

MOTION:

**December 7, 2010
Regular Meeting
Oct. No. 10-**

SECOND:

**RE: COMPREHENSIVE PLAN AMENDMENT #PLN2009-00547 -
ENVIRONMENT CHAPTER UPDATE - ALL MAGISTERIAL
DISTRICTS**

ACTION:

WHEREAS, under Section 15.2-2229 of the Code of Virginia, Ann., the Board of County Supervisors may consider amendments to the Comprehensive Plan; and

WHEREAS, as stated in Res. No. 09-548, the Prince William Board of County Supervisors initiated consideration of Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, on June 23, 2009, and referred it to the Prince William County Planning Commission; and

WHEREAS, as stated in Res. No. 10-555 that became effective on July 1, 2010, the Board of County Supervisors directed the Planning Commission to conduct a public hearing and make a recommendation for the Environment Chapter of the Comprehensive Plan on September 15, 2010; and

WHEREAS, the Planning Commission duly considered citizen, civic association, interest group, and business/development community input during numerous work sessions and a public hearing that was held on September 15, 2010; and

WHEREAS, at its September 15, 2010 public hearing, the Planning Commission voted to recommend adoption subject to a series of amendments, as stated in Planning Commission Resolutions 10-138, 10-139, 10-140, 10-141, 10-142, and 10-143; and

WHEREAS, the Prince William Board of County Supervisors duly ordered, advertised and held a public hearing on December 7, 2010, at which time public testimony was received and the merits of the above-referenced comprehensive plan amendment were considered; and

WHEREAS, the Prince William Board of County Supervisors believes that the public general welfare as well as good planning practices are served by the adoption of this comprehensive plan amendment;

NOW, THEREFORE, BE IT ORDAINED that the Prince William Board of County Supervisors does hereby adopt the Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, with the proposed text amendments, as attached.

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Page Two**

ATTACHMENT: Proposed Text Amendments

Votes:

Ayes:

Nays:

Absent from Vote:

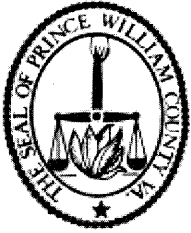
Absent from Meeting:

For Information:

Planning Director

Public Works Director

ATTEST: _____
Clerk to the Board



Melissa S. Peacor
County Executive

COUNTY OF PRINCE WILLIAM

OFFICE OF EXECUTIVE MANAGEMENT


1 County Complex Court, Prince William, Virginia 22192-9201
(703) 792-6600 Metro 631-1703 FAX: (703) 792-7484

BOARD OF COUNTY SUPERVISORS

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December 1, 2010

TO: Board of County Supervisors

FROM: Stephen K. Griffin 
Director of Planning

THRU: Melissa S. Peacor
County Executive

RE: Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update
(All Magisterial Districts)

I. Background is as follows:

- A. Code of Virginia Provisions for Comprehensive Plan Updates – Section 15.2-2230 of the Code of Virginia requires the Planning Commission to review the Comprehensive Plan every five years to determine whether it needs to be amended.
- B. Scope and Process – On June 3, 2009, the Planning Commission passed a resolution that outlined a process for the Environment Chapter Update, which was further amended on June 17, 2009. Between June 2009 and July 2010, a series of community input, industry and civic association/interest group, stakeholder work sessions, and interactive work meetings were held. A website was developed, which served as a resource depository for project information, schedule/process updates, stakeholder feedback and comments, working drafts, and other related resources.

The following list provides a summary of the major amendments being proposed to the Environment chapter:

- Additional data collection, analysis, and maintenance requirements, including GIS data layers and enhanced watershed management plans.
- Additional submission requirements for rezoning and special use permit requests.

- Definitions of and strategies to protect significant non-RPA streams and unique habitats of special concern.
 - New policy to develop stormwater management standards in preparation for new state stormwater management regulations and TMDL requirements that improve the performance of such facilities, encourage low impact development (LID), reduce impervious surfaces, and protect wetlands and water resources.
 - New strategy to protect drinking water supplies with a Reservoir Protection Overlay District.
 - New strategy to preserve trees and manage forest resources with a Tree Preservation Ordinance.
 - New policies and strategies to develop a community energy master plan, conserve energy, and promote renewable energy and green technology.
- C. Comprehensive Plan Amendment Initiation – On June 23, 2009, the Board of County Supervisors initiated the Environment Chapter Update of the Comprehensive Plan. See Attachment D for the resolution.
- D. Planning Commission Work Sessions – The Planning Commission held six work sessions to discuss the working draft with staff, engage in interactive dialogue with industry, civic association, and interest group representatives, and conduct an educational workshop on green infrastructure. On July 28, 2010, the Planning Commission held a final work session, at which time staff recommendations were presented and the final draft text was accepted for consideration in the public hearing process.
- E. Board of County Supervisors Work Session – The Board of County Supervisors held a work session on October 26, 2010 with the staff to provide an overview of the status of the update, highlight the major issues of concern, and to discuss the recent efforts to coordinate with the development/building industry on amendments to the proposed text.
- F. Coordination with Building Industry – Prior to and after the October 26th work session, staff has met on numerous occasions with representatives from the National Association of Industrial and Office Properties (NAIOP) and the Northern Virginia Building Industry Association (NVBIA) in order to discuss outstanding issues and obtain feedback on the proposed text amendments.

II. Current Situation is as follows:

- A. Planning Commission Recommendation – The Planning Commission recommends adoption of the Environment Chapter Update, Comprehensive Plan Amendment #PLN2009-00547, with the proposed text as shown in Attachment B. Refer to Attachment A for the staff analysis.
- B. Staff Recommendation – The Planning Office recommends adoption of the Environment Chapter Update, Comprehensive Plan Amendment #PLN2009-00547, with the proposed amendments, as attached to the ordinance. Refer to Attachment A for the staff analysis.
- C. Board of County Supervisors Public Hearing – A public hearing before the Board of County Supervisors has been advertised for December 7, 2010.

III. Issues are as follows:

- A. Policy – What are the broad policy and Comprehensive Plan implications if this CPA request is approved?
- B. Community Input – Have members of the community raised any issues?
- C. Other Jurisdictional Comments – Have other jurisdictions raised any issues?
- D. Legal – What are the pertinent legal issues associated with this proposal?
- E. Timing – Is there a time limit for the Board of County Supervisors to take action on this proposal?

IV. Alternatives, beginning with the staff recommendation, are as follows:

- A. Adopt CPA #PLN2009-00547, Environment Chapter Update, with the proposed text amendments, as attached to the ordinance.
 - 1. Policy – The Environment Chapter Update integrates new concepts of sustainability and green infrastructure in order to meet the needs of the County in 2030. The intent of the update is to expand the scope of the County's environmental policies within the context of emerging development trends, evolving regulations, and the need to balance economic development, while also building off of the most recently adopted land use and transportation policies. The proposed updates to the Environment chapter further the County's ongoing commitment to environmental leadership and complement the growing list of its green

accomplishments. Based on a closer look at the availability of staff and financial resources as well as internal County policies, this alternative provides a more realistic, balanced, and implementable plan than the Planning Commission alternative that is discussed in Alternative B.

When considering all of the proposed amendments to the Environment Plan, the combined implications of policy changes include the following:

- Additional staff, time, training, and financial resources for the County, but improved data for planning, decision-making, and citizen information/awareness
- More preparation time/expense for applicants during special use permit and rezoning requests, but improved data for decision-making
- More specific guidelines and criteria for identifying/preserving resources of interest
- Incentives for open space and conservation easement applications
- Expanded and enhanced regional coordination with partners
- Expanded and enhanced application of watershed management planning
- Recommendations for improved stormwater management practices
- Reservoir Protection Overlay District, when adopted, could increase building setbacks and establish use limitations and density controls near/adjacent to surface drinking water supplies
- Tree Preservation Ordinance, when adopted, would result in improved management of forest resources, but may impose stricter land disturbance limits and landscaping requirements
- Clearly defined/coordinated energy planning policies and strategies
- Providing recognition and incentives for energy conservation at non-government facilities
- Implementation of green energy concepts at County facilities, while eventually realizing the associated cost savings

2. Fiscal Impact – There are no immediate, direct fiscal impacts associated with adopting the updated Environment chapter, as it is a policy-based planning document. However, throughout this process, there have been staff concerns on the necessary level of financial resources and staff resources required to implement the plan. As a result, the amendments proposed to the text attempt to control the anticipated costs. An update to the Environment Plan in conjunction with evolving regulations will ultimately lead to consideration of a shift in funding priorities for the County. Although the specific figures are not known at this time and have not been analyzed, increased costs will be associated with staffing and GIS mapping resources that would be necessary to develop and maintain many of the additional mapping data layers.

3. Legal – Legal issues resulting from Board of County Supervisors action would be addressed by the County Attorney.
 4. Community Input – Proposed text drafts and comments have been published on the Prince William County government website and have been available in the Planning Office. Comments from stakeholders have been collated and posted online, which included citizens, developers/builders, industry representatives, environmental interest groups, and others. Over the past year, there were also five public input meetings to obtain feedback. At the September 15, 2010 Planning Commission public hearing, there four speakers in total. Three were representing the development/building industry, who expressed concerns about impacts of the new proposed definitions, policy implications for development, timing of process, and pending regulations. The fourth speaker was representing the conservation/environmental advocacy groups, who discussed the importance of upstream protection, water quality protection, and how this process should be viewed as an opportunity to make a true difference with our environmental policies. Since this time, there has also been a series of interactive meetings with staff and representatives from the local and regional building industry.
 5. Other Jurisdictional Comments – Notice of the Environment Chapter Update has been sent to the following jurisdictions: City of Manassas, City of Manassas Park, Fairfax County, Loudoun County, Fauquier County, Stafford County, Town of Haymarket, Town of Quantico, Town of Dumfries, and the Town of Occoquan. At the time of this staff report, Loudoun County responded and indicated that they have no substantive comments on the proposed updates.
 6. Timing – The Board of County Supervisors has until December 14, 2010, which is 90 days from the Planning Commission’s recommendation, to take action on this Comprehensive Plan Amendment. A public hearing before the Board has been scheduled for December 7, 2010.
- B. Adopt CPA #PLN2009-00547, Environment Chapter Update, with proposed Planning Commission text amendments, as shown in Attachment B.
1. Policy – The Environment Chapter Update integrates new concepts of sustainability and green infrastructure in order to meet the needs of the County in 2030. The intent of the update is to expand the scope of the County’s environmental polices within the context of emerging development trends, evolving regulations, and the need to balance economic development, while also building off of the most recently adopted land use and transportation policies.

When considering all of the proposed amendments to the Environment Plan, the combined implications of policy changes include the following:

- Additional staff, time, training, and financial resources for the County, but improved data for planning, decision-making, and citizen information/awareness
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3. Legal – Legal issues resulting from Board of County Supervisors action would be addressed by the County Attorney.

4. Community Input – Proposed text drafts and comments have been published on the Prince William County government website and have been available in the Planning Office. Comments from stakeholders have been collated and posted online, which included citizens, developers/builders, industry representatives, environmental interest groups, and others. Over the past year, there were also five public input meetings to obtain feedback. At the September 15, 2010 Planning Commission public hearing, there four speakers in total. Three were representing the development/building industry, who expressed concerns about impacts of the new proposed definitions, policy implications for development, timing of process, and pending regulations. The fourth speaker was representing the conservation/environmental advocacy groups, who discussed the importance of upstream protection, water quality protection, and how this process should be viewed as an opportunity to make a true difference with our environmental policies. Since this time, there has also been a series of interactive meetings with staff and representatives from the local and regional building industry.
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6. Timing – The Board of County Supervisors has until December 14, 2010, which is 90 days from the Planning Commission’s recommendation, to take action on this Comprehensive Plan Amendment. A public hearing before the Board has been scheduled for December 7, 2010.

C. Take no action on CPA #PLN2009-00547, Environment Chapter Update.

1. Policy – The Environment Plan would not be modified to incorporate concepts of sustainability and green infrastructure. The County’s environmental polices would remain unchanged. It is important to note that by not updating the Environment chapter, it may become outdated within the context of emerging development trends, and evolving regulations. By not being pro-active in its planning and denying the proposed updates to the Environment chapter, the County would likely become at a disadvantage and may eventually become forced to implement changes that would be mandated by regulations. This would also be in conflict with many of the green leadership efforts that the County has already undertaken.

2. Fiscal Impact – There are no direct fiscal impacts associated with not adopting the updated Environment Chapter.
3. Legal – Any details or consequences resulting from failure to take action would be addressed by the County Attorney.
4. Community Input – Proposed text drafts and comments have been published on the Prince William County government website and have been available in the Planning Office. Comments from stakeholders have been collated and posted online, which included citizens, developers/builders, industry representatives, environmental interest groups, and others. Over the past year, there were also five public input meetings to obtain feedback. At the September 15, 2010 Planning Commission public hearing, there four speakers in total. Three were representing the development/building industry, who expressed concerns about impacts of the new proposed definitions, policy implications for development, timing of process, and pending regulations. The fourth speaker was representing the conservation/environmental advocacy groups, who discussed the importance of upstream protection, water quality protection, and how this process should be viewed as an opportunity to make a true difference with our environmental policies. Since this time, there has also been a series of interactive meetings with staff and representatives from the local and regional building industry.
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6. Timing – The Board of County Supervisors has until December 14, 2010, which is 90 days from the Planning Commission's recommendation, to take action on this Comprehensive Plan Amendment. A public hearing before the Board has been scheduled for December 7, 2010.

V. **Recommendation** is that the Board of County Supervisors accepts Alternative A and adopts the attached ordinance with the proposed text amendments, as recommended by staff.

Staff: Scott F. Meyer, X 6876

Attachment: Proposed Text Amendments

- A. Staff Analysis
- B. Planning Commission Recommended Text
- C. BOCS Initiation Resolution
- D. BOCS Direction for PC Recommendation Resolution
- E. PC Resolutions
- F. Natural Heritage/Resource Area Maps – Provided by VDCR
(for informational purposes)

ENVIRONMENT

Intent

The intent of the Environment Plan is to ensure that in developing the County, the natural beauty is preserved, water quality is protected, property values and quality of life are enhanced, and ecological diversity is preserved. With sound protection measures, such as those presented herein, Prince William County's citizens, business community, and visitors enjoy a healthy environment co-existing with a vibrant economy. In this regard, this Plan is to be used to address environmental issues, evaluate development proposals in their earliest stages, and develop ordinances.

Prince William County is one of a few jurisdictions on the Atlantic Seaboard that extends from sea level to mountain crest. The natural environment of the County is diverse. Streams, creeks, rivers, lakes, marshes, forests, meadows, and shores provide habitat for plants and animals, as well as contribute to the economic well-being and aesthetics of the County.

One way to preserve the County's natural environment is to see that applicants for development approval address environmental issues at the earliest planning phase. This Plan assists in this early planning process by defining those areas of a site that are environmentally sensitive and need to be preserved for the purpose of protecting water quality, maintaining the County's natural beauty, enhancing property values and quality of life, and preserving ecological diversity.

Sustaining our environmental position is critical to the County's capacity to ensure a high quality of life, provide for continued economic growth, and actively conserve and protect natural resources, including public drinking water supplies. To this end, it is critical for the County to establish clear measurable goals and environmental benchmarks in order to gauge its progress and plan for the future. Prince William County utilizes a sustainability approach in its planning and development policies. Prince William County embraces the environmental and economic benefits of our green infrastructure, considering emerging green technology, ensuring a multi-faceted decision-making approach that balances infrastructure needs, while balancing environmental, economic, and social issues.

On its rezoning and special use permit applications, ~~the County~~ the Zoning Ordinance requires ~~asks for~~ an environmental constraints analysis to determine areas of a site that are suitable for development and those areas that are not. The environmental constraints analysis determines the presence and extent of ~~certain~~ important environmental features as described in this Plan. ~~It and~~ is then used as a tool to outline in a rezoning or special use permit application the preservation or

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conservation areas that will be provided and also describes avoidance efforts and/or mitigation techniques to minimize the environmental impacts of ~~with~~ those applications.

~~The standards and guidelines presented in this Plan are intended to supplement those reflected in the Chesapeake Bay Preservation Act and Chesapeake Bay Regulations. Prior to development of land, the property owner shall consult the Chesapeake Bay Preservation Overlay District Map, which identifies components of the Chesapeake Bay Act. These components include Resource Protection Areas, Resource Management Areas, and Intensely Developed Areas. A description of these components, and specific regulations regarding the Chesapeake Bay Act, are found in the County's Zoning Ordinance and Design and Construction Standards Manual.~~

~~Information contained in this Plan, and other environmental information available through the County, are provided as a public service by the operators/management of the Prince William County Internet Home Page, County cable television stations, radio stations, print media, and the Virginia Cooperative Extension Service.~~

The components of the Environment Plan include text and fold-out maps as follows:

- Intent, Goal, Policies, and Action Strategies.
- Highly Erodible Soils Map (Figure 1).
- Highly Permeable Soils Map (Figure 2).
- Chesapeake Bay Resource Protection Areas Map (RPAs) (Figure 3).

DEFINITIONS

Brownfield: A piece of industrial or commercial property that is abandoned or underused and often environmentally contaminated, especially one considered as a potential site for redevelopment.

Canopy: The leaf area of a tree.

Canopy Coverage: The area underneath the dripline of a tree, group of trees or forest.

Coastal Plain: The physiographic province generally located to the east of Interstate 95.

Contiguous: Abutting, adjoining, or touching and having a boundary, or portion thereof, which is coterminous.

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Forest Resources: Those trees, from individual trees in a parking lot to large populations of trees in expansive native forests, along with their associated plant and animal communities, that provide ecological, environmental, social and economic benefits.

Green Infrastructure: Green Infrastructure is our nation's natural life support system – an interconnected network of waterways, wetlands, woodlands, wildlife habitats, and other natural areas; greenways, parks and other conservation lands; working farms, ranches and forests; and wilderness and other open spaces that support native species, maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for America's communities and people. *2007 Virginia Outdoors Plan (Benedict and McMahon, 2006)*

Jurisdictional Wetlands and Waters: All waters of the United States and surface waters of the Commonwealth regulated by the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality.

Perennial Stream: As defined by CBLAD, a perennial stream is a body of water that flows in a natural or man-made channel year-round during a year of normal precipitation. This includes, but is not limited to streams, estuaries, and tidal embayment's and may include drainage ditches or channels constructed in wetlands or from former natural drainage ways, which convey perennial flow. Lakes and ponds, with perennial streams flowing into, out of, or through them, are a part of the perennial stream. Generally, the water table is located above the streambed for most of the year and groundwater is the primary source for stream flow.

Significant Non-RPA Stream: A stream that is determined to significantly contribute to the health of an RPA stream or public drinking water source and/or that has a defined channel, sorted substrate, groundwater input, and supports aquatic life according to the U.S. Environmental Protection Agency's Rapid Bioassessment Protocol. The determination will also consider the Virginia Unified Stream Methodology's criteria such as channel condition, riparian buffer, in-stream habitat, presence of wetlands and overall sub-watershed conditions. The stream will generally score > 18 points when assessed with the County's preferred stream assessment protocol during the Perennial Flow Determination (PFD) process or as part of a watershed management plan.

Specimen Tree: A tree having a diameter, measured at four and one-half (4.5) feet above the ground, of thirty (30) inches or more, or a tree having a diameter measuring seventy-five percent (75%) or more of the diameter of the current state champion of that species; includes county and state champion trees.

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Unique Habitats of Special Concern: Rare and exemplary natural communities as identified by the DCR Natural Heritage Division as habitat for natural heritage resources. These areas play a crucial role in the future survival of the natural communities and rare species they support, examples include threatened or endangered plants or animals, rare or state significant natural plant communities, and significant geologic formations and features.

GOAL: Preserve, protect, and enhance the significant environmental resources and features of the County, including air quality, topography, soils, ground and surface water, biotic communities, (stream corridors, forests, and wetlands), sensitive plant and animal species, and natural viewsheds.

GENERAL ENVIRONMENTAL POLICIES AND ACTION STRATEGIES

EN-POLICY 1: Consider environmental concerns at all levels of land use related decision-making.

ACTION STRATEGIES:

~~1. — Develop a methodology to account for the depreciation of renewable resources (such as forest, groundwater) and non-renewable resources (such as unique habitat) when evaluating the economic health of the County.~~

EN1.1 Develop and maintain GIS mapping layers and other critical maps to be included as part of the Environment Plan, which may include the following layers and/or maps:

- Existing Canopy Coverage
- Impervious Area
- Vegetative Cover Types
- Wetlands
- Existing Conservation Easements

EN1.2 Update the Zoning Ordinance environmental constraints analysis requirements to add the following: ~~show the following as three separate items:~~

- a. ~~Approximate~~ Delineation of all jurisdictional wetlands and waters areas
- b. ~~Approximate~~ Location of all Chesapeake Bay Resource Protection Areas (PASA submittal required)
- c. All significant non-RPA ~~intermittent~~ streams
- d. Ponds, culverts

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- e. Contributing drainage areas
- f. Existing structures, roads, and the locations of known utilities and easements
- g. Publicly available information on adjoining parcels regarding the location of 100-year floodplains, wetlands, stormwater infrastructure, and streams.
- h. Identification of the adequacy of receiving surface waters into which stormwater will be proposed for discharge
- i. Proposed limits of disturbance
- j. Existing vegetation map of the entire site
- k. Location of all specimen trees
- l. Unique Habitats of Special Concern
- m. Identification of environmental features proposed for preservation or conservation
- n. Acreage of all Environmental Resources (i.e., per ER definition)

~~3. All County offices involved in land use will coordinate with local, federal, state, and regional environmental organizations to facilitate the exchange of data and implementation of environmental protection measures.~~

EN1.3 Identify and pursue opportunities for open space preservation that preserve unique habitats of special concern with an emphasis on connecting to existing natural resources conservation areas.

EN1.4 ~~Ensure that the County is cognizant of the environmental issues and impacts of development projects of adjacent jurisdictions that might affect the health, safety, and welfare of the citizens of Prince William County.~~ Seek and consider as part of the rezoning or special use process, input from adjacent jurisdictions to promote regional green infrastructure planning efforts as well as other environmental concerns that have multi-jurisdictional impacts.

EN1.5 Encourage developers to incorporate into site planning various environmentally sensitive approaches to stormwater management, including low-impact development (LID) techniques ~~on appropriate sites for example, as outlined in the Center for Watershed Protection manuals,~~ and preservation and restoration of natural land forms, as discussed in this Plan and the Community Design Plan.

Proposed Text Amendments

7. ~~Amend the open space requirements in the Zoning Ordinance to ensure preservation/ provision of open space within all developments.~~

EN1.6 Upon completion of the Northern Virginia Regional Commission's conservation corridors project, review and update as needed, the Open Space and Corridors Map in the Parks, Open Space and Trails chapter.

EN1.7 During the rezoning or special use permit process, review the Open Space and Corridors Map in the Parks, Open Space and Trails chapter to identify and determine the value or ecological viability of certain corridors.

<p>EN-POLICY 2: Develop and implement a data collection, tracking, and analysis structure to monitor and establish the county's environmental baseline, resource status, and sustainability.</p>

ACTION STRATEGIES:

EN2.1 Utilize the information gathered through studies and assessments to establish criteria for protecting ecologically important areas during land use decision-making processes.

EN2.2 Using available data, map all Environmental Resources to prioritize conservation planning, and make this information available on the County Mapper.

