districts.

16. Conservation (Funding as well as Identifying specific forestland)
    - Not addressed in plan

17. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
    - Pg. 59. Conservation Easements are defined
    - Pg. 91. Conservation Easements are encouraged.

18. SMZ (Streamside Management Zones) Protection/Riparian Buffers
    - Pg. 75. 6.2.16 Chesapeake Bay Protection Ordinance: Resource Protection Areas (RPAs). RPA features include tidal shores, tidal wetlands, and non-tidal wetlands…. A 100-foot-wide,

vegetated buffer area adjacent to and landward of the other RPA features and tributary streams.

19. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
    - Pg. 88. "Discourage development on lands currently designated agricultural and forestal and on sensitive areas such as steep slopes, wetlands, tributaries and impoundments, greenways, wildlife habitat and historical and archeological sites."
    - Pg. 93. "Investigate the expansion of the current [Chesapeake Bay Protection] Resource Protection Area (RPA) to include intermittent streams and slopes greater than 25%."

20. Conservation of working farms that can be broadened to include forestland
    - Pg. 92. "Protect agricultural operations through techniques such as notification to new property owners of allowed uses and practices and the need to maintain adequate buffers in new developments to avoid potentially adverse impacts from existing operations."
    - Pg. 35. "Limit the non-agricultural uses of agricultural land in order to preserve the rural nature of the county."

21. Other tools that can be broadened to include forestland
    - Pg. 92. "Continue to develop and enforce zoning regulations and ordinances that ensure conservation of agricultural land."

22. Timing of Comprehensive Plan updates
    - Draft, version #3. December 7, 2009; revision process ongoing in Fall 2010

23. # of acres of forest in county
    - 88,732 acres, 59% of county's acreage.

24. Miscellaneous/Model language
    - Pg. 91. "Support the continued development of valuable forestry resources and encourage reforestation for sustainable forestry in the county."

Wise County

1998 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. II-10. "Forests are unique among the major raw materials in that they are renewable. They are grown, harvested and grown again. With good management practices, forests not only produce wood but also protect watersheds, provide habitat for a diversity of game and non-game wildlife species, provide opportunities for outdoor recreation and, in general, enhance the environment."
   - Pg IV-5. "Nearly 13 percent, or 35,850 acres, of the county's forest land is presently managed by the USDA Forest Service as a part of the Jefferson National Forest. This land is managed on a "multiple use" basis, not only to produce commercial timber and other forest products, but to provide improved game habitat, protect and improve watersheds and biological diversity and to provide access and facilities for the public to enjoy a variety of outdoor recreational experiences such as hunting, fishing, camping, hiking, swimming and picnicking. Fully developed on a "multiple use" basis, Wise County's forests will be a valuable resource to both present and future generations, and such development should be encouraged."

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan, however, *a 2010 report indicates that Wise has enabled use-value taxation for agriculture and horticulture, but not forest and open space. This likely reflects the County's many acres of commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - PG. IV-2. Land Use designations (both are also zoning categories according to county's zoning ordinance)
     - "Agricultural/Rural Residential - Predominantly rural uses such as agriculture, forestry, mineral extraction, open space and residential use in a rural environment.
     - Conservation-Recreation - Those areas uniquely suited for conservation or recreational uses due to their natural features, association with area history or potential to support development of recreational facilities serving the public welfare."

- ***Update**: Although not mentioned in the plan, Wise County has 1 ag/forestal district with 6,185 acres.*

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland
   - Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Not addressed in plan

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. III-1. "Areas with slopes in excess of 20 percent are generally considered unsuitable for urban type development. This by itself presents Wise County with severe development problems, since 92.4 percent of the county's 265,000 acre land area has slopes in excess of 20 percent. Another 2.3 percent has slopes between 10 and 20 percent, leaving 5.3 percent of the county with slopes of 10 percent or less. Approximately 24 percent of the 0-10 percent slope land area is currently classified 'urban and built-up.'"

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - October 8, 1998

11. # of acres of forest in county
    - 190,000, 72% of county

12. Miscellaneous/Model language
    - Pg. XII-4. *"Desired Future Condition:* The forest products industry utilizes the renewable wood resources within the county's forests on a sustainable basis and is a leader within the Commonwealth of Virginia in implementing best management practices to protect water quality and wildlife resources found within the forests.
      - *Strategies to Achieve Desired Condition:*
        - Wise County should continue to work with the state and federal agencies that manage and oversee the development and protection of the county's forest resources to assure an increased implementation of the state best management practices.
        - The county should continue to work with conservation groups and state and federal agencies to acquire and manage tracts of land that provide unique or special wildlife habitats or watershed protection.
        - The county should continue to encourage landowners with forest lands to retain those lands in forest cover to assure a sustainable wood products industry.

