

Powhatan County Comprehensive Plan
Land Use and Land Preservation
Citizen Working Group

Draft Final Report
July 16, 2008

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Introduction

The Land Use and Preservations Citizens Working Group formed in August, 2006. Thirty three forward-looking individuals with a passion for Powhatan County and its future committed themselves to the challenge of providing the County with carefully considered options for growth and development. The CWG members believe strongly that Powhatan County should not let growth and development just happen by chance. It should happen by choice; the result of intelligent planning and collaboration.

The Comprehensive Plan Steering Committee presented the Land Use and Preservation CWG with the following charter which was officially adopted in October, 2006.

“To make proposals to the Comprehensive Plan Steering Committee regarding whether Powhatan County is a rural or a suburban locality through examination of the following:

- Managing and distributing residential growth and density.
- Preservation of agricultural and forestal resources.
- Recognition of the County’s history & heritage.
- Use of open space to protect the environment.”

The first several meetings of the Land Use and Preservation CWG were devoted to getting organized, getting to know each other and learning what prompted each member to become engaged in this process. The result of these steps allowed us to function as a team.

In December, 2006, we conducted a Strength, Weaknesses, Opportunities, Threats analysis. Based on the results of the SWOT analysis, we divided up into sub-groups:

1. Water and other environmental and historical sensitivities
2. Out-of-the-box thinking about how to zone and subdivide land
3. Innovation on Commercial and Industrial Zoning
4. Protecting open space, agriculture, forestry and wildlife habitat

As the number of actively participating CWG members declined and other issues intervened, these sub-groups eventually evolved into two main groups covering a wide range of land use and preservation issues.

Sub-groups:

- Residential Development and Zoning
 - Preservation of open land and green space
 - Effective growth management and efficient land use
 - Community based alternative and traditional sustainable agriculture enterprises
 - Expansion of outdoor recreation areas
 - Transportation networks
 - Green space gateways reflecting Powhatan's rural heritage.
 - Affordable housing and urban development
 - Increased cooperation between stakeholders, citizens, landowners, developers, and county staff.

- Natural and Historic Resources
 - Open space and rural character
 - Agricultural, forest, and soil resources
 - Environmental quality
 - Wildlife diversity
 - Wildlife habitat protection
 - Historical resources
 - Public access to natural resource areas

Upon consideration of the consistency in findings and substantial overlap in the reports of these two subgroups, it was decided at the CWG's March 2008 meeting that the final report should be written to integrate the two subgroup reports. The completion of a new County-wide ARCGIS mapping project early in 2008 facilitated this integration process while at the same time enabling the CWG's recommendations to be both specific and geographically focused.

The members of the Land Use and Preservation Citizens Working Group devoted many hours of our time to meetings and research in preparing this report. We did it gladly because of our passion for Powhatan County and our desire to see it grow in an orderly and environmentally sensitive fashion. The pages that follow are the result of our work. We look forward to seeing our work carried forward in the discussions of the Advisory and Oversight Committees and trust our recommendations will be carefully considered in the same sincere spirit with which they are offered.

Land Use and Land Preservation CWG Membership

Steve Forrest, Chairman
 Pam McCune, Secretary
 Amy Martin
 Ann Hogg
 Bill Jervey
 Bob Reilly
 Burgess and Audrey Rhoades
 Cecil and Alice Youngblood
 Chip Noe

Cindy Booten
David Ziletti
Edith Corbin
Elliot and Elizabeth Danburg
Eric Bowen
Ernest Hobson
Fred Neurhor
George Saunders
John Tuttle, Sr.
Lamar Brandt
Laura Graham
Maureen Moslow-Benway
Mickey Stokes
Mike Arnett
Patty and Joe Elton
Pauline Mitchell
Robert Speas
Sergio Harding
Tyler Craddock

(This membership list represents those who attended at least one group meeting. Approximately half of these members contributed significantly to the preparation of this report.)

Vision 2028

Powhatan County has experienced significant residential and commercial growth over the last twenty years. Yet the County has retained its rural character and quality of life. Through the wise use of effective growth management strategies and land-use planning tools, Powhatan County has anticipated and planned for the growth that has taken place. By guiding growth and development of the last two decades, Powhatan County has established itself as a model for other rural communities facing strong development pressure.

Most suburban and rural residential developments in Powhatan County are clustered for maximum open space preservation and natural resource protection. To protect and preserve our valued wetland areas, broad forested buffers filter runoff and enhance Powhatan's natural biodiversity. Residential communities are connected by greenspaces, wildlife corridors and walking/biking trails. A variety of housing choices are available for residents at all income levels.

Powhatan County's main thoroughfare, Anderson Highway (Rt. 60) and the section of Huguenot Trail east of the Rt. 288/Huguenot Trail interchange are designated growth areas for low-impact commercial and residential development. Strict form guidelines are in place to ensure architectural styles, green space, and natural buffers that fit the County's rural heritage. The Flat Rock and Plainview areas are distinct village-type communities. The Rt. 288/Huguenot Trail interchange is a world class gateway for those entering the county from the north.

A strong TDR program, conservation easements, tax incentives, and an Agriculture and Forestry Reserve District ensure the protection of many of Powhatan County's remaining wetlands, environmentally sensitive areas, farmlands, historic properties, and areas with scenic value.

None of this would have been possible without the shared vision, cooperation and collaboration of county staff, Board of Supervisors, Planning Commission, citizens, landowners and developers.

Section I. Outline of Major Goals and Identification of Major Concerns

Major Goals:

1. Preservation of open land and green space with special emphasis on the protection of wetlands and adjacent environmentally significant habitat that is essential to the maintenance of the County's biodiversity and overall environmental health
2. Effective growth management and efficient land use policy and zoning ordinances to achieve the goals
3. Design of safe and efficient transportation networks
4. Preservation of the County's significant historical assets
5. Expansion of outdoor recreation areas including Walk/Bike pathways throughout county
6. Development of green space gateways into county reflecting our rural heritage
7. Preservation of Rural Character by maintaining traditional sustainable agri-businesses as well as facilitating the development of new, community-based alternative agricultural enterprises.
8. Provision of affordable housing units and designation of urban development areas as required by state legislature mandate
9. Increased cooperation and communication between stake holders: citizens, landowners, developers, and county staff.
10. Recognize the importance of controlling light pollution in the County and enhancing rural character by maintenance of a dark night-time sky

Major Concerns in the Current Comprehensive Plan

1. The current comprehensive plan asserts that open space protection and retention of rural character are important and consistent with the expressed preferences of the County's citizens. However, the plan fails to provide the level of definition and detail necessary to motivate and direct needed changes in current land use policy and practice.
2. The current comprehensive plan states that protecting natural systems is among the major planning issues faced by the county. It states: "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." Unaddressed in the current plan are the land use practices that fragment habitats and destroy critical natural corridors. The current comprehensive plan lacks any discussion of the habitat requirements necessary to support the breeding, foraging and

migration activities of our wildlife populations, especially our avian populations, which are commonly used as an indicator of overall environmental health.

3. While protection of the County's wetlands, streams and rivers from contamination by storm water runoff is cited as important in the current plan, the policies and practices necessary to protect the fragile riparian ecosystems that border our streams and wetlands are missing from the current plan and ordinances. Current implementation relies on a set of minimal buffer requirements, much of which can be circumvented by the adoption of loosely defined "best management practices," for which there is little subsequent oversight.
4. The current plan notes that the creation of public parks recreational opportunities is a priority of the County's citizens. At present, County citizens have access to the State's wildlife management area and to one County park. While plans for a state park in the County are proceeding, no program exists at the County level to acquire additional land for public recreational uses such as hiking, biking, birding, and equestrian trails.
5. Current zoning practice has resulted in encroachment of "low" density subdivisions (R-5 zoning) into the remaining rural areas of the County.
6. The County's Future Land Use Map (revised 2003) designates nearly all open land in the county as available for R-5 subdivision zoning.
7. The current comprehensive plan asserts that protection of agricultural and forested land is a consistently expressed priority of the citizens of the County, but it predicts that these uses will give way under the pressure of development. Any implied commitment to the preservation of these resources is thus temporary and weak.
8. Discussion in the current plan of the public benefit derived from the conservation of open-space resources is minimal.
9. Current zoning practice has allowed the destruction of agricultural and forested land for the creation of new subdivisions to proceed at an accelerated pace.
10. Preservation of the County's soil resources and recognition of current distribution and protection of those resources are essentially absent from the current comprehensive plan.
11. Inconsistent with the maintenance of rural character is the proliferation of light pollution that blocks out the stars, and potentially disorients nocturnal migrants. The ability to "see the stars" was cited as an important component of rural character in the last Citizens Survey as reported in the current comprehensive plan. Policies and practices necessary to preserve this important element of rural character are absent from the current comprehensive plan. The County's ordinances were revised in late 2007 to address the issue of lighting standards in new construction.
12. The current plan identifies historical assets located in the County and asserts that their preservation is an important goal. While stating that many of our historical assets are threatened by potential development, the current plan includes no discussion of appropriate land use in areas encompassing or adjacent to recognized historical assets.

Section 2. Identification of Major Strategies

Strategies to Meet the Major Goals and Address Major Deficiencies in the Current Plan:

1. Preservation of open land and green space with special emphasis on the protection of wetlands and adjacent environmentally significant habitat

- The CWG considers this goal to be paramount and recognizes that the preservation of our natural resources is a critical public responsibility. It is a responsibility that we have to our current citizens and to future generations. Regarding the acceptance of this responsibility and the achievement of this goal, our current comprehensive plan and our current set of County ordinances have failed us. Time is fast running out on our ability to preserve those important natural resources that remain in the County. Without the adoption of strong, well-designed policies and practices in the near future to stem and, where possible, reverse this loss, our window of opportunity will soon close, and we will have failed to meet our public responsibility.
- As the steward of public health and general welfare, it is the County's obligation to protect its common-property resources. Since no individual holds property rights to resources such as our air, our streams, our wildlife, or to the rural character of our County, these benefits typically are not protected in the market place since they cannot be bought and sold. Market transactions will account only for the benefits and costs that directly affect the individual contracting parties. In making the decision to develop a tract of land that is important to preserving a wildlife population in the County, the landowner and developer, absent any County ordinance to the contrary, look only at their own private costs and benefits. The reduction in benefits enjoyed by the rest of the citizens in the County or the cost that this private transaction imposes on them is not considered in the transaction. The result of repeated transactions of this type is the continuous decline of many of our most precious common property resources, the County's rural character included. It is precisely for this reason that our County government is obligated to establish and enforce effective land use ordinances that will protect our common property resources.
- Recognizing the critical nature of this goal and the level of research necessary to support the development and implementation of effective policies and practices to achieve it, the CWG devoted extensive effort to the development of an approach that is thoroughly researched, likely to accomplish the desired level of preservation, and capable of gaining widespread support among the County's citizens. The specific elements that comprise the approach, as well as the research that serves as its foundation, are presented and explained in **Section 3** of this report.

2. Effective growth management and efficient land use policy and zoning ordinances to achieve the goals

- Avoid haphazard development patterns by managing growth so that it happens in a more orderly, focused and predictable development pattern. Take advantage of the land use

concepts and zoning ordinances already being successfully used by other Virginia counties such as Albemarle, Loudon, Goochland, Hanover, York, Isle of Wight and others. This CWG has collected numerous model ordinances, smart growth strategies and various other publications and articles dealing with land use planning and how to manage growth. We will make these materials available to the Planning Commission.

- Provide “menu” of cluster development options for landowners and developers. Cluster development, whether voluntary or mandatory, allows for homes to be clustered together on smaller lots leaving a percentage of the remaining land available for open space or other appropriate uses. These open space areas can be as much as 40 to 60 percent of the parent tract. Develop a density bonus program to reward developers for choosing a cluster option rather than the 10 acre minimum agricultural zoning. Clustering can help preserve rural land, rural character, sensitive environmental areas and still offers significant development value for a property.
- Promote the village concept for new development in areas where water and sewer is available or will be available in the future. The logical locations for these developments will be along the Rt.60 corridor, such as the Flat Rock area.
- Establish growth boundaries for village, suburban and rural development areas and plan for transition zones between each area.
- Designate historic property areas and develop Historic Overlay Districts to manage the form and architectural character of buildings in historic areas.
- Require connectivity between open spaces of adjoining communities
- Explore the use of residential mixed use developments
- Decrease fragmentation of green space and view shed
- Encourage conservation easements
- Establish strong TDR (transfer of development rights) and PDR (purchase of develop rights programs within the County as authorized by recent state legislation
- Encourage next generation transfer of land strategies i.e. LLC/FLP
- Require buffers and setbacks along roads between developed parcels
- Require minimum 150 ft non-disturbance buffers from the edge of all wetlands and streams
- Provide for acceptance of wetlands mitigation transfer into county
- Increase the allowable lot size in “by right” subdivisions
- Require impact studies for transportation, environment, and public educational facilities
- Require impact study on availability of productive soil types for future agriculture use
- In order to preserve our rural character and heritage, the county should consider offering financial incentives to citizens engaged in agri-enterprises. [Note: There may be some minimum requirement (i.e., at least 50% of their total annual income comes from their agri-business)]

3. Design of safe and efficient transportation networks

- Require inter-parcel transportation connectivity to reduce the volume of unnecessary local traffic on primary and secondary roads.
- Decrease access points on primary and secondary roads by adopting access management standards that redirect local traffic to inter-parcel connectors.