EN2.3 As part of a public facility review, request an analysis of environmental resources, as identified in the Environmental Constraints Analysis.

EN2.4 All County offices, to include Park Authority and Prince William Public School properties, involved in land use will coordinate with local, federal, state, and regional environmental organizations to facilitate the exchange of data and implementation of environmental protection measures.

EN2.5 Develop a baseline analysis of tree cover from available historic data.

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EN-POLICY 3: To further support OS-Policy 5, a minimum of 39 percent of the total area in the County, (exclusive of acreage of Marine Corps Base Quantico for all calculation purposes), should be retained as protected open space, as defined in the Open Space Chapter.

~~Ensure that a minimum of 39 percent of the total land area in the County will be retained as open space by build out of the Comprehensive Plan, through appropriate amendments to the Zoning Ordinance or other appropriate documents to increase open space requirements.~~

ACTION STRATEGIES:

EN3.1 Encourage cluster development to protect contiguous natural open space, as defined by the Zoning Ordinance.

EN3.2 Amend the cluster ordinance to ensure that open space is permanently protected, as defined in the Open Space Chapter and managed as a natural area.

EN3.3 Amend the DCSM to ensure that there is a defined buffer standard for public parks.

EN3.4 Amend the Zoning Ordinance and/or DCSM to prohibit the establishment of proffered conservation and preservation areas on residential lots.

EN3.5 Develop and publish guidelines for homeowner associations that details how to manage conservation areas, while providing information on responsibilities and a checklist of standard management measures and benefits.

EN3.6 Make information on conservation easements available to landowners, including distribution points at the Tax Assessment Department and other relevant county offices, to encourage the use of open space/conservation easements as tools to preserve environmental resources.

EN3.7 Encourage the use of open space/conservation easements to preserve open space in already developed areas in order to provide natural areas, protect environmentally sensitive resources, preserve wildlife habitat and ensure a scenic appearance over time. Consider development at the high end of the density range for those projects that preserve sensitive features, identified in the ECA, beyond the minimum preservation requirements such as buffers, the RPA and floodplain.

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- EN3.8** The County shall review and implement opportunities for a Purchase of Development Rights (PDR) Program.
- EN3.9** Explore the use of available federal and state funding resources, including grants, foundations, and transportation related funds, to support green infrastructure planning initiatives and a Purchase of Development Rights (PDR) Program.
- EN3.10** Establish and continue partnerships with local agencies and organizations to initiate and provide public information programs aimed at conserving lands in the watershed through civic engagement community stewardship.
- EN3.11** Investigate the benefits of ~~establishing~~ involving a private conservancy for the purpose of purchasing privately held lands for preservation purposes and seeking perpetual conservation easements to preserve open space.
- EN3.12** ~~Continue the progress towards~~ Support initiatives promoted by the County's Trails and Blueways Council to establishing a Countywide trails and corridors ~~greenway and path~~ system through the voluntary donation of land and conservation easements from interested property owners, as a means of environmental protection.
- EN3.13** To protect the biological diversity, processes, and functions of natural habitats, identify and prioritize a network of preservation corridors or large woodland areas to be incorporated into an overall habitat protection network.

CLIMATE & AIR QUALITY POLICIES ~~AND ACTION STRATEGIES~~

<p>EN-POLICY 3 4: Improve <u>Monitor</u> air quality and collaborate with DEQ, MWCOG, and other regional entities to identify and implement strategies to improve air quality. within Princee William County.</p>
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ACTION STRATEGIES:

- EN4.1** ~~Establish procedures to monitor air quality in the County.~~ Support and coordinate with the Council of Governments (COG) Metropolitan Washington Air Quality Committee's Air Quality Monitoring Program, the Climate, Energy and Environmental Policy Committee for the region and within the County.
- EN4.2** Analyze and suggest locations for air, water and energy monitoring sites to encourage COG and the Virginia Department of Environmental Quality (DEQ) ~~Encourage the~~

Proposed Text Amendments

~~Department of Environmental Quality (DEQ) to establish additional air quality monitoring stations in the County- as applicable.~~

- ~~3. Seek input from the DEQ on rezoning or special use permit applications that include facilities that are likely to produce gaseous emissions or potentially harmful airborne particulates, in cooperation with the Air Quality Committee at the Metropolitan Washington Council of Governments (MWCOC).~~

EN4.3 Where applicable, review and consider air quality impacts for public and private industries and utilities in conjunction with the rezoning and/or special use permit application process.

EN4.4 ~~Maintain and extend regional COG~~ Encourage and pursue the development of inter-jurisdictional agreements and contingency plans to deal with stationary and mobile sources of pollution to protect residents, and especially sensitive residents (such as the young, the elderly, and sensitive populations).

EN4.5 ~~Develop a process to D~~determine if adequate controls, including new technologies for disposing of compact fluorescent light bulbs, are in place to prevent metals, Polychlorinated Biphenyls (PCBs), and other carcinogenic materials from entering the trash stream. ~~of public and private incinerators. Thereafter, continue to monitor this issue and ensure adequate controls are in place to maintain the safety of the environment.~~

EN4.6 ~~Conduct~~ Request MWCOC or VDOT to review air quality/transportation studies along major transportation corridors and at congested intersections, in order to better define the impacts and trends of vehicle-generated pollution.

~~7. Encourage the reduction of emitted gas pollutants from point sources.~~

EN4.7 Reduce pollution impacts from vehicles, by designating compact urban growth areas and by encouraging the development of mixed use projects as described in the Long-Range Land Use Plan. Developments, including and not limited to transit-oriented and mixed use projects, shall optimize the use of transit and non-motorized trips in order to reduce pollution impacts from vehicles and contain the appropriate support facilities, such as bus shelters, dedicated bicycle lanes, bicycle parking facilities, trails, crosswalks, sidewalks, etc.

Proposed Text Amendments

EN4.8 ~~Where appropriate, Encourage the Virginia Department of Transportation (VDOT), County projects, and developers to preserve and/or reestablish~~ vegetative buffers along arterial roadways as a means of filtering and absorbing pollutants.

EN4.9 Reduce ~~pollution from~~ vehicles pollution by encouraging the use of ~~advanced technology and~~ alternative modes of transport – including van/carpooling, public transit, bicycles, ~~light rail,~~ and pedestrian paths. ~~Encourage the use of alternative fuels (such as natural gas and/or electric power) for public transit and school buses.~~

EN4.10 Seek commitments during the rezoning and special use permit process to design and construct buildings and associated landscapes to conserve energy and water resources and to minimize short- and long-term negative impacts on the environment and building occupants. Amend the DCSM to include building design guidelines for energy and water resource conservation.

~~TOPOGRAPHY & SOILS POLICIES AND ACTION STRATEGIES~~

WATERSHED PLANNING AND SUSTAINABILITY POLICIES

EN-POLICY 4 5: Protect and manage the County's soils and natural ~~vegetation~~ landscape, to retain and enhance their associated economic, aesthetic and ecosystem benefits.

ACTION STRATEGIES:

~~1. ——— Preservation/conservation of certain natural land forms is important to the County in achieving water quality targets, good community design objectives, and ecological diversity. Accordingly, discourage development adjacent to a perennial stream in the following areas:~~

- ~~• ——— Wooded slopes of 25 percent and greater with highly erodible soils, permeable soils or marine clay soils.~~
- ~~• ——— Wooded slopes of 25 percent and greater having a continuous area of 10,000 square feet.~~
- ~~• ——— Wooded slopes of 15 percent and greater with highly erodible soils, permeable soils, or marine clay soils.~~
- ~~• ——— Wooded 100 year floodplain.~~
- ~~• ——— Non wooded slopes of 25 percent and greater with highly erodible soils, permeable soils, or marine clay soils.~~

Proposed Text Amendments

- ~~Non-wooded slopes of 25 percent and greater having a continuous area of 10,000 square feet~~
- ~~Non-wooded slopes of 15 percent and greater with highly erodible soils, permeable soils or marine clay soils.~~
- ~~Non-wooded 100-year floodplain.~~

EN5.1 When designing a project, use the following priorities for protecting the natural landscape when compatible with the proposed land use:

- Development in the coastal plain in areas of 15% or greater slopes where shrink-swell soils exist should address slope stability through mitigation or avoidance.
- Along significant non-RPA streams, discourage development in all areas of 25% or greater slopes at least 50 feet from the edge of the stream.
- Encourage the preservation of a natural buffer of existing woodland or forestation area of at least 50 feet along each side of all significant non-RPA streams.
- Encourage mitigation where impacts are unavoidable.
- Emphasize the preservation of jurisdictional wetlands over mitigation, including measures that ensure the wetland's sustainability.

EN5.2 Amend the DCSM to require identification of and limit development on all areas with shrink/swell soils, 15% slopes with an erodibility factor K of greater than 0.4, and/or with underlying marine clays. Where impacts are unavoidable, require mitigation.

EN5.3 ~~Seek commitments prior to the time of rezoning and special use permit approval that many of the landforms identified in~~ Utilize the Environmental Constraints Analysis to evaluate and prioritize those sensitive landforms to action strategy 1 above will be set aside for as a preservation/conservation and any appropriate mitigation.

EN5.4 Use native plants that are adapted to local soil and weather conditions when re-vegetating disturbed areas.

EN5.5 Develop, in coordination with the Community Design Plan general design evaluation guidelines, criteria, and techniques—that promote the preservation of natural landscapes – especially those that tend to be drought resistant – and apply them in the evaluation of rezoning and/or special use permit applications.

Proposed Text Amendments

- EN5.6** Where ~~toxic~~ hazardous waste soil contamination is suspected, ~~request~~ require that a rezoning and/or special use permit applicant submit an Environmental Site Assessment Phase II – Contaminated Sites and Remediation Plan as part of the application.
- EN5.7** ~~Prohibit development at toxic waste sites to the extent provided by law. If~~
environmental clean-up efforts have been conducted at hazardous waste sites to meet state and federal standards, development can be proposed. Actively support and encourage “brownfield” redevelopment, where appropriate.
- EN5.8** Monitor the effectiveness of the Prince William County Erosion and Sediment Control Ordinance and upgrade as appropriate.
- EN5.9** For properties that include jurisdictional wetlands and waters, 15% or greater slopes, or unique habitats of special concern, require enhanced erosion and sedimentation controls, including super silt fences, erosion control blankets, soil stabilization matting, temporary vegetative cover, and other controls, as required by the Erosion and Sediment Control Program Administrator.
- EN5.10** County development and transportation projects shall lead by example, incorporating the highest environmental leadership standards and requiring plan review and erosion and sediment control inspection frequencies that meet or exceed state standards.
- EN5.11** Request courtesy review of erosion control plans for all federal and state projects in Prince William County.
- EN5.12** Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on cluster developments.
- 8.** ~~Minimize clearing of vegetation and disturbance of soils~~
- EN5.13** ~~Continue to identify the locations of critically eroding shorelines and stream banks. Development of such areas shall require the appropriate stabilization or restoration as identified in the County’s Design and Construction Standards Manual (DCSM).~~
Promote the use of vegetative or “soft” stabilization techniques along shorelines to maintain a natural buffer.

Proposed Text Amendments

- EN5.14** Address issues of sea level rise along shorelines in County. Utilize current data and information on sustainable shorelines to protect shorefronts and property and incorporate sea level rise into County policy.
- EN5.15** Utilize the Environmental Constraints Analysis at the time of rezoning or special use permit to require development sites to be designed in a manner that limits clearing and grading to the minimum area needed to construct the proposed use.
- EN5.16** Update the DCSM to preclude the use of all invasive non-native species.
- EN5.17** ~~EN-Policy 12~~ Identify, manage, and protect ecological communities and wildlife – especially critical habitats – as well as endangered and threatened species, and species of special concern, as identified in official Federal and State lists.
- EN5.18** Ensure the County considers the most recent information available on the status and location(s) of rare, threatened and endangered species, rare plant communities and critical habitat areas.
- EN5.19** At the time of rezoning or special use permit and all County projects, seek implementation of state and federal guidelines for the protection of rare, threatened, and endangered species and encourage preservation of habitats where these species could occur.

SURFACE & GROUNDWATER POLICIES AND ACTION STRATEGIES

EN-POLICY-5 6: Maintain or enhance the integrity of surface bodies of water. (lakes, ponds, rivers, and streams) and watersheds.

ACTION STRATEGIES:

- ~~1. Encourage water quality improvement during the redevelopment of properties located within Intensely Developed Areas (as defined in the Zoning Ordinance), and other areas targeted for redevelopment, through correction of improperly maintained/functioning Best Management Practices, replacement of inefficient sanitary sewer lines or failing septic systems, use of low impact development techniques—for example as outlined in the Center for Watershed Protection manuals—and re-vegetation along streams.~~
- ~~2. Establish a program to monitor the effectiveness of the implementation of Chesapeake Bay Regulations.~~

Proposed Text Amendments

EN6.1 Locate away from the County's water bodies those nonresidential activities that use, store, or manufacture significant quantities of hazardous ~~toxic~~ substances.

EN6.2 Study and recommend measures to improve contingency planning by parties who use, handle, or store hazardous substances in sufficient quantities so as to constitute a threat to surface and groundwater quality. The measures should address identification of trigger amounts of materials and procedures for prevention of leaks or spills and for containment of leaks, spills, and water runoff from fire fighting; and include commitments for the pretreatment of storm water quality to prevent contamination.

~~5. To the extent permissible under law, require industries and utilities to monitor for chemical leaks.~~

EN6.3 In conjunction with the Soil and Water Conservation District and the Agricultural Extension Service, encourage the County's farmers to employ best management practices, such as crop rotation, conservation tillage, strip cropping, nutrient management, fencing and buffer areas along streams to keep out livestock, use of livestock water devices away from stream, and grazing rotation plans.

EN6.4 Continue and promote a local, coordinated "Adopt-a-Stream" program.

~~9. Encourage the preservation of a natural buffer of existing woodland or forestation area of a least 50 feet along each side of all waterways that are not otherwise protected under the Chesapeake Bay regulations or similar legislation.~~

~~10. Encourage cluster development in areas of the County that have steep slopes and highly erodible soils.~~

~~11. Continue to implement a watershed management program, as set forth by the County's Public Works Department, to provide on-site stormwater management and natural management/low impact development.~~

- EN6.5** Require adherence to the following guidelines for determination of density or intensity of development:

RESIDENTIAL

Preclude the development of habitable structures within 100-year floodplains. The allowable dwelling unit density for a property in the Urban and Suburban Area shall be calculated based on the area outside the Environmental Resource (ER) area, ~~floodplain, the Chesapeake Bay RPAs, and areas as shown in an~~ the environmental constraints analysis submitted with a rezoning or special use permit application ~~with wetlands; 25 percent or greater slopes; areas with 15 percent or greater slopes in conjunction with soils that have severe limitations; soils with a predominance of marine clays; public water supply sources; and critically erodible shorelines and stream banks.~~ The allowable dwelling unit density areas of the property encumbered by such features shall be based upon the maximum density permitted by the existing zoning of the property at the time of adoption of the Comprehensive Plan. Other relevant Comprehensive Plan components – such as the capacity of the transportation network, environmental constraints, and zoning requirements – must be addressed, as well, in determining the appropriate number of dwelling units on a property.

NON-RESIDENTIAL

On ~~non-residential-zoned~~ property encumbered with areas of 100-year floodplain ~~or~~ and Chesapeake Bay RPAs the allowable intensity is determined based on the floor area ratio (FAR) specified by the existing or proposed zoning district and the total site area. Development within the 100-year floodplain and Chesapeake Bay RPAs is to be precluded. The intensity of development is to be evaluated on the basis of other relevant environmental resource action strategies, the compatibility of the proposed uses with surrounding existing uses and other applicable portions of the Plan.

- EN6.6** Establish partnerships with local agencies and organizations to ~~Develop~~ and distribute public service information to reduce nutrient loading in stormwater runoff from yards and farms.

- EN6.7** Use the Virginia Marine Resources Commission (VMRC) criteria for the Siting of Marinas or Community Boat Moorings in evaluating future waterfront access sites to the County.

Proposed Text Amendments

EN6.8 Encourage innovative stormwater management techniques. Promote LID (Low-Impact Development) and on-site stormwater management (SWM).

EN6.9 Except where a crossing is unavoidable, all public utilities, excluding gravity sewer lines, shall be located outside of Resource Protection Areas and jurisdictional wetlands and waters. Sewer mains constructed parallel to perennial streams must be designed with prophylactic measures as determined by PWCSA to protect the pipe in the case of future lateral stream migration.

EN6.10 Update the DCSM to include a protocol for defining Significant Non-RPA Streams during the Perennial Flow Determination (PFD) process and establish standards for protection of these streams including but not limited to buffers, steep slope avoidance, development setbacks and necessary mitigation measures when the proposed development affects these streams.

EN-POLICY 7: <u>Manage watersheds through a comprehensive watershed management planning-based approach.</u>
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ACTION STRATEGIES:

EN7.1 Develop future watershed management plans. As appropriate, the following resources and/or components are to be considered:

- Existing impervious surfaces
- Stormwater management facilities
- Water quality monitoring stations
- Stormwater hotspots/flooding
- Forest cover/tree cover
- Topography
- Soils and geologic features
- Floodplains
- Hazardous waste sites
- Wells
- Land ownership (public/private)
- Subwatershed area
- Land use, by zoning category
- Downstream water resources

Proposed Text Amendments

- Include public input
- Address the protection, conservation and restoration of RPA and significant non-RPA stream corridors, riparian forest buffers and jurisdictional wetlands and waters.
- Reflect the goals and objectives of improving habitat and water quality.
- Determine the most vulnerable subwatersheds and evaluate restoration capabilities
- Rank priority subwatersheds for implementation and identifies areas that merit prompt restoration actions
- Identify solutions for protecting and restoring streams and other natural resources in the watershed
- Identify implementation mechanisms, such as amendments to the Open Space and Corridors Map.
- Include a mechanism to monitor progress.

EN7.2 Present completed watershed management plans to the Board of County Supervisors and consider these in making land use decisions, and the CIP.

EN7.3 Utilize watershed plans to define the condition of County streams and waterways, and define streams in need of restoration. Produce a map to include streams in need of restoration.

EN7.4 At the time of Rezoning and Special Use Permit, seek commitments to improve conditions of streams in need of restoration affected by the proposed project and other issues identified in the watershed plan.

EN7.5 Expand public input opportunities during the watershed management planning process to ensure that community ideas are incorporated into watershed planning efforts and promote increased understanding of stormwater management and watershed issues.

EN-POLICY 8: In preparation for new State stormwater regulations and Federal Chesapeake Bay TMDL requirements, develop new standards for Stormwater Management.

ACTION STRATEGIES:

EN8.1 Employ field observation as well as stormwater management plans to assess impact of proposed development on downstream properties.

EN8.2 Amend the DCSM to manage stormwater, to meet the 1-year, 10-year, and 24-hour storm event.

EN8.3 Amend the DCSM to establish and encourage low impact development (LID) standards, including:

- filtering the “first flush” of urban run-off
- expanded use of constructed wetlands, multiple BMPs in a series, and superior BMPs
- enhanced and extended detention on-site (dry ponds with control structures or shallow marsh)

EN8.4 Amend the DCSM to require conceptual stormwater management details for the entire site prior to preliminary site plan approval large development plans with multiple sections and phases.

EN8.5 Amend the DCSM to develop standards for acceptable retro-fit techniques for re-development and develop incentives to expand and encourage their use.

EN8.6 Identify the location of all county-maintained stormwater facilities and county-inspected LID projects on the County Mapper.

EN8.7 Amend the DCSM to encourage reductions in impervious surfaces, including the following:

- Reassessment of parking requirements
- Compact car parking
- Structured parking for high-density mixed use developments
- Shared parking
- Expanded use of semi-pervious and pervious surfaces

Proposed Text Amendments

EN8.8 ~~Amend the DCSM to prohibit direct discharge of untreated stormwater from a developed site into jurisdictional wetlands and waters. Ensure discharge does not exceed non-erosive velocities.~~

EN8.9 ~~Encourage~~ Amend the DCSM to require the use of appropriate native ~~vegetation~~ plant species in vegetated stormwater facilities and low impact development features ~~that will remove to facilitate removal of~~ nutrients from the storm flow.

EN POLICY 6: ~~Limit the amount and extent of impervious surfaces.~~

ACTION STRATEGIES:

- ~~1. Encourage the minimization of the amount of impervious surfaces of development and utilize acceptable retrofit techniques in redevelopment in order to minimize stormwater runoff. through the use of appropriate low impact development techniques, for example as outlined in the Center for Watershed Protection manuals.~~
- ~~2. Encourage the use of semi pervious or pervious surfaces and other low impact development techniques. ,for example as outlined in the Center for Watershed Protection manuals.~~
- ~~3. Continue an enforcement/monitoring program to ensure that, during and after development, peak stormwater flows do not exceed pre-development peak flows, in terms of quantity, quality, and volume.~~
- ~~4. At the time of an application for a rezoning or special use permit, seek commitments to use low impact design, where appropriate, to mitigate the impact of parking areas, for example as outlined in the Center for Watershed Protection Manuals, and encourage structured parking.~~

EN POLICY 7: ~~Promote the preservation and use of natural ground surface features which facilitate the effective management of stormwater runoff.~~

ACTION STRATEGIES:

- ~~1. Seek and implement stormwater management including low impact development standards that require all development projects to establish systems preferably natural for filtering the “first flush” of urban runoff (delivery of disproportionately~~

Proposed Text Amendments

~~large amounts of pollutants that occurs during the early stages of a storm) near its source.~~

- ~~2. Maintain or establish areas of natural vegetation downstream of disturbed soils to help filter sediments and other pollutants.~~

EN-POLICY 8: Ensure the protection of the County's groundwater and aquifers.