- The county should continue to work with the industrial development agencies and existing wood products businesses with the county to develop value-added wood products businesses.
- The county should encourage a greater utilization of wood products from both public and private lands."

Wythe County

2007 Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

The main section of this report provides an overview for each of these topics and examples from other plans.

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1. Recognition of the Economic, Environmental, and Social Benefits of forestland
   - Pg. 2-7. "The Wythe County ranked 10th of the 76 counties in Virginia producing Christmas trees or other short woody crops."
   - Pg. 5-15. Economic value of woody crops.
   - Pg. 2-19. "Protect the county's timberland resources from misuse and encourage the protection of plant and animal habitats affected by forestry and logging activities."
   - Pg. 6-20. Recognition of importance of National Forest and Parks for nature based recreation.

2. Taxation (Use-Value, etc.)
   - Pg. 5-24. "Ensure that local regulations are farm friendly (e.g., ensure that farm equipment remains exempt from the machine and tool tax assessment; support the use-value taxation program and encourage its use as a voluntary means for the individual landowner to protect prime agricultural land)."
   - ***Update**: A 2010 report indicates that Wythe has enabled use-value taxation for agriculture and horticulture, but not forest and open space. This likely reflects the County's revenue from commercial forests.*

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Pg. 8-2. "Wythe County has several agricultural and forestal districts, which provide a means by which agricultural and forestal lands may be protected and enhanced as a viable segment of the economy."
   - ***Update**: As of Nov. 2010, Wythe County had 4 Agricultural/Forestal Districts totaling 89,040 acres.*

4. Conservation (Funding as well as Identifying specific forestland)
   - Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland

- Pg. 6-35. "Endorse and support the Division of State Parks Conservation Easement program, as an incentive to preserve river landscapes and protect resources."

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Pg 2-18. "Endorse and support the Division of State Parks Conservation Easement program, an incentive program to preserve the river landscapes and protect future resources."

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - Pg. 8-3. "Approximately 51 percent of the land in Wythe County has slope of 20 percent or greater (Map 8.5). Steeper slopes do not necessarily preclude development, but the provision of services in such areas is more difficult and more expensive."

8. Conservation of working farms that can be broadened to include working forests

9. Other tools that could be broadened to include forestland

10. Timing of Comprehensive Plan updates
    - May 8, 2007

11. # of acres of forest in county
    - 90,541 (55,000 acres are in the Jefferson National Forest, 27,241 acres in private lands, 8,300 acres in Big Survey Wildlife Management Area)

12. Miscellaneous/Model language
    - Pg. 2-19. "***STRATEGIES***: Protect the county's timberland resources from misuse and encourage the protection of plant and animal habitats affected by forestry and logging activities.
      - Support the enforcement of state and federal regulations on logging operations by the Virginia Department of Forestry or other responsible agencies.
      - Encourage local landowners to seek technical assistance from the Virginia Department of Forestry regarding the proper use of timber resources.
      - Encourage participation of local landowners in the Forest Stewardship program and showcase exemplary land management plans."

York County

"2005" Comprehensive Plan

This summary provides excerpts of the county comprehensive plan relevant to forestry, and highlights measures that apply to farming or agriculture that might be broadened or clarified to include forestry. While these opportunities are noted, it is expected that some measures referring to agriculture may also apply to forestry in practice.

It is important to note that this summary focuses on the comprehensive plan and does not reflect a thorough study of the county's ordinances. The comprehensive plan is intended to guide future development, while ordinances are in the county's legal code. Since the plan and ordinances are not necessarily in agreement, it cannot be stated with absolute certainty that the county is able to, and is, instituting the tools that are included in the comprehensive plan. Similarly, there may be policies in place that are not included in the comprehensive plan.

Section 1 of this report provides an overview for each of these topics and examples from other plans.
*This county is part of the **Chesapeake Bay Watershed**. See Section 1 and #6 below for Bay watershed information.*

***

1. Recognition of the Economic, Environmental, and Social Benefits of forestland: Not addressed

2. Taxation (Use-Value, etc.)
   - Not mentioned in plan; however, use-value taxation is enabled for agriculture only. **Forest uses are excluded from use-value taxation.**

3. Zoning (Conservation Zoning, Large-Lot Zoning, Sliding-Scale Zoning, Agricultural Zoning, Agricultural/Forestal Districts, Etc.)
   - Housing. Pg. 11. Large-Lot zoning, but not in relation to forestal land.
   - 2005 Existing Land Use Map – Agricultural Use

4. Conservation (Funding as well as Identifying specific forestland): Not addressed in plan

5. PDR (Purchase of Development Rights)/TDR (Transfer of Development Rights)/Conservation Easements related to forestland: Not addressed in plan

6. SMZ (Streamside Management Zones) Protection/Riparian Buffers
   - Chesapeake Bay Preservation Ordinance

7. Viewsheds/Visual Buffers/Critical Slopes Protection, etc.
   - See county's Chesapeake Bay Ordinance for more information on stream buffers and slopes.