- Expand scenic byway system.
- Establish carpool/ commuter parking lot on Rte. 60.
- Create a comprehensive walking/biking usability plan for the county (could be part of Greenspace Master Plan).
- Mandate that all new subdivisions have walking/biking trails that connect with trails in neighboring subdivisions and thoroughfares.
- Mandate that whenever any new thoroughfare roads are built or when existing thoroughfares are widened, either bike lanes or sidewalks must be installed. The goal is for the citizens of Powhatan to be able to safely walk and bike along our scenic roads.

4. Preservation of the County's significant historical assets

- An updated list of the County's historical assets has been developed by Ruth Doumlele of the County's historical society.
- Working from that list, Bill Boelt, also of the County's historical society was able to obtain GPS coordinates for each of the sites. That data has now been incorporated in the GIS mapping project described in Section 3 of this report and is taken into account in forming the proposed County-wide preservation district described there.
- Language should be added to the new comprehensive plan and ordinances that protects our historical resources from incompatible development. A set of form-based codes and architectural standards developed and incorporated in the County's ordinances.

5. Expansion of outdoor recreation areas including Parks and Walk/Bike/Equestrian pathways throughout county

- The new plan should commit the County to an expanded County park system which is reflective of the rural character of Powhatan and compatible with it. More specifically, Powhatan County should:
 - Create additional county parks develop hiking, biking and equestrian trails as well as interpretive nature stations within those parks. Such facilities will allow the public to enjoy the County's natural resources and will provide educational opportunities for our County schools.
 - Include parks programming that utilizes the natural environment such as butterfly gardens, birding, stream monitoring, stargazing and full moon hikes.
 - Include places in the parks for observing and learning about the natural and physical environments, including ecology, wildlife, plants, geology, hydrology and landforms.
- Build a greenway network of trails and paths which enables people to move about Powhatan County by means other than motorized transport:
 - Require Walk/Bike pathways in county transportation system connecting community parks and civil war historic sites.
 - Actively pursue expansion of county park system interconnected with bike/hiking trails, green space, and blue space.
 - Establish a park/greenspace/recreation advisory board as well as a county park and recreation staff position

- Provide and maintain enhanced public access to both the James and Appomattox Rivers. Such access should support the establishment of canoe and kayak trails along both rivers.
- County representatives should strongly promote and facilitate the establishment of the recently-authorized Powhatan State Park.
- Establish funding mechanisms for Powhatan County parks or various aspects of them, which may include one or more sources such as county general fund support, state matching funds, foundation grants, maintenance endowments, user fees, etc.
- Encourage cooperation, coordination and funding of selected park, recreation and open space resources, facilities and programs among local jurisdictions and governmental units as well as with non-profit organizations.

6. Development of green space gateways into county reflecting our rural heritage

- Establish entrance corridor overlay districts encompassing the principal entrance points into the county and develop standards for those districts which emphasize the importance that the county places on green space preservation. Such overlay districts should be developed for the north and south entrances on Rt. 288, the east and west entrances on Rt. 60, the east entrance on Rt. 711, and the north entrance on Rt. 522
- Take care in planning development of Rt. 288/711 interchange to preserve the view shed seen when approaching from the north.
- Expand scenic byway system

7. Preservation of Rural Character by preserving existing agri-businesses and facilitating the development of new, community-based alternative agricultural enterprises.

- Continue land use taxation consistent with State Land Evaluation and Advisory Council (SLEAC) provisions
- Direct office of economic development to coordinate with Virginia Tech extension and chamber of commerce to enhance traditional emerging sustainable agriculture-based enterprises.
- Allow new agricultural activity anywhere within the community unless a specific health or safety hazard can be documented.
- Establish a Right-to-Farm ordinance recognizing agriculture as a valuable part of the community's culture, landscape, history and economy, and providing notice that while farming can cause noise, dust, or odors, these are not nuisances if best management practices are being applied.
- Ensure all new non-agricultural development is buffered from existing or potential farm locations to prevent or minimize negative interactions. Require developers of properties adjacent to actively farmed land to establish these buffers.
- Ask the County's Economic Development Office and the Cooperative Extension Office to collaborate together to establish a farmers market in a commercially attractive location to help create new markets for locally grown agricultural products.

- Permit and encourage the continued use of land for agriculture, farming, dairying, pasturage, apiculture, horticulture, floriculture, and animal and poultry husbandry, in areas currently under such use.
 - Give agriculture priority over other uses in suitable areas.
 - Establish a clear definition of agricultural activities and what constitutes an agricultural use. The definition of agriculture should be broad and inclusive and allow for continuing changes in response to changing markets.
 - Support existing and potential agricultural uses. Review current and forthcoming regulations and evaluate them to insure that they are not an obstacle to agricultural uses.
- 8. Provision of affordable housing units and designation of urban development areas as required by state legislature mandate**
- Where Water/Sewer facilities available (especially within the route 60 overlay district) permit increased density zoning through implementation of the transfer of development rights program described in Section 3 of this report.
 - Density bonuses for new subdivision rezoning providing affordable housing units
- 9. Increased cooperation and communication between stake holders: citizens, landowners, developers, and county staff**
- Always remember our rural heritage and quality of life when considering residential development
 - Recognize that citizens within the County possess planning and decision-making expertise which the County cannot afford to cover in its hiring budget. Fortunately, in many cases these citizens are willing to provide their expertise on a volunteer basis. The County should encourage such valuable public service as a routine part of its planning and decision-making processes.
- 10. Recognize the importance of controlling light pollution in the County and enhancing rural character by maintenance of a dark night-time sky**
- Aggressively enforce the provisions of the recently enacted ordinance on lighting specifications for new construction.
 - Encourage modification of existing sub-standard lighting designs to reduce light pollution
 - Require that when old lighting fixtures are being replaced, new fixtures satisfy the same set of specifications required for new construction

Section 3. Establishing a Plan for the Preservation of Green Space and the Protection of the County's Remaining Significant Natural Resources

Part 1. Establishing Principles for Identifying the Environmentally-Significant Areas for Preservation

- March 2007 – Amy Ewing, Environmental Services Biologist, and Sergio Harding, Non-game Bird Conservation Biologist, at the Virginia Department of Game and Inland Fisheries met with the Land Use and Preservation CWG
- At that meeting, Amy and Sergio presented the following specific recommendations for protecting the County's environmental resources

A. Guidelines for Preserving the County's Wildlife Diversity

- Avoid fragmentation – single large tracts are better than several small tracts of the same total area
- Minimize isolation – closer together is better than far apart
- Minimize edge: area – circles, squares provide greater interior habitat
- Maximize connectivity – connect tracts with wide corridors
- Minimize distance from small patches to large forested areas

B. Forested Buffer Requirements for Woodland Birds

- *Minimum* recommendation = 100 meters (i.e. 328 ft)
- Conserve even small forested patches in riparian areas

C. Wide Riparian Corridors/Buffers: Benefits to Wildlife, Water Quality, and Recreation

- Prevent/reduce erosion
- Provide wildlife corridors/provide high quality habitat/support many species
- Maintain water quality by providing filtration
- Provide shade/water temperature maintenance/wildlife nurseries
- Provide areas for outdoor recreation/hiking/birding/fishing/hunting
- Allow increased groundwater recharge

D. General Recommendations

- Emphasize wetland preservation/conservation
- Remember that bigger habitat is better habitat
- Maintain wildlife linkages/corridors
- Encourage low impact development
- Encourage native vs. non-native plantings (conservation landscaping)

Part 2. Developing an GIS-based, multilayer mapping model of the entire County

In order identify the County’s remaining environmentally significant areas and green space at a sufficiently fine scale to inform targeted land use policy, it was necessary to develop a current and flexible GIS-based, multilayer mapping model of the entire County. The methodology by which this was accomplished is explained in Appendix 3. The resulting detailed land use map covering the entire County appears in Figure 1. This map incorporates all updates present in the Department of Agriculture’s aerial imagery photos taken in 2006. (The pink shape is a quarry.)

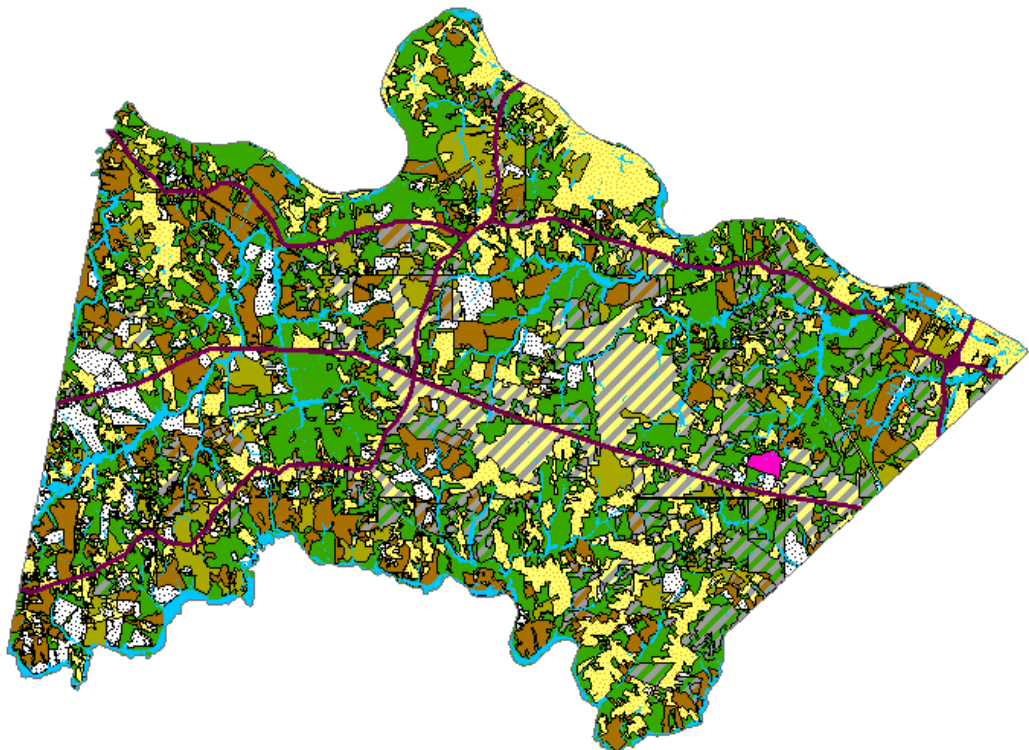










Figure 1. Detailed land use map of Powhatan County

-  deciduous forest
-  mixed forest
-  pine forest
-  clearcut
-  cleared field/agricultural use
-  wooded subdivision/housing cluster
-  cleared subdivision/housing cluster or other development
-  wetlands (dark blue lines denote streams)

In addition to the County's land use map, a zoning map for the entire County through November 2006 was created and added to the GIS project as an overlay. Figure 2 displays the land use map with existing R-2 and R-5 subdivision zoning, as well as the Rt. 60 CWG-proposed overlay district (4000' each side of the Rt. 60 center line) and the location of public lands.

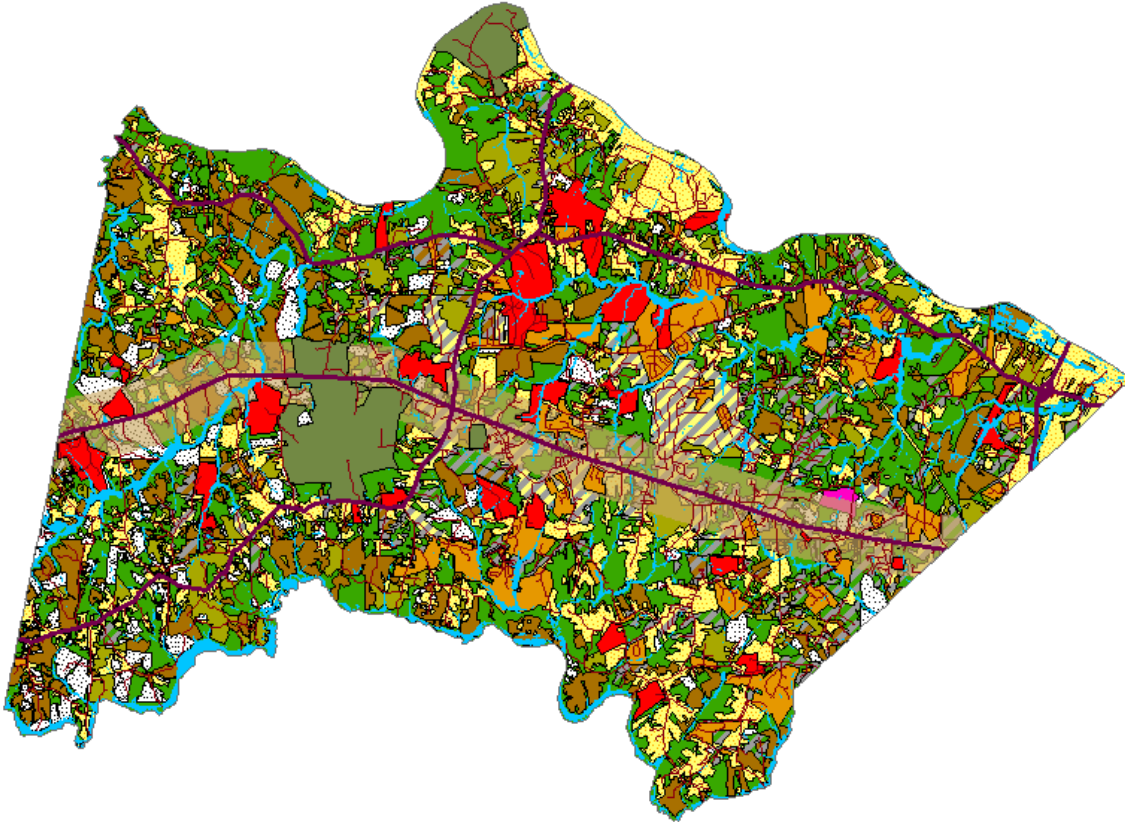
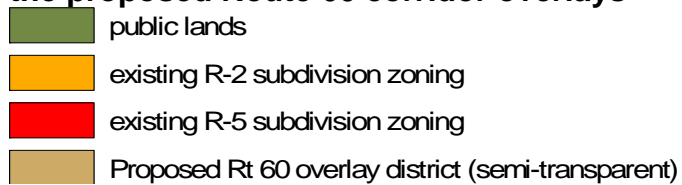


Figure 2. Land use shape file with existing public lands, R-2 and R-5 zoning, and the proposed Route 60 corridor overlays



Part 3. Establishing a Core Preservation District and Identifying Other Significant County Assets for Conservation Action

Overlaying existing public lands on the map in Figure 2, permitted identification of the areas within the County that best meet the environmental protection criteria recommended by VDGIF (as presented in Section 3, Part 1 above). Taken together, these areas form a proposed **Core Preservation District**. This district is comprised of four major components: river protection corridors, environmental protection zones, creek protection corridors, and conservation corridors. The proposed composition of these areas is as follows:

2 RIVER PROTECTION CORRIDORS (21,980 ACRES):

Purpose: Protect our rivers and associated riparian and buffer areas to ensure wildlife diversity and water quality

JAMES RIVER PROTECTION CORRIDOR (10,963 acres)
 APPOMATTOX PROTECTION CORRIDOR (11,017 acres)

Zoning Recommendations within the River Protection Corridors

- 200 ft non-disturbance buffer from the river, applicable to new clearing operations within the river protection corridors. Implementation of strong tax and transfer of development rights incentives to voluntarily increase buffer size.
- Within the river protection corridors, land currently zoned A-1 or RR (10-acre minimum lot size) should be maintained in those classifications when considering applications for new residential construction.