ACTION STRATEGIES:

- ~~1. Coordinate with the Health Department and State Water Control Board to identify Critical Groundwater Areas (CGAs)~~
- ~~2. Develop procedures to protect or improve, if necessary, the water quality of CGAs.~~
- ~~3. Evaluate groundwater conditions for potential pollution, using available data from the Virginia Department of Environmental Quality (for leaking underground storage tanks) and the Prince William County Health Department (for failing septic systems) when reviewing rezoning and/or special use permit applications.~~
- ~~6. Conduct a study to predict the pollution content of proposed stormwater management ponds.~~
- ~~7. Publish a yearly report on the status of the pollution content of the sediment in existing stormwater management ponds.~~
- ~~8. Develop an ordinance that requires new wells be tested for toxic and radiological substances at the same time that they are being tested for bacterial contaminants.~~
- ~~9. Develop guidelines for the preservation of saprolite (soft, earth, clay rich, thoroughly decomposed rock formed in place by chemical weathering of igneous or metamorphic rock) in areas where land use includes agriculture and where septic systems are used.~~

EN-POLICY 9: ~~Set sewer force mains, petroleum lines, and hazardous material lines, shall be located away from the edge of waterways.~~

ACTION STRATEGY:

- ~~1. Encourage that Except where a crossing is unavoidable, needed public utilities sewer force mains, petroleum lines, and hazardous substances lines shall be located outside of Resource Protection Areas and other water bodies.~~

EN-POLICY 10 9: Ensure the high quality of public drinking water sources, ~~such as Lake Manassas and the Occoquan Reservoir.~~

In addition to the policies and action strategies listed for surface and groundwater protection, the following action strategies will serve to implement this policy:

ACTION STRATEGIES:

- ~~1. Encourage the minimum density/intensity of development, as reflected by the appropriate land use classification shown on the Long Range Land Use Plan Map around the shorelines of the reservoirs.~~
- ~~2. Conduct a study to determine appropriate land use densities (dwelling units/acre) within the Occoquan Reservoir Watershed the County's primary public water supply and evaluate the option of creating an overlay district for the area.~~

EN9.1 Amend the Zoning Ordinance to develop a Drinking Water Reservoir Protection Overlay District to protect the quantity and quality of public drinking water supplies, to include the following:

- Minimum setbacks from reservoirs
 - Minimum setbacks for the installation of septic fields, tanks, or other on-site subsurface sewage disposal system from the shoreline of reservoirs
 - Enhanced erosion and sediment control measures
- ~~3. Where not otherwise required as part of the Chesapeake Bay Preservation Act for designated RPAs, require a minimum 100-foot setback from shorelines of public water sources for development related ground disturbance activities.~~

Proposed Text Amendments

- EN9.2** Encourage farmers to develop conservation plans for agricultural activities undertaken within the Lake Manassas and Occoquan Reservoir watersheds.
- EN9.3** Continue to support the Occoquan Monitoring Laboratory, the Northern Virginia Regional Commission's technical studies, and the multi-jurisdictional Occoquan watershed program. Obtain annual reports for presentation to the Board of County Supervisors.
- EN9.4** Promote open space uses and – ~~where practical~~ – acquire land along the Occoquan Reservoir for special use parks that are designed to promote an appreciation of the natural environment and facilitate passive recreation (such as fishing, hiking, and non-motorized boating).
- EN9.5** ~~Encourage Fairfax County to continue restricting by ordinance the use of internal combustion engines on the Occoquan Reservoir.~~ Actively support Fairfax Water Authority efforts to increase compliance and enforce regulations established by their Occoquan Shoreline Easement Policy.
- EN9.6** Request that the Occoquan Laboratory continue to identify ~~types of~~ point/non-point pollution sources upstream from the reservoirs and to suggest ways that the non-point source pollution can be eliminated or controlled.
- EN9.7** Evaluate groundwater conditions for potential pollution, using available data from the Virginia Department of Environmental Quality (for leaking underground storage tanks) and the Prince William County Health Department (for failing septic systems) when reviewing rezoning and/or special use permit applications.
- EN9.8** Promote the use of secondary containment storage tanks for petroleum products and other hazardous materials, for all development and redevelopment.
- EN9.9** ~~Promote~~ Require the use of pre-treatment devices for stormwater runoff and/or small spills or leakages on sites where petroleum products or hazardous wastes are handled as is currently required for all fuel dispensing facilities.
- EN9.10** Encourage conservation of natural features and limit impervious surfaces in areas where groundwater is the water supply. Develop procedures to protect or improve if necessary, the quality of groundwater in areas where groundwater is the water supply.

Proposed Text Amendments

EN9.11 Based on recommendations from the Northern Virginia Regional Water Supply Plan, implement policies, strategies, and regulations necessary to ensure adequate supplies of potable water in areas that rely on groundwater for their water supply.

<u>EN-POLICY 11 10:</u> <u>Preserve natural vegetation – especially existing and mature trees – and provide for the replacement and management of urban forest resources. of trees.</u>
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ACTION STRATEGIES:

~~2. ——— Support legislation that will enable local a tree preservation ordinance.~~

EN10.1 Develop, adopt, and implement a Tree Preservation Ordinance, incorporating standards for both Countywide and watershed goals. Solicit community input to help identify and define priorities for tree preservation and tree cover standards.

~~3. ——— Continue to support and implement the Agricultural and Forestal District program to preserve farmland and woodland areas in the County.~~

EN10.2 Amend the Zoning Ordinance and DCSM requirements for buffer areas, landscaping, and tree cover requirements to prioritize tree preservation instead of tree replacement.

~~1. ——— Maintain and update the County's buffer areas, landscaping, and tree cover requirements contained in the Zoning Ordinance and DCSM. Promote tree preservation instead of tree replacement.~~

~~5. ——— Coordinate with the Virginia Department of Forestry to implement an urban forestry program.~~

EN10.3 Amend the DCSM to require tree preservation plans when claiming credits for tree preservation or proffer compliance to ensure that trees designated for preservation will survive construction in a manner that substantially retains their predevelopment level of biological function, health, and structural condition.

~~6. ——— Conduct a professional study to identify the County's mature hardwood forests (such as oak/hickory) and the location of those forests deserving special protection.~~

Proposed Text Amendments

EN10.4 Utilize existing data and analysis tools to, identify the County's mature hardwood forests and the location of those forests. Maintain and periodically update an inventory of forest cover in the County and make this information available to the public on the County Mapper.

~~7. Consider acquisition of select sites for public parks/forests and/or encourage the dedication of such sites by private property owners.~~

EN10.5 Maintain the County's ~~informal~~ Registry of Historic and Champion Trees. Use this registry at the time of rezoning and special use permit application to determine the presence of such trees on the property.

EN10.6 Establish and adopt reforestation standards to address areas where unauthorized clearing has occurred. Amend relevant ordinances, as needed, including the Zoning Ordinance and DCSM, to support these standards.

~~9. Study the practicality of adopting various reforestation strategies.~~

EN10.7 Encourage utility companies to share easements where technically feasible to reduce the amount of disturbance along a roadway and provide enough areas for street trees.

<u>EN-POLICY 2 11:</u> Increase the environmental awareness of County residents, <u>organizations, businesses, and government agencies.</u>
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ACTION STRATEGIES:

EN11.1 Make the following additional GIS layers available to the public on the County Mapper:

- a) Wetlands [NWI maps]
- b) Canopy Coverage
- c) Protected open space
- d) All stormwater infrastructure, including County-maintained stormwater facilities and county-inspected low impact development (LID) facilities
- e) Update Watershed layer to include the total number of acres and percentage breakdown of vegetative cover types and the % of impervious surfaces in sub watersheds.

Proposed Text Amendments

- ~~1. Continue to develop and conduct educational programs on important environmental issues for the business, agriculture, and residential communities. Provide developers with information on County conservation requirements.~~
- ~~2. The Board of County Supervisors should seek grant funding from the federal and state governments to print educational materials regarding environmental resources and conservation measures.~~
- EN11.2 Conduct a series of workshops to educate, engage and increase communication between citizens, organizations, businesses, industry, government officials and agencies on sustainable development, green infrastructure, and associated opportunities.
- EN11.3 Publish a webpage and associated e-notification component to provide information and updates on the County's green development and green infrastructure initiatives.
- EN11.4 Publish a webpage and associated e-notification component to promote and provide current information on local Farmer's Markets and other sources of locally produced food.
- EN11.5 Enhance the County's recycling program, including yard waste composting, that will ~~meet or~~ Continue to expand or exceed the recycling rate mandated by the Virginia Department of Environmental Quality and publish on the webpage developed through AS 4, above. through the following means:
 - ~~• Evaluate opportunities for increasing recycling in businesses, institutions, and multi-family dwellings.~~
 - ~~• Expand the types of recyclables collected in the County.~~
 - ~~• Conduct site selection evaluations for an additional or larger yard waste composting site.~~
 - ~~• Continuously evaluate the locations for drop-off centers throughout the County.~~
 - ~~• Improve public outreach programs to better promote and identify recycling opportunities.~~
- ~~4. Maintain current informational brochures for public distribution that explain the importance of protecting and managing the County's soils.~~

Proposed Text Amendments

- EN11.6** ~~Prepare or acquire~~ Update current informational brochures explaining the importance of soils and the proper maintenance of private sewer/septic systems, including the importance of such maintenance to the owner and to the environment. Make this information available to users of these systems.
- EN11.7** ~~Develop public service announcements that provide information about timing, selection, and application of appropriate chemical applications for yards and agriculture which also emphasize that inappropriate applications can damage the environment.~~ Provide brochures on sustainable practices for home gardening and lawn care. Work with local nurseries and retail facilities that sell fertilizers to ensure these are distributed to the public.
- EN11.8** Explore partnership opportunities with the U.S. Army Corps of Engineers (COE) and Virginia Department of Environmental Quality (DEQ) regional offices, responsible for implementing federal and state regulations over streams and wetlands, to regulate wetlands and other jurisdictional waters, including perennial and intermittent streams. Resource protection measures will include avoidance, impact minimization and compensatory mitigation, such as buffer protection and enhancement, as well as stream and wetlands restoration or creation.
- EN11.9** Work with local regulations (DCSM), the PWC Service Authority, Virginia Cooperative Extension to promote low water use landscapes on new and existing development through conservation landscaping principles, including reducing lawn areas.
- EN11.10** Increase public awareness on how to utilize tree preservation to protect community appearance, property values and provide other economic and community benefits.
- EN11.11** Through public education and outreach, promote the use of phosphorous-free lawn fertilizer.
- ~~7. Prepare or acquire information brochures and make public service announcements that explain the importance of water conservation and water quality protection.~~
- ~~8. Prepare and distribute information on household hazardous waste.~~
- ~~9. Enhance the litter control program.~~

~~**EN-Policy 12:** Identify, manage, and protect all ecological communities and wildlife—especially critical habitats—as well as endangered and threatened species, and species of special concern, as identified in official Federal and State lists.~~

ACTION STRATEGIES:

- ~~1. Establish an identification and monitoring system for the County's animal or plant species, including critical habitats, that have been listed as Federal or State threatened or endangered species, or species of special concern, by the U.S. Fish and Wildlife Service or the Virginia Department of Conservation and Recreation.~~
- ~~2. Develop and implement protection guidelines for endangered and threatened populations of plants and wildlife that occur in the County. These guidelines apply to County and privately owned lands.~~
- ~~5. Identify areas suitable for wetlands restoration and develop procedures whereby a developer/landowner can contribute to such wetlands mitigation banks when no alternative to wetland preservation exists on-site.~~

ENERGY POLICIES

EN-POLICY 12: Develop a Community Energy Master Plan.

- EN12.1** Collect data and establish a baseline that best defines the energy, water, waste water and greenhouse gas data situation for County government operations and community at large.
- EN12.2** Incorporate input from all major stakeholders, including public authorities, residents, businesses, community associations, elected officials, schools, universities and colleges.
- EN12.3** Establish a long-term Vision with clear targets supported by short to medium term implementation strategies.
- EN12.4** Define targets, tracking measurements reporting and accountability for overall energy Vision and CEMP implementation.

EN-POLICY 13: <u>Implement cost-effective energy-conservation measures at County facilities.</u>

ACTION STRATEGIES:

- EN13.1** Remain active in EPA ENERGY STAR program and continue to use EPA's Portfolio Manager to rate the energy performance of eligible county-owned buildings. Audit County facilities, including Vehicle Fleet Management, for energy use and pursue projects with a payback period of less than 10 years.
- EN13.2** Consider giving priority to facilities, that rate 75 or higher according to the U.S. EPA's ENERGY STAR Performance Rating when leasing new space for County use or when renewing existing leases.
- EN13.3** Consider designing and building any new County facilities so they rate 75 or higher by using the U.S. EPA's ENERGY STAR performance rating system, and measure performance annually using EPA's Portfolio Manager benchmarking tool.
- EN13.4** Consider designing and constructing County renovation projects consistent with energy performance standards at least as stringent as LEED Silver or Green Globes 2 Globes standards whenever those projects are valued at 50% of the assessed building value. When replacing or installing appliances and equipment in County facilities, select items that are ENERGY STAR compliant whenever available.
- EN13.5** Become a Green Partner with George Mason University (GMU), and encourage use of transit to access the GMU-Prince William campus. Explore opportunities to partner with non-public schools and other transportation systems to reduce the energy used for public school transportation.
- EN13.6** Consider re-directing local consumer utility tax revenues to support new or enhance existing energy conservation-related funds, such as the existing state/federal weatherization assistance programs or developing a new low-interest revolving loan fund for energy efficiency investments made by low-income homeowners and small businesses in the County.
- EN13.7** Require new residential development seeking rezoning and site plan approval to maximize opportunities for transit and to consider potential for solar/wind energy production in the development. Encourage construction that qualifies for ENERGY STAR Qualified Homes designation.

EN-POLICY 14: Provide recognition and incentives for energy conservation at non-government facilities and residences.

ACTION STRATEGIES:

EN14.1 Consider establishing a separate, lesser rate of tax for energy efficient buildings as defined in Code of Virginia § 58.1-3221.2.

EN14.2 Consider additional incentives (financial, tax, expedited permits, density bonuses, etc.) for development that builds to LEED or Green Globes standards and ENERGY STAR.

EN14.3 Recognize and publicize those in the community whose facilities achieve LEED, Green Globes, and ENERGY STAR certifications.

EN-POLICY 15: Provide recognition and incentives for renewable energy application at non-government facilities and residences.

ACTION STRATEGIES:

EN15.1 Evaluate current policies and ordinances to remove obstacles to renewable energy (wind, solar, biomass, landfill gas, geothermal, etc.) application.

EN15.2 Evaluate and recommend incentives for projects that create on-site renewable energy application.

EN15.3 Recognize and publicize for those projects that use on-site renewable energy.

EN-POLICY 16: Provide leadership by example and education in the areas of energy efficiency, demand response and renewable energy application.

ACTION STRATEGIES:

EN16.1 Consider inventorying greenhouse gas (GHG) emissions from county facilities to create a baseline and using it to develop and implement short, medium and long-term plans to reduce or eliminate them by 2050. Also consider the feasibility of creating a short, medium and long-term community level GHG baseline and reduction plan. In setting these goals, evaluate reduction goals in other programs.

Proposed Text Amendments

- plans and reports such as the Virginia Energy Plan, Cool Counties, COG Climate Registry Report to determine a reduction goal that is challenging yet achievable.
- EN16.2** Consider re-investing utility budget savings and cost-avoidance from completed energy projects in future energy efficiency and renewable energy projects as well as the creation of a Sustainability Office or Group.
- EN16.3** Consider providing active citizen education and awareness about energy efficiency, renewable energy, and “demand response” (i.e. shifting power usage away from periods when usage is peaking such as hot weekday summer afternoons) best practices.
- EN16.4** Consider reducing the rate of the growth of county government’s energy use by 40%.
- EN16.5** Consider reducing electricity use in County facilities by 10% of 2006 level by 2022.
- EN16.6** Consider reducing natural gas use in County facilities by 7.5% over next ten years.
- EN16.7** Consider reducing total diesel/gasoline use by all (County) vehicles by 10% over next five years.
- EN16.8** Consider reducing total diesel/gasoline used for County government landscaping operations by 20% over next five years.
- EN16.9** Consider purchasing the equivalent of 12% of the County’s 2009 level electricity needs from renewable sources either through Dominion and NOVEC rate offerings, renewable energy credits, or through on-site generation.
- EN16.10** Publicize energy conservation efforts at county facilities. Prominently display the ENERGY STAR label on county-owned buildings that qualify. Post building energy “report cards” for county-owned buildings on the county’s website, to highlight impact of energy conservation efforts. Encourage Prince William County Public Schools to do the same.
- EN16.11** Continue actively participating County Government facilities in demand response programs.
- EN16.12** Consider utilizing life-cycle cost analysis when constructing new facilities.

Proposed Text Amendments

EN16.13 Continue increasing landfill gas utilization at the County landfill with the goal of completely eliminating flaring.

EN16.14 Continue exploring waste reduction and re-use technologies in lieu of landfilling.

NATURAL VIEWSHEDS POLICIES AND ACTION STRATEGIES

(**Relocate** EN-POLICY 13 below into Community Design Chapter as new DES-POLICY 14 with intact existing language, as shown.

~~EN-POLICY 13:~~ DES-POLICY 14: Identify significant natural viewsheds in Prince William County.

ACTION STRATEGIES:

DES14.1 Seek funding from federal, state, local, and private organizations in order to secure professional services needed to conduct a Countywide or area-specific viewshed inventory or study.

DES14.2 Develop an incentive system for the preservation of viewsheds.

DES14.3 Determine whether it is desirable to establish viewshed overlay districts in the County.

Comprehensive Plan Analysis

The following is a staff analysis of the proposed update to the Environment Chapter of the Comprehensive Plan.

Background

Section 15.2-2223 of the Virginia Code requires every governing body to adopt a comprehensive plan for the physical development of the territory within its jurisdiction. The Code further requires that comprehensive plans be reviewed every five years, to ensure that the plan is responsive to current circumstances and that its goals are still supported by the citizenry. In addition, the Prince William County Strategic Plan and the recently adopted Long-Range Land Use and Transportation chapters of the Comprehensive Plan have identified Environment as a crucial issue and essential strategy for which to plan. Since the County's land use and transportation chapters to the Comprehensive Plan have been updated, the Board of County Supervisors specifically stated that the Environment update is the next priority.

Comprehensive Plan Vision

The Comprehensive Plan for Prince William County contains a clear strategy for responsible, fiscally-sound growth to produce a vibrant, prosperous, stable, "livable" community. The goals, policies, and action strategies in the Comprehensive Plan have been shaped by citizen preferences, the County's Strategic Plan, sound planning principles, and a need to balance the competing demands for development and the preservation of the County's distinct, irreplaceable character. Providing "sound environmental quality" has been identified as one of the major components that supports the future development of Prince William County and represents the vision of the Plan.

Environment Chapter Update

The Environment Chapter Update of the Comprehensive Plan is incorporating new concepts of sustainability and green infrastructure. There is a new emphasis on data resources and environmental benchmarks, including enhanced Environmental Constraints Analysis (ECA) requirements and additional mapping layers being made more readily available to the public. Consideration has also been given to pending Federal and State stormwater regulations, and for the County to pro-actively plan ahead. Additionally, the update includes relocating policies and action strategies related to viewsheds from the Environment Chapter to the Community Design Chapter. The existing environment goal remains unchanged, which is on the following page:

Attachment A – Staff Analysis

“Preserve, protect, and enhance the significant environmental resources and features of the County, including air quality, topography, soils, ground and surface water, biotic communities, (stream corridors, forests, and wetlands), sensitive plant and animal species, and natural viewsheds.”

For this update process, a description of amendments being offered within the proposed text is listed below. The anticipated implications and process outcomes/impacts from the amendments are also provided after each item.

- New definitions.

Impact: Provides necessary clarification for intent, consistency, and context within the chapter. In consideration of Federal and State regulations, a listing of new terminology is also being proposed to establish a standard framework for reference.

- Expansion of environmental resource information to be used for planning and decision-making.

Impact: By developing and maintaining additional GIS mapping layers as part of the Environment Plan, this will result in greater informational capacity and enhanced environmental data. Also, with enhanced Environmental Constraints Analysis (ECA) information is being proposed, more detailed information will be known upfront and during the early phase of the review process. However, this will result in greater initial costs expended by applicants and prospective developers/builders, since more work and analysis will need to be done. The submittal requirements for special use permits and rezonings will be enhanced and may, in some cases, deter some from applying. The County is also to continue its partnership with the Northern Virginia Regional Commission and to utilize the outcomes of the conservation corridors project to review and potentially update the Open Space and Corridors Map.

- Development of data collection, tracking, and analysis structure for establishing and monitoring benchmarks, resource status, and sustainability.

Impact: This would enable the County to have an established baseline on existing conditions, while having a broader perspective on the status of its environmental resources. However, this would require extensive staff resources, funding, and time commitments. Also, if implemented, this would necessitate the need for additional reporting requirements and the need to acquire additional data on public properties.

Attachment A – Staff Analysis

- Revised strategies related to air quality and regional coordination.

Impact: Ongoing partnership with COG and other regional entities to expand/extend the County's stake in monitoring air quality and coordinating with planning efforts.

- Establishment of a defined buffer standard around public parks.

Impact: Need to amend the DCSM to develop and evaluate specific standards for buffering around various types of parks and conservation areas/easements.

- Prohibiting the establishment of proffered conservation and preservation areas on residential lots.

Impact: Will eliminate ongoing compliance, enforcement, and misinterpretations of what can be done on private property. Also, staff feels that this matter has previously resulted in unnecessary and/or irrelevant property code enforcement matters.

- Encouragement of the use of open space/conservation easement; Development of purchase of development rights.

Impact: More focus on open space preservation and would create a formal mechanism to acquire the development rights for preservation and with financial incentives.

- Designing buildings and site layouts in a manner that conserve energy and water resources.

Impact: Will require a DCSM amendment to establish particular standards. Also, this will ultimately result in the need for additional staff training/resources that would be needed to review plans to this effect.

- Standards for designing a development with regard to natural features and protection of existing resources.

Impact: Establishes specific criteria and prioritizes approaches for consideration of the landscape during the development process. Also, the DCSM would need to be amended to establish limitations on land with shrink/swell soils, steep slopes, highly erodible soils, and underlying marine clays.

- Establishment of more specific guidelines for utility crossings at streams, RPA features, and jurisdictional wetlands and waters.

Attachment A – Staff Analysis

Impact: Clarifies the need to minimize impacts of pipe utility structures near sensitive features and preserving water quality, while providing the Service Authority with case-by-case flexibility and technical authority.

- Establishment of protocol for defining significant non-RPA streams during the Perennial Flow Determination (PFD) process.

Impact: Requires amendment to the DCSM for establishing specific technical criteria.

- Development of new standards for stormwater management, in preparation and coordination with evolving Federal and State standards.

Impact: Requires extensive amendments to the watershed management planning process and DCSM to address low impact development techniques, BMP design/maintenance, stormwater management modeling, reassessment of impervious surface standards, and vegetative plantings.

- Elimination of term “critical groundwater areas”.

Impact: More consistency with updated terms and state legislation, in which the term was eliminated with the Virginia Groundwater Management Act of 1992.

- Creation of new strategy encouraging brownfield redevelopment.

Impact: Shift in focus on redevelopment and mitigating previously utilized/contaminated sites, rather than developing on new sites. This also lends itself to directing development within urbanized areas and seeking opportunities for infill, on a case-by-case basis.

- Development of a new Reservoir Protection Overlay District, to ensure adequate protection of the county’s drinking water supplies.

Impact: Amendment to the Zoning Ordinance to develop an additional zoning overlay, which will establish standards that would be in addition to underlying zoning district. The overlay district may result in increased building and land disturbance setbacks from reservoirs, enhanced buffer requirements, use limitations within a specified distance, modified density standards, modified impervious surface standards, and other development controls.

Attachment A – Staff Analysis

- Development of a new Tree Preservation Ordinance.

Impact: Amendments will be required for the Zoning Ordinance and DCSM to establish specific forestry and watershed management standards.

- Development of enhanced GIS mapping layers in order to expand the inventory of environmental resource and information that would be readily available to the public.

Impact: Concerns over need for staff resources, time, financial burdens, inter-agency coordination, and follow-up. The specific data layers would need to be prioritized. However, these enhanced mapping layers will help educate and inform citizens about the County's environmental protection efforts.

- Development of a new Energy policy section at the end of the Environment Chapter, which includes five policies that address the following:
 - Creation of a Community Energy Master Plan
 - Implementation of cost-effective energy conservation practices at County facilities
 - Providing recognition/incentives for energy conservation at non-government facilities and private residences
 - Providing recognition/incentives for renewal energy applications at non-government facilities and private residences
 - Providing leadership by example and education in areas of energy efficiency, demand response, and renewable energy applications

Impact: New focus on emerging green energy technology and energy conservation, in support of the Board's adopted Green Guiding Principles.

SPECIFIC STAFF EDITS IN PROPOSED TEXT

In preparation for the Board of County Supervisors Work Session on October 26, 2010, staff prepared a list specific text edits for consideration. These edits have since been incorporated into the proposed text, which is attached to the ordinance. What follows is the staff recommended text amendments compared against the Planning Commission recommendation. For reference purposes, what follows is the proposed text as stated in the draft and a brief description/summary justification provided below each.