8. Conservation of working farms that can be broadened to include forestland: N/A

9. Other tools that can be broadened to include forestland: See #2 Taxation

10. Timing of Comprehensive Plan updates: Plan was adopted December 6, 2006

11. # of acres of forest in county: Not addressed in plan

Section 3: Ecosystem Services Summary

This section compiles comprehensive plan excerpts regarding non-timber benefits and ecosystem services. For a review of the plans' discussion of economic and social benefits, and further discussion of ecosystem services, please see Section 1.

The second phase of this study focused on comprehensive plans that identify the non-timber benefits of forests as ecosystem services and acknowledge that the value of these services provided by the forest have an economic value to the community.

For purposes of comparison, we rated each of the 98 plans for their discussion of non-timber benefits of forests according to the following scale:

1. No discussion of ecosystem services
2. Recognition of the non-timber benefits of forests
3. Recognition that these benefits have value and some of them can be quantified such as carbon sequestration or storm water
4. Recognition that the loss of forest acreage represents a cost to the locality related to the loss of these benefits/services and the potential replacement of these services through built infrastructure.

We found discussion of non-timber benefits in 56 of the 98 plans reviewed. Of these 56 plans, 17 plans in the study recognize forests as providing ecosystem services of quantifiable value. Of these, four plans (those of Fluvanna, Loudoun, Louisa and Powhatan counties, in bold type below) go one step further in detailing specific ecosystem functions and describing service value that would carry a direct cost to replace through other means, such as stormwater management and water and air quality improvement.

The majority of those 56 plans identify multiple benefits of forests. The three forest functions most commonly identified as benefits are wildlife habitat, erosion and sedimentation control and outdoor recreation. The table on the next page lists the number of plans mentioning each benefit.

Non-Timber Benefits Identified in Comprehensive Plans

Forest Benefit	Number of plans
Wildlife habitat	**40**
Water quality improvement through erosion control and sedimentation reduction	**31**
Outdoor recreation	**23**
Aesthetics	**19**
Rural character/Quality of life	**19**
Watershed protection	**18**
Air quality improvement	**16**
Water supply/Groundwater Recharge	**14**
Scenic landscapes, Tourism	**14**
Plant habitat	**12**
Visual buffering	**11**
Noise reduction	**10**
Temperature moderation	**7**
Storm water abatement (distinct from erosion)	**6**
Windbreak, especially for agriculture	**5**
Carbon sequestration	**4**
Pollination	**1**

Below is a compilation of the excerpts from the 56 plans that discuss non-timber benefits.

Ecosystem Services within Chesapeake Bay Watershed

Albemarle County

- Score: 2
- Pg. 87. "It is the land resource which provides the true value of agriculture and forestry to this community, with related benefits like open space for cleaner air, watershed protection and wildlife habitat; scenic rural and historic landscapes which encourage tourism; and quality of life for all residents."

Amelia County

- Score: 2
- Pg. 61. "Forests are a primary element in the natural landscape and economy of Amelia County…and produce multiple environmental, economic and cultural benefits."

Bath County

- Score: 2
- Pg. 43. "While timbering is not a dominant industry in Bath County, forest management is essential to protecting watersheds, wildlife, and outdoor recreation."

Caroline County

- Score: 2
- Pg. 4-1. "Caroline County's agricultural and forestal resources have been and continue to be important to the County" - contribute to economy, environment and quality of life.

Charles City County

- Score: 2
- Pg. 4-23. "Forests are a benefit to Charles City County both economically and environmentally. Economically, forestry ranks second behind agriculture in contribution to the county's economy. Forests benefit the environment by improving water quality and regulating water supply. Water quality is improved through the reduction of erosion and sedimentation entering our lakes and streams. Water supply is regulated by the forest's ability to prevent the rapid runoff of precipitation from the land. Forests clean the air by acting as a filter. Oxygen is exchanged for carbon dioxide during the process of photosynthesis (the process of converting light energy into useable energy), thus keeping these two constituents in balance. Forests make up habitat that is used by many animals for shelter, food, and nesting sites. Forests are aesthetically pleasing and provide attractive home sites and recreational areas."

City of Chesapeake

- Score: 2
- Pg. 19 "Chesapeake in the future will continue to value its natural legacy of waterways and adjacent open spaces as a design opportunity and amenity in its future growth and development. The natural pattern of waterways and wooded wetlands will become the backbone of a system of greenways that both link and buffer development areas and

population centers throughout the City. They will provide recreational amenity, help clean the air and water and provide overall "green relief" within easy access of all residents and businesses in the future."