The proposed River Protection Corridors are highlighted in Panel A of Figure 4.

5 ENVIRONMENTAL PROTECTION ZONES (25,161 acres):

Purpose: Protect our largest remaining areas of high-quality wetland-associated habitat. These are the areas of the County where large tracts of wetland-associated, deciduous forest still remain. In addition to providing critical protection of water quality, these zones are responsible for the continued presence of much of the County's biodiversity. Avian diversity, depending as it does on the many narrow ecological niches that only an elaborate and vibrant ecosystem can provide, is one of the most widely used indicators of the environmental health. A representative list of Powhatan's avian species known to be present in and dependent on the preservation of these zones appears as Appendix 1. These five zones are the source of much of the avian diversity found in Powhatan County, and their protection is necessary to avoid potential County-wide extirpation of these species and accompanying degradation of our ecosystems.

ZONE 1: DUTOY CREEK ENVIRONMENTAL PROTECTION ZONE (6,799 acres)

ZONE 2: JONES CREEK ENVIRONMENTAL PROTECTION ZONE (3,630 acres)

ZONE 3: ROCKY FORD CREEK ENVIRONMENTAL PROTECTION ZONE
(4,911 acres)

ZONE 4: MOORE CREEK ENVIRONMENTAL PROTECTION ZONE
(3,462 acres)

ZONE 5: MOHAWK CREEK ENVIRONMENTAL PROTECTION ZONE
(6,359 acres)

Zoning Recommendations within the Environmental Protection Zones

- 200 ft non-disturbance buffer from wetlands applicable to new clearing operations within the environmental protection zones. Implementation of strong tax and transfer of development rights incentives to voluntarily increase buffer size.
- Throughout the environmental protection zones, land currently zoned A-1 or RR (10-acre minimum lot size) should be maintained in those classifications when considering applications for new residential construction.

The proposed River Protection Corridors are highlighted in Panel B of Figure 4.

3 CREEK PROTECTION CORRIDORS (3,341 acres):

Purpose: Protect our major creeks and associated riparian and buffer areas. Protection of these resource areas is vital to both the maintenance of water quality and the preservation of wildlife habitat and mobility

CPC1: NORWOOD CREEK PROTECTION CORRIDOR (481 acres)

CPC2: FINE CREEK PROTECTION CORRIDOR (1,885 acres)

CPC3: DEEP CREEK/SALLEE CREEK PROTECTION CORRIDOR (5,116 acres)

Zoning Recommendations within the Creek Protection Corridors

- 150 ft non-disturbance buffer from creek-associated wetlands, applicable to new clearing operations within the creek protection corridors. Implementation of strong tax and transfer of development rights incentives to voluntarily increase buffer size.
- Throughout the creek protection corridors, land currently zoned A-1 or RR (10-acre minimum lot size) should be maintained in those classifications when considering applications for new residential construction.

The proposed Creek Protection Corridors are highlighted in Panel C of Figure 4.

6 CONSERVATION CORRIDORS (10,798 acres):

Purpose: Provide wildlife habitat and connecting corridors between the other protection areas

CC1: DUTOY CREEK -BERNARDS CREEK CONSERVATION CORRIDOR (453 acres)

CC2: NORWOOD CREEK - JAMES RIVER CONSERVATION CORRIDOR (632 acres)

CC3: POWHATAN WMA - APPOMATTOX RIVER CONSERVATION CORRIDOR
(1,056 acres)

CC4: MOORE CREEK - DEEP CREEK CONSERVATION CORRIDOR (4,293 acres)

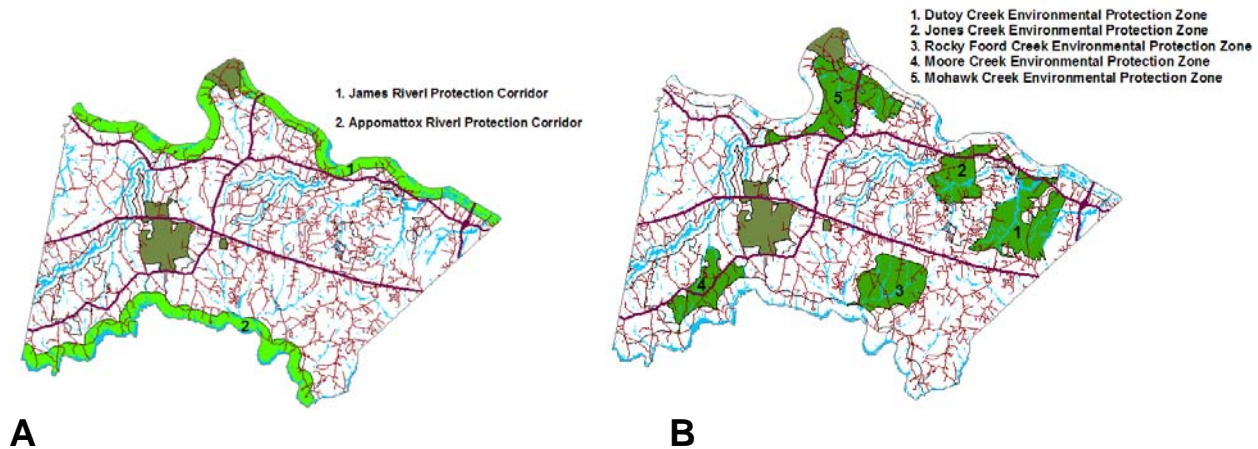
CC5: POWHATAN WMA - JAMES RIVER CONSERVATION CORRIDOR (3,365 acres)

CC6: JONES CREEK – DUTOY CREEK CONSERVATION CORRIDOR (999 acres)

Zoning Recommendations within the Conservation Corridors

- 100 ft non-disturbance buffer from wetlands, applicable to new clearing operations within the conservation corridors. Implementation of strong tax and transfer of development rights incentives to voluntarily increase buffer size.
- Throughout the conservation corridors, land currently zoned A-1 or RR (10-acre minimum lot size) should be maintained in those classifications when considering applications for new residential construction.

The proposed Creek Protection Corridors are highlighted in Panel D of Figure 3. The complete map of the proposed Core Preservation District is presented in Figure 5.



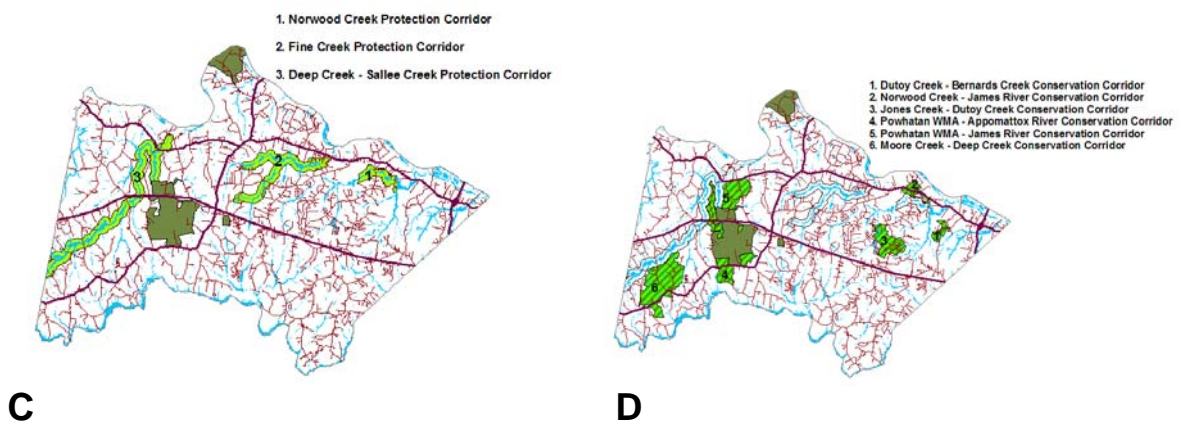


Figure 3. River Protection Corridors (panel A), Environmental Protection Zones (panel B), Creek Protection Corridors (panel C), Conservation Corridors (panel D)

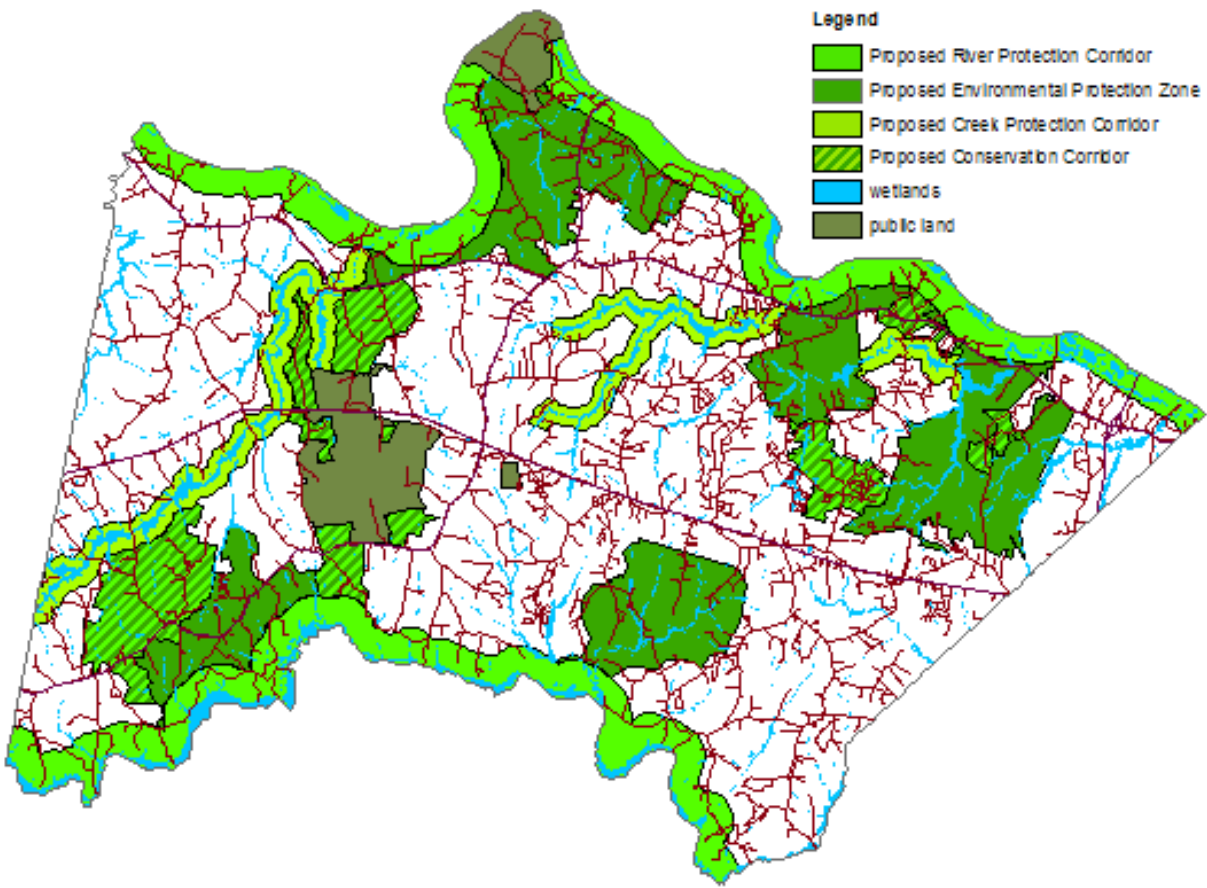


Figure 4. Proposed Core Preservation District

Distribution of the County's Historical Assets

An updated list and description of the County's 85 historical sites, as provided by representatives of the County's historical society, appears in Appendix 2. Those sites are categorized as follows:

- Sites on Virginia Landmarks Register and National Register of Historic Places (18 sites)
- Sites Considered by Traceries to be Potentially Eligible (5 sites)
- Sites Potentially Eligible that Require Further Study (52 sites)
- Sites that are Critically Threatened or Ruins (10 sites)

Figure 5 overlays these 85 sites onto the Proposed Core Preservation District map. 49 of these sites lie within the proposed Core Preservation District.