Significant Non-RPA Stream: A stream that is determined to significantly contribute to the health of an RPA stream or public drinking water source and/or that has a defined channel, sorted substrate, groundwater input, and supports aquatic life according to the ~~Virginia Unified Stream Methodology (USM)~~ U.S. Environmental Protection Agency's Rapid Bioassessment Protocol. The ~~USM~~ determination will also consider the Virginia Unified Stream Methodology's criteria such as ~~stream~~ channel condition, riparian buffer, in-stream habitat, presence of wetlands and overall sub-watershed conditions. The stream will generally score > 18 points when assessed with the County's preferred stream assessment protocol during the Perennial Flow Determination (PFD) process or as part of a watershed management plan.

Proposed text above clarifies the application of the EPA's protocol as the standard, while also considering the specific Virginia-established methodology that examines stream conditions and other components.

Unique Habitats of Special Concern: Rare and exemplary natural communities as identified ~~or defined by VDCR Natural Heritage Division.~~ Areas identified by the DCR Natural Heritage Division as habitat for natural heritage resources. These areas play a crucial role in the future survival of the natural communities and rare species they support, examples include threatened or endangered plants or animals, rare or state significant natural plant communities, and significant geologic formations and features.

Proposed text above to clarify that only those areas already mapped by VDCR qualify as unique habitats of special concern.

Attachment A – Staff Analysis

GOAL: Preserve, protect, and enhance the significant environmental resources and features of the County, including air quality, topography, soils, ground and surface water, biotic communities, (stream corridors, forests, and wetlands), sensitive plant and animal species, and natural viewsheds.

Proposed text above is retaining the existing text language in order to emphasize the need to qualify that not all environment resource should always be protected all the time.

EN1.2.

Update the Zoning Ordinance environmental constraints analysis requirements to add the following: ~~show the following as three separate items:~~

- a. ~~Approximate delineation of all jurisdictional wetlands and waters areas including intermittent streams~~

Proposed text above to be more precise with delineation and consistent with established definition of wetlands/water features.

EN1.3.

Identify and pursue opportunities for open space preservation that preserve unique habitats of special concern with an emphasis on connecting to existing natural resources conservation areas.

Proposed text above to reinstate the focus on connecting open space and habitats.

EN1.6

Upon completion of the Northern Virginia Regional Commission's conservation corridors project, review and update the Environment Chapter to include priorities identified in the report. as needed, the Open Space and Corridors Map in the Parks, Open Space and Trails chapter.

Proposed text above to refocus on the intent to revisit the P&OS chapter, if warranted, as a follow up to NVRC's corridors project.

Attachment A – Staff Analysis

EN2.2.

~~Using available data, Map all Environmental Resources to prioritize conservation planning, and make this information available on the County Mapper.~~

Proposed text above to emphasize the use of existing/available data to create new GIS maps.

EN2.3.

~~As part of a public facility review, request an analysis of inventory county-owned properties, to include Park Authority and Prince William Public School properties, to identify environmental resources, as identified in the Environmental Constraints Analysis. Provide inventory/mapping of forest areas in Prince William County and make this information available to the public.~~

Proposed text above to reinstate staff's previous recommendation, and also re-direct emphasis for needing environmental features when analyzing formal PFR requests.

~~EN2.7.~~

~~Conduct a County-wide analysis of the economic value of our existing green infrastructure (native and urban forests) toward energy conservation, storm water control off sets, property values, protecting and improving water quality, and reducing air pollution.~~

Proposed reinstated text by Planning Commission to be deleted by staff. This is beyond the scope of the Environment chapter and will create resource challenges.

EN-POLICY 3.

~~Ensure that a minimum of 39 percent of the total land area in the County will be retained as open space by build-out of the Comprehensive Plan.~~

To further support OS-Policy 5, a minimum of 39 percent of the total area in the County, (exclusive of acreage of Marine Corps Base Quantico for all calculation purposes), ~~will~~ should be retained as protected open space, as defined in the Open Space Chapter.

Proposed text above to reinstate staff's previous recommendation as encouraging, not directing.

Attachment A – Staff Analysis

EN3.3.

Amend the DCSM Zoning Ordinance to ensure that there is a defined buffer standard for public parks; a minimum of a 50/100-foot buffer is required on new development adjacent to existing public lands and private conservation easements.

Proposed text above to reinstate staff's previous recommendation, to only develop and consider a new buffer standard for public parks, which does not currently exist.

EN3.7.

Encourage the use of open space/conservation easements to preserve open space in already developed areas in order to provide natural areas, protect environmentally sensitive resources, preserve wildlife habitat and ensure a scenic appearance over time. Consider development at the high end of the density range for those projects that preserve sensitive features, identified in the ECA, beyond the minimum preservation requirements such as buffers, the RPA, and floodplain.

Proposed text above to provide an incentive mechanism for allowing higher density development when special consideration is given to resource protection that goes beyond what is identified in the ECA.

EN4.8.

Where appropriate, encourage the Virginia Department of Transportation (VDOT), and County projects, to and developers to preserve and/or re-establish vegetative buffers along arterial roadways as a means of filtering and absorbing pollutants, and reducing noise pollution.

Proposed text above to reinstate staff's previous recommendation. Buffering along arterial roads may not always be the optimal solution.

EN4.9.

Reduce pollution from vehicles pollution by encouraging the use of advanced technology and alternative modes of transport – including van/carpooling, public transit, bicycles, light rail, and pedestrian paths. Encourage the use of alternative fuels (such as natural gas and/or electric power) for public transit and school buses.

Proposed text above due to the fact that the mode of light rail is already included and captured in public transit, which is previously listed in the strategy.

EN5.1.

When designing a project, use the following priorities for protecting the natural landscape when compatible with the proposed land use:

- ~~In the coastal plain, discourage d~~Development in the coastal plain in all areas of 15% or greater slopes where shrink-swell soils exist ~~should address slope stability through mitigation or avoidance.~~
- Along significant non-RPA streams, discourage development in all areas of 25% or greater slopes ~~up to a distance of 100~~ at least 50 feet from the edge of the stream.
- Encourage the preservation of a natural buffer of existing woodland or forestation area of at least 50 feet along each side of all significant non-RPA streams.
- Encourage mitigation where impacts are unavoidable.
- Emphasize the preservation of jurisdictional wetlands over mitigation, including measures that ensure the wetland's sustainability.

Proposed text above to more clearly define the slopes and soil perimeters for development in the coastal plain, while emphasizing mitigation or avoidance. The edit made to the stream setback provides more consistency with the intent, while not duplicating the existing RPA restrictions.

EN5.10.

County development and transportation projects ~~and any other projects constructed using taxpayer funds~~ shall require plan review and erosion and sediment control inspection frequencies that meet or exceed state standards.

Proposed text above to recommend deletion of clause as shown, as county authority does not extend to state and federal projects.

~~EN5.11. For State, Federal, and other publicly funded development and transportation projects, the County shall coordinate with appropriate agencies to ensure that all projects within the County demonstrate leadership standards by incorporating the highest environmental standards, while meeting or exceeding the County's minimum standards.~~

Proposed reinstated by Planning Commission to be deleted by staff.

EN5.12.

Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on ~~developing properties~~ cluster developments.

Proposed text above to re-instate previous recommendation to delete the application for all developing properties and only apply this to clusters.

EN6.5.

NON-RESIDENTIAL

On ~~non-residential-zoned~~ property encumbered with areas of 100-year floodplain or and-Chesapeake Bay RPAs the allowable intensity is determined based on the floor area ratio (FAR) specified by the existing or proposed zoning district and the total site area. Development within the 100-year floodplain and Chesapeake Bay RPAs is to be precluded. The intensity of development is to be evaluated on the basis of other relevant environmental resource action strategies, the compatibility of the proposed uses with surrounding existing uses and other applicable portions of the Plan.

Proposed text above to eliminate redundancy.

EN6.9.

Except where a crossing is unavoidable, ~~all~~ public utilities, excluding gravity sewer lines, ~~sanitary force mains, petroleum lines and hazardous substances lines~~ shall be located outside of the 100-foot Resource Protection Areas ~~buffer~~ and jurisdictional wetlands and waters. ~~Gravity sanitary sewer may run parallel within Resource Protection Areas, but should be located at least 40 feet from perennial streams and 25 feet from significant non-RPA streams. Revise the DCSM to require additional measures, such as stronger materials (e.g., ductile iron, concrete encasement, or other prophylactic measures as determined by PWCSA) to protect the pipe in the case of future lateral stream migration.~~ Sewer mains constructed parallel to perennial streams must be designed with prophylactic measures as determined by PWCSA to protect the pipe in the case of future lateral stream migration.

Proposed text above based on input from Service Authority, and emphasizes the intent to locate utilities outside RPAs, with the exception of gravity sewer lines.

EN6.10.

~~Update the DCSM to include the standards a protocol for defining and protecting Significant Non-RPA Streams established in this Chapter during the Perennial Flow Determination (PFD) process and establish standards for the required protection of these streams including but not limited to required buffers, steep slope avoidance, development setbacks and necessary mitigation measures when the proposed development affects these streams.~~

Proposed text above to reinstate previous recommendation for possible DCSM amendment, while clarifying and not implying that all buffers will be required.

EN7.1 (bullet 2).

- ~~Address the protection, conservation and restoration of RPA and significant non-RPA stream corridors, riparian forest buffers and jurisdictional wetlands and waters~~

Proposed text above to reinstate previous recommendation, in order to qualify features to be RPA and significant non-RPA.

EN8.1.

~~Continue an enforcement/monitoring program to ensure that, during and after development, peak stormwater flows do not exceed pre-development peak flows, in terms of quantity, quality, and volume. Employ field observation as well as stormwater management plans to assess impact of proposed development on downstream properties. for water quantity, quality, volume and velocity.~~

Proposed text above to not be as specific with parameters. The focus is on assessing the impact to downstream properties.

~~**EN8.2. Encourage conservation of natural features and limit impervious surfaces in Critical Groundwater Areas. Develop procedures to protect or improve, if necessary, the water quality of Critical Groundwater Areas.**~~

Staff edit to delete proposed Planning Commission text, as the term Critical Groundwater Areas is no longer relevant. Staff is proposing a new action strategy that does look at groundwater issues and the need for additional study.

EN8.2.

Amend the DCSM to manage stormwater, ~~when appropriate~~, to meet the 1-year, 10-year, and 24-hour storm event.

Staff edit to delete the phrase when appropriate.

EN8.3.

Amend the DCSM to establish and encourage low impact development (LID) standards, including, ~~where appropriate~~:

- filtering the “first flush” of urban run-off
- expanded use of constructed wetlands, multiple BMPs in a series, and superior BMPs
- enhanced and extended detention on-site (dry ponds with control structures or shallow marsh)

Staff edit to delete the phrase where appropriate.

EN9.1.

Amend the Zoning Ordinance to develop ~~and implement~~ a Drinking Water Reservoir Protection Overlay District ~~for areas within the Occoquan Reservoir and Lake Manassas Watersheds~~ to protect the quantity and quality of public drinking water supplies, to include the following:

- ~~Minimum standards for vegetated buffers along all streams and headwater areas~~
- ~~Minimum standards for vegetated buffers contiguous to wetlands that drain to a public drinking water supply~~
- Minimum setbacks from reservoirs.
- Minimum setbacks for the installation of septic fields, tanks, or other on-site subsurface sewage disposal system from the shoreline of reservoirs.
- Enhanced erosion and sediment control measures.
- ~~Standards establishing development densities appropriate for protecting drinking water resources.~~

Proposed text above to reinstate previous recommendation. The intent is to amend the Z.O. to develop a reservoir protection overlay, and not get into specific parameters at this time. The details will be determined as an outcome of the process.

EN9.11.

Based on recommendations from the Northern Virginia Regional Water Supply Plan, implement policies, strategies, and regulations necessary to ensure adequate supplies of potable water in areas that rely on groundwater for their water supply.

Proposed text suggested language in order to provide further clarification and also reference the water supply plan and an official document from which to create policy. This provides more specific justification and direction to why we need to look at groundwater resources.

EN10.3.

Amend the DCSM to require tree preservation plans when claiming credits for tree preservation or proffer compliance for all new development, to include commitments for the preservation of specimen trees and commitments to ensure that trees designated for preservation will survive construction in a manner that substantially retains their pre-development level of biological function, health, and structural condition.

Proposed text above to require tree preservation plans only when claiming tree credits for compliance. This change qualifies when a tree preservation plan could be applied and ensures survival of trees.

EN10.4.

Coordinate with the Virginia Department of Forestry, to implement an urban forestry program. Utilizing existing data and analysis tools, to identify the County's mature hardwood forests and the location of those forests. Maintain and periodically update an an inventory of forest cover in the County and track change to contiguous forest as development occurs. Make this information available to the public on the County Mapper.

Proposed text above to refocus on periodic updating forest data layer, and not constant tracking as forest coverage changes.

EN11.1.

e. Update Watershed layer to include the total number of acres and percentage breakdown of vegetative cover resource types and % of impervious surfaces in small sub watersheds.

Proposed text above for further clarification and focus on vegetative cover within sub watersheds, which is the consistent unit area of analysis.

Attachment A – Staff Analysis

Viewshed: A viewshed is an area of land, water, and other environmental elements ~~can have both interior and exterior views and one or more vantage points~~ that is visible from a fixed vantage point. The term is used widely in such areas as urban planning, archaeology, and military science. In urban planning, for example, viewsheds tend to be areas of particular scenic or historic value that are deemed worthy of preservation against development or other change. The preservation of viewsheds is a goal in the designation of open space areas, green belts, and community separators.

Staff recommending to left existing language intact and with no proposed changes.

The Planning Commission proposed text amendments are provided in the following section, based on the September 15, 2010 public hearing.

Attachment B – Planning Commission Text Amendments

ENVIRONMENT

Intent

The intent of the Environment Plan is to ensure that in developing the County, the natural beauty is preserved, water quality is protected, property values and quality of life are enhanced, and ecological diversity is preserved. With sound protection measures, such as those presented herein, Prince William County's citizens, business community, and visitors enjoy a healthy environment co-existing with a vibrant economy. In this regard, this Plan is to be used to address environmental issues, evaluate development proposals in their earliest stages, and develop ordinances.

Prince William County is one of a few jurisdictions on the Atlantic Seaboard that extends from sea level to mountain crest. The natural environment of the County is diverse. Streams, creeks, rivers, lakes, marshes, forests, meadows, and shores provide habitat for plants and animals, as well as contribute to the economic well-being and aesthetics of the County.

One way to preserve the County's natural environment is to see that applicants for development approval address environmental issues at the earliest planning phase. This Plan assists in this early planning process by defining those areas of a site that are environmentally sensitive and need to be preserved for the purpose of protecting water quality, maintaining the County's natural beauty, enhancing property values and quality of life, and preserving ecological diversity.

Sustaining our environmental position is critical to the County's capacity to ensure a high quality of life, provide for continued economic growth, and actively conserve and protect natural resources, including public drinking water supplies. To this end, it is critical for the County to establish clear measurable goals and environmental benchmarks in order to gauge its progress and plan for the future. Prince William County utilizes a sustainability approach in its planning and development policies. Prince William County embraces the environmental and economic benefits of our green infrastructure, considering emerging green technology, ensuring a multi-faceted decision-making approach that balances infrastructure needs, while balancing environmental, economic, and social issues.

On its rezoning and special use permit applications, ~~the County~~ the Zoning Ordinance requires ~~asks for~~ an environmental constraints analysis to determine areas of a site that are suitable for development and those areas that are not. The environmental constraints analysis determines the presence and extent of ~~certain~~ important environmental features

Attachment B – Planning Commission Text Amendments

as described in this Plan. It and is then is used as a tool to outline in a rezoning or special use permit application the preservation or conservation areas that will be provided and also describes avoidance efforts and/or mitigation techniques to minimize the environmental impacts of with those applications.

~~The standards and guidelines presented in this Plan are intended to supplement those reflected in the Chesapeake Bay Preservation Act and Chesapeake Bay Regulations. Prior to development of land, the property owner shall consult the Chesapeake Bay Preservation Overlay District Map, which identifies components of the Chesapeake Bay Act. These components include Resource Protection Areas, Resource Management Areas, and Intensely Developed Areas. A description of these components, and specific regulations regarding the Chesapeake Bay Act, are found in the County's Zoning Ordinance and Design and Construction Standards Manual.~~

~~Information contained in this Plan, and other environmental information available through the County, are provided as a public service by the operators/management of the Prince William County Internet Home Page, County cable television stations, radio stations, print media, and the Virginia Cooperative Extension Service.~~

The components of the Environment Plan include text and fold-out maps as follows:

- Intent, Goal, Policies, and Action Strategies.
- Highly Erodible Soils Map (Figure 1).
- Highly Permeable Soils Map (Figure 2).
- Chesapeake Bay Resource Protection Areas Map (RPAs) (Figure 3).

DEFINITIONS

Brownfield: A piece of industrial or commercial property that is abandoned or underused and often environmentally contaminated, especially one considered as a potential site for redevelopment.

Canopy: The leaf area of a tree.

Canopy Coverage: The area underneath the dripline of a tree, group of trees or forest.

Coastal Plain: The physiographic province generally located to the east of Interstate 95.

Contiguous: Abutting, adjoining, or touching and having a boundary, or portion thereof, which is coterminous.

Attachment B – Planning Commission Text Amendments

Forest Resources: Those trees, from individual trees in a parking lot to large populations of trees in expansive native forests, along with their associated plant and animal communities, that provide ecological, environmental, social and economic benefits.

Green Infrastructure: Green Infrastructure is our nation's natural life support system – an interconnected network of waterways, wetlands, woodlands, wildlife habitats, and other natural areas; greenways, parks and other conservation lands; working farms, ranches and forests; and wilderness and other open spaces that support native species, maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for America's communities and people. *2007 Virginia Outdoors Plan (Benedict and McMahon, 2006)*

Perennial Stream As defined by CBLAD, a perennial stream is a body of water that flows in a natural or man-made channel year-round during a year of normal precipitation. This includes, but is not limited to streams, estuaries, and tidal embayment's and may include drainage ditches or channels constructed in wetlands or from former natural drainage ways, which convey perennial flow. Lakes and ponds, with perennial streams flowing into, out of, or through them, are a part of the perennial stream. Generally, the water table is located above the streambed for most of the year and groundwater is the primary source for stream flow.

Significant Non-RPA Stream: A stream that is determined to significantly contribute to the health of an RPA stream or public drinking water source and/or that has a defined channel, sorted substrate, groundwater input, and supports aquatic life according to the Virginia Unified Stream Methodology (USM). The USM considers criteria such as stream condition, riparian buffer, in-stream habitat, presence of wetlands and overall sub-watershed conditions. The stream will generally score > 18 points when assessed with the County's preferred stream assessment protocol during the Perennial Flow Determination (PFD) process or as part of a watershed management plan.

Jurisdictional Wetlands and Waters: All waters of the United States and surface waters of the Commonwealth regulated by the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality.

Unique Habitats of Special Concern: Rare and exemplary natural communities as identified or defined by VDCR Natural Heritage Division. Areas identified by the DCR Natural Heritage Division as habitat for natural heritage resources. These areas play a crucial role in the future survival of the natural communities and rare species they

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support, examples include threatened or endangered plants or animals, rare or state significant natural plant communities, and significant geologic formations and features.

Specimen Tree: A tree having a diameter, measured at four and one-half (4.5) feet above the ground, of thirty (30) inches or more, or a tree having a diameter measuring seventy-five percent (75%) or more of the diameter of the current state champion of that species; includes county and state champion trees.

GOAL: Preserve, protect, and enhance the ~~significant~~ environmental resources and features of the County, including air quality, topography, soils, ground and surface water, biotic communities, (stream corridors, forests, and wetlands), sensitive plant and animal species, and natural viewsheds.

GENERAL ENVIRONMENTAL POLICIES AND ACTION STRATEGIES

EN-POLICY 1: Consider environmental concerns at all levels of land use related decision-making.

ACTION STRATEGIES

- ~~1. — Develop a methodology to account for the depreciation of renewable resources (such as forest, groundwater) and non renewable resources (such as unique habitat) when evaluating the economic health of the County.~~
1. Develop and maintain GIS mapping layers and other critical maps to be included as part of the Environment Plan, which may include the following layers and/or maps:
 - Existing Canopy Coverage Impervious Area
 - Vegetative Cover Types
 - Wetlands Existing Conservation Easements
2. Update the Zoning Ordinance environmental constraints analysis requirements to add the following: show the following as three separate items:
 - a. Approximate Delineation of all jurisdictional wetlands and waters areas including intermittent streams
 - b. ~~Approximate~~ Location of all Chesapeake Bay Resource Protection Areas (PASA submittal required)
 - c. All significant non-RPA ~~intermittent~~ streams

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- d. Ponds, culverts
 - e. Contributing drainage areas
 - f. Existing structures, roads, and the locations of known utilities and easements
 - g. Publicly available information on adjoining parcels regarding the location of 100-year floodplains, wetlands, stormwater infrastructure, and streams
 - h. Identification of the adequacy of receiving surface waters into which stormwater will be proposed for discharge
 - i. Proposed limits of disturbance
 - j. Existing vegetation map of the entire site
 - k. Location of all specimen trees
 - l. Unique Habitats of Special Concern
 - m. Identification of environmental features proposed for preservation or conservation
 - n. Acreage of all Environmental Resources (i.e., per ER definition)
- ~~3. All County offices involved in land use will coordinate with local, federal, state, and regional environmental organizations to facilitate the exchange of data and implementation of environmental protection measures.~~
3. Identify and pursue opportunities for open space preservation that preserve unique habitats of special concern
4. Ensure that the County is cognizant of the environmental issues and impacts of development projects of adjacent jurisdictions that might affect the health, safety, and welfare of the citizens of Prince William County. Seek and consider as part of the rezoning or special use process, input from adjacent jurisdictions to promote regional green infrastructure planning efforts as well as other environmental concerns that have multi-jurisdictional impacts.
5. Encourage developers to incorporate into site planning various environmentally sensitive approaches to stormwater management, including low-impact development (LID) techniques ~~on appropriate sites for example, as outlined in the Center for Watershed Protection manuals,~~ and preservation and restoration of natural land forms, as discussed in this Plan and the Community Design Plan.
- ~~6. Ensure that open space is maintained in the County and that a minimum of 39 percent of the total land area in the County will be retained as open space by build out of the Comprehensive Plan, through appropriate amendments to the~~

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~~Zoning Ordinance or other appropriate documents, to increase open space requirements.~~

- ~~8. Amend the open space requirements in the Zoning Ordinance to ensure preservation/ provision of open space within all developments.~~
6. Upon completion of the Northern Virginia Regional Commission's conservation corridors project, update, the Environment Chapter to include priorities identified in the report.
7. During the rezoning or special use permit process, review the Open Space and Corridors Map in the Parks, Open Space and Trails chapter to identify and determine the value or ecological viability of certain corridors.

EN-POLICY 2: Develop and implement a data collection, tracking, and analysis structure to monitor and establish the county's environmental baseline, resource status, and sustainability.