- Pg. 117. "Beyond the fundamental understanding that clean air, water, and soil is necessary for good health, Chesapeake citizens and their elected leaders recognize that wise use and careful management of the City's environmental assets is necessary for a good quality of life, thereby ensuring a vibrant future for the City. The City's abundant natural resources create local character, attract and retain commerce, provide recreational opportunities for its residents, and protect public health and safety."

Chesterfield County

- Score: 2
- Chap 9, Pg. 4. "Countryside generally is the location of the largest areas of green infrastructure, including both large tracts of forested land and agricultural land. The environmental health of the developed portions of the county depends on the preservation of countryside areas for local agriculture, wildlife habitat, and water quality recharge areas, just as the significant recreational opportunities provided in these areas enhances the quality of life for Chesterfield County residents."

Culpeper County

- Score: 2
- Pg. 4-10. "In addition to commercial timber opportunities, wooded areas also provide the following: watershed protection through storm water management and erosion control; aesthetic and scenic opportunities; air pollution and noise reduction; groundwater recharge areas; and recreation."

Essex County

- Score: 3
- [Same language as Gloucester and Isle of Wight below] Pg. 29. "The forest industry in Essex County is an important component of the County economy and County rural character…The patterns of ownership and management of forest resources are important when considering forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are an excellent filter area for wetlands groundwater recharge. Forests also form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas serve as an effective visual and noise buffer between land uses. Best management practices for the timber industry ensure the conservation of the County's extensive forest resources."

Fauquier County

- Score: 2
- Chap 2, Pg. 13. "The forestlands within the County not only provide raw materials for forestal industries and an economic income for forestland owners, they also provide environmental benefits to all of the people who reside within the County. These benefits include watershed protection, soil erosion and stream sedimentation control, recreational opportunities, air pollution and noise modification, screening for privacy, wildlife habitats, and general visual beauty."

Fluvanna County

- **Score: 4**
- Pg. 13. "The income from timber sales has provided the incentive for the non-industrial, private landowner to own land and grow a timber resource. Cleaner air, water, and a myriad of other ecoservices are a no cost byproduct of responsible forest management. As an alternative to this valuable ecoservice, the cost to clean the air and water with technology would be significantly higher than the value of the forest products sold… Aside from economic and aesthetic benefits, forests contribute many ecoservices like storm water management (both quality and quantity), wildlife habitat protection, minimization of erosion, groundwater recharge, carbon sequestration, and pollination."

Frederick County

- Score: 2
- Pg. 6-162. "Forests provide a major contribution to maintaining the rural character of the County. In addition, they protect watersheds of our streams, provide wildlife habitat, and affect our climate. Forestry makes a major contribution to the local economy. Our forestland helps support almost 20 forest related industries in the county which employ approximately 750 full time workers."

Giles County

- Score: 2
- Pg. 7. "Forests are considered to be a renewable resource that can, under proper management, provide continuous yields of timber, wildlife, and provide recreational and aesthetic benefits as well. Forests also assist in controlling runoff and erosion and provide a habitat for fauna and flora, which are beneficial to man. "

Gloucester County

- Score: 3
- [Same language as Essex above and Isle of Wight below] Appendix B. Pg. 57. "Forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are a filter area for groundwater recharge. Forests form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas serve as an effective visual and noise buffer between land uses."

Goochland County

- Score: 3
- Appendix C, Pg. 14-15. "***Ecological Benefits*** - Woodlands help maintain water quality by filtering and trapping sediments and absorbing pollutants from surface flows and runoff. Woodlands act as natural buffers along the James River, major tributaries, and perennial and intermittent streams and reduce excess nutrients like nitrogen and phosphorus from polluting County waterways. Tree root systems help maintain clean groundwater by absorbing some pollutants. Forests also provide unique ecosystems for a variety of plants and animals and provide food, shelter, cover, and residence for a wide variety of wildlife.

Woodlands also support public health through the reduction of noise, air, and visual pollution and help moderate air temperature and artificial glare.

- ***Economic Benefits*** - There has been a steady decrease in the total volume of timber sold - down almost 30% from 1986 to 2005. The report, Virginia's Forests Our Commonwealth (2001), explains how $41.82 of economic value is generated from each dollar paid to a landowner for timber harvested through services such as harvesting, primary and secondary processing, transportation, construction, and marketing. Using this multiplier, the value of the County's 2005 timber harvest ($1,270,501) to the overall economy is nearly $53 million. These figures calculate only a portion of the total contribution forests provide to the economy and do not include values for hunting, recreation, or tourism or for air quality, water quality, and aesthetic benefits."
- [Similar to Grayson below]

City of Hampton

- Score: 3
- Pg. EN-12. "A healthy forest is beneficial to the urban environment by reducing storm water runoff and erosion and sedimentation, improving air quality, and offering wildlife habitat. In addition, tree cover mitigates climatic effects and provides energy efficiency value (e.g. windbreak, shade, etc.) and physiological value (e.g. shelter, screen, aesthetics, etc.). By enhancing the city's appearance and increasing property values, trees are a valuable landscape resource (see Land Cover map)."
- Pg. EN-3. "Urban forestry efforts have a positive impact on reducing energy costs and improving water quality."