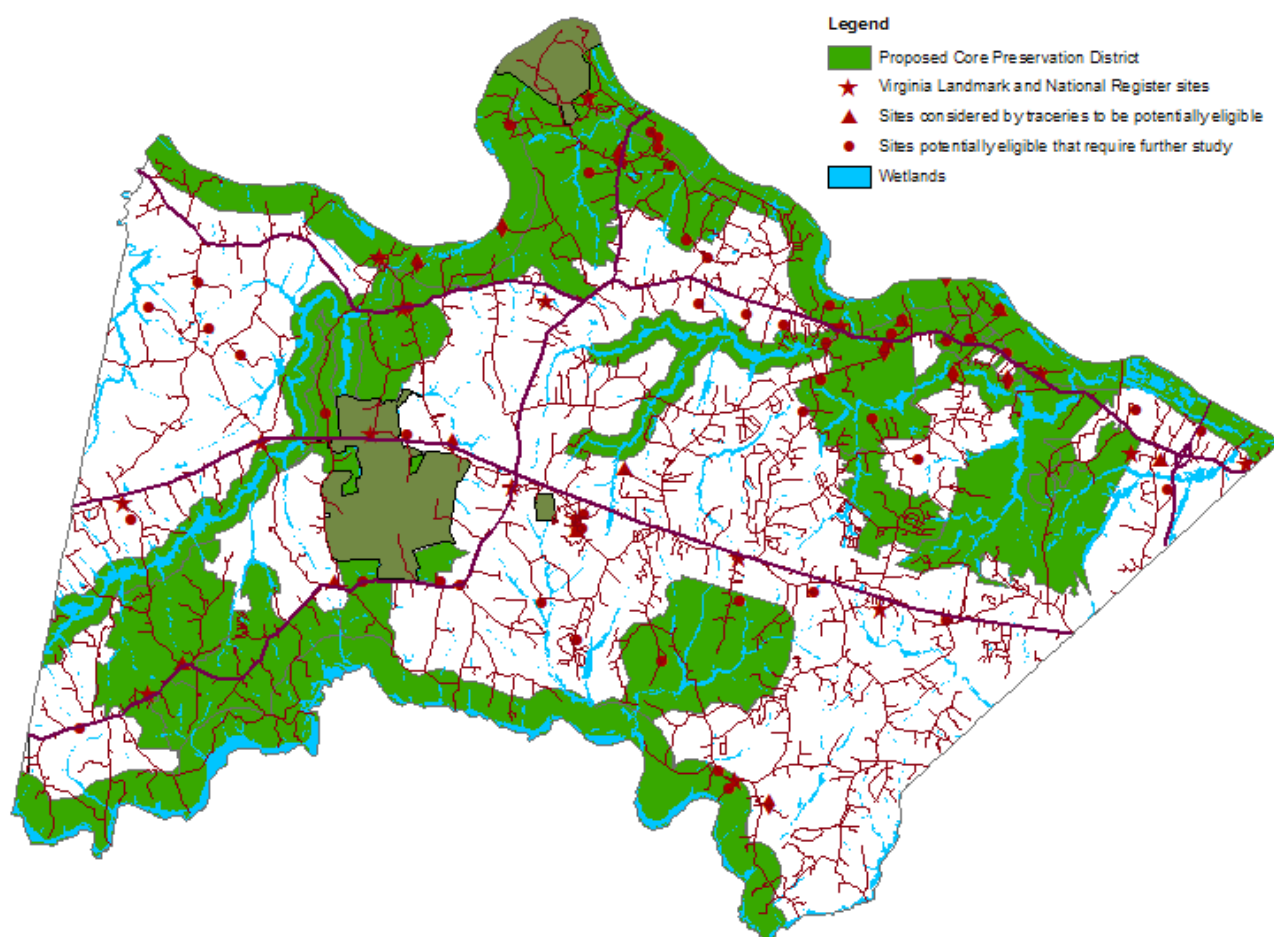


Figure 5. Proposed Core Preservation District and Location of County Historic Sites

Concurrent Work of the Huguenot Trail Advisory Committee

The Huguenot Trail Advisory Committee (HTAC) was formed in January 2008 to make recommendations on preservation of the Huguenot Trail Byway (Rt 711). The Huguenot Trail

Byway District is tentatively designated as that section of the County extending from a line 4000' south of the center line of Route 711, north to the James River, and bounded by Route 522 to the west and the Chesterfield County line to the east. As of the writing of this report, the southern boundary of the Byway District is receiving final consideration by HTAC. It appears likely that it will extend to the boundary specified in the 2003 Route 711 Historic Overlay District Plan, a boundary which principally follows the northern edge of Fine, Jones, Norwood and Dutoy creeks. In recognition of route 711 and Old River Trail as a scenic byways and in consideration of the concentration of environmentally-sensitive areas and historic sites that are located there, HTAC is recommending that the portion of the byway district lying west of Route 288 be protected from development and/or restricted to development that is low impact and compatible with the scenic and historic character of the byway.

Figure 6 maps the Huguenot Trail Byway District as an overlay to the Core Preservation District map of Figure 6.

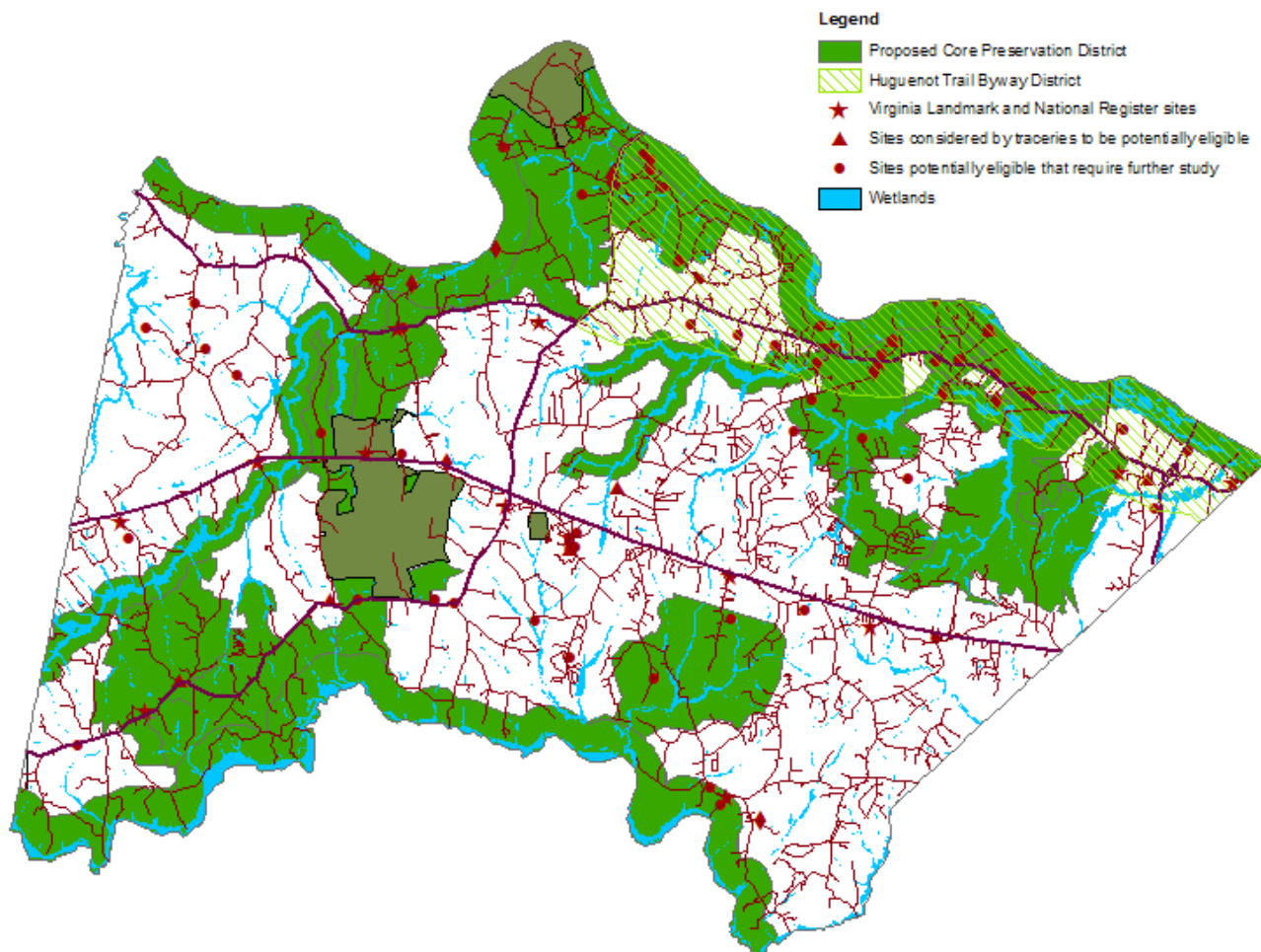


Figure 6. Proposed Core Preservation District with Huguenot Trail Byway District overlay.

As Figure 6 shows, much of the Huguenot Trail Byway District falls within the Proposed Core Preservation District. Extending protection to the remainder of the Byway District, west of Route

288, is consistent with the recommendation of HTAC, provides expanded protection to land close to the James River, and provides protection to an additional historical sites. In recognition of these considerations, the Land Use and Preservation CWG recommends that protection be extended to that area, excepting the land that is already zoned R-2 or R-5, with building lot size restricted to a 10-acre minimum. Existing R-2 and R-5 zoning already in place in the Byway District, as well as agricultural operations located within the Byway District, would not be affected by this recommendation.

Establishing an Agriculture and Forestry Reserve District

An expressed desire of the Powhatan's citizens is that agricultural and forestry uses continue to be encouraged in the County. The section of the County west of Route 522 and north of Route 60, plus two areas southwest and one area northeast of the Powhatan Wildlife Management Area have comparatively low population density, support a significant level of timber operations and/or agricultural uses, and fall outside the Core Preservation District. The Land Use and Preservation CWG recommends that agriculture and forestry continue to be encouraged in these areas by designating them an Agriculture and Forestry Reserve District. Within this district, the SLEAC standards for land use taxation should be aggressively applied to reduce tax burdens, and the existing A-1 zoning should be maintained. **The proposed Agriculture and Forestry Reserve District is illustrated as an overlay in Figure 7.** It comprises 23,277 acres or 13.4% of County land. The two sections of the proposed district lying north of Route 60 begin immediately north of the proposed route 60 overlay district, which extends 4000' north and south of the center line of the highway.

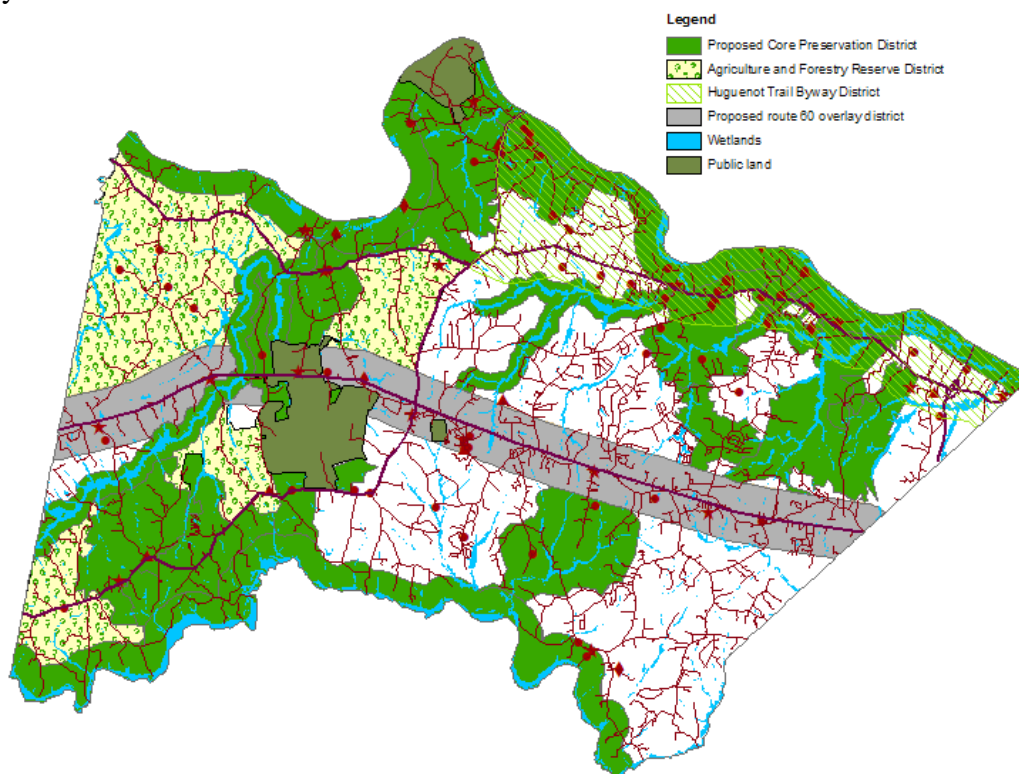


Figure 7. Proposed Core Preservation District with Agriculture and Forestry Reserve District overlay.