ACTION STRATEGIES:

1. Utilize the information gathered through studies and assessments to establish criteria for protecting ecologically important areas during land use decision-making processes.
2. Map all Environmental Resources to prioritize conservation planning, and make this information available on the County Mapper.
3. Complete a Countywide Stream Assessment, post the report online, and make this information available on the County Mapper.
4. Inventory county-owned properties, to include Park Authority and Prince William Public School properties, to identify environmental resources, as identified in the Environmental Constraints Analysis. Provide inventory/mapping of forest areas in Prince William County and make this information available to the public.

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5. Utilize tree assessment tools ~~Develop a methodology~~ to account for the depreciation of renewable resources (such as forest, groundwater) and non-renewable resources (such as unique habitat) when evaluating the economic health of the County.
6. All County offices, to include Park Authority and Prince William Public School properties, involved in land use will coordinate with local, federal, state, and regional environmental organizations to facilitate the exchange of data and implementation of environmental protection measures.
7. Conduct a County-wide analysis of the economic value of our existing green infrastructure (native and urban forests) toward energy conservation, storm water control off-sets, property values, protecting and improving water quality, and reducing air pollution.
8. Develop a baseline analysis of tree cover from available historic data.

EN-POLICY 3: ~~Ensure that a minimum of 39 percent of the total land area in the County will be retained as open space by build-out of the Comprehensive Plan.~~

To further support OS-Policy 5, a minimum of 39 percent of the total area in the County, (exclusive of acreage of Marine Corps Base Quantico for all calculation purposes), will be retained as protected open space, as defined in the Open Space Chapter.

ACTION STRATEGIES:

- ~~1. Amend the Zoning Ordinance to increase open space requirements.~~
1. Encourage cluster development to protect contiguous natural open space, as defined by the Zoning Ordinance.
- ~~2. Amend the open space requirements in the Zoning Ordinance to ensure preservation/ provision of open space within all developments.~~
2. Amend the cluster ordinance to ensure that open space is permanently protected, as defined in the Open Space Chapter and managed as a natural area.

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3. Amend the Zoning Ordinance to ensure a minimum of a 50/100-foot buffer is required on new development adjacent to existing public lands and private conservation easements.
4. Amend the Zoning Ordinance and/or DCSM to prohibit the establishment of proffered conservation and preservation areas-on residential lots.
5. Develop and publish guidelines for homeowner associations that details how to manage conservation areas, while providing information on responsibilities and a checklist of standard management measures and benefits.
6. Make information on conservation easements available to landowners, including distribution points at the Tax Assessment Department and other relevant county offices, to encourage the use of open space/conservation easements as tools to preserve environmental resources.
7. Encourage the use of open space/conservation easements to preserve open space in already developed areas in order to provide natural areas, protect environmentally sensitive resources, preserve wildlife habitat and ensure a scenic appearance over time.
8. The County shall review and implement opportunities for a Purchase of Development Rights (PDR) Program.
9. Explore the use of available federal and state funding resources, including grants, foundations, and transportation related funds, to support green infrastructure planning initiatives and a Purchase of Development Rights (PDR) Program.
10. Establish and continue partnerships with local agencies and organizations to initiate and provide public information programs aimed at conserving lands in the watershed through civic engagement community stewardship.
11. Investigate the benefits of ~~establishing~~ involving a private conservancy for the purpose of purchasing privately held lands for preservation purposes and seeking perpetual conservation easements to preserve open space.
12. ~~Continue the progress towards~~ Support initiatives promoted by the County's Trails and Blueways Council to establishing a Countywide trails and corridors greenway and path system through the voluntary donation of land and

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conservation easements from interested property owners, as a means of environmental protection.

13. To protect the biological diversity, processes, and functions of natural habitats, identify and prioritize a network of preservation corridors or large woodland areas to be incorporated into an overall habitat protection network.

CLIMATE & AIR QUALITY POLICIES AND ACTION STRATEGIES

EN-POLICY 4: ~~Improve~~ Monitor air quality and collaborate with DEQ, MWCOG, and other regional entities to identify and implement strategies to improve air quality. ~~within Prince William County.~~

ACTION STRATEGIES:

1. ~~Establish procedures to monitor air quality in the County.~~ Support and coordinate with the Council of Governments (COG) Metropolitan Washington Air Quality Committee's Air Quality Monitoring Program, the Climate, Energy and Environmental Policy Committee for the region and within the County.
2. Analyze and suggest locations for air, water and energy monitoring sites to encourage COG and the Virginia Department of Environmental Quality (DEQ) ~~Encourage the Department of Environmental Quality (DEQ)~~ to establish additional air quality monitoring stations in the County, as applicable.
3. ~~Seek input from the DEQ on rezoning or special use permit applications that include facilities that are likely to produce gaseous emissions or potentially harmful airborne particulates, in cooperation with the Air Quality Committee at the Metropolitan Washington Council of Governments (MWCOG).~~
3. Where applicable, review and consider air quality impacts for public and private industries and utilities in conjunction with the rezoning and/or special use permit application process.
4. Continue to maintain regional COG ~~Encourage and pursue the development of inter-jurisdictional agreements~~ and contingency plans to deal with stationary and mobile sources of pollution to protect residents, and especially sensitive residents (such as the young, the elderly, and sensitive populations).

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5. Develop a process to determine if adequate controls, including new technologies for disposing of compact fluorescent light bulbs, are in place to prevent metals, Polychlorinated Biphenyls (PCBs), and other carcinogenic materials from entering the trash stream. of public and private incinerators. Thereafter, continue to monitor this issue and ensure adequate controls are in place to maintain the safety of the environment.
6. Conduct Request MWCOG or VDOT to review air quality/transportation studies along major transportation corridors and at congested intersections, in order to better define the impacts and trends of vehicle-generated pollution.
- ~~7. Encourage the reduction of emitted gas pollutants from point sources.~~
7. Reduce pollution impacts from vehicles, by designating compact urban growth areas and by encouraging the development of mixed use projects as described in the Long Range Land Use Plan. Developments, including and not limited to transit-oriented and mixed use projects, shall optimize the use of transit and non-motorized trips in order to reduce pollution impacts from vehicles and contain the appropriate support facilities, such as bus shelters, dedicated bicycle lanes, bicycle parking facilities, trails, crosswalks, sidewalks, etc.
8. ~~Where appropriate, e~~Encourage the Virginia Department of Transportation (VDOT), and County projects, to and developers to preserve and/or re-establish vegetative buffers along arterial roadways as a means of filtering and absorbing pollutants, and reducing noise pollution.
9. Reduce pollution from vehicles pollution by encouraging the use of advanced technology and alternative modes of transport – including van/carpooling, public transit, bicycles, light rail, and pedestrian paths. Encourage the use of alternative fuels (such as natural gas and/or electric power) for public transit and school buses.
- ~~12. Encourage utility companies to share easements where technically feasible to reduce the amount of disturbance along a roadway or to provide enough areas for street trees.~~
10. Design and construct buildings and associated landscapes to conserve energy and water resources and to minimize short- and long-term negative impacts on the environment and building occupants.

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~~TOPOGRAPHY & SOILS POLICIES AND ACTION STRATEGIES~~

WATERSHED PLANNING AND SUSTAINABILITY POLICIES

EN-POLICY 4: ~~Protect and manage the County's soils and natural vegetation.~~

EN-POLICY 5: Protect and manage the County's soils and natural landscape, to retain and enhance their associated economic, aesthetic and ecosystem benefits.

ACTION STRATEGIES:

~~1. Preservation/conservation of certain natural land forms is important to the County in achieving water quality targets, good community design objectives, and ecological diversity. Accordingly, discourage development adjacent to a perennial stream in the following areas:~~

- ~~• Wooded slopes of 25 percent and greater with highly erodible soils, permeable soils or marine clay soils.~~
- ~~• Wooded slopes of 25 percent and greater having a continuous area of 10,000 square feet.~~
- ~~• Wooded slopes of 15 percent and greater with highly erodible soils, permeable soils, or marine clay soils.~~
- ~~• Wooded 100-year floodplain.~~
- ~~• Non-wooded slopes of 25 percent and greater with highly erodible soils, permeable soils, or marine clay soils.~~
- ~~• Non-wooded slopes of 25 percent and greater having a continuous area of 10,000 square feet~~
- ~~• Non-wooded slopes of 15 percent and greater with highly erodible soils, permeable soils or marine clay soils.~~
- ~~• Non-wooded 100-year floodplain.~~

1. When designing a project, use the following priorities for protecting the natural landscape:

- In the coastal plain, discourage development in all areas of 15% or greater slopes where shrink-swell soils exist.

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- Along significant non-RPA streams, discourage development in all areas of 25% or greater slopes up to a distance of 100 feet from the edge of the stream.
 - Encourage the preservation of a natural buffer of existing woodland or forestation area of at least 50 feet along each side of all significant non-RPA streams.
 - Encourage mitigation where impacts are unavoidable.
 - Emphasize the preservation of jurisdictional wetlands over mitigation, including measures that ensure the wetland's sustainability.
2. Amend the DCSM to require identification of and limit development on-areas with shrink/swell soils, 15% slopes with an erodibility factor K of greater than 0.4, and/or with underlying marine clays. Where impacts are unavoidable, require mitigation.
 3. ~~Seek commitments prior to the time of rezoning and special use permit approval that many of the landforms identified~~ Utilize the Environmental Constraints Analysis to evaluate and prioritize those sensitive landforms to action strategy 1 above will be set aside for as a preservation/conservation and any appropriate mitigation.
 4. Use native plants that are adapted to local soil and weather conditions when re-vegetating disturbed areas.
 5. Develop, in coordination with the Community Design Plan general design evaluation guidelines, criteria, and techniques-that promote the preservation of natural landscapes – especially those that tend to be drought resistant – and apply them in the evaluation of rezoning and/or special use permit applications.
 6. Where ~~toxic~~ hazardous waste soil contamination is suspected, ~~request~~ require that a rezoning and/or special use permit applicant submit an Environmental Site Assessment Phase II – Contaminated Sites and Remediation Plan as part of the application.
 7. ~~Prohibit development at toxic waste sites to the extent provided by law. If~~ environmental clean-up efforts have been conducted at hazardous waste sites to meet state and federal standards, development can be proposed. Actively support and encourage “brownfield” redevelopment, where appropriate.

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8. Monitor the effectiveness of the Prince William County Erosion and Sediment Control Ordinance and upgrade as appropriate.
9. For properties that include jurisdictional wetlands and waters , 15% or greater slopes, or unique habitats of special concern, require enhanced erosion and sedimentation controls, including super silt fences, erosion control blankets, soil stabilization matting, temporary vegetative cover, and other controls, as required by the Erosion and Sediment Control Program Administrator.
10. County development and transportation projects and any other projects constructed using taxpayer funds shall require plan review and erosion and sediment control inspection frequencies that meet or exceed state standards.
11. For State, Federal, and other publicly-funded development and transportation projects, the County shall coordinate with appropriate agencies to ensure that all projects within the County demonstrate leadership standards by incorporating the highest environmental standards, while meeting or exceeding the County's minimum standards.
12. Request courtesy review of erosion control plans for all federal and state projects in Prince William County.
13. Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on developing properties ~~cluster developments.~~
14. Continue to identify the locations of critically eroding shorelines and stream banks. Development of such areas shall require the appropriate stabilization as identified in the County's Design and Construction Standards Manual (DCSM). Promote the use of vegetative or "soft" stabilization techniques along shorelines to maintain a natural buffer.
15. Address issues of sea level rise along shorelines in County. Utilize current data and information on sustainable shorelines to protect shorefronts and property and incorporate sea level rise into County policy.
16. Utilize the Environmental Constraints Analysis at the time of rezoning or special use permit to require development sites to be designed in a manner that limits clearing and grading to the minimum area needed to construct the proposed use.

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17. Update the DCSM to preclude the use of all invasive and non-native species.
18. Identify, manage, and protect ecological communities and wildlife – especially critical habitats – as well as endangered and threatened species, and species of special concern, as identified in official Federal and State lists.
19. Ensure the County considers the most recent information available on the status and location(s) of rare, threatened and endangered species, rare plant communities and critical habitat areas.
20. At the time of rezoning or special use permit and all County projects, seek implementation of state and federal guidelines for the protection of rare, threatened, and endangered species and encourage preservation of habitats where these species could occur.

SURFACE & GROUNDWATER POLICIES AND ACTION STRATEGIES

EN-POLICY 6: Maintain or enhance the integrity of surface bodies of water. ~~(lakes, ponds, rivers, and streams) and watersheds.~~

ACTION STRATEGIES:

1. ~~Encourage water quality improvement during the redevelopment of properties located within Intensely Developed Areas (as defined in the Zoning Ordinance), and other areas targeted for redevelopment, through correction of improperly maintained/functioning Best Management Practices, replacement of inefficient sanitary sewer lines or failing septic systems, use of low impact development techniques—for example as outlined in the Center for Watershed Protection manuals—and re-vegetation along streams.~~
 2. ~~Establish a program to monitor the effectiveness of the implementation of Chesapeake Bay Regulations.~~
1. Locate away from the County's water bodies those nonresidential activities that use, store, or manufacture significant quantities of hazardous ~~toxic~~ substances.
 2. Study and recommend measures to improve contingency planning by parties who use, handle, or store hazardous substances in sufficient quantities so as to constitute a threat to surface and groundwater quality. The measures should

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address identification of trigger amounts of materials and procedures for prevention of leaks or spills and for containment of leaks, spills, and water runoff from fire fighting, and include commitments for the pretreatment of storm water quality to prevent contamination.

- ~~5. To the extent permissible under law, require industries and utilities to monitor for chemical leaks.~~
- ~~6. Develop, in coordination with the Community Design Plan, general design evaluation guidelines, criteria, and techniques that promote the preservation of natural landscapes—especially those that tend to be drought resistant—and apply them in the evaluation of rezoning and/or special use permit applications.~~
3. In conjunction with the Soil and Water Conservation District and the Agricultural Extension Service, encourage the County's farmers to employ best management practices, such as crop rotation, conservation tillage, strip cropping, nutrient management, fencing and buffer areas along streams to keep out livestock, use of livestock water devices away from stream, and grazing rotation plans.
4. Continue and promote a local, coordinated "Adopt-a-Stream" program.
- ~~9. Encourage the preservation of a natural buffer of existing woodland or forestation area of a least 50 feet along each side of all waterways that are not otherwise protected under the Chesapeake Bay regulations or similar legislation.~~
- ~~10. Encourage cluster development in areas of the County that have steep slopes and highly erodible soils.~~
- ~~11. Continue to implement a watershed management program, as set forth by the County's Public Works Department, to provide on-site stormwater management and natural management/low impact development.~~
5. Require adherence to the following guidelines for determination of density or intensity of development:

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RESIDENTIAL

Preclude the development of habitable structures within 100-year floodplains. The allowable dwelling unit density for a property in the Urban and Suburban Area shall be calculated based on the area outside the Environmental Resource (ER) area, floodplain, the Chesapeake Bay RPAs, and areas as shown in an the environmental constraints analysis submitted with a rezoning or special use permit application ~~with wetlands; 25 percent or greater slopes; areas with 15 percent or greater slopes in conjunction with soils that have severe limitations; soils with a predominance of marine clays; public water supply sources; and critically erodible shorelines and stream banks.~~ The allowable dwelling unit density areas of the property encumbered by such features shall be based upon the maximum density permitted by the existing zoning of the property at the time of adoption of the Comprehensive Plan. Other relevant Comprehensive Plan components – such as the capacity of the transportation network, environmental constraints, and zoning requirements – must be addressed, as well, in determining the appropriate number of dwelling units on a property.

NON-RESIDENTIAL

On non-residential-zoned property encumbered with areas of 100-year floodplain or and Chesapeake Bay RPAs the allowable intensity is determined based on the floor area ratio (FAR) specified by the existing or proposed zoning district and the total site area. Development within the 100-year floodplain and Chesapeake Bay RPAs is to be precluded. The intensity of development is to be evaluated on the basis of other relevant environmental resource action strategies, the compatibility of the proposed uses with surrounding existing uses and other applicable portions of the Plan.

6. Establish partnerships with local agencies and organizations to ~~D~~develop and distribute public service information to reduce nutrient loading in stormwater runoff from yards and farms.
7. Use the Virginia Marine Resources Commission (VMRC) criteria for the Siting of Marinas or Community Boat Moorings in evaluating future waterfront access sites to the County.

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8. Encourage innovative stormwater management techniques. Promote LID (Low-Impact Development) and on-site stormwater management (SWM).

9. ~~Encourage that Except where a crossing is unavoidable, needed sewer force mains, petroleum lines, and hazardous substances lines be located outside of Resource Protection Area and other water bodies.~~

Except where a crossing is unavoidable, public utilities, sanitary force mains, petroleum lines and hazardous substances lines shall be located outside of the 100 foot Resource Protection Area buffer and jurisdictional wetlands and waters. Gravity sanitary sewer may run parallel within Resource Protection Areas, but should be located at least 40 feet from perennial streams and 25 feet from significant non-RPA streams. Revise the DCSM to require additional measures, such as stronger materials (e.g., ductile iron, concrete encasement, or other prophylactic measures as determined by PWCSA) to protect the pipe in the case of future lateral stream migration.

10. Update the DCSM to include the standards for defining and protecting Significant Non-RPA Streams established in this Chapter and the required protection of these streams including but not limited to required buffers, steep slope avoidance, development setbacks and necessary mitigation measures when the proposed development affects these streams.

EN-POLICY 7: <u>Manage watersheds through a comprehensive watershed management planning-based approach.</u>
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ACTION STRATEGIES:

1. Develop future watershed management plans. As appropriate, the following resources and/or components are to be considered:
 - Existing impervious surfaces
 - Determine estimated future impervious surfaces, based on established land use-impervious cover relationships, the most recent comprehensive plan, and zoning information
 - Stormwater management facilities
 - Water quality monitoring stations
 - Stormwater hotspots/flooding
 - Forest cover/tree cover

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- Topography
 - Soils and geologic features
 - Floodplains
 - Hazardous waste sites
 - Wells
 - Land ownership (public/private)
 - Subwatershed area
 - Land use, by zoning category
 - Downstream water resources
-
- Include public input
 - Address the protection, conservation and restoration of stream corridors, riparian forest buffers and jurisdictional wetlands and waters
 - Reflect the goals and objectives of improving habitat and water quality.
 - Determine the most vulnerable subwatersheds and evaluate restoration capabilities
 - Rank priority subwatersheds for implementation and identifies areas that merit prompt restoration actions
 - Identify solutions for protecting and restoring streams and other natural resources in the watershed
 - Identify implementation mechanisms, such as amendments to the Open Space and Corridors Map.
 - Include a mechanism to monitor progress.
-
2. Present completed watershed management plans to the Board of County Supervisors and consider these in making land use decisions, and the CIP.
 3. Utilize watershed plans to define the condition of County streams and waterways, and define streams in need of restoration. Produce a map to include streams in need of restoration.
 4. At the time of Rezoning and Special Use Permit, seek commitments to improve conditions of streams in need of restoration affected by the proposed project and other issues identified in the watershed plan.
 5. Expand public input opportunities during the watershed management planning process, to ensure that community ideas are incorporated into watershed planning efforts and promote increased understanding of stormwater management and watershed issues.

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EN-POLICY 8: In preparation for new State stormwater regulations and Federal Chesapeake Bay TMDL requirements, develop new standards for Stormwater Management.

ACTION STRATEGIES:

- ~~1. — Encourage cluster development. in areas of the County that have steep slopes and highly erodible soils.~~
 - ~~2. — Continue an enforcement/monitoring program to ensure that, during and after development, peak stormwater flows do not exceed pre-development peak flows, in terms of quantity, quality, and volume. Employ field observation as well as stormwater management plans to assess impact of proposed development on downstream properties for water quantity, quality, volume and velocity.~~
 - ~~3. — Seek and implement stormwater management — including low impact development standards — that require all development projects to establish systems — preferably natural — for filtering the “first flush” of urban runoff (delivery of disproportionately large amounts of pollutants that occurs during the early stages of a storm) near its source.~~
1. Where appropriate, employ field observation by staff and refer to Stormwater Management Plans to assess impact of proposed developments on downstream and adjacent properties.
 2. Amend the DCSM to manage stormwater to meet the 1-year, 10-year, and 24-hour storm event.
 3. Amend the DCSM to establish and encourage low impact development (LID) standards, including:
 - filtering the “first flush” of urban run-off
 - expanded use of constructed wetlands, multiple BMPs in a series, and superior BMPs
 - enhanced and extended detention on-site (dry ponds with control structures or shallow marsh)

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4. Amend the DCSM to require conceptual stormwater management details for the entire site prior to preliminary site plan approval large development plans with multiple sections and phases.
5. Amend the DCSM to develop standards for acceptable retro-fit techniques for re-development and develop incentives to expand and encourage their use.
6. Identify the location of all county-maintained stormwater facilities and county-inspected LID projects on the County Mapper.
7. Amend the DCSM to encourage reductions in impervious surfaces, including the following:
 - Reassessment of parking requirements
 - Compact car parking
 - Structured parking for high-density mixed use developments
 - Shared parking
 - Expanded use of semi-pervious and pervious surfaces
8. Amend the DCSM to prohibit direct discharge of untreated stormwater from a developed site into jurisdictional wetlands and waters. Ensure discharge does not exceed non-erosive velocities.
9. Encourage Amend the DCSM to require the use of appropriate native ~~vegetation~~ plant species in vegetated stormwater facilities and low impact development features that will remove to facilitate removal of nutrients from the storm flow.