Isle of Wight County

- Score: 3
- Pg. 2-34. "Forests support not only an industry in the County but are an important feature of the County which affords environmental protection. The patterns of ownership and management of forest resources are important when considering forested areas as biological habitat or for their value in protecting water quality. Forested areas provide habitat for numerous plant and wildlife species and also are an excellent filter area for groundwater recharge. Forests also form an excellent windbreak in agricultural areas and serve to prevent windblown soil erosion. In addition, forested areas serve as an effective visual and noise buffer between land uses."
- *Similar to Essex and Gloucester above.*

James City County

- Score: 3
- Environment, Pg. 54. "Forests contribute more than wildlife habitat and timber. Tree roots have been proven to be the best natural device to hold streamside soil in place. Forested riparian buffers are particularly valuable for improving water quality and preserving biological diversity. These forested areas filter runoff before it enters the waterway, stabilize eroding areas, and provide wildlife habitats for many sensitive species. Deforestation that is not part of an overall forestry management plan, such as that typically associated with development is a significant environmental and aesthetic concern and impacts the County's wooded character."

King and Queen County

- Score: 2
- Pg. 23. "Since forested riparian buffers provide effective water quality protection and wildlife habitat, forested lands exhibit low nutrient input to adjacent streams relative to other land uses in the watershed."

King William County

- Score: 2
- Pg. II-9. "They [forests] are the major source of cleansing the air by "recycling" oxygen from carbon dioxide. They serve as the mainstay for the prevention of erosion. Financially, they are a major asset to the County's economy with its timber and wood-products industries, which have been promoting sound conservation practices for many years. The aesthetic and climatic factor of shade from winter cold and summer heat cannot be overlooked. Finally, the forests provide a habitat to the abundant wildlife and flora of the County."

Lancaster County

- Score: 2
- Pg. 2-6. "Areas of undeveloped, pervious land, such as *woodland* and farmland, are necessary for the purposes of aquifer recharge."

Loudoun County

- **Score: 4**
- In the Green Infrastructure Chapter, under "E. Forests, Trees and Vegetation":
  "Loudoun County has some of the state's best hardwood stands for lumber and veneer production. The County's forests and trees also improve air and water quality, offer important habitat for birds, small mammals and other wildlife, and are excellent buffers between communities. Forests and trees conserve energy by providing shade and evaporative cooling through transpiration. They also reduce wind speed and redirect airflow; reduce stormwater runoff and soil erosion; and can increase real property values. Riparian forests along streams provide the greatest single protection of water quality by filtering pollutants from stormwater runoff, decreasing stream bank erosion, and maintaining the physical, chemical, and biological condition of the stream environment."
  "Because forests and trees are such a valuable resource in Loudoun, they will be protected for current and future use and enjoyment by establishing a Tree Preservation Ordinance that protects large forest areas, urban forests and individual trees, while preserving existing vegetation and protecting plant and wildlife habitats."

Louisa County

- **Score: 4**
- Pg. III-8. Benefits of Agriculture and Forestry. "Agriculture and forestry are major contributors to Louisa County's economy through the sale of products, employment, and the generation of support activities. Agriculture and forestry also provide related benefits such as protection of public water supply watersheds; preservation of the natural landscape and open space, and less costly service delivery needs than would be required by scattered residential subdivision development in rural areas. The farm and forestland have

traditionally contributed to the quality of life in Louisa County. They provide the rural character and scenic quality, which distinguishes these areas from urban and suburban regions. Forests help recharge ground water and clean it for drinking, absorb carbon dioxide from combustion, and provide oxygen. One acre of flat forestland collects enough water in ground water recharge to provide a one-year supply of 2.75 homes every year. One mature tree absorbs approximately 13 pounds of carbon dioxide a year. For every ton of wood a forest grows, it removes 1.47 tons of carbon dioxide and replaces it with 1.07 tons of oxygen."