Part 4. Designing a Transfer-of-Development-Rights (TDR) program to accomplish the County's preservation goals.

In March, 2007 the State of Virginia enacted legislation authorizing County governments to establish TDR programs for the purpose of preserving land and protecting natural resources within their jurisdictions. The strong market incentives for landowners and developers that are created by a well-designed TDR program can result in far greater success in directing growth and preserving designated lands than approaches that rely exclusively on the tightening of zoning laws and the consequent damage to land values and landowner interests. A nation-wide study by Resources for the Future, released in September 2007, provides an in-depth assessment of the strengths and weaknesses of existing TDR programs, and sets forth the elements necessary for the design and implementation of a successful program. Their report, "Transfer of Development Rights in U.S. Communities: Evaluating Program Design, Implementation, and Outcomes," provides case studies of both successful and unsuccessful programs. One of the most successful programs, implemented by Montgomery County, Maryland has resulted in approximately 49,000 acres of land the County targeted for preservation being placed in conservation easements as a result of TDR transactions. Having previously established County-wide baseline zoning at 1 dwelling unit per 5 acres (equivalent to Powhatan's R-5 zoning), Montgomery found it necessary to down-zone (lower the allowable housing density on) a large section of County land in the targeted preservation area prior to implementing their TDR program. Without this step, there would have been insufficient private incentives to redirect development away from the preservation area and toward the areas earmarked for new development. Fortunately, Powhatan has maintained its County-wide baseline A-1 zoning (1 dwelling unit per 10 acres) which is sufficient to provide the necessary incentives to redirect growth without resorting to down-zoning.

Appendix 3 explains the basics of a TDR program and provides an illustrative example, adapted to Powhatan's current zoning classes. As the example demonstrates, a TDR program creates incentives by which mutually beneficial landowner-developer transactions act to preserve designated lands and redirect development toward targeted growth areas.

The Virginia state law authorizing the creation and implementation of a County TDR program is provided in Appendix 3 of this report. This law specifies the requirements that must be met in both the County's comprehensive plan and in its zoning ordinances. Of particular note is the requirement that the comprehensive plan include a map of both the designated sending and the designated receiving areas (see Section C, provision 6 and Section H of the law).

Proposed Sending Areas

The Core Preservation District described Part 3 of this section, together with the Huguenot Trail Byway District west of Route 288 and excluding areas already zoned R-2 or R-5, are proposed as the County's sending areas. The sending areas account for 66,306 acres or 38.1% of County land. Of this total, 61,280 acres are in the Core Preservation District and 5,206 acres are in the added portions of the Huguenot Trail Byway District. The sending areas are shown in dark green on the

map in Figure 8.

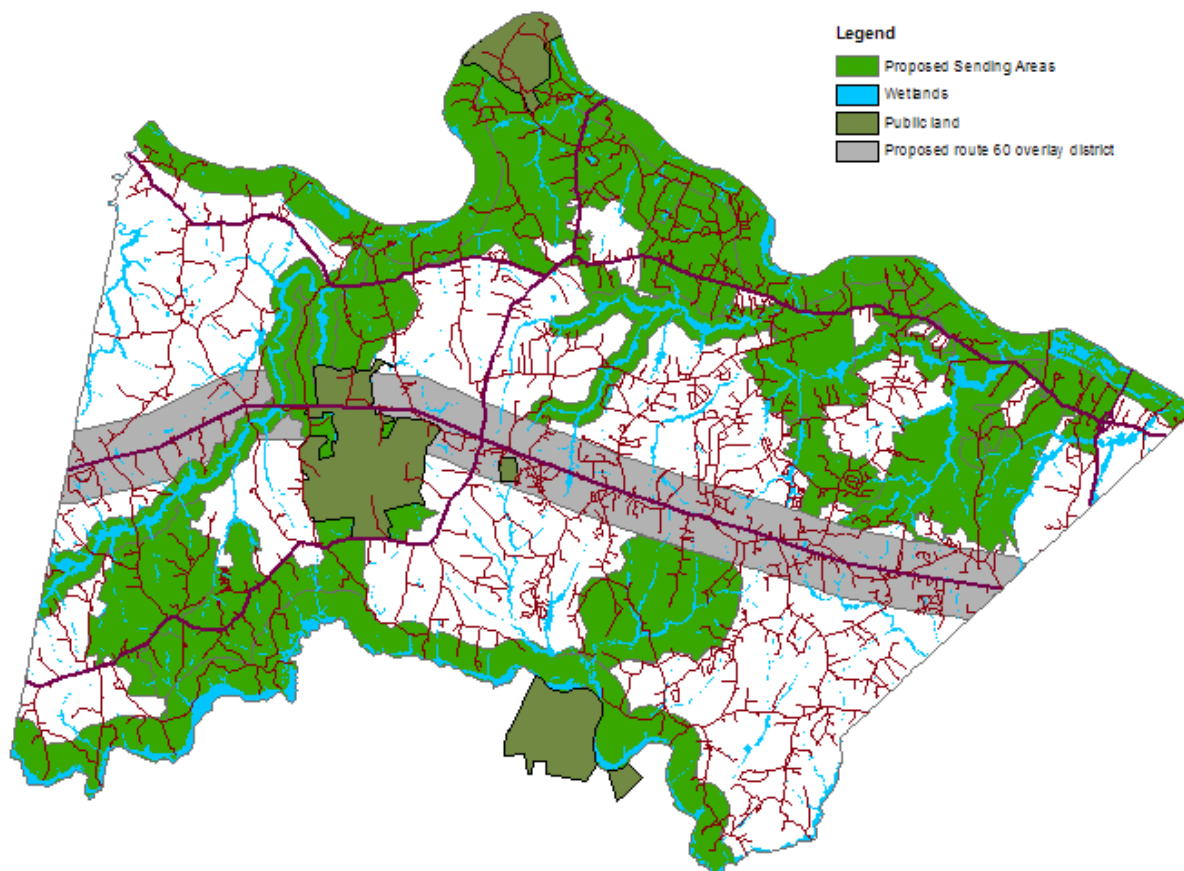


Figure 8. Proposed Sending Areas

The Amelia Wildlife Management Area, adjacent to the southeastern section of the County, is displayed on the map as well to highlight its connection with the Rocky Ford Creek Environmental Protection Zone.

Proposed Receiving Areas

There proposed receiving areas are comprised of two types based on the maximum allowable density with TDRs. Category I includes only areas where County water and sewer facilities are available. In Category II areas only well and septic systems are available. Provision of water and sewer along Route 60 west to the Flat Rock area is already in progress.

Category I Receiving Areas

The Land Use and Preservation CWG recommends that the entire Route 60 overlay district (excluding public lands and the minor portions of the overlay district falling in creek protection or conservation corridors) be designated as Category I receiving areas. It is further recommended that the baseline density (i.e., without TDRs) in these areas be retained as A-1 (one dwelling unit per 10 acres without TDRs) and the maximum density with TDRs be set at R-0.5 (one dwelling unit be half acre). Portions of the Route 60 overlay district not yet served by water and sewer should not be

rezoned from A-1 (and thus not be used as active receiving areas) until those facilities become available. The higher density limit in Category I affords a substantially higher preservation ratio than is achieved in Category II. In the above example, at full allowable R-2 density in a Category II receiving area, each 1 acre developed in the receiving area protects 1.2 acres in a sending area. Applying the same requirement of 1.5 TDRs needed for each dwelling unit built above baseline density in a Category I receiving area, and assuming full allowable R-0.5 density is achieved, each 1 acre developed in the Category I receiving area protects 5.7 acres in a sending area.

Category II Receiving Areas

The proposed Category II receiving areas are sections meeting two criteria:

1. they fall outside the Sending Areas and outside the proposed Agriculture and Forestry Reserve District
2. they are areas where significant R-2 and R-5 subdivision re-zonings and development have taken place
3. taken together with the category I receiving areas, they are sufficient in size to accommodate growth redirected from the sending areas.

Proposed Category I and Category II receiving areas are shown in Figure 9 with existing R-2 and R-5 subdivision zoning displayed as an overlay. The total acreage in the proposed receiving areas is 52,415 acres, or 30.1% of County land. Of this total, 17,820 acres are in Category I and 34,595 acres are in Category II.

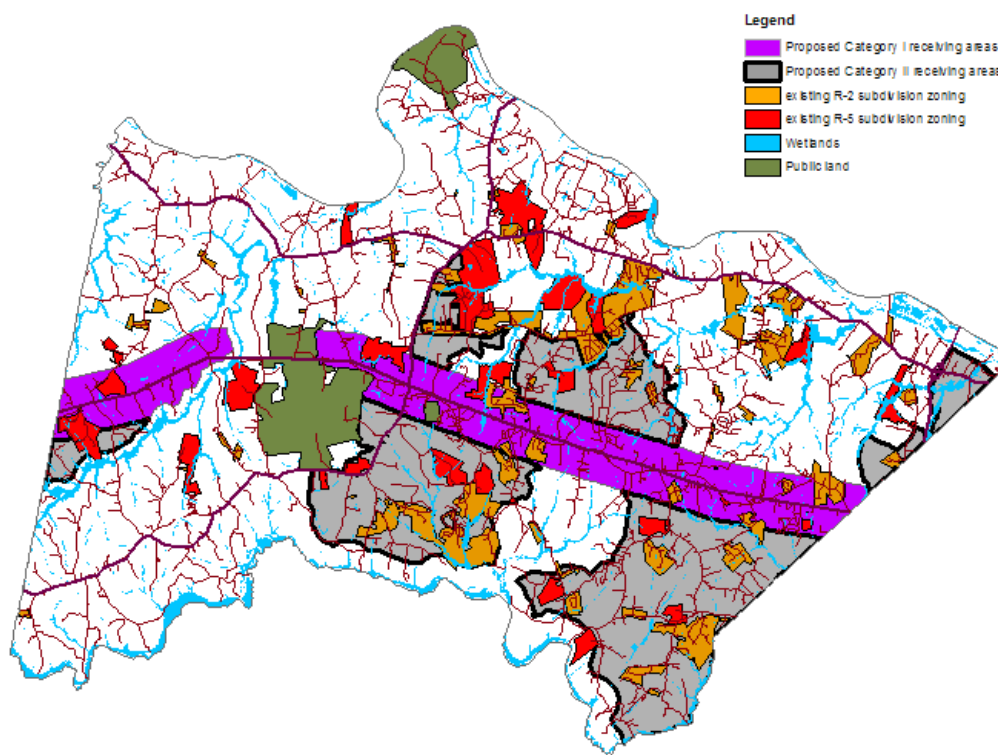


Figure 9. Proposed receiving Areas

Key Recommendations for the County's TDR Program

1. As explained in the report, it is particularly important to preserve forested habitat adjacent to wetlands. These forested buffer areas are necessary to ensure ecosystem integrity. In order to encourage voluntary establishment of forested non-disturbance buffers that are wider than the proposed 200 ft minimum, substantially higher TDR allocation rates should be applied to such extended buffer areas.
2. It is recommended that the County hold the conservation easements created by the sale of TDRs jointly with a land trust or an appropriate state entity.
3. Since TDRs provide direct monetary compensation from the developer to the landowner for placing land in a conservation easement, the easement need not meet the specific requirements set forth under State and Federal Tax law. This consideration simplifies the process greatly, reducing paperwork, time lags, administrative bottlenecks, legal fees, and the risk of rejection by a tax authority.
4. Routine TDR transactions should be reviewed for compliance with the County TDR ordinances, and administered by a single designated member of the County planning staff. Thus routine TDR transactions should not require Planning Commission or Board of Supervisors review or action.
5. Except in cases where overriding County interests necessitate an exception, new density increases beyond A-1 zoning should be available only through the TDR program, and only in the designated receiving areas. Without this provision, developers can circumvent the TDR program, proceeding with development requests both in and out of designated preservation areas, thus undermining the County's efforts to establish protection for those lands which it seeks to preserve.
6. The use of TDRs should be by-right for the developer in the designated receiving areas. This feature dramatically cuts transaction costs to the developer and greatly reduces the workload on County staff, planners, and supervisors that is generated by the case-by-case rezoning reviews necessitated by current County practices.
7. When any TDRS are sold from a sending area parcel, the entire parcel must be placed in a conservation easement.
8. The easement specifications in designated portions of the sending areas could require, at the County's discretion, public trail or other desired public access. Alternatively, sending area landowners in areas where the County wishes to establish such access, could be allocated additional TDRs for permitting it.
9. Sending area landowners that sell the TDRs off their property will benefit not only by the TDR sales price to the developer, but also by the permanent reduction in property taxes.
10. Within the receiving areas the County could require that a certain subdivisions set aside a fixed percentage of land as common greenspace for the benefit of subdivision residents.
11. Lastly, the reduction in the market value of sending area land, following the sale of TDRs from it, may enable the County to purchase some of this land for public parks, for trail systems, or for any other public benefit consistent with the land's preservation status.

Appendix 1: Avian species present in the Proposed Environmental Protection Zones that are identified by the Virginia Department of Game and Inland Fisheries as needing conservation action.