EN-POLICY 6: Limit the amount and extent of impervious surfaces
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ACTION STRATEGIES:

1. ~~Encourage the minimization of the amount of impervious surfaces of development and utilize acceptable retrofit techniques in redevelopment in order to minimize stormwater runoff. through the use of appropriate low impact development techniques, for example as outlined in the Center for Watershed Protection manuals.~~
2. ~~Encourage the use of semi-pervious or pervious surfaces and other low impact development techniques. ,for example as outlined in the Center for Watershed Protection manuals.~~

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3. ~~Continue an enforcement/monitoring program to ensure that, during and after development, peak stormwater flows do not exceed pre-development peak flows, in terms of quantity, quality, and volume.~~
4. ~~At the time of an application for a rezoning or special use permit, seek commitments to use low impact design, where appropriate, to mitigate the impact of parking areas, for example as outlined in the Center for Watershed Protection Manuals, and encourage structured parking.~~

EN-POLICY 7: ~~Promote the preservation and use of natural features which facilitate the effective management of stormwater runoff.~~

ACTION STRATEGIES:

1. ~~Seek and implement stormwater management including low impact development standards that require all development projects to establish systems preferably natural for filtering the “first flush” of urban runoff (delivery of disproportionately large amounts of pollutants that occurs during the early stages of a storm) near its source.~~
2. ~~Maintain or establish areas of natural vegetation downstream of disturbed soils to help filter sediments and other pollutants.~~

EN-POLICY 8: ~~Ensure the protection of the County’s groundwater and aquifers.~~

ACTION STRATEGIES:

1. ~~Coordinate with the Health Department and State Water Control Board to identify Critical Groundwater Areas (CGAs)~~
2. ~~Develop procedures to protect or improve if necessary the water quality of CGAs.~~
2. Encourage conservation of natural features and limit impervious surfaces in Critical Groundwater Areas. Develop procedures to protect or improve, if necessary, the water quality of Critical Groundwater Areas.
3. ~~Evaluate groundwater conditions for potential pollution, using available data from the Virginia Department of Environmental Quality (for leaking underground~~

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~~storage tanks) and the Prince William County Health Department (for failing septic systems) when reviewing rezoning and/or special use permit applications.~~

- ~~4. Promote the use of secondary containment storage tanks for petroleum products and other hazardous materials.~~
- ~~5. Review and upgrade, as appropriate, the Best Management Practice and soil and erosion maintenance enforcement program for all types of development.~~
- ~~6. Conduct a study to predict the pollution content of proposed stormwater management ponds.~~
- ~~6. Develop an ordinance that requires new wells be tested for toxic and radiological substances at the same time that they are being tested for bacterial contaminants.~~
- ~~7. Publish a yearly report on the status of the pollution content of the sediment in existing stormwater management ponds.~~
- ~~9. Develop guidelines for the preservation of saprolite (soft, earth, clay rich, thoroughly decomposed rock formed in place by chemical weathering of igneous or metamorphic rock) in areas where land use includes agriculture and where septic systems are used.~~
- ~~7. Promote the use of pre-treatment devices for stormwater runoff and/or small spills or leakages on sites where petroleum products or hazardous wastes are handled.~~
- ~~9. Encourage the use of appropriate native vegetation in the stormwater that will remove nutrients from the storm flow.~~

EN-POLICY 9: ~~Set sewer force mains, petroleum lines, and hazardous material lines, shall be away from the edge of waterways.~~

ACTION STRATEGY:

- ~~1. Encourage that Except where a crossing is unavoidable, needed public utilities sewer force mains, petroleum lines, and hazardous substances lines shall be located outside of Resource Protection Areas and other water bodies.~~

Attachment B – Planning Commission Text Amendments

EN-POLICY 10 12: Ensure the high quality of public drinking water sources, ~~such as Lake Manassas and the Occoquan Reservoir.~~

In addition to the policies and action strategies listed for surface and groundwater protection, the following action strategies will serve to implement this policy:

ACTION STRATEGIES:

- ~~2. Encourage the minimum density/intensity of development, as reflected by the appropriate land use classification shown on the Long-Range Land Use Plan Map around the shorelines of the reservoirs.~~
- ~~2. Conduct a study to determine appropriate land use densities (dwelling units/acre) within the Occoquan Reservoir Watershed—the County's primary public water supply—and evaluate the option of creating an overlay district for the area.~~
1. Amend the Zoning Ordinance to develop and implement a Drinking Water Reservoir Protection Overlay District for areas within the Occoquan Reservoir and Lake Manassas Watersheds to protect the quantity and quality of public drinking water supplies, to include the following:
 - Minimum standards for vegetated buffers along all streams and headwater areas
 - Minimum standards for vegetated buffers contiguous to wetlands that drain to a public drinking water supply
 - Minimum setbacks from reservoirs.
 - Minimum setbacks for the installation of septic fields, tanks, or other on-site subsurface sewage disposal system from the shoreline of reservoirs.
 - Enhanced erosion and sediment control measures.
 - Standards establishing development densities appropriate for protecting drinking water resources.
- ~~3. Where not otherwise required as part of the Chesapeake Bay Preservation Act for designated RPAs, require a minimum 100-foot setback from shorelines of public water sources for development-related ground-disturbance activities.~~
2. Encourage farmers to develop conservation plans for agricultural activities undertaken within the Lake Manassas and Occoquan Reservoir watersheds.

Attachment B – Planning Commission Text Amendments

3. Continue to support the Occoquan Monitoring Laboratory, the Northern Virginia Regional Commission's technical studies, and the multi-jurisdictional Occoquan watershed program. Obtain annual reports for presentation to the Board of County Supervisors.
4. Promote open space uses and ~~—where practical—~~ acquire land along the Occoquan Reservoir for special use parks that are designed to promote an appreciation of the natural environment and facilitate passive recreation (such as fishing, hiking, and non-motorized boating).
5. ~~Encourage Fairfax County to continue restricting by ordinance the use of internal combustion engines on the Occoquan Reservoir.~~ Actively support Fairfax Water Authority efforts to increase compliance and enforce regulations established by their Occoquan Shoreline Easement Policy.
6. Request that the Occoquan Laboratory continue to identify ~~types of~~ point/non-point pollution sources upstream from the reservoirs and to suggest ways that the non-point source pollution can be eliminated or controlled.
7. Evaluate groundwater conditions for potential pollution, using available data from the Virginia Department of Environmental Quality (for leaking underground storage tanks) and the Prince William County Health Department (for failing septic systems) when reviewing rezoning and/or special use permit applications.
8. Promote the use of secondary containment storage tanks for petroleum products and other hazardous materials, for all development and redevelopment.
9. ~~Promote~~ Require the use of pre-treatment devices for stormwater runoff and/or small spills or leakages on sites where petroleum products or hazardous wastes are handled as is currently required for all fuel dispensing facilities.

EN-POLICY H 13: Preserve natural vegetation – especially existing and mature trees – and provide for the replacement <u>and management of urban forest resources.</u> of trees.
--

ACTION STRATEGIES:

- ~~2. — Support legislation that will enable local a tree preservation ordinance.~~

Attachment B – Planning Commission Text Amendments

1. Develop, adopt, and implement a Tree Preservation Ordinance, incorporating standards for both Countywide and watershed goals. Solicit community input to help identify and define priorities for tree preservation and tree cover standards.
- ~~3. Continue to support and implement the Agricultural and Forestal District program to preserve farmland and woodland areas in the County.~~
2. Amend the Zoning Ordinance and DCSM requirements for buffer areas, landscaping, and tree cover requirements to prioritize tree preservation instead of tree replacement.
- ~~1. Maintain and update the County's buffer areas, landscaping, and tree cover requirements contained in the Zoning Ordinance and DCSM. Promote tree preservation instead of tree replacement.~~
3. Require tree preservation plans for all new development, to include commitments for the preservation of specimen trees and commitments to ensure that trees designated for preservation will survive construction in a manner that substantially retains their pre-development level of biological function, health, and structural condition.
- ~~6. Conduct a professional study to identify the County's mature hardwood forests (such as oak/hickory) and the location of those forests deserving special protection.~~
4. Coordinate with, the Virginia Department of Forestry, to implement an urban forestry program. Utilizing existing data and analysis tools, to identify the County's mature hardwood forests and the location of those forests. Maintain an inventory of forest cover in the County and track change to contiguous forest as development occurs. Make this information available to the public on the County Mapper.
- ~~7. Consider acquisition of select sites for public parks/forests and/or encourage the dedication of such sites by private property owners.~~
5. Maintain the County's ~~informal~~ Registry of Historic and Champion Trees. Use this registry at the time of rezoning and special use permit application to determine the presence of such trees on the property.

Attachment B – Planning Commission Text Amendments

6. Establish and adopt reforestation standards to address areas where unauthorized clearing has occurred. Amend relevant ordinances, as needed, including the Zoning Ordinance and DCSM, to support these standards. Study the practicality of adopting various reforestation strategies.
7. Encourage utility companies to share easements where technically feasible to reduce the amount of disturbance along a roadway and provide enough areas for street trees.

EN-POLICY 2 14: Increase the environmental awareness of County residents, organizations, businesses, and government agencies.

ACTION STRATEGIES:

1. Make the following additional GIS layers available to the public on the County Mapper:

- f) Wetlands [NWI maps]
- g) Canopy Coverage
- h) Protected open space,
- i) All stormwater infrastructure, including County-maintained stormwater facilities and county-inspected low impact development (LID) facilities
- j) Update Watershed layer to include the total number of acres and percentage breakdown of resource types and % of impervious surfaces in small watershed.

- ~~1. Continue to develop and conduct educational programs on important environmental issues for the business, agriculture, and residential communities. Provide developers with information on County conservation requirements.~~
- ~~2. The Board of County Supervisors should seek grant funding from the federal and state governments to print educational materials regarding environmental resources and conservation measures.~~
2. Conduct a series of workshops to educate, engage and increase communication between citizens, organizations, businesses, industry, government officials and agencies on sustainable development, green infrastructure, and associated opportunities.

Attachment B – Planning Commission Text Amendments

3. Publish a webpage and associated e-notification component to provide information and updates on the County's green development and green infrastructure initiatives.
4. Publish a webpage and associated e-notification component to promote and provide current information on local Farmer's Markets and other sources of locally produced food.
5. Enhance the County's recycling program, including yard waste composting, that will meet or Continue to expand or exceed the recycling rate mandated by the Virginia Department of Environmental Quality and publish on the webpage developed through AS 4, above. through the following means:
 - ~~Evaluate opportunities for increasing recycling in businesses, institutions, and multi-family dwellings.~~
 - ~~Expand the types of recyclables collected in the County.~~
 - ~~Conduct site selection evaluations for an additional or larger yard waste composting site.~~
 - ~~Continuously evaluate the locations for drop-off centers throughout the County.~~
 - ~~Improve public outreach programs to better promote and identify recycling opportunities.~~
4. ~~Maintain current informational brochures for public distribution that explain the importance of protecting and managing the County's soils.~~
6. ~~Prepare or acquire~~ Update current informational brochures explaining the importance of soils and the proper maintenance of private sewer/septic systems, including the importance of such maintenance to the owner and to the environment. Make this information available to users of these systems.
7. ~~Develop public service announcements that provide information about timing, selection, and application of appropriate chemical applications for yards and agriculture which also emphasize that inappropriate applications can damage the environment.~~ Provide brochures on sustainable practices for home gardening and lawn care. Work with local nurseries and retail facilities that sell fertilizers to ensure these are distributed to the public.

Attachment B – Planning Commission Text Amendments

8. Explore partnership opportunities with the U.S. Army Corps of Engineers (COE) and Virginia Department of Environmental Quality (DEQ) regional offices, responsible for implementing federal and state regulations over streams and wetlands, to regulate wetlands and other jurisdictional waters, including perennial and intermittent streams. Resource protection measures will include avoidance, impact minimization and compensatory mitigation, such as buffer protection and enhancement, as well as stream and wetlands restoration or creation.
9. Work with local regulations (DCSM), the PWC Service Authority, Virginia Cooperative Extension to promote low water use landscapes on new and existing development through conservation landscaping principles, including reducing lawn areas.
10. Increase public awareness on how to utilize tree preservation to protect community appearance, property values and provide other economic and community benefits.
11. Through public education and outreach, promote the use of phosphorous-free lawn fertilizer.
- ~~7. Prepare or acquire information brochures and make public service announcements that explain the importance of water conservation and water quality protection.~~
- ~~8. Prepare and distribute information on household hazardous waste.~~
- ~~9. Enhance the litter control program.~~

EN-Policy 12 ~~Identify, manage, and protect all ecological communities and wildlife—especially critical habitats—as well as endangered and threatened species, and species of special concern, as identified in official Federal and State lists.~~

ACTION STRATEGIES:

- ~~1. Establish an identification and monitoring system for the County's animal or plant species, including critical habitats, that have been listed as Federal or State threatened or endangered species, or species of special concern, by the U.S. Fish and Wildlife Service or the Virginia Department of Conservation and Recreation.~~

Attachment B – Planning Commission Text Amendments

- ~~2. — Develop and implement protection guidelines for endangered and threatened populations of plants and wildlife that occur in the County. These guidelines apply to County and privately-owned lands.~~
- ~~3. — To protect the biological diversity, processes, and functions of natural habitats, identify a network of preservation corridors or large woodland areas to be incorporated into an overall habitat protection network.~~
- ~~4. — Investigate the benefits of establishing a private conservancy fund for the purpose of purchasing privately held lands for preservation purposes and seeking perpetual conservation easements to preserve open space.~~
- ~~5. — Identify areas suitable for wetlands restoration and develop procedures whereby a developer/landowner can contribute to such wetlands mitigation banks when no alternative to wetland preservation exists on-site.~~

ENERGY POLICIES

EN-POLICY 16: <u>Develop a Community Energy Master Plan.</u>

1. Collect data and establish a baseline that best defines the energy, water, waste water and greenhouse gas data situation for County government operations and community at large.
2. Incorporate input from all major stakeholders, including public authorities, residents, businesses, community associations, elected officials, schools, universities and colleges.
3. Establish a long-term Vision with clear targets supported by short to medium term implementation strategies.
4. Define targets, tracking measurements reporting and accountability for overall energy Vision and CEMP implementation.

Attachment B – Planning Commission Text Amendments

EN-POLICY 17: Implement cost-effective energy-conservation measures at County facilities.

ACTION STRATEGIES:

- 1.** Remain active in EPA ENERGY STAR program and continue to use EPA's Portfolio Manager to rate the energy performance of eligible county-owned buildings. Audit County facilities, including Vehicle Fleet Management, for energy use and pursue projects with a payback period of less than 10 years.
- 2.** Consider giving priority to facilities, that rate 75 or higher according to the U.S. EPA's ENERGY STAR Performance Rating when leasing new space for County use or when renewing existing leases.
- 3.** Consider designing and building any new County facilities so they rate 75 or higher by using the U.S. EPA's ENERGY STAR performance rating system, and measure performance annually using EPA's Portfolio Manager benchmarking tool.
- 4.** Consider designing and constructing County renovation projects consistent with energy performance standards at least as stringent as LEED Silver or Green Globes 2 Globes standards whenever those projects are valued at 50% of the assessed building value. When replacing or installing appliances and equipment in County facilities, select items that are ENERGY STAR compliant whenever available.
- 5.** Become a Green Partner with George Mason University (GMU), and encourage use of transit to access the GMU-Prince William campus. Explore opportunities to partner with non-public schools and other transportation systems to reduce the energy used for public school transportation.
- 6.** Consider re-directing local consumer utility tax revenues to support new or enhance existing energy conservation-related funds, such as the existing state/federal weatherization assistance programs or developing a new low-interest revolving loan fund for energy efficiency investments made by low-income homeowners and small businesses in the County.

Attachment B – Planning Commission Text Amendments

7. Require new residential development seeking rezoning and site plan approval to maximize opportunities for transit and to consider potential for solar/wind energy production in the development. Encourage construction that qualifies for ENERGY STAR Qualified Homes designation.

EN-POLICY 18: Provide recognition and incentives for energy conservation at non-government facilities and residences.

ACTION STRATEGIES:

1. Consider establishing a separate, lesser rate of tax for energy efficient buildings as defined in Code of Virginia § 58.1-3221.2.
2. Consider additional incentives (financial, tax, expedited permits, density bonuses, etc.) for development that builds to LEED or Green Globes standards and ENERGY STAR.
3. Recognize and publicize those in the community whose facilities achieve LEED, Green Globes, and ENERGY STAR certifications.

EN-POLICY 19: Provide recognition and incentives for renewable energy application at non-government facilities and residences.

ACTION STRATEGIES:

1. Evaluate current policies and ordinances to remove obstacles to renewable energy (wind, solar, biomass, landfill gas, geothermal, etc.) application.
2. Evaluate and recommend incentives for projects that create on-site renewable energy application.
3. Recognize and publicize for those projects that use on-site renewable energy.

Attachment B – Planning Commission Text Amendments

EN-POLICY 20: Provide leadership by example and education in the areas of energy efficiency, demand response and renewable energy application.

ACTION STRATEGIES:

1. Consider inventorying greenhouse gas (GHG) emissions from county facilities to create a baseline and using it to develop and implement short, medium and long-term plans to reduce or eliminate them by 2050. Also consider the feasibility of creating a short, medium and long-term community level GHG baseline and reduction plan. In setting these goals, evaluate reduction goals in other programs, plans and reports such as the Virginia Energy Plan, Cool Counties, COG Climate Registry Report to determine a reduction goal that is challenging yet achievable.
2. Consider re-investing utility budget savings and cost-avoidance from completed energy projects in future energy efficiency and renewable energy projects as well as the creation of a Sustainability Office or Group.
3. Consider providing active citizen education and awareness about energy efficiency, renewable energy, and “demand response” (i.e. shifting power usage away from periods when usage is peaking such as hot weekday summer afternoons) best practices.
4. Consider reducing the rate of the growth of county government’s energy use by 40%.
5. Consider reducing electricity use in County facilities by 10% of 2006 level by 2022.
6. Consider reducing natural gas use in County facilities by 7.5% over next ten years.
7. Consider reducing total diesel/gasoline use by all (County) vehicles by 10% over next five years.
8. Consider reducing total diesel/gasoline used for County government landscaping operations by 20% over next five years.

Attachment B – Planning Commission Text Amendments

9. Consider purchasing the equivalent of 12% of the County's 2009 level electricity needs from renewable sources either through Dominion and NOVEC rate offerings, renewable energy credits, or through on-site generation.
10. Publicize energy conservation efforts at county facilities. Prominently display the ENERGY STAR label on county-owned buildings that qualify. Post building energy "report cards" for county-owned buildings on the county's website, to highlight impact of energy conservation efforts. Encourage Prince William County Public Schools to do the same.
11. Continue actively participating County Government facilities in demand response programs.
12. Consider utilizing life-cycle cost analysis when constructing new facilities.
13. Continue increasing landfill gas utilization at the County landfill with the goal of completely eliminating flaring.
14. Continue exploring waste reduction and re-use technologies in lieu of landfilling.

Attachment B – Planning Commission Text Amendments

(Relocate **EN-POLICY 13** below into Community Design Chapter as new **DES POLICY 14** with intact existing language, as shown.

NATURAL VIEWSHEDS POLICIES AND ACTION STRATEGIES

EN-POLICY 13: DES POLICY 14: Identify significant natural viewsheds in Prince William County.

ACTION STRATEGIES:

1. Seek funding from federal, state, local, and private organizations in order to secure professional services needed to conduct a Countywide or area-specific viewshed inventory or study.
2. Develop an incentive system for the preservation of viewsheds.
3. Determine whether it is desirable to establish viewshed overlay districts in the County.

Viewshed: A viewshed is an area of land, water, and other environmental elements ~~can have both interior and exterior views and one or more vantage points~~ that is visible from a fixed vantage point. The term is used widely in such areas as urban planning, archaeology, and military science. In urban planning, for example, viewsheds tend to be areas of particular scenic, or historic value that are deemed worthy of preservation against development or other change. The preservation of viewsheds is a goal in the designation of open space areas, green belts, and community separators.

Attachment C – BOCS Initiation Resolution

MOTION: NOHE

June 23, 2009
Regular Meeting
Res. No. 09-548

SECOND: PRINCIPI

RE: INITIATE ENVIRONMENT CHAPTER UPDATE TO THE PRINCE
WILLIAM COUNTY COMPREHENSIVE PLAN - COUNTYWIDE

ACTION: APPROVED

WHEREAS, pursuant to Section 15.2-2230 of the Code of Virginia, the Planning Commission is to review the Comprehensive Plan every five years and determine a need for amendments; and

WHEREAS, the Prince William Board of County Supervisors directed the Planning Commission to implement a process to complete the preparation and recommendation of changes to the Comprehensive Plan; and

WHEREAS, the Planning Commission has identified the need to update the Environment Chapter of the Comprehensive Plan; and

WHEREAS, the Prince William Board of County Supervisors may consider amendments to the Comprehensive Plan pursuant to Section 15.2-2229 of the Code of Virginia; and

WHEREAS, the Planning Commission, in Res. No. 09-071, established a process to update the Comprehensive Plan Environment Chapter; and

WHEREAS, the Planning Commission has requested that the Prince William Board of County Supervisors to initiate a Comprehensive Plan Amendment for the Environment Chapter of the Comprehensive Plan; and

WHEREAS, the general welfare and good planning practice are served by initiation of an Environment Chapter Update to the Comprehensive Plan;

NOW, THEREFORE, BE IT RESOLVED that the Prince William Board of County Supervisors does hereby initiate an Environment Chapter Update to the Prince William County Comprehensive Plan;

BE IT FURTHER RESOLVED that staff is directed to schedule a joint meeting of the Prince William Board of County Supervisors and the Planning Commission for on or about October 13, 2009.

Votes:

Ayes: Covington, May, Nohe, Principi, Stewart, Stirrup

Nays: None

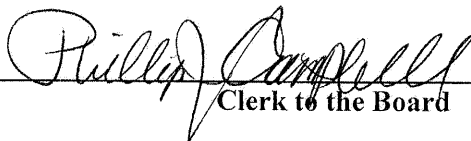
Absent from Vote: Jenkins

Absent from Meeting: Caddigan

For Information:

Planning Director

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Clerk to the Board

Attachment D – BOCS Direction for PC Recommendation Resolution

MOTION: CADDIGAN

**June 22, 2010
Regular Meeting
Res. No. 10-555**

SECOND: COVINGTON

**RE: DIRECT PLANNING COMMISSION TO MAKE RECOMMENDATION
ON UPDATE TO ENVIRONMENTAL CHAPTER OF
COMPREHENSIVE PLAN**

ACTION: APPROVED

WHEREAS, the 2008 Prince William County Comprehensive Plan (“the Comprehensive Plan”) serves as the guide for the use and development of land within the County, and sets forth the land use policies adopted by the Prince William Board of County Supervisors (“the Board”); and

WHEREAS, the Environmental Chapter is a vital component of the Comprehensive Plan; and

WHEREAS, the Board, on June 23, 2009, initiated an update to the Environmental Chapter of the Comprehensive Plan; and

WHEREAS, the Planning Commission has prepared a draft of amendments dated October 14, 2009, and conducted several interactive work sessions with the community and stakeholders; and

WHEREAS, the Planning Commission has forwarded an updated schedule to complete the update which calls for a public hearing on September 15, 2010; and

WHEREAS, House Bill 51, adopted during the 2010 session of the General Assembly, will amend § 15.2-2229 of the Code of Virginia, effective July 1, 2010; and

WHEREAS, as of July 1, 2010, § 15.2-2229 of the Code of Virginia clarifies the authority of the Board to direct the Planning Commission to conduct a public hearing and make a recommendation on the update within 60 days, and enables the Board to conduct its own public hearing on the update thereafter, even if the Planning Commission has not formulated a recommendation within the time prescribed; and

WHEREAS, the expeditious resolution of the issues involved in the update is of great importance to the Board;

Attachment D – BOCS Direction for PC Recommendation Resolution

June 22, 2010
Regular Meeting
Res. No. 10-555
Page Two

NOW, THEREFORE, BE IT RESOLVED that the Board of County Supervisors does hereby direct the Planning Commission to conduct its public hearing and make its recommendation on the update to the Environmental Chapter of the Comprehensive Plan on September 15, 2010;

BE IT FURTHER RESOLVED that the Prince William Board of County Supervisors does hereby direct the Clerk to the Board to schedule a public hearing on October 5, 2010 to consider the Update to the Environmental Chapter of the Comprehensive Plan. The Board reserves its prerogative to conduct this public hearing whether or not the Planning Commission has forwarded its recommendation;

BE IT FURTHER RESOLVED that the Board of County Supervisors does hereby direct the Planning Staff to provide its recommendation to the Board of County Supervisors in advance of the Board's public hearing;

BE IT FURTHER RESOLVED that this resolution is effective July 1, 2010.