Madison County

- Score: 3
- Natural Resource Protection. Pg. 56. "Madison County is endowed with an abundance of regionally significant natural resources, a rich cultural heritage and incomparable scenic beauty. Clean and available water, clean air, forest cover and farmland, wildlife habitat, cultural landscapes and other open spaces are all critical assets; once lost, they are difficult to replace, and in many cases are irretrievable. Agriculture, forestry and tourism - the major economic activities of the County - are highly dependent on the protection of soil and water resources and conservation of open spaces; so too are the opportunities for traditional outdoor recreation activities including hunting, fishing, and hiking. Thus, the quality of these natural resources, and the standards for their conservation, have a direct and immediate impact on the economic vitality, the health and wellbeing, and the quality of life for the residents of Madison County. In the face of the accelerated consumption and fragmentation of open land, the fundamental importance of these resources to the County's economy and the health and welfare of her citizens necessitates a strategic and holistic approach to their conservation."

Mathews County

- Score: 2
- Pg. 103. "Of particular importance worthy of greater conservation efforts are the maritime forests of Mathews County. These forests are important coastal habitats that are now challenged by climate change and rising sea levels. They are important because of their ability to tolerate salinity, stabilize soils, withstand coastal storms, and provide refuge habitat. The documented maritime forests in Mathews County are shown on the map on the following page."

Middlesex County

- Score: 2
- Chapter 2. Pg. 52. "Apart from their obvious economic market value, forests also serve as erosion and sedimentation inhibitors, wildlife habitat, and recreation areas. Equally important is the aesthetic value provided by forests and the role they play in contributing to the "rural character" that Middlesex residents and visitors find appealing, thus bolstering general land values throughout the County." [Similar to Pittsylvania below]

New Kent County

- Score: 3
- Agriculture and Forestry, page 19: "Forests provide clean water, clean air, carbon sequestration, temperature abatement, wildlife habitat and recreational opportunities. Forests are the dominant feature in the landscape of the County and represent the foundation of the County's rural character."

Northampton County

- Score: 2
- Pg. 69-70. "Goal: Ensure the continuation of forestry as an industry and the preservation and establishment of woodlands for their aesthetic and ecological value."

Orange County

- Score: 3
- Pg. 27-28. "In addition to the monetary returns, environmental benefits are also realized from well-managed forest land. Included in these benefits are watershed protection (crucial to drinking water supplies), protection of prime agricultural soils, and protection of wildlife habitat and wildlife corridors."
- "It is impossible to determine all of the economic benefits of the forests to the citizens of Orange County. They benefit not only from the sale of timber, but from the hours spent walking in the woods, enjoying wildlife and relaxing. Clean water, vital to people and animals, comes from forested watersheds."

Powhatan County

- **Score: 4**
- Natural Resource Forest Values, page 47. **"**Besides being a simple cash crop, the County's forest areas have many additional benefits. The thick foliage creates a sight and sound barrier, which enhances many residential areas. The foliage reduces the torrential pounding of the soil by rain. Tree roots hold the soil and prevent eventual erosion. Powhatan County forests, as a watershed for the James River, Appomattox River, and numerous small ponds and lakes, provide clean water for fishing, canoeing, and residential use. Powhatan County forests are rich with wildlife and provide hunters, bird watchers, hikers, and photographers a wonderful outdoor experience."
- Policies and Actions 119. Agricultural, Forest and Natural Resources *(Countywide): "*The County's major objectives for agricultural, forest and natural resources are:
    - Protect the Function of Valuable Natural Systems**.** Citizens rely on groundwater supplies for drinking water. Other components of the ecosystem are also critical to County's quality of life and economic system, including clean air, sound surface water systems, and healthy wildlife habitats."

Prince George County

- Score: 2
- Pg. 22. "Forests are an important part of the natural landscape and economy of Prince George County. They provide habitats for many plant and wildlife species, natural resources for outdoor recreation, protection from erosion, and sedimentation, groundwater recharge areas and visual buffers between land uses."

Rockbridge County

- Score: 2
- Introduction. Pg. 1. Agricultural and Forestal lands… "Provide the direct economic benefit of production while indirectly preserving open space and rural character which positively impacts tourism, outdoor recreation, wildlife habitat and quality of life."
- Pg. 9. "The preservation and enhancement of agriculture and forestry is a fundamental cornerstone of the social, environmental, economic and cultural character of Rockbridge County. The Plan shall establish Rural Preservation Planning Areas for the purpose of delineating and guiding land use policies for these areas."

Shenandoah County

- Score: 2
- Natural Resources, page 10-12: "The forests of Shenandoah County are one of its most precious resources. These woodlands add to the economic vitality of the County, its natural beauty, and to the quality of life for its residents. The County's woodlands are used for recreation, watershed and wildlife management, and for a variety of forest products."

Spotsylvania County

- Score: 2
- Economic Development, Pg. 4. "Although the relative economic importance of agricultural and forestal activities has declined as the commercial and industrial base has grown, they are still highly valued as providers of local employment and goods, as well as for providing natural resource protection and scenic amenities in the County. The economic, environmental and aesthetic role of farm and forest resources makes their protection and promotion important to the Spotsylvania community. In addition to land use controls, one of the best ways to preserve these resources is to promote activities to enhance the economic viability of the agricultural and forestal industries."