- VADGIF Tier II: Species of Very High Conservation Need
- * Northern Saw-whet Owl (*Aegolius acadicus*) – winter resident
- * Winter wren (*Troglodytes troglodytes*) – winter resident
- * Cerulean Warbler (*Dendroica cerulea*) – potential breeding record

VADGIF Tier IV: Species of Moderate Conservation Need

- * Green heron (*Butorides striatus*) – breeding
- * American woodcock (*Scolopax minor*) – breeding
- * Yellow-billed cuckoo (*Coccyzus americanus*) – breeding
- * Whip-poor-will (*Caprimulgus vociferus*) – breeding
- * Eastern kingbird (*Tyrannus tyrannus*) – breeding
- * Eastern wood-pewee (*Contopus virens*)
- * Wood thrush (*Hylocichla mustelina*) - breeding
- * Yellow-throated vireo (*Vireo flavifrons*) - breeding
- * Prothonotary warbler (*Protonotaria citrea*) -breeding
- * Ovenbird (*Seiurus aurocapillus*) - breeding
- * Louisiana waterthrush (*Seiurus motacilla*) - breeding
- * Kentucky warbler (*Oporornis formosus*) - breeding
- * Scarlet tanager (*Piranga olivacea*) – breeding
- Brown creeper (*Certhia americana*) - migrant
- * Canada warbler (*Wilsonia canadensis*) - migrant
- * Yellow warbler (*Dendroica petechia*) - migrant
- * Worm-eating warbler (*Helmitheros vermivorus*) – migrant

*** species that require wetlands with riparian buffers or large interior tracts of deciduous forest**

Appendix 2: Powhatan County Historic Sites (as provided by Ruth Doumlele of the County's historical society) (*There are few changes/additions still to be made.*)

Powhatan County has 18 properties listed on the Virginia Historic Landmarks and the National Register of Historic Places. In addition to the landmarks listed below, there are many other landmarks not on the register but considered places of historical importance by the Powhatan County Historical Society. The Society has created a file of historic buildings and homes in the county, including both those extant and other sites of historical interest.

In 1991, the county contracted with Traceries, a consulting firm, to complete a survey of historic resources in the county. This survey identified 395 property records and 473 resource records.

Many of the county's historic building and features are being threatened by development or neglect. The Traceries study suggested that the county should undertake further study to identify those features and propose ways to protect them.

In addition to the Virginia Historic Landmarks and National Register of Historic Places, other sites of historical interest have been marked.

The Michaux-St. James Foundation has placed a sign at St. James chapel on Old River Trail, noting the site of the Monacan Indians and the French Huguenot settlements. The Foundation has also placed a sign at Michaux Grant Cemetery, burial site of a number of the Huguenots.

The Powhatan County Historical Society has introduced the practice of placing a sign annually at a historical site. The first of these was placed in 2007 at the Muddy Creek Church Schoolhouse.

The Virginia Civil War Trails has placed markers at Appomattox River and Route 610/604, at Powhatan Courthouse, Derwent, Lee's Last Bivouac on Huguenot Trail and at Huguenot Springs Cemetery.

The listing below includes places now on the registers, a list of places potentially eligible for the landmark register category as designated by the Traceries report, a list comprising places potentially eligible but that require further study, and a list of places that are threatened.

Sites on Virginia Landmarks Register and National Register of Historic Places

1. **Beaumont**

A two-story frame and brick house located on the site of the Beaumont Learning Center. The original central part was built by William Walthall in 1811, with a rear brick wing added in 1839. It is a rare example in Virginia of a two-story, central-passage plan house.
Maidens Road

2. **Belmead**

Designed by New York architect Alexander Jackson Davis. The house was built in 1854 and includes components of various architectural styles. It is the last large plantation on the James River between Richmond and Lynchburg. Off Cartersville Road

3 **Belnemus**

- Palladian-style house with full two-story center and side wings. The original part was constructed in the early 1700s. Route 60
4. **Blenheim**
Simple frame house located on part of a land grant. House constructed in 1730 with later additions. Hand carved woodwork. Blenheim Road
 5. **Elmington**
Gothic Revival farmhouse with the general massing and symmetry of the Federal style, designed by Alexander Jackson Davis. Maidens Road
 6. **Emmanuel Church**
Designed by Alexander Jackson Davis. Constructed in 1843. An excellent example of the Gothic Revival style. Emmanuel Church Road and Old Buckingham Road
 7. **Fine Creek Mills Historic District**
The mill building was originally three stories tall, originally constructed shortly after 1735, Later construction dates from the mid-nineteenth century. Site of General Robert E. Lee's last bivouac. Huguenot Trail
 8. **French's Tavern**
On Old Buckingham Road between Ballsville and Tobaccoville, served as an important stage stop on the road from Richmond to Farmville. Old Buckingham Road
 9. **Huguenot Memorial Chapel**
Constructed in 1895, origin Huguenot Memorial Chapel ally known as Manakin church, it is a simple frame building located on the Manakin church grounds. The original building on the site was constructed in the 1700s, but was destroyed by fire. Huguenot Trail
 10. **Keswick**
Original manor house dates to the early 1700s and was built by Charles Clarke on a 1500-acre grant from King James. Huguenot Trail
 11. **Mosby Tavern**
Circa 1740. Used as Cumberland County's courthouse prior to 1777. Route 60
 12. **Norwood**
Antebellum mansion originally known as Greenwood. The site has been a working fram for nearly 200 years, with nine generations of the Kennon family having lived there. Huguenot Trail
 13. **Paxton**
Partially built in 1776 by Josiah Skelton, the house was completed by his son in 1823. Federal style with unusual mantels and wainscoting. Genito Road
 14. **Powhatan Courthouse Historic District**
Originally called Scottville, the county seat was conceived in the late eighteenth century in accord with the 1777 act that divided Cumberland County into two counties to form Powhatan County. The town was designed to measure 1300 feet by 900 feet with streets 100 feet wide and six squares deep for county buildings. The courthouse was designed by Alexander Jackson Davis. Old Buckingham Road
 15. **Provost**
Original portion constructed c. 1783, wing was added c. 1858. Used as a stage stop, post office, telephone exchange and general store. Bell and Cartersville roads.
 16. **Red Lane Tavern**
Also known as Red Hill. Circa late 1700s. House framed with logs. Extensive artifact collection on grounds. Route 60 west of Red Lane.

17. **St. Luke's Church**
Originally constructed in 1843. A one-story brick church with detail associated with the classical Revival style. Huguenot Trail
18. **Somerset**
Constructed c. 1770. Unusual vernacular form with saltbox roof at the rear. Cemetery bordered by a stone wall on grounds. Ballsville Road near Route 60.

Sites Considered By Traceries to Be Potentially Eligible

19. **Birdland Farm**
Once the residence of Miss Birdie May Baugh, who was instrumental in having the cardinal designated as the state bird of Virginia. The construction of the house is attributed to the builder C. B. Walthall, who signed the back of a door molding. Walthall is credited with several other dwellings in the county. Old Buckingham Road
20. **Ballsville Historic District**
Located on Old Buckingham Road (Rt. 13) just east of Tobaccoville. the Village of Ballsville once contained some of the most important businesses in the county during the nineteenth and early twentieth centuries. Old buckingham Road
21. **Goodwyn Farm**
Gothic Revival style c.1810-1842, illustrates the influence of the work of Alexander Jackson Davis. Complex includes significant buildings which retain their integrity of design and material. Goodwyn Road
22. **Huguenot Springs**
A large hotel and several cottages for house guests visiting the natural springs on the site. A Victorian summer retreat to Virginia's elite. Huguenot Springs Road
23. **Hunters Fare**
The house illustrates the influence of the Huguenot immigrants with the use of two front entrances, a characteristic attributed to the Huguenot architecture. Maidens Road

Sites Potentially Eligible That Require Further Study

24. **Bienvenue**
Constructed 1810-1825. One-story pedimented porch may be original. Old Buckingham Road
25. **Calais**
Circa 1780 on Huguenot land grant, unusual cabinetry in dining room Parlors or either side of hall. Calais Trail off Jude's Ferry Road
26. **Center Hill**
Constructed c. 1820-1850, is a good example of a one-story, side-passage plan. Front and back built alike. Jude's Ferry Road at Huguenot Trail
27. **Courthope**
Circa 1809, in original Pineville area. Maidens Road and Old River Trail.
28. **Derwent**
Early example of an I-house. General Robert E. Lee lived here with his family summer of 1865. Derwent Road off Trenholm Road.
29. **Dispatch**

Constructed c. 1780-1830 is an early example of double-pile, side passage plan. The residence is also significant for functioning as an early post office and store. Three Bridge Road

30. **Edgemont**

The architecture of Edgemont, constructed between 1764 and 1794, illustrates the transition from the Georgian to the Federal style. Birthplace of Colonel John Singleton Mosby, "Grey Ghost of the Confederacy." Ballsville Road

31. **Erin Hill**

An early example of the Federal style. It was constructed between 1800-1820. Two one-story wings were added in 1948. Old Buckingham Road.

32. **Fighting Creek**

A blend of elements associated with both the Italianate and Roman classical Revival styles. The symmetry of massing and fenestration, and the pedimented portico are clearly classical; the semi-circular arched openings are Italianate. Mill Quarter Road

33. **Genito Ordinary**

Genito Ordinary was constructed during the late 18th century and illustrates an important building type in the history of Powhatan County. Genito road at Appomattox River

34. **Glebe**

The Glebe, constructed c. 1750, served as an Episcopal Rectory after the House of Burgesses granted authority to the Southam Parish to purchase land and build there. Route 60

35. **Grace Episcopal Church**

Was constructed in 1842 in Greek Revival style, distinguished by its simplicity of detail. Surrounded by graves dating from 1885. Rocky Ford Road

36. **Hickory Hill**

Constructed c. 1813 in I-house form. Additions date from 1830 and 1968. Huguenot Trail

37. **Hobson's Memorial Chapel**

Constructed c. 1841, it is designed in Classical Revival style, with brick laid in Flemish bond and five-course American bond. Similar in style to a Friend's meeting house. Route 60

38. **Holly Hill**

Built in 1814, one-and-a-half story later raised to two. Wing added in 1874. Formerly Clifton. Huguenot Trail

39. **Homestead**

Circa 1817-1821, excellent example of Federal style. Fifteen rooms, heart pine flooring, 19th century graveyard. Scottsville Road

40. **Hughes Creek**

Constructed c. 1833 on land granted to Charles Flemming in 1714. The Federal style residence retains its original form with no additions and few alterations. Old River Trail

41. **Kelona**

An unusual example of a Greek Revival style residence with a temple-form facade. Facade. Original part dates from c. 1797, built of logs, with additions in late 19th and 20th centuries. Old River Trail

42. **Laurel Springs**

- Circa 1754. Built on an original English land grant to the Swann family. Has been restored. Swan road
43. **Macon Tavern**
Oldest known tavern building in Powhatan County. Constructed during 1720s. A three-bay I-house wing, added to the tavern in 1903, changed the frontal emphasis. Old Buckingham Road
44. **Malvern**
Circa 1780 by Francis Harris on 1716 land grant. Double chimneys, solid heart pine stairs. Restored in 1956. Huguenot Trail
45. **Massinacack**
Circa 1714. House built 1810 on part of the original land grant. Dependencies and 200 year-old trees. Once called Lazy Oaks. Old River Trail
46. **Michaux Grant**
Illustrates a series of building campaigns and the prevailing architectural style associated with each addition. The addition dating from 1870-85 illustrates the influence of Alexander Jackson Davis. Old River Trail
47. **Michaux Grant Cemetery**
18th century burial site of French Huguenots. Huguenot Trail
48. **Midway**
Circa 1886. Built of logs. Capeway Road
49. **Mill Quarter**
An excellent example of a Federal double-hall residence. The original portion was constructed in the 1740s, and the main block was added in 1840s. Property included a mill and slave quarters. Mill Quarter Road
50. **Millwood**
Acquired through grant and purchase. Was constructed during early 19th century. House is L-shaped with central hall, original kitchen is connected to the main house by a one-story hyphen. Huguenot Trail
51. **Millview**
Circa 1811. Vernacular country farmhouse. Original two over two, wing added in 1970. Three Bridge and Red Lane Roads.
52. **Monacan**
Circa 1725. Built on first tract of land survey surveyed by Huguenot settlers. Frame with brick additions. Ancient boxwood. Huguenot Trail
53. **Morewood**
Constructed c. 1820, excellent example of a Federal dwelling using a double-pile, side passage plan. Retains original ice house, smoke house and barn. Original house now used as kitchen. Morewood Drive and Rocky Ford Road
54. **Mulberry Hill**
Originally a one-room log structure, built by Peter Sublett. Main house dates from 1825 with a 1958 addition. A designated Bicentennial Farm. Jude's Ferry Road
55. **Pleasant Oak**
Circa mid-1700s. Numerous unmarked graves, believed to slaves'. Insured in 1802 by Mutual Assurance Society for \$1450. Also known as Hideaway and Cedar Grove. Old River Trail

56. **Poland**
Circa 1850s. Twin enterear chimneys. General Lee often visited there while living at Derwent. Trenholm Road
57. **Red Hill**
Circa 1799, two-story brick, two over two. Federal period style. Originally a Presbyterian manse. Old Buckingham Road
58. **Rosemont**
Circa 1895. Gothic Revival house illustrates influence of Alexander Jackson Davis on county architecture. Colonial Revival barn. Cosby Road
59. **Roseneath**
Constructed c. 1859, excellent example of a Federal, hall-parlor residence. Wing added in 1970. Retains original smokehouse, well, ice house, tobacco barn and guest house. Indian artifacts on propeprty. Huguenot Trail
60. **Rudd House**
Originally constructed c. 1840 with subsequent additions and alterations. Original portion is of logs, west wing has Vernacular Victorian details. Now called Longforган. Old Buckingham Road
61. **Rural Shade**
Circa 1801, Built by Bennett Goode. Said to have been pulled apart and section added in middle. .Maidens Road near Michaux.
62. **St. Helens**
Circa 1760, center section of log framework. 1800 and 1892 additions. Huguenot Trail at Jude’s Ferry Road
63. **St. James Chapel**
Built 1889 as place of worship. Voting precinct from 1927. Old River Trail
64. **Shady Oaks**
Circa late 1700s. Has old wine cellar, HL hinges. Roof has no nails, joined by mortise and tenon joints. Urbine Road
65. **Shiloh Baptist Church**
Congregation formed in 1866. Carpenter Gothic, stained glass windows. Has Julien Binford mural “The River Jordan.” Off Old River Trail
66. **Spring Valley**
Circa 1840. Edmund Pendleton returned here after resigning as editor of Richmond paper. Also known as Pendhurst. Huguenot Trail
67. **Stratton**
Original house circa mid-1700s, burned and rebuilt 1890, originally Chapel Hill. Route 60
- 68.. **Sublett’s Tavern**
A mid-18th century residence, has several 19th century additions. Is well-preserved example of transportation history of county. Post office from 1826-1946. Huguenot Trail
69. **Terre Haute**
Circa early 1700s original land grant. House built circa 1800, 1852 additiona. Cemetery dates to 1772. Also known as Bagby Tavern. Huguenot Springs Road
70. **Whitewood**

Circa mid-1800s. outbuilding later attached to house. Also known as Green Pastures. Has slaves' quarters. Off Huguenot Trail.