Votes:

Ayes: Caddigan, Covington, Jenkins, May, Nohe, Principi, Stewart, Stirrup

Nays: None

Absent from Vote: None

Absent from Meeting: None

For Information:

Planning Office

ATTEST: _____


Clerk to the Board

Attachment E – PC Resolutions

PLANNING COMMISSION RESOLUTION

MOTION: BRYANT **September 15, 2010**
SECOND: HOSEN **Regular Meeting**
RE: **AMENDMENT TO MAIN MOTION OF COMPREHENSIVE PLAN AMENDMENT**
#PLN2009-00547, ENVIRONMENT CHAPTER UPDATE - COUNTYWIDE
ACTION: **APPROVED**

WHEREAS, under Section 15.2-2229 of the Code of Virginia, Ann., the Board of County Supervisors may consider amendments to the Comprehensive Plan; and

WHEREAS, as stated in Res. No. 09-548, the Prince William Board of County Supervisors initiated consideration of Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, on June 23, 2009, and referred it to the Prince William County Planning Commission; and

WHEREAS, the 2008 Prince William County Comprehensive Plan serves as the guide for the use and development of land within the County, and sets forth the land use policies adopted by the Prince William Board of County Supervisors; and

WHEREAS, the Environment Chapter is a vital component of the Comprehensive Plan; and

WHEREAS, the Prince William County Planning Commission duly ordered, advertised, and held a public hearing on September 15, 2010, at which time public testimony was received and the merits of the above-referenced Comprehensive Plan Amendment were considered; and

WHEREAS, the Planning Commission desires to amend the main motion to request that EN POLICY 12, AS-7 be stricken in its entirety as shown:

~~Develop and publish information detailing the human health issues associated with the presence of pharmaceuticals in public drinking water supplies and list preventative measures that the public can employ to prevent additional problems;~~

NOW, THEREFORE, BE IT RESOLVED, that the Prince William County Planning Commission does hereby approve the above amended language be added to the main motion for Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update.

Votes:

Ayes: Bryant, Burgess, Fry, Hendley, Holley, Hosen, Friedman


Nays: None

Absent from Vote: None

Absent from Meeting: Gonzales

MOTION CARRIED

CERTIFIED COPY


Clerk to the Commission

Attachment E – PC Resolutions

PLANNING COMMISSION RESOLUTION

MOTION: HOLLEY
SECOND: BURGESS
RE: AMENDMENT TO MAIN MOTION OF COMPREHENSIVE PLAN AMENDMENT
#PLN2009-00547, ENVIRONMENT CHAPTER UPDATE - COUNTYWIDE
ACTION: APPROVED

September 15, 2010
Regular Meeting
Res. No. 10-139

WHEREAS, under Section 15.2-2229 of the Code of Virginia, Ann., the Board of County Supervisors may consider amendments to the Comprehensive Plan; and

WHEREAS, as stated in Res. No. 09-548, the Prince William Board of County Supervisors initiated consideration of Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, on June 23, 2009, and referred it to the Prince William County Planning Commission; and

WHEREAS, the 2008 Prince William County Comprehensive Plan serves as the guide for the use and development of land within the County, and sets forth the land use policies adopted by the Prince William Board of County Supervisors; and

WHEREAS, the Environment Chapter is a vital component of the Comprehensive Plan; and

WHEREAS, the Prince William County Planning Commission duly ordered, advertised, and held a public hearing on September 15, 2010, at which time public testimony was received and the merits of the above-referenced Comprehensive Plan Amendment were considered; and

WHEREAS, the Planning Commission desires to amend the main motion to request that EN POLICY 3, AS-3 (*p. B-28*) read:

Amend the Zoning Ordinance to ensure that a minimum of a 50/100 foot buffer is required on new development adjacent to existing public lands with passive recreational uses, public lands with conservation areas, and public lands with historic sites.

NOW, THEREFORE, BE IT RESOLVED, that the Prince William County Planning Commission does hereby approve the above amended language be added to the main motion for Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update.

Votes:

Ayes: Bryant, Burgess, Fry, Hendley, Holley, Hosen, Friedman


Nays: None

Absent from Vote: None

Absent from Meeting: Gonzales

MOTION CARRIED

CERTIFIED COPY


Clerk to the Commission

Attachment E – PC Resolutions

PLANNING COMMISSION RESOLUTION

MOTION: BURGESS

**September 15, 2010
Regular Meeting
Res. No. 10-140**

SECOND: HOLLEY

**RE: AMENDMENT TO MAIN MOTION OF COMPREHENSIVE PLAN AMENDMENT
#PLN2009-00547, ENVIRONMENT CHAPTER UPDATE - COUNTYWIDE**

ACTION: APPROVED

WHEREAS, under Section 15.2-2229 of the Code of Virginia, Ann., the Board of County Supervisors may consider amendments to the Comprehensive Plan; and

WHEREAS, as stated in Res. No. 09-548, the Prince William Board of County Supervisors initiated consideration of Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, on June 23, 2009, and referred it to the Prince William County Planning Commission; and

WHEREAS, the 2008 Prince William County Comprehensive Plan serves as the guide for the use and development of land within the County, and sets forth the land use policies adopted by the Prince William Board of County Supervisors; and

WHEREAS, the Environment Chapter is a vital component of the Comprehensive Plan; and

WHEREAS, the Prince William County Planning Commission duly ordered, advertised, and held a public hearing on September 15, 2010, at which time public testimony was received and the merits of the above-referenced Comprehensive Plan Amendment were considered; and

WHEREAS, the Planning Commission desires to amend the main motion to request that an additional action strategy be developed for the following:

Develop a strategy to capture the volume data of existing aquifers, rate of drawdown, and groundwater recharge.

NOW, THEREFORE, BE IT RESOLVED, that the Prince William County Planning Commission does hereby approve the above amended language be added to the main motion for Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update.

Votes:

Ayes: Bryant, Burgess, Fry, Hendley, Holley, Hosen, Friedman

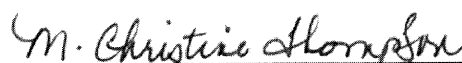
Nays: None

Absent from Vote: None

Absent from Meeting: Gonzales

MOTION CARRIED

CERTIFIED COPY


Clerk to the Commission

Attachment E – PC Resolutions

PLANNING COMMISSION RESOLUTION

MOTION: HENDLEY

**September 15, 2010
Regular Meeting
Res. No. 10-141**

SECOND: FRY

**RE: AMENDMENT TO MAIN MOTION OF COMPREHENSIVE PLAN AMENDMENT
#PLN2009-00547, ENVIRONMENT CHAPTER UPDATE - COUNTYWIDE**

ACTION: MOTION FAILED TO CARRY

WHEREAS, under Section 15.2-2229 of the Code of Virginia, Ann., the Board of County Supervisors may consider amendments to the Comprehensive Plan; and

WHEREAS, as stated in Res. No. 09-548, the Prince William Board of County Supervisors initiated consideration of Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, on June 23, 2009, and referred it to the Prince William County Planning Commission; and

WHEREAS, the 2008 Prince William County Comprehensive Plan serves as the guide for the use and development of land within the County, and sets forth the land use policies adopted by the Prince William Board of County Supervisors; and

WHEREAS, the Environment Chapter is a vital component of the Comprehensive Plan; and

WHEREAS, the Prince William County Planning Commission duly ordered, advertised, and held a public hearing on September 15, 2010, at which time public testimony was received and the merits of the above-referenced Comprehensive Plan Amendment were considered; and

WHEREAS, the Planning Commission desires to amend the main motion to request that EN POLICY 11, AS 2 read:

Encourage conservation of natural features and limit impervious surfaces in areas where groundwater is the water supply. Develop procedures to protect or improve, if necessary, the quality in areas where groundwater is the water supply.

NOW, THEREFORE, BE IT RESOLVED, that the Prince William County Planning Commission does hereby approve the above amended language be added to the main motion for Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update.

Votes:

Ayes: Hendley, Hosen, Friedman

Nays: Bryant, Burgess, Fry, Holley

Absent from Vote: None

Absent from Meeting: Gonzales

MOTION FAILED TO CARRY

CERTIFIED COPY


Clerk to the Commission

Attachment E – PC Resolutions

PLANNING COMMISSION RESOLUTION

MOTION: HOLLEY **September 15, 2010**
SECOND: HOSEN **Regular Meeting**
RE: **AMENDMENT TO MAIN MOTION OF COMPREHENSIVE PLAN**
AMENDMENT #PLN2009-00547, ENVIRONMENT CHAPTER UPDATE -
COUNTYWIDE
ACTION: **APPROVED**

WHEREAS, under Section 15.2-2229 of the Code of Virginia, Ann., the Board of County Supervisors may consider amendments to the Comprehensive Plan; and

WHEREAS, as stated in Res. No. 09-548, the Prince William Board of County Supervisors initiated consideration of Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, on June 23, 2009, and referred it to the Prince William County Planning Commission; and

WHEREAS, the 2008 Prince William County Comprehensive Plan serves as the guide for the use and development of land within the County, and sets forth the land use policies adopted by the Prince William Board of County Supervisors; and

WHEREAS, the Environment Chapter is a vital component of the Comprehensive Plan; and

WHEREAS, the Prince William County Planning Commission duly ordered, advertised, and held a public hearing on September 15, 2010, at which time public testimony was received and the merits of the above-referenced Comprehensive Plan Amendment were considered; and

WHEREAS, the Planning Commission desires to amend the main motion to request that EN POLICY 5, AS 10 read:

County development and transportation projects and any other projects constructed using taxpayer funds shall lead by example, incorporating the highest environmental leadership standards and require plan review and erosion and sediment control inspection frequencies that meet or exceed state standards.

NOW, THEREFORE, BE IT RESOLVED, that the Prince William County Planning Commission does hereby approve the above amended language be added to the main motion for Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update.

Votes:

Ayes: Bryant, Burgess, Fry, Hendley, Holley, Hosen, Friedman

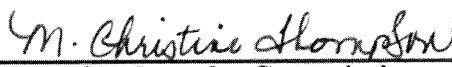
Nays: None

Absent from Vote: None

Absent from Meeting: Gonzales

MOTION CARRIED

CERTIFIED COPY


Clerk to the Commission

PLANNING COMMISSION RESOLUTION

MOTION: HOSEN

September 15, 2010

SECOND: HOLLEY

**Regular Meeting
Res. No. 10-143**

**RE: COMPREHENSIVE PLAN AMENDMENT #PLN2009-00547,
ENVIRONMENT CHAPTER UPDATE – ALL MAGISTERIAL
DISTRICTS**

ACTION: RECOMMEND ADOPTION

WHEREAS, under Section 15.2-2229 of the Code of Virginia, Ann., the Board of County Supervisors may consider amendments to the Comprehensive Plan; and

WHEREAS, as stated in Res. No. 09-548, the Prince William Board of County Supervisors initiated consideration of Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update, on June 23, 2009, and referred it to the Prince William County Planning Commission; and

WHEREAS, the 2008 Prince William County Comprehensive Plan serves as the guide for the use and development of land within the County, and sets forth the land use policies adopted by the Prince William Board of County Supervisors; and

WHEREAS, the Environment Chapter is a vital component of the Comprehensive Plan; and

WHEREAS, the Planning Commission has held special work sessions and received written input from citizens, organizations, agencies and businesses in order to produce a document which, to the greatest degree possible, is a consensus document; and

WHEREAS, the Prince William County Planning Commission duly ordered, advertised, and held a public hearing on September 15, 2010, at which time public testimony was received and the merits of the above-referenced comprehensive plan amendment were considered; and

WHEREAS, the Prince William County Planning Commission believes that the public general welfare as well as good planning practices are served by the adoption of this comprehensive plan amendment;

NOW, THEREFORE, BE IT RESOLVED that the Prince William County Planning Commission does hereby recommend adoption of the proposed text dated October 14, 2009 with staff edits dated August 6, 2010 for Comprehensive Plan Amendment, #PLN2009-00547, Environment Chapter Update, with the following revisions:

- **GOAL:** Preserve, protect, and enhance the ~~significant~~ environmental resources and features of the County., including air quality, topography, soils, ground and surface water, biotic communities, (stream corridors, forests, and wetlands), sensitive plant and animal species, and natural viewsheds.

Attachment E – PC Resolutions

Planning Commission Resolution
Res. No. 10-143
September 15, 2010
Page 2 of 5

- **EN POLICY 1, AS 2a.** Approximate Delineation of all jurisdictional wetlands and waters areas, including intermittent streams. *B-17*
- **EN POLICY 1, AS3.** Identify and pursue opportunities for open space preservation that preserve unique habitats of special concern ~~with an emphasis on connecting to existing natural resources conservation areas.~~ *B-20*
- **EN POLICY 1, AS 6.** Upon completion of the Northern Virginia Regional Commission's conservation corridors project, review and update the Environment Chapter to include the priorities identified in the report. , as needed, the Open Space and Corridors Map in the Parks, Open Space and Trails chapter. *B-22*
- **EN POLICY 2, AS 2.** Map all Environmental Resources to prioritize conservation planning, and make this information available on the County Mapper. *B-23*
- **EN POLICY 2, AS 3.** Inventory county-owned properties, to include Park Authority and Prince William Public School properties, to identify environmental resources, as identified in the Environmental Constraints Analysis. Provide inventory/mapping of forest areas in Prince William County and make this information available to the public. *B-24*
- **EN POLICY 2, AS 6.** All County offices, to include Park Authority and Prince William Public School properties, involved in land use will coordinate with local, federal, state, and regional environmental organizations to facilitate the exchange of data and implementation of environmental protection measures. *B-24*
- **EN POLICY 2, AS7.** Conduct a County-wide analysis of the economic value of our existing green infrastructure (native and urban forests) toward energy conservation, storm water control off-sets, property values, protecting and improving water quality, and reducing air pollution. *B-25*
- **EN POLICY 3.** To further support OS-Policy 5, a minimum of 39 percent of the total area in the County, (exclusive of acreage of Marine Corps Base Quantico for all calculation purposes), will should be retained as protected open space, as defined in the Open Space Chapter. *B-26*
- **EN POLICY 3, AS-3** Amend the DCSM-Zoning Ordinance to ensure that there is a defined buffer standard for public parks a minimum of a 50/100-foot buffer is required on new development adjacent to existing public lands with passive recreational uses, public lands with conservation areas, public lands with historic sites. *B-28*

Attachment E – PC Resolutions

Planning Commission Resolution
Res. No. 10-143
September 15, 2010
Page 3 of 5

- **EN POLICY 4, AS-8.** ~~Where appropriate,~~ Encourage the Virginia Department of Transportation (VDOT), and County projects, to ~~and developers to~~ preserve ~~and/or reestablish~~ vegetative buffers along arterial roadways as a means of filtering and absorbing pollutants, and reducing noise pollution. *B-35*
- **EN POLICY 5, AS-10.** County development and transportation projects and any other projects constructed using taxpayer funds shall require plan review and erosion and sediment control inspection frequencies that meet or exceed state standards. *B-43 (reinstate/edited)*
- **EN POLICY 5, AS-11.** For State, Federal, and other publicly-funded development and transportation projects, the County shall coordinate with appropriate agencies to ensure that all projects within the County demonstrate leadership standards by incorporating the highest environmental standards, while meeting or exceeding the County's minimum standards. *B-43 (reinstate)*
- **EN POLICY 5, AS-11.** Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on developing properties ~~cluster developments.~~ *B-44*
- **EN POLICY 5, AS-15.** Update the DCSM to preclude the use of all invasive ~~and~~ non-native species. *B-45*
- **EN POLICY 6, AS-10.** Update the DCSM to include the standards ~~a protocol~~ for defining and protecting Significant Non-RPA Streams established in this Chapter ~~during the Perennial Flow Determination (PFD) process~~ and the required protection of these streams including but not limited to required buffers, steep slope avoidance, development setbacks and necessary mitigation measures when the proposed development affects these streams. *B-53*
- **EN POLICY 7, AS-1.** (bullet 2) Address the protection, conservation and restoration of RPA ~~and significant non-RPA~~ stream corridors, riparian forest buffers and jurisdictional wetlands and waters *B-54*
- **EN POLICY 7, AS-5.** Expand public input opportunities during the watershed management planning process ~~to ensure that community ideas are incorporated into watershed planning efforts and promote increased understanding of stormwater management and watershed issues.~~ *B-55*
- **EN POLICY 8, AS-X.** Employ field observation as well as stormwater management plans to assess impact of proposed development on downstream properties for water quantity, quality, volume and velocity. *B-61 (reinstate and relocate from B-57)*

Attachment E – PC Resolutions

Planning Commission Resolution
Res. No. 10-143
September 15, 2010
Page 4 of 5

- **EN POLICY 8 AS-2.** Amend the DCSM to manage stormwater, ~~when appropriate,~~ to meet the 1-year, 10-year, and 24-hour storm event. *B-61*
- **EN POLICY 8, AS-3.** Amend the DCSM to establish and encourage low impact development (LID) standards, including, ~~where appropriate:~~ *B-61*
- EN POLICY 11, AS-2, Encourage conservation of natural features and limit impervious surfaces in areas where groundwater is the water supply. Develop procedures to protect or improve if necessary, the quality of groundwater in areas where groundwater is the water supply. B-72
- **EN POLICY 12, AS-1.** Amend the Zoning Ordinance to develop and implement a Drinking Water Reservoir Protection Overlay District for areas within the Occoquan Reservoir and Lake Manassas Watersheds to protect the quantity and quality of public drinking water supplies, to include the following:
 - Minimum standards for vegetated buffers along all streams and headwater areas
 - Minimum standards for vegetated buffers contiguous to wetlands that drain to a public drinking water supply
 - Minimum setbacks from reservoirs.
 - Minimum setbacks for the installation of septic fields, tanks, or other on-site subsurface sewage disposal system from the shoreline of reservoirs.
 - Enhanced erosion and sediment control measures.
 - Standards establishing development densities appropriate for protecting drinking water resources.
- **EN POLICY 12, AS-4.** Promote open space uses and – ~~where practical –~~ acquire land along the Occoquan Reservoir for special use parks that are designed to promote an appreciation of the natural environment and facilitate passive recreation (such as fishing, hiking, and non-motorized boating). *B-79*
- ~~**EN POLICY 12, AS-7.** Develop and publish information detailing the human health issues associated with the presence of pharmaceuticals in public drinking water supplies and list preventative measures that the public can employ to prevent additional problems. B-79~~

Attachment E – PC Resolutions

Planning Commission Resolution
Res. No. 10-143
September 15, 2010
Page 5 of 5

- **EN-POLICY 13, AS 4.** Require tree preservation plans for all new development, to include commitments for the preservation of specimen trees and commitments to ensure that trees designated for preservation will survive construction in a manner that substantially retains their predevelopment level of biological function, health, and structural condition. B-81
- **EN-POLICY 13, AS 5.** Utilizing existing data and analysis tools to identify the County's mature hardwood forests and the location of those forests. Maintain an inventory of forest cover in the County and track change to contiguous forest as development occurs. Make this information available to the public on the County Mapper. B-82
- **EN POLICY 14, AS 1i.** Update Watershed layer to include the total number of acres and percentage breakdown of resource types and the % of impervious surfaces in small watershed. B-85
- **ADDITIONAL ACTION STRATEGY.** Develop a strategy to capture the existing volume of aquifers, rate of drawdown and groundwater recharge.

Votes:

Ayes: Bryant, Burgess, Fry, Hendley, Holley, Hosen, Friedman


Nays: None

Absent from Vote: None

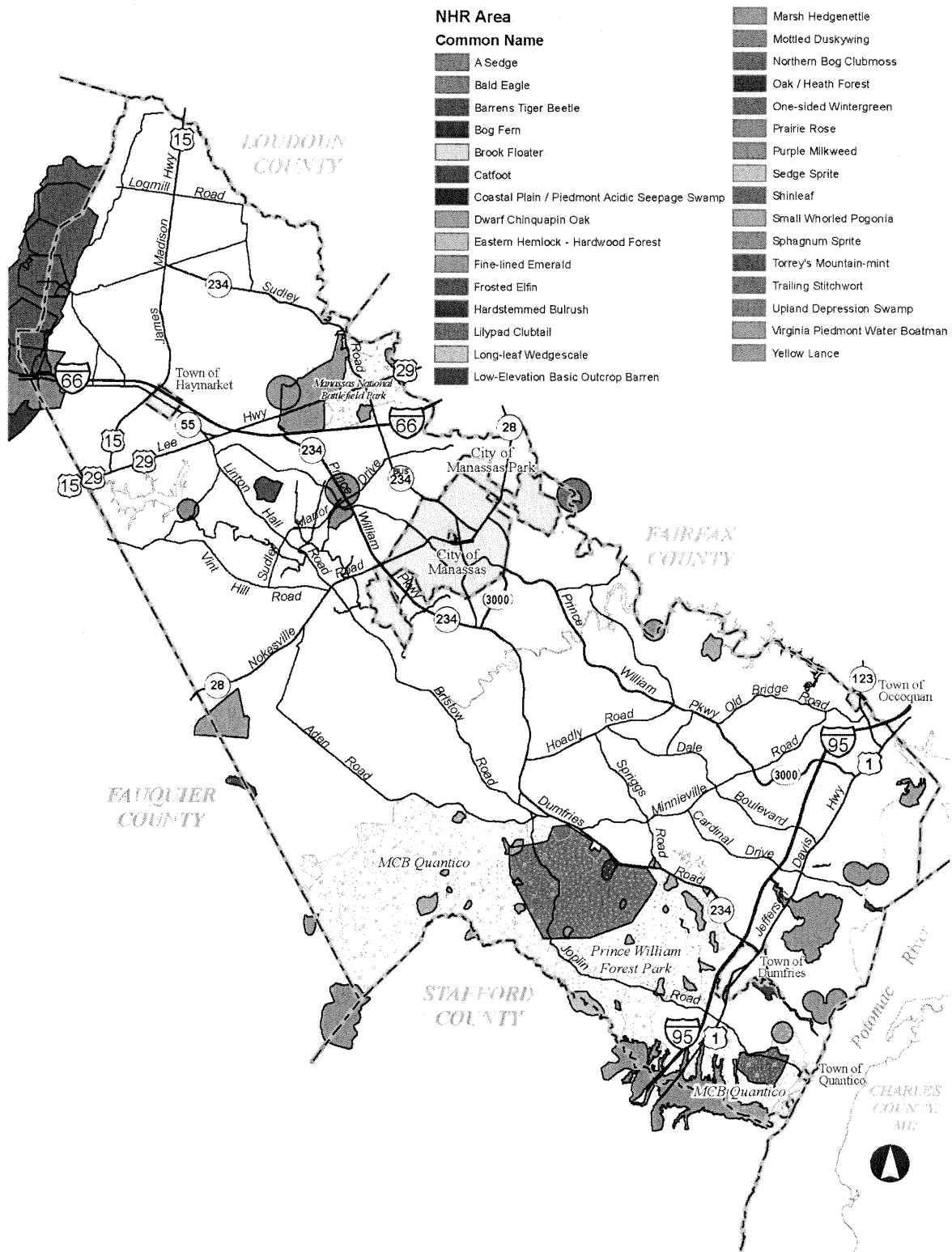
Absent from Meeting: Gonzales

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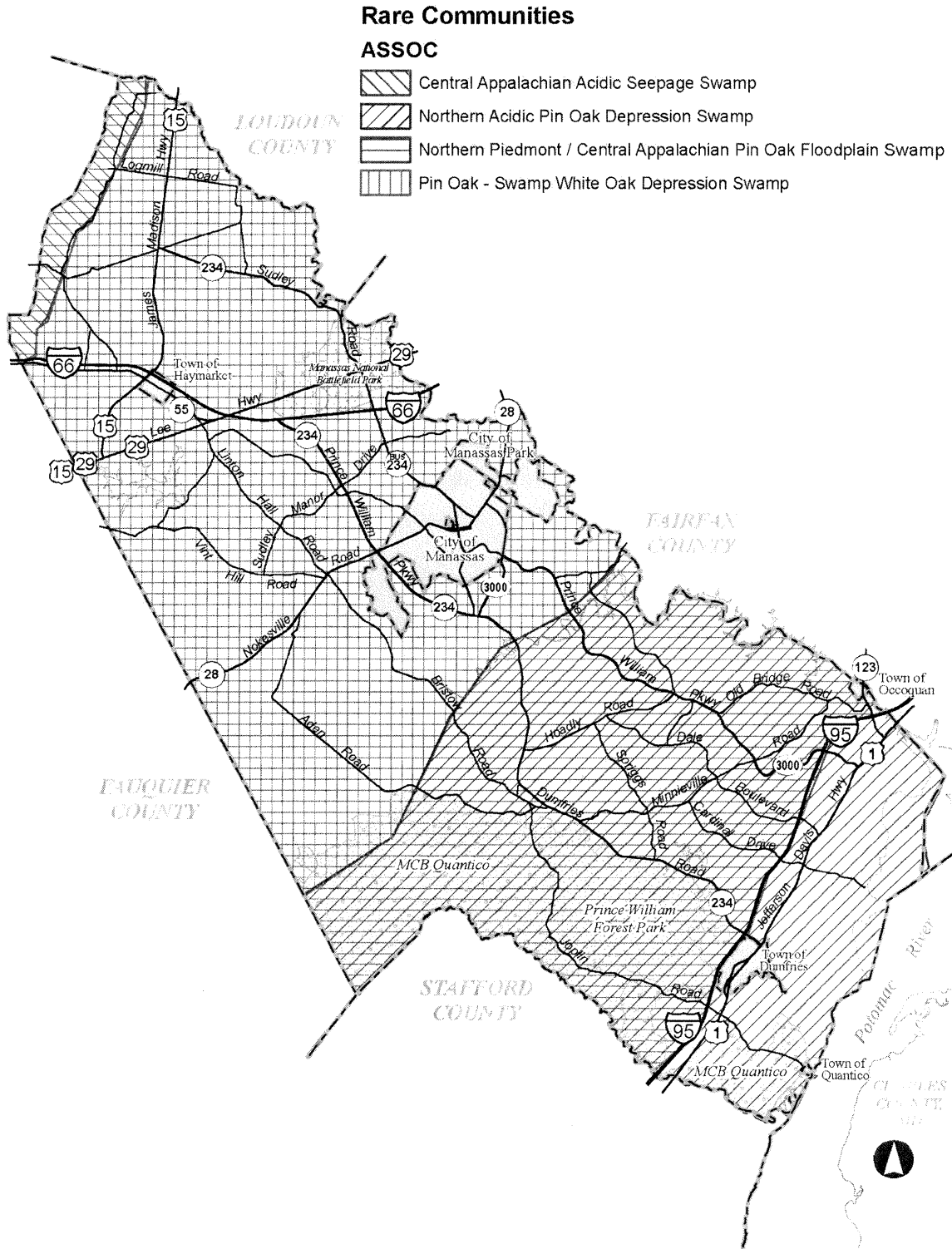
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Clerk to the Commission