Stafford County

- Score: 2
- Pg. 171. "In addition to being an important natural resource, the forestland of Stafford County is an essential part of protecting the environmental quality of the whole community. The forestland provides a habitat, nesting ground and food source for the area's wildlife. Forestland also provides an area for water recharge, prevents runoff and soil erosion and filters pollution, playing a prime role in the prosperity Stafford's natural environment. An economic benefit from the forestland is the renewable resource it provides. The County forests harvest deciduous hardwoods, mixed soft woods and pine."

City of Suffolk

- Score: 2
- Pg. 5-29. Wildlife Habitat – "The cover types of forestlands, farmlands and wetlands, as well as rivers and waterbodies, combine to provide a wide range of habitats for fish and wildlife. As the City continues to develop, the relatively large tracts of farmlands, woodlands and wetlands are converted to smaller parcels of residential property or urban lands. This development has resulted in "fragmented" habitat that supports a lower diversity of wildlife species."

Surry County

- Score: 2
- Pg. 16 I. Forest Resources. "Forest resources play an important role in the economic and physical well-being of the county. The importance of the forestlands in maintaining a viable forest industry. Providing the protection and maintenance of watersheds, providing the necessary habitat for wildlife and furnishing the environment necessary for the enjoyment of a great variety of outdoor recreational experiences must be emphasized."

Warren County

- Score: 2
- Pg. 102. "The forest cover adjacent to streams and rivers, is essential to maintaining of Warren County's natural ecosystem."
- "The water quality and forest areas must be maintained with the minimum influence from man. This will ensure that the water's condition, the health of animals and plants that live in and depend on the water, in addition to the natural environment will be maintained."

Ecosystem Services Outside the Bay Watershed

Brunswick County

- Score: 3
- (Exact same wording as Halifax County) Executive summary, Pg. ES-5. "Forestlands are perhaps the most important aesthetic, environmental, and economic resources of Brunswick County. While their annual value as a cash crop can be determined, their economic value as the scenic backdrop of the County is incalculable. They provide must [sic] of the beauty which the County offers as a residential community and tourist attraction, and are of great importance in reducing soil erosion and in creating wildlife habitats. Major stands of trees that remain along traffic arteries and between or within smaller residential neighborhoods reduce noise levels, provide a sense of privacy, create scale, protect residential values, and make urban development less noticeable by isolating smaller units"

Buchanan County

- Score: 2
- Pg. 18. "Through better management techniques, such as proper pre-harvest, harvest, and post-harvest practices, the quality of this renewable resource will be improved. In addition, proper management will protect soil and water quality and enhance wildlife." [Same language as Dickenson below]

Charlotte County

- Score: 2
- Pg. 2-28. "Charlotte County's land area is approximately 68.7% forest (Table 2-2, Figure 2-9), and the county realizes significant economic impact from the products of that land. The Virginia Department of Forestry estimates that every dollar that landowners receive for their timber generates more than $35.00 for the state's overall economy. Charlotte County relies heavily on its rural land to support its population. Loss of forest land will result in loss of both economic vitality and environmental stability in the county. Therefore, Charlotte County's leaders need to seek a balance between growth and development, and forest land retention."

Dickenson County

- Score: 2
- Pg. 25. "Through better management techniques, such as proper pre-harvest, harvest, and post-harvest practices, the quality of this renewable resource will be improved. In addition, proper management will protect soil and water quality and enhance wildlife" [Same language as Buchanan above]

Floyd County

- Score: 2
- Pg. 10. "In addition, the forests provide many intangible benefits which combine to make Floyd an attractive place to live and work. Forest beauty, hunting, hiking, erosion control, groundwater recharge and wildlife are all benefits enjoyed by the residents and visitors to Floyd County."

Franklin County

- Score: 2
- "Franklin County's forest resource is important for wildlife habitat, watershed protection, outdoor recreation, weather modification, as well as a source of raw materials for the wood industries throughout the County."

Grayson County

- Score: 3
- Pg. 28. "Ecologically, timberlands help maintain good water quality. Timberland filters, traps sediments, and absorbs pollutants from overload, runoff, and subsurface flow. Timberlands act as natural buffers along the New River, smaller perennial [and] intermittent streams by preventing excess nutrients, like nitrogen and phosphorous, from entering and polluting our waterways. Tree roots help maintain clean ground water. Timberland provides essential ecosystems for a variety of plants and animals. It provides food, shelter, cover, nesting, and bedding areas for a wide variety of wildlife. Several rare or threatened species of plants can be found within the timberlands throughout the County.
  "Timberland plays an economic role in the community, based on timber severance taxes paid from 1996 to 2001, which averaged 2.5 million per year to Grayson County landowners