71. **Windsor**
Owned by Charles Lee, brother of General Robert E. Lee. Property historically significant because of association with General Lee. Huguenot Trail.

Sites That Are Critically Threatened Or Ruins

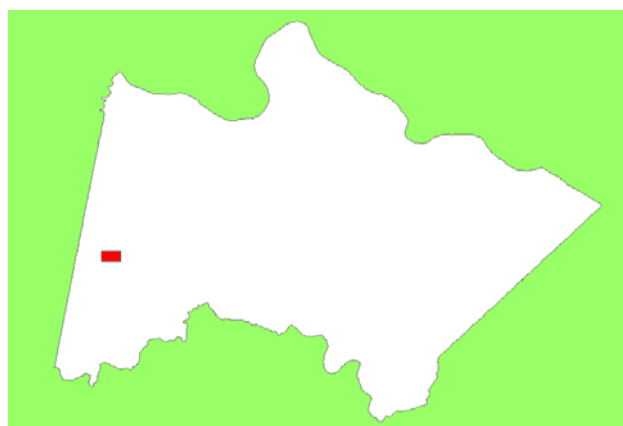
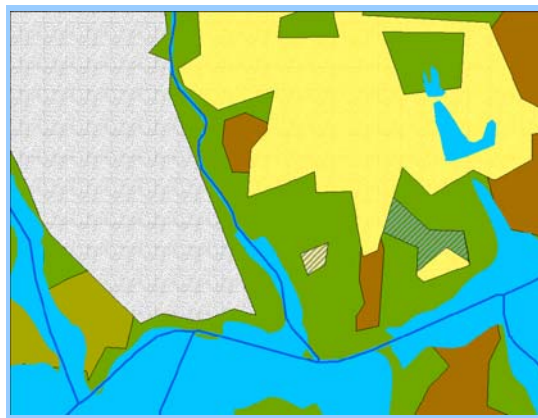
72. **Cherry Row**
Behind St. Luke's Church off Three Bridge Road.
73. **Elioch**
Constructed 1784. Excellent example of Georgian H-plan residence. One-time owner William Wood Finney later helped establish the Pony Express. Elioch Trace off Huguenot Trail
74. **Jefferson Landing**
Village remains at north end of Jefferson Landing Road. During 18th and 19th centuries a shipping point for tobacco crops, with houses, shops and warehouse. At one time belonged to Thomas Jefferson's family.
75. **Jude's Ferry Crossing**
Bennett Goode established the ferry, at the north end of Jude's Ferry Road, in 1740 and sold it to Benjamin Goode in 1752. During the Civil War, Dahlgren's Raiders made an unsuccessful attempt to cross into Powhatan to strike Richmond.
76. **New Castle Farm**
Original dates from early 18th century, wing added in mid-to-early 19th century. Stylistic details, interesting study of building form and style. Petersburg Road off Genito Road.
77. **Peterville Cemetery**
Related to demolished Peterville Church, site used as a meeting place as early as 1723, became mother church of Southam Parish in 1774. Graves of Confederate soldiers and prominent Powhatan families. Private road off Route 60.
78. **St. Francis de Sales High School for Colored Girls – Chapel**
Gothic Revival, 1895. Chapel was designed by C. L. Dodd. Bell and Cartersville Roads
79. **Sherwood**
Behind St. Luke's Church off Three Bridge Road.
80. **Woodberry Mill**
Ruins remain of historic mill that burned. Off Jude's Ferry Road
81. **Woodlawn**
Frame one-and-a-half story home behind St. Luke's Church off Three Bridge Road.

Additional Sites that are Potentially Eligible but Require Further Study

82. **Farmington**
83. **Rocky Oak Church**
84. **The Foundry**
85. **Muddy Creek School**

Appendix 3: Creating a detailed master land use map for Powhatan County









High resolution geo-referenced aerial photographs of the entire County, commissioned in 2002 by the Virginia Graphic Information Network (VGIN), were obtained from a set of DVDs provided by Senator John Watkins.

**A****B****C**

Creation of the Powhatan County land use shape file

The red box in panel A of the above figure corresponds to a single high resolution frame from the aerial photos. From this frame, as well as from all such frames covering the entire County at high magnification, an ARCGIS shape file was created. The aerial photo for the particular boxed frame in panel A is displayed in panel B. The shape file that was created to categorize the landscape features present in the frame appears in panel C. Stream and associated wetland coverages were

obtained from the federal government's current National Wetlands Inventory, already available as an ARCGIS shape file overlay. The following land uses are identified in this frame:

	deciduous forest
	mixed forest
	pine forest
	clearcut
	cleared field/agricultural use
	wooded subdivision/housing cluster
	cleared subdivision/housing cluster or other development
	wetlands (dark blue lines denote streams)

Appendix 4: Understanding the Incentives to Protect under a Well-designed TDR program

A Transfer-of-Development-Rights (TDR) program requires:

1. **the designation of sending areas** (areas to be preserved) in which sellable development rights are allocated to owners of undeveloped land at a County-specified rate per acre
2. **the designation of receiving areas** in which TDRs purchased by developers from sending area landowners at market-determined (negotiated) prices can be used to obtain higher development densities in the receiving area than the receiving area's baseline density would otherwise allow
3. In the sending area, a landowner who sells any of the development rights off a property (often of a specified minimum acreage) agrees to place the entire parcel into a non-development conservation easement, but retains ownership of the property
4. In the receiving area, each dwelling unit that a developer builds above the baseline density requires a County-specified number of TDRs to be presented to the County.

The incentives under a well-designed TDR program

Consider the following illustrative example:

- (a) A collection of 10-acre or larger parcels of forested, undeveloped land in a County-designated **sending area which is zoned A-1**. The owners of these parcels are allocated 1 TDR for each 2 acres that they own. **Thus a 10-acre parcel is allocated 5 TDRs. The A-1 zoning permits 1 dwelling unit to be built on each 10 acres of land. Assume the landowner is willing to sell acreage at a price of \$10,000 per acre.**
- (b) **A receiving area, also with baseline A-1 zoning**, has been designated by the County. The developer may build additional dwelling units beyond the baseline density of 1 dwelling unit per 10 acres by turning in 1.5 TDRs for each such dwelling unit built above the baseline density, up to a limit of an R-2 zoning density (1 dwelling unit per 2 acres of land).
- (c) **A developer who builds \$300,000 homes (on average) on which he makes a 10% profit margin. (A November 2005 report from the National Association of Home Builders placed the profit margin on new homes at 9.8%.) Thus the builder makes approximately \$30,000 per home. Assume that home selling prices adjust to reflect differences in included acreage so that the \$30,000 average profit per home is maintained.**
- (d) **Suppose the developer acquires 100 acres in the receiving area on which to build a subdivision. He can choose between**

the **non-TDR plan**: He builds the 10 homes permitted by the baseline zoning and realizes a total profit of $(10)(\$30,000)=\$300,000$.

or

the **TDR plan**: He purchases 60 TDRs from sending area landowners to permit 40 additional homes to be built on the 100 acres in the receiving area (1.5 TDRs per home), thus bring the zoning with TDRs to R-2 (i.e., 50 homes on 100 acres). The 60 TDRs require that TDRs to be sold from 120 acres in the sending area, because each 2 acres in the sending area was allocated 1 TDR. The 120 acres are then protected in conservation easements.

(1) What is the **maximum** amount the developer is willing to pay for those 60 TDRs?

It is \$1,200,000, i.e., the difference between the $(\$30,000)(50)=\$1,500,000$ profit the developer will receive from the 50 homes built in the receiving area using TDRs and the $(\$30,000)(10)=\$300,000$ profit from the 10 homes that would be built in the receiving area without TDRs. Thus the developer is willing to pay sending area landowners a maximum of $\frac{\$1,200,000}{60} = \mathbf{\$20,000 \text{ per TDR}}$ (or equivalently, $\frac{\$1,200,000}{120} = \mathbf{\$10,000 \text{ per acre placed in an easement.}}$)

(2) What is the minimum price a sending area landowner would require to sell a TDR?

If we place the residual value to the landowners of the 120 acres (placed under easement) at \$5000 (a 50% reduction in value), then they would require minimum compensation of \$5000 per acre ($\$5000 * 120 = \$600,000$ total) from the developers. That is an implied minimum price of $\frac{\$600,000}{60} = \mathbf{\$10,000 \text{ per TDR}}$ (or equivalently, $\frac{\$600,000}{120} = \mathbf{\$5,000 \text{ per acre placed in easement.}}$)

Thus any TDR price between \$10000 and \$20,000 (i.e., any implied payment between \$5,000 and \$10,000 per acre placed in easement) would make both the landowner and the developer better off than under the non-TDR plan.

From the County's standpoint, 120 acres in the sending area are protected by easements without any direct expenditure of County funds. Each one acre developed in the receiving area has resulted in $\frac{120}{100} = 1.2$ acres protected in the sending area.

Lastly, it is interesting to note, by way of comparison, that if we take the total acreage

involved in the transaction (the 100 acres that the 50 dwelling units were built on in the receiving area plus the 120 acres that are protected in the sending area) the developer has achieved effective R-4.4 average zoning $\left(\frac{100+120}{50} = \frac{220}{50} = 4.4 \text{ acres per dwelling unit}\right)$.

Appendix 5: Virginia State Law authorizing TDR Programs

VIRGINIA ACTS OF ASSEMBLY -- 2007 SESSION

CHAPTER 363

An Act to amend and reenact §§ 15.2-2316.1 and 15.2-2316.2 of the Code of Virginia, relating to transfer of development rights.

[S 869]

Approved March 15, 2007

Be it enacted by the General Assembly of Virginia:

1. That §§ 15.2-2316.1 and 15.2-2316.2 of the Code of Virginia are amended and reenacted as follows:

§ 15.2-2316.1. Definitions.

As used in this article, the term:

"Development rights" means the permitted uses and density of development that would be *are* allowed on the sending property under any local zoning ordinance of a locality in effect on the date an application is submitted pursuant to this article *on a date prescribed by the ordinance*.

"Receiving area" means an area identified by an ordinance and designated by the comprehensive plan as an area authorized to receive development rights transferred from a sending area.

"Receiving property" means a lot or parcel within which development rights are increased pursuant to a transfer of development rights. Receiving property shall be appropriate and suitable for development and shall be sufficient to accommodate the transferable development rights of the sending property.

"Sending area" means an area identified by an ordinance and designated by the comprehensive plan as an area from which development rights are authorized to be transferred to a receiving area.

"Sending property" means a lot or parcel that a locality deems necessary to limit future development in accordance with the ordinance adopted in subsection C of § 15.2-2316.2 *or a receiving property that has received development rights from a sending property*.

"Transfer of development rights" means the process by which development rights from a sending property are affixed to one or more receiving properties.

§ 15.2-2316.2. Localities may provide for transfer of development rights.

A. Pursuant to the provisions of this article, the governing body of any locality by ordinance may, in order to conserve and promote the public health, safety, and general welfare, establish procedures, methods, and standards for the transfer of development rights within its jurisdiction. Any locality adopting or amending any such transfer of development rights ordinance shall give notice and hold a public hearing in accordance with § 15.2-2204 prior to approval by the governing body.

B. Any proposed transfer of development rights shall only be initiated upon application by the property owners of both the sending and receiving properties. A locality may not require property owners to transfer development rights as a condition of the development of any property.

C. Prior to any transfer of development rights, a locality shall adopt an ordinance based on findings of public benefit. Such ordinance shall provide for:

1. The issuance and recordation of the instruments necessary to sever development rights from the sending property and to affix development rights to the receiving property. These instruments shall be executed by the affected property owners and lienholders. The instrument *instruments* shall identify the development rights being transferred, identification of the sending property and the receiving property;
2. The preservation of the character of the sending property and assurance that the prohibitions against the use and development of the sending property shall bind the landowner and every successor in interest to the landowner;
3. The severance of transferable development rights from the sending property and the transfer of development rights to a receiving property;
4. The purchase, sale, exchange, or other conveyance of transferable development rights prior to the

rights being affixed to a receiving property;

5. A system for monitoring the severance, ownership, assignment, and transfer of transferable development rights;

6. A map or other description of areas designated as sending and receiving areas for the transfer of development rights between properties;

7. The identification of parcels, if any, within a receiving area that are inappropriate as receiving properties;

8. The ordinance shall include permitted uses and the maximum increases in density in the receiving area;

9. The minimum acreage of a sending property and the minimum reduction in density of the sending property that may be conveyed in a transfer of development rights;

10. An assessment of the infrastructure in the receiving area that identifies the ability of the area to

accept increases in density and its plans to provide necessary utility services within any designated receiving area;

11. The review of an application by the planning commission or its agent to determine whether the application complies with the provisions of the ordinance. The application shall be deemed approved upon the determination of compliance with the ordinance and upon recordation of the instrument transferring the development rights in the land records of the office of the circuit court clerk for the locality; and

12. Such other provisions as the locality deems necessary to aid in the implementation of the provisions of this article.