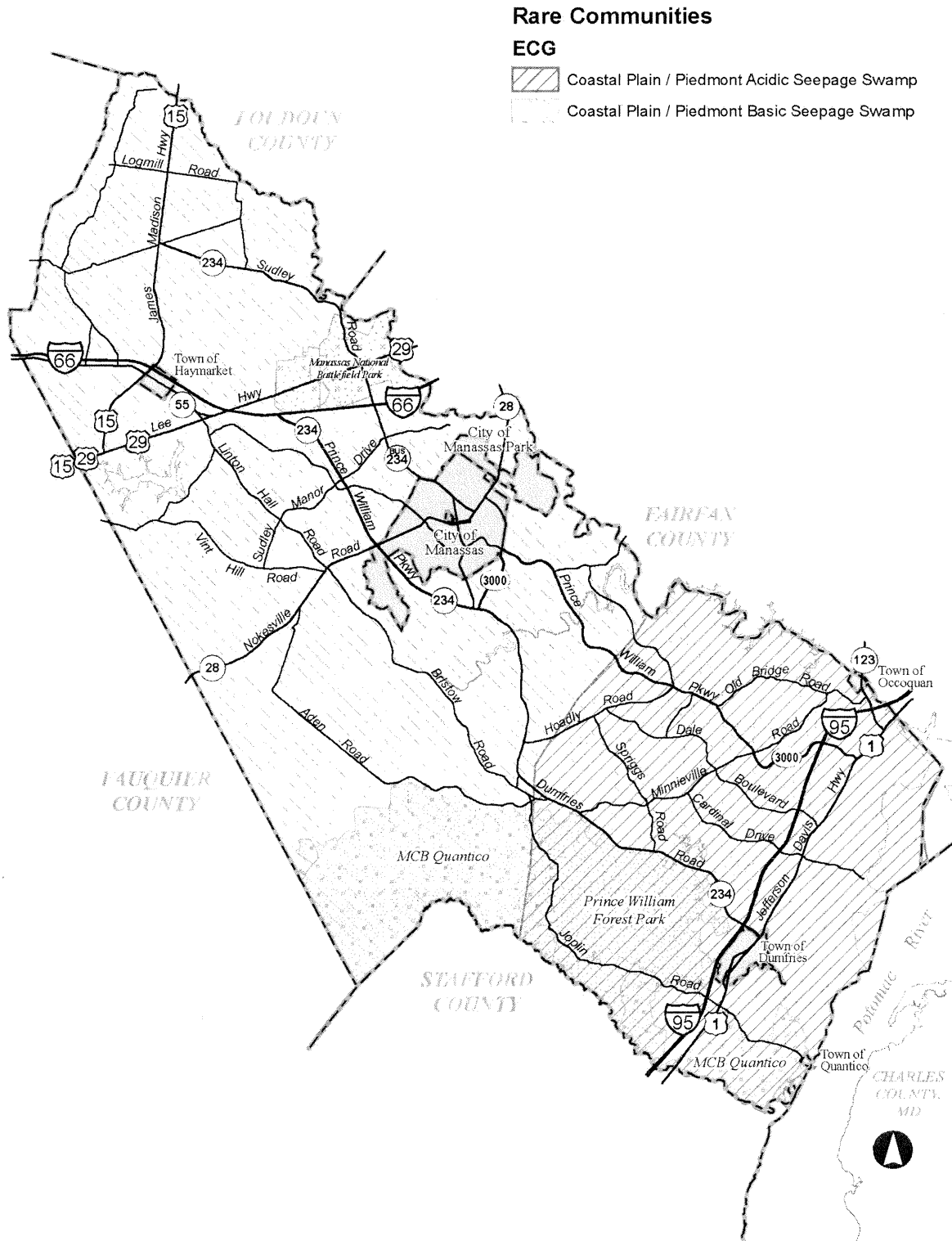
Attachment F – Natural Heritage/Resource Area Maps Provided by VDCR (for informational purposes)



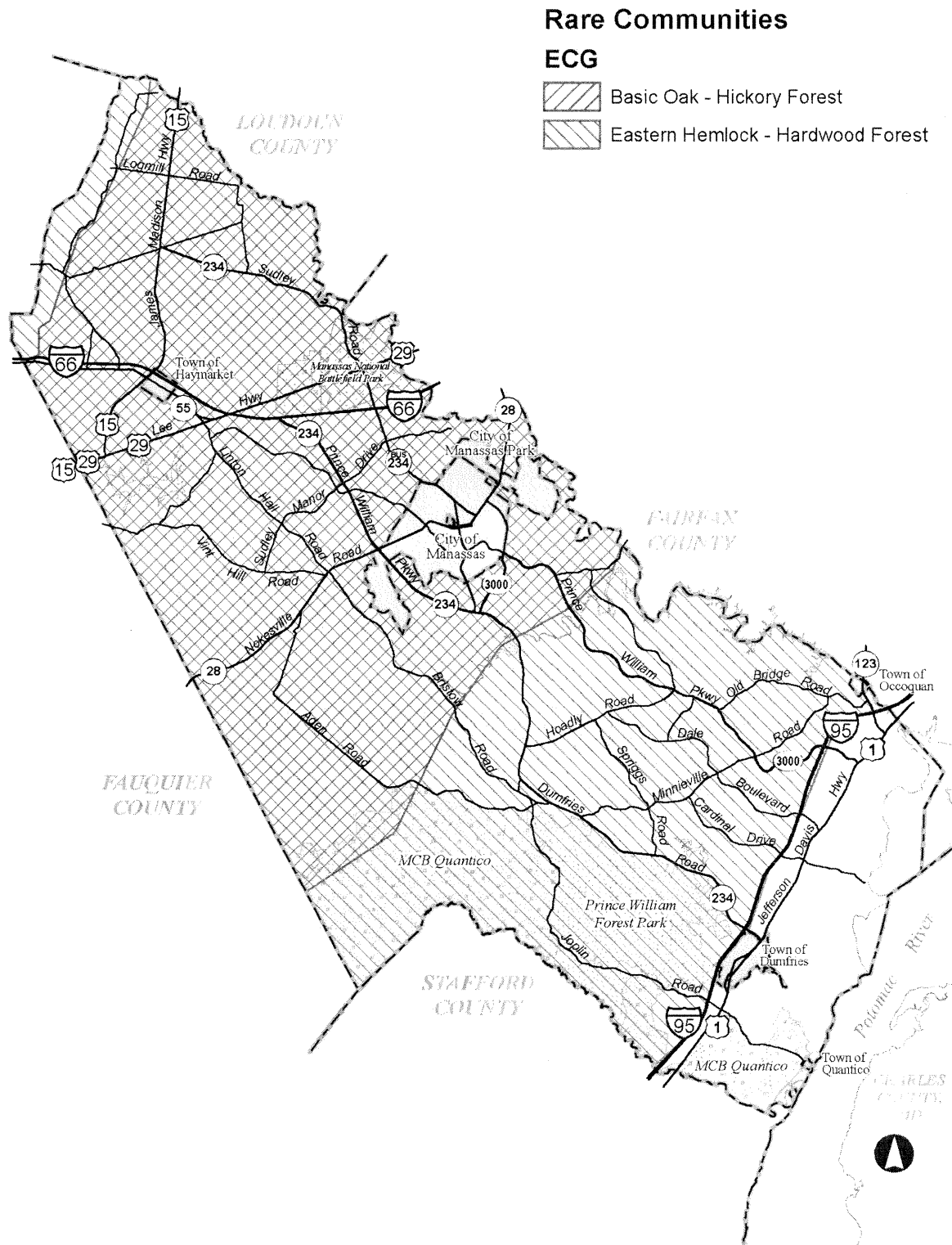
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Prince William County Government

Environment Chapter Update

CPA #PLN2009-00547

Board of County Supervisors Public Hearing
December 7, 2010

Comprehensive Plan Update Efforts

- ☐ Parks, Open Space and Trails – adopted 2/26/08
- ☐ 2008 Technical Update – adopted 3/18/08
- ☐ Housing – adopted 2/17/09
- ☐ Long-Range Land Use – adopted 2/2/10
- ☐ Transportation – adopted 2/2/10

☐ **Environment**

Date: 12/7/2010



1

“Green” County Efforts & Initiatives

- ☐ Sustainability and Green Guiding Principles
- ☐ “Go Green” web page for PWC Internet
- ☐ Energy Efficiency and Conservation Block Grants
- ☐ Capturing methane gas from landfill
- ☐ LEED building standards – Fire Station #10 as “gold” level
- ☐ Energy Star ratings

Date: 12/7/2010



2

“Green” County Efforts & Initiatives (cont.)

- ☐ Pilot GPS program in County vehicles
- ☐ Created a shared motor pool vehicle program
- ☐ Bike trails and sidewalks along County roads
- ☐ Watershed Plans for 5 of the 10 watersheds in County
- ☐ Stream Restoration Program
- ☐ Support for mass transit – VRE and PRTC funding by County

Date: 12/7/2010



3

“Green” County Efforts & Initiatives (cont.)

- ☐ Green Guiding Committee and Subcommittees
- ☐ Green Outreach Committee – community engagement
- ☐ Earned E3 recognition for Public Works facilities
- ☐ 2009 Platinum Award – VML Green Government Challenge
- ☐ Creating program to encourage waste reduction and recycling
- ☐ Developing a green procurement program
- ☐ Planning on-the-ground conservation projects for spring 2011

Date: 12/7/2010



4

Environment Chapter Update Process

- ☐ Initiation by BOCS, 6/23/09
- ☐ Kick-off Community Input Meeting , 6/24/09
- ☐ Joint PC-BOCS Work Session, 10/13/09
- ☐ Industry/Development Community Input Meeting, 11/12/09
- ☐ Civic Associations/HOA Community Input Meeting, 5/12/10
- ☐ PC agreement on draft text for public hearing, 7/28/10
- ☐ PC public hearing, 9/15/10
- ☐ BOCS work session, 10/26/10
- ☐ Further coordination with NAIOP/NVBIA
- ☐ BOCS public hearing, 12/7/10

Date: 12/7/2010



5

Environment Chapter Update Process

- ☐ Planning Commission-driven process and led by 2 co-chairs
- ☐ Planning staff liaison
- ☐ Website created, including e-mail feedback option
- ☐ Project team with County staff
- ☐ Series of interactive work meetings to engage stakeholders

Date: 12/7/2010



6

Environment Chapter Update

MAJOR AMENDMENTS:

- ☐ Additional data collection, analysis, and maintenance requirements, including GIS layers and enhanced watershed management plans
- ☐ Additional submission requirements for rezoning and special use permit requests, including expanded information for ECAs
- ☐ Protection of significant non-RPA streams and unique habitats of special concern

Date: 12/7/2010



7

Environment Chapter Update

MAJOR AMENDMENTS (cont.):

- ☐ Preparation for new State stormwater management regulations, including:
 - improved facility performance
 - low impact development (LID) techniques
 - enhanced protection of wetlands and water resources
 - ☐ Reservoir Protection Overlay District
 - ☐ Tree Preservation Ordinance
 - ☐ Community energy master plan, promoting renewable energy and green technology
-

Date: 12/7/2010



8

Environment Chapter Update

Combined Implications of Amendments:

- ☐ Additional staff, time, training, and costs, but improved data for planning, decision-making, and public awareness
 - ☐ More preparation time/expense for applicants during SUP and REZ requests, but improved data for decision-making
 - ☐ Identification and preservation of special resources
 - ☐ Expanded watershed management planning
 - ☐ Incentives for open space preservation and conservation easements
 - ☐ Regional coordination
 - ☐ Improved stormwater management
-

Date: 12/7/2010



9

Environment Chapter Update

Combined Implications of Amendments (cont.):

- ☐ Reservoir Protection Overlay District could increase setbacks, limit uses, and decrease densities near surface drinking water supplies
- ☐ Tree Preservation Ordinance could improve management of forest resources, with enhanced land disturbance limits and landscaping
- ☐ Clearly defined/coordinated energy planning policies and strategies
- ☐ Recognition/incentives for energy conservation at non-PWC facilities
- ☐ Implementation of green energy concepts at County facilities, with realized cost savings and environmental benefits

Date: 12/7/2010



10

Environment Chapter Update

Staff recommendations based on:

- ☐ Resource requirements (staff, time, and financial)
- ☐ Input offered by other County agencies, NVBIA/NAIOP, PWSWCD, NHS, PWCA, MIDCO, FPWFP, and LOCCA
- ☐ Coordination with other Comprehensive Plan chapters
- ☐ Role of the Comprehensive Plan as a policy guidance document with 20-year planning horizon
- ☐ Implementation documents, such as the Zoning Ordinance, Subdivision Ordinance, DCSM, Watershed Plans, CIP, and budget
- ☐ State enabling legislation, such as the Chesapeake Bay Act
- ☐ Need to balance economic development and environmental priorities

Date: 12/7/2010



11

Environment Chapter Update

Planning Commission Recommendation:

- ☐ Adoption of Environment Chapter Update, CPA #PLN2009-00547, with the proposed text amendments in Attachment B.

Staff Recommendation:

- ☐ Adoption of Environment Chapter Update, CPA #PLN2009-00547, with the proposed text amendments as attached to the BOCS ordinance.

Date: 12/7/2010



12

ADDITIONAL INFORMATION ENVIRONMENT CHAPTER (Previously distributed November 29)

December 7, 2010

15. Public Hearings

F. ORD - **Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter Update** - To Update the Environment Chapter of the Comprehensive Plan to Incorporate Concepts of Sustainability and Green Infrastructure.



Melissa S. Peacor
County Executive

COUNTY OF PRINCE WILLIAM

OFFICE OF EXECUTIVE MANAGEMENT


1 County Complex Court, Prince William, Virginia 22192-9201
(703) 792-6600 Metro 631-1703 FAX: (703) 792-7484


BOARD OF COUNTY SUPERVISORS

Corey A. Stewart, Chairman
Michael C. May, Vice Chairman
Maureen S. Caddigan
W.S. Wally Covington, III
John D. Jenkins
Martin E. Nohe
Frank J. Principi
John T. Stirrup

November 29, 2010

TO: Board of County Supervisors

FROM: Thomas Blaser 
Acting Planning Director

THRU: Melissa S. Peacor 
County Executive

RE: Comprehensive Plan Amendment #PLN2009-00547, Environment Chapter
Update, Directives 10-102 and 10-104

At the Board meeting on November 16th, the Board directed staff to provide information on the Environment Chapter update scheduled for public hearing before the Board on December 7th. Three versions of the proposed text are available on the county website at www.pwcgov.org/envirouupdate:

- Staff recommendation compared to the current text,
- Planning Commission version compared to the current text,
- Work session version containing both the staff and planning commission recommendations together with comments received by the Planning Commission.

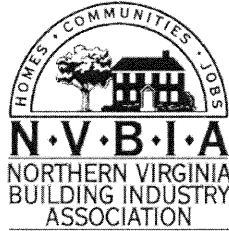
At the request of Chairman Stewart, staff attended several meetings with business industry representatives. At the conclusion of those meetings, the NVBIA provided a summary of comments in a letter to Chairman Stewart dated October 25th. The NVBIA letter and staff review of the NVBIA comments are attached.

Since the Planning Commission public hearing on September 15th, staff has received comments from several stakeholder groups in addition to NVBIA; including MIDCO, Prince William Conservation Alliance, LOCCA, and the Virginia Cooperative Extension. While staff stands by its recommendation and believes the recommendations largely incorporate the concerns of these groups, staff wanted to forward you their comments prior to your public hearing.

Attachments:

NVBIA comments (October 25, 2010)
Staff review of NVBIA comments (November 23, 2010)
MIDCO comments (October 14, 2010)
Prince William Conservation Alliance comments (October 26, 2010)
LOCCA comments (November 11, 2010)
Virginia Cooperative Extension comments (November 23, 2010)

An Equal Opportunity Employer



October 25, 2010

Chairman Corey Stewart
Prince William County Board of Supervisors
1 County Complex Court
Prince William, VA 22192-9201

Re: Prince William County Environment Chapter of the Comprehensive Plan
Industry Comments on October 20, 2010 Staff Version

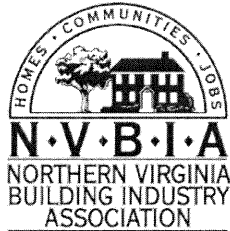
Dear Chairman Stewart,

We would like to take this opportunity to express our appreciation to both you and the Planning Staff for the opportunity to comment on the proposed changes to the Environmental Chapter of the Comprehensive Plan.

As you are aware, over the past year, the working group of industry representatives from NAIOP, the Northern Virginia Building Industry Association (NVBIA), , and the Prince William Chamber of Commerce (PWCC) have had a number of different discussions with the Planning Commission and Planning Staff in order to help craft a document that is practical, fulfills the intended goals, and creates a healthy balance between protecting the environment in Prince William County, and other goals of the comprehensive plan such as revitalization and economic growth, and preservation of property values.

We believe that the first and primary issue that needs to be understood is that environmental protections are heavily regulated by the State and Federal government. The regulations that exist are based on data collected by environmental scientists working directly for these agencies, and the standards are based on achieving specific measurable goals. In fact, State and Federal regulators are in the middle of updating the present standards enforced by their agencies based on their measurement of the successes and impacts of their regulations. A primary goal of their efforts is to improve the water quality of the Chesapeake Bay. This is a regional issue that is being addressed on a regional level and will be addressed with uniform regulations.

Secondly, early indications of the approach being taken by State and Federal approaches already place a young and growing county like Prince William at a disadvantage. The Urban Impacts that are being measured are overwhelmingly associated with growth in Arlington, Alexandria and Fairfax, communities that developed prior to the storm water



management and best management practices regulations that have been in effect during the time period when most of the Prince William development has occurred. Many of the policies and strategies that are proposed in the Environmental Chapter seek to address concerns and issues that will be addressed by the State and Federal Guidelines. The Board should also keep in mind that these proposed strategies will also apply to its own facilities. The proposed preservation of intermittent streams make it difficult to site buildings, parking areas and playing fields with large footprints (such as schools) and these new goals will likely make it more difficult and costly to provide public facilities. Local policies and strategies that attempt to address the same issues being addressed on a regional level quite simply will create conflicts, confusion, and layers of regulation that place Prince William at a competitive disadvantage with other surrounding jurisdictions and ultimately conflict with Prince William's other goals to improve the quality of life through creating local jobs and bringing upscale services to the county.

While we feel that while the Chapter, as it is currently proposed by Staff, is a better balance of all of these goals than earlier versions of the document, there are still very substantial issues that need additional attention.

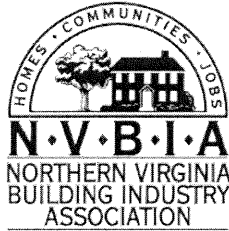
For your consideration, we are outlining our concerns with the document below:

Definitions

Significant Non-RPA Streams – *A stream that is determined to significantly contribute to the health of an RPA stream or public drinking water source and/or that has a defined channel, sorted substrate, groundwater input, and supports aquatic life according to the U.S. Environmental Protection Agency's Rapid Bioassessment Protocol. The determination will also considers the Virginia Unified Stream Methodology's criteria such as channel condition, riparian buffer, in-stream habitat, presence of wetlands and overall sub-watershed conditions. The stream will generally score > 18 points when assessed with the County's preferred stream assessment protocol during the Perennial Flow Determination (PFD) process or as part of a watershed management plan.*

It has been stated that this definition does little more than add clarity to the protections that already exist in the 2003 Comprehensive Plan. While this definition does provide more clarity, the scope of this new policy is substantially more than the existing written text describes. The streams that are being protected under this definition are different from the streams that are protected under the 2003 Plan.

The text from the 2003 Plan reads as follows “*Encourage the preservation of a natural buffer of existing woodland or forestation area of a least 50 feet along each side of all waterways that are not otherwise protected under the Chesapeake Bay regulations or similar legislation*”.



The 2003 Plan encourages the protection of *woodland or forestation* areas along all waterways that are not protected by state or federal law. The proposed text encourages protection of all streams that reach a certain threshold during the PFD process, regardless of whether they are in a wooded area, pasture, or within an existing neighborhood.

When it comes to environmentally sensitive features on a project that are not protected by federal, state, or local law, negotiating the protection of these features becomes a significant part of the rezoning process. The 2003 Plan provides enough flexibility for that negotiation to take place and for those sensitive features to be protected in the context of the proposed development. This flexibility is a key to the economic growth of the County.

For this reason, we would like to request that this definition be removed from the proposed text.

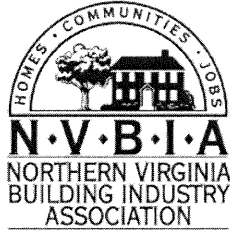
Environmental Policies

Regarding the various policies and action strategies we offer the