for timber sold. The 1995 publication, Virginia's Forest Our Commonwealth describes how $48.64 of economic value is generated from each dollar paid to a landowner for timber stumpage through such services as primary and secondary processing transportation, harvesting, construction, and marketing. Using this multiplier, the value of the timber harvested averaged $121,600,000 in economical activity.
"These figures do not include values such as hunting, recreation, tourism, air quality, and aesthetic benefits, which are important to our economy. Socially, timberland provides a pleasant environment for Grayson County residents to live and work. It promotes public health and safety through the reduction of noise, air, water, and visual pollution. Timberland promotes and preserves the appearance, life styles, and traditions, which have existed in Grayson County for decades."
[Similar to Goochland above]

Halifax County

- Score: 3
- (Exact same wording as Brunswick County) Pg. II-1. "Forestlands are perhaps the most important aesthetic, environmental, and economic resources of Halifax County. While their annual value as a cash crop can be determined, their economic value as the scenic backdrop of the County is incalculable. They provide most of the beauty which the County offers as a residential community and tourist attraction, and are of great importance in reducing soil erosion and in creating wildlife habitats. Major stands of trees that remain along traffic arteries and between or within smaller residential neighborhoods reduce noise levels, provide a sense of privacy, create scale, protect residential values, and make urban development less noticeable by isolating smaller units."

Henry County

- Score: 2
- Pg. 17. "In addition to being important components of the local economy, forestal and agricultural resources provide many other benefits to the County. For instance, these resources (with appropriate conservation practices) help protect the integrity of the local watersheds and, therefore, drinking water supplies. They also provide scenic resources, open space, wildlife habitat and help preserve the area's traditional rural character."

Patrick County

- Score: 2
- Pg. 4-26. "Over 67 percent of the County's land mass is forested, providing aesthetic, environmental, and economic benefits to the County….. A number of County residents are dependent on jobs in lumber and wood-related industries that can utilize local forests. Forest protection and management are important land use and resource preservation tools that need the continual support of citizens and their elected representatives."

Pittsylvania County

- Score: 3
- Chapter 2 Pg. 12. "Apart from their obvious economic market value, forests also serve as erosion and sedimentation inhibitors, wildlife habitat, and recreation areas. Equally important is the aesthetic value provided by forests and the role they play in contributing to the 'rural character' that Pittsylvania residents and visitors find appealing." [Similar to Middlesex above]

Pulaski County

- Score: 2
- Pg. 23. "The visual enhancement provided by the County's trees and forests offer an aesthetic and economic attraction to people and businesses. The forests also play a vital role in producing clean water for household and industrial use, moderating run-off and stream flows, and in reducing potential flood levels."

Russell County

- Score: 2
- Pg. VII-12 . "Ecologically, woodlands help maintain good water quality, because they filter and trap sediments. They absorb pollutants from runoff overland and from subsurface flows. The forest land in the Clinch River drainage basin acts as a buffer for the river and its tributaries by preventing excess nutrients like nitrogen and phosphorous, from entering and polluting the waterway. The woodland in the Clinch River drainage also provides food, shelter, nesting, and bedding for an ecosystem that has been reported as ranking #1 in the world by the Nature Conservancy." [Similar to Goochland and Grayson above, but lacks the discussion of value]

Scott County

- Score: 2
- Pg. 14-16. Discussion of clean air, types of timber, quality of forest lands

Southampton County

- Score: 2
- Pg. 7-3. "Agricultural and forested lands dominate the land cover in Southampton County and represent a rural heritage that is expected to continue into the future…Trees are of great importance in reducing soil erosion and in creating wildlife habitats, in addition to maintaining the rural character of the County."
- Pg. 7-11. "An abundance of forested areas provide the County with natural beauty as well as economic and environmental benefits. Southampton County's position as a rural locality with plentiful green space will allow it to set aside areas that should be preserved for recreation, environmental quality, and wildlife habitat when development pressures increase. As development pressures increase it will be critically important to plan for the protection of these significant natural systems and the county's rich agricultural heritage."

Sussex County

- Score: 2
- Pg. IV-16. "The forests produce timber products, provide recreational opportunities, provide food and shelter for wildlife, and protect the area's water resources."

Tazewell County

- Score: 2
- Pg. 49. "Tazewell County supports the concept that proper management of forested property can protect soil, water quality, and wildlife. Erosion and sediment control practices that at least adhere to guidelines outlined by the Department of Conservation and Recreation are important to maintain while conducting forestry activities."

Wise County

- Score: 2
- Pg. II-10 "With good management practices, forests not only produce wood but also protect watersheds, provide habitat for a diversity of game and non-game wildlife species, provide opportunities for outdoor recreation and, in general, enhance the environment."