D. The ordinance may provide for the allowance for residential density to be converted to an increase in the square feet of a commercial, industrial or other use on the receiving property.

E. Development rights made transferable pursuant to this article shall be interests in real property and shall be considered as such for purposes of conveyance and taxation. Once an application has been approved and a deed of transferable development rights created pursuant to this article has been sold, conveyed, or otherwise transferred by the owner of the sending property, the transfer of development rights shall vest in the grantee and may be transferred to a successor in interest. Any transfer of the development rights to a different property in a receiving area shall be subject to review pursuant to the provisions of the ordinance adopted pursuant to provision 11 of subsection C.

F. For the purposes of ad valorem real property taxation, the value of a transferable development right shall be deemed appurtenant to the sending property until the transferable development right is recorded as a distinct interest in real property with the appropriate tax assessor or the transferable development right is used at a receiving property and becomes appurtenant thereto.

G. Approved transfers of development rights shall become effective upon the recording of the conveyance and the filing of a certified copy of such recording with the local governing body of the locality.

H. Localities shall incorporate the map identified in provision 6 of subsection C into the comprehensive plan.

I. No amendment to the zoning map, nor any amendments to the text of the zoning ordinance with respect to the zoning district applicable thereto initiated by the governing body, which eliminate, or materially restrict, reduce, or modify the uses, or the density of use permitted in the zoning district applicable to any property to which development rights have been transferred, shall be effective with respect to such property unless there has been mistake, fraud, or a change in circumstances substantially affecting the public health, safety, or welfare.

J. A county adopting an ordinance pursuant to this article may designate eligible receiving areas in any incorporated town within such county, if the governing body of the town has also amended its zoning ordinance to designate the same areas as eligible to receive density being transferred from sending areas in the county.

K. Any county and an adjacent city may enter voluntarily into an agreement to permit the county to

designate eligible receiving areas in the city if the governing body of the city has also amended its zoning ordinance to designate the same areas as eligible to receive density being transferred from sending areas in the county. The city council shall designate areas it deems suitable as receiving areas and shall designate the maximum increases in density in each such receiving area. However, if any such agreement contains any provision addressing any issue provided for in Chapter 32 (§ 15.2-3200 et seq.), 33 (§ 15.2-3300 et seq.), 36 (§ 15.2-3600 et seq.), 38 (§ 15.2-3800 et seq.), 39 (§ 15.2-3900 et seq.), or 41 (§ 15.2-4100 et seq.), the agreement shall be subject to the review and implementation process established by Chapter 34 (§ 15.2-3400 et seq.).

1. The terms and conditions of the density transfer agreement as provided in this subsection shall be determined by the affected localities and shall be approved by the governing body of each locality participating in the agreement, provided the governing body of each such locality first holds a public hearing, which shall be advertised once a week for two successive weeks in a newspaper of general circulation in the locality.

2. The governing bodies shall petition a circuit court having jurisdiction in one or more of the localities for an order affirming the proposed agreement. The circuit court shall be limited in its decision to either affirming or denying the agreement and shall have no authority, without the express approval of each local governing body, to amend or change the terms or conditions of the agreement, but shall have the authority to validate the agreement and give it full force and effect. The circuit court shall affirm the agreement unless the court finds either that the agreement is contrary to the best interests of the Commonwealth or that it is not in the best interests of each of the parties thereto.

3. The agreement shall not become binding on the localities until affirmed by the court under this subsection. Once approved by the circuit court, the agreement shall also bind future local governing bodies of the localities.

Appendix 6. List of References Consulted and Primary Input Assembled by the CWG

1. Virginia Tech College of Natural Resources “Forest and Farmland Conservation Strategies Resource Manual” June 2007
2. Dr. John Randolph Virginia Tech School of Public Affairs “Environmental Land Use Planning and Management” 2004
3. The Conservation Fund “Better Models for Development in Virginia” 2000
4. Virginia Department of Conservation and Recreation “Virginia’s Precious Heritage”
5. Comprehensive Plans of numerous Virginia counties including Albemarle, Loudon, Goochland, Hanover, York, Surry, New Kent, James City, Chesterfield et al.
6. Farm Bureau Federation of Virginia
7. Monacan Soil and Water Conservation District “Resource Guide for Landowners”
8. James River Association “Building a Cleaner James River” August 2006
9. Weldon Cooper Center for Public Service, University of Virginia
10. Citizen Planning Education Association of Virginia
11. United States Geological Survey of Powhatan County, Virginia
12. VGIN high-resolution (1 meter) geo-referenced digital aerial photographs of Powhatan County (2002) supplied by Senator John Watkins.
13. USDA Aerial Imagery geo-referenced digital aerial photographs of Powhatan County (2006), 2m resolution
14. ARCGIS version 9.2 software
15. Current Powhatan County Comprehensive Plan and County Ordinances
16. Complete Powhatan County detailed zoning maps through November 2006
17. Federal National Wetlands Inventory Overlays for Powhatan County
18. Old Dominion Resource Conservation and Development Council “Conservation Strategies Short Course” June 2007
19. Land Trust of Virginia
20. American Farm Land Trust
21. Capital Region Land Conservancy
22. Virginia Coalition of High Growth Communities
23. Identification and organization of the portions of the current Powhatan comp plan and county ordinances related to the four focal areas
24. Comp plans and ordinances from a number of counties including: Albemarle, Goochland, Hanover, Henrico, Isle of Wight, and James City County.
25. Assessment and recommendations from the James River Association’s watershed report for improving water quality in Powhatan County
26. Materials on the preservation of farmland and open space (including the use of conservation easements) from the Virginia Farm Bureau, Virginia Tech’s Rural Economic Analysis Program, the Virginia Outdoors Foundation, the Virginia Department of Agricultural and Consumer Services Farmland Preservation Task Force, and from relevant sections in the comp plans of selected counties
27. International Dark-Sky Association recommendations on limiting light pollution and Fauquier County Ordinances covering outdoor commercial and residential lighting

28. Virginia Department of Game and Inland Fisheries presentation to the subgroup on land use practices in relation to wildlife habitat requirements and protection of water
29. Preserving Rural Character through Agriculture: A Resource Kit for Planners, New Hampshire Coalition for Sustaining Agriculture, December 2000.
30. Managing Growth and Development in Virginia: A Review of the Tools Available to Localities, 3rd Edition, October 2007. Virginia Chapter of the American Planning Association.
31. Route 711 Corridor Study (2006)
32. Route 711 Historic Overlay District Plan (2003)
33. McConnell et. al., "Zoning, TDRs, and the Density of Development," *Journal of Urban Economics*, Vol. 59 (2006)
34. Thrones and Simon, "Letting the Market Preserve Land: The Case for a Market-Driven Transfer of Development Rights Program," *Contemporary Economic Policy Journal*, Vol. 17 (1999)
35. "Transfer of Development Rights in U.S. Communities: Evaluating Program Design, Implementation, and Outcomes," 137 page report of the non-profit research institution Resources for the Future, including multiple case studies (September, 2007).
36. "A Model Purchase of Development Rights (PDR) Program for Virginia," Virginia Department of Agricultural and Consumer Services Farmland Preservation Task Force (2005)

Appendix 7: Items Identified by the Strengths, Weaknesses, Opportunities and Threats Analysis (S.W.O.T.) conducted on 12/20/2006, early in the CWG's work

STRENGTHS

- S1. Abundant land on James and Appomattox rivers
- S2. Beautiful farm lands
- S3. Previous work done for Comp Plan – need to comb out loopholes
- S4. Rt. 288 will bring commercial development
- S5. Location near Richmond
- S6. Citizen involvement in future planning, new ideas, break old patterns
- S7. Historical sites and significance
- S8. Opportunity/timing to make changes/change course
- S9. Incorporate other localities BP's into our vision
- S10. Chance to develop new business tax base because of location
- S11. Chance to strengthen Comp Plan and ordinances to protect from political decisions made by future BOS
- S12. Most of County still rural – farms, forests, open space
- S13. Planned Powhatan State Park
- S14. Good school system
- S15. Clean environment and good wildlife population
- S16. Chance to get better control of development and target growth areas
- S17. Attracting retirees and new blood
- S18. Charm and character of County
- S19. Low crime rate
- S20. Not much ugliness like landfills or major industrial pollution
- S21. Large farms
- S22. Low welfare load
- S23. Subdivisions using lighting to preserve night skies
- S24. Efforts by some developers to create subdivision that find the land well
- S25. Diverse wildlife species
- S26. 4500 acre Powhatan Wildlife Management Area
- S27. Critical area for migratory songbirds
- S28. Economically diverse population

WEAKNESSES

- W1. Developer bias in County decision making
- W2. Lack of vision has led to “willy-nilly” development decisions
- W3. Current ordinances are resulting in sprawl
- W4. Unbalanced tax base
- W5. Under-staffed, under-trained, under-funded planning and enforcement
- W6. Lack of planning to identify and protect critical wildlife habitats and natural resources
- W7. No comprehensive parks/recreation plan
- W8. No real plans to deal with water and wildlife issues
- W9. Not enough overall citizen involvement in PC and BOS meetings
- W10. Too many bad precedents set by BOS decisions

- W11. CUP's that override what plans and ordinances could do
- W12. Too many vague items (loopholes) in ordinances
- W13. Slow to act on future plan and control of growth and planned development
- W14. Not taking care of finances has led to being desperate to take any business
- W15. Bias against environmental issues
- W16. Not taking advantage of Rt. 288 to do good development
- W17. Have not pursued Lake Genito
- W18. Failure to find a way to build consensus among conflicting needs/wants/biases
- W19. Have not pursued industrial in middle of big farms like Cabarrus County, NC
- W20. Specify what areas to preserve and what areas to develop
- W21. Resistance to accept lessons and BP'S from other localities or SME's
- W22. No attention being paid to workforce housing (affordable housing)
- W23. Rezoning from AG to R5
- W24. By-right zoning
- W25. Lack of clarity in Comp Plan
- W26. Lack of staff to enforce ordinances
- W27. Failed to properly utilize our greatest resource – land – lack of clustering, 5 acres too small to farm-too large to mow
- W28. Encourage leaving more forested land

OPPORTUNITIES

- O1. Village/Mixed-Use development
- O2. Limit light pollution
- O3. Curb noise/visual pollution through buffers
- O4. Develop better soil classification knowledge base
- O5. At crossroads for making decisions for future – public involvement
- O6. Better tools to facilitate quality/affordable development: cluster zoning, buffers, ADU(?) preserves (wildlife and environmentally sensitive areas), villages, green space, wildlife corridors, trails
- O7. Protection of property rights (i.e.: from eminent domain)
- O8. Better utilization and protection of tributaries
- O9. Perception of “rurality”
- O10. Change ordinances to encourage protection of critical resources
- O11. Preserve farms/forests with progressive assessments
- O12. Take advantage of being bordered by 2 rivers
- O13. (?) Tie development of R5, R7 and R10 areas to type of road – big, tar and gravel, etc
- O14. Reserve western Powhatan for future development with R7 and R10 zoning
- O15. Tighten ordinances to make them bullet-proof – eliminate loopholes
- O16. Cluster C and I development in areas where environment already “trashed”
- O17. Partnerships between limited industrial and big farms
- O18. Pursue no-emissions industry
- O19. Adopt low land use taxes to keep agricultural business and open space
- O20. Preserve/establish rules for tree lined Rts. 60, 711 and 522 with limited business visibility
- O21. Any business located near established residential must have residential support and meet noise, light and emissions rules or no approval

- O22. Give PC and BOS tight Comp Plan and Ordances so they can and/or have to say “no”
- O23. Wiser financial decisions/planning so not forced to take any and all comers
- O24. Bring in/hire/utilize professionally qualified people

THREATS

- T1. Loss of farmland
- T2. Loss of forest land
- T3. Failure to recognize and plan interrelatedness of parcels
- T4. Maps of County/GIS non-existent
- T5. Build-out is a distinct possibility
- T6. Failure to plan for conservation and recreation
- T7. No village zoning
- T8. Lack of workforce housing
- T9. Not enough staff to monitor County
- T10. Loss of land use taxation
- T11. Loss of scenic vistas, night skies (light pollution) and the sound of nature
- T12. Lack of small business opportunities
- T13. Loss of gross receipts tax
- T14. Perception that developers are not paying their share for infrastructure
- T15. Poor financial decisions that force unwise decisions
- T16. Need right balance of C and I development to stave off rising taxes
- T17. Not enough citizen involvement to free implementation of...(?)
- T18. Rising crime rate
- T19. Development along rivers and streams w/o adequate controls and enforcement
- T20. No real penalties for breaking rules
- T21. Bias for tactical/personal decisions vs. decisions for long term public good
- T22. Lack of big picture planning
- T23. If we become suburbanized, what does Powhatan have going for it?
- T24. Public perception of corruption, cronyism and favoring special interests
- T25. Inadequate roads, lack of near future plan to fix, County may have to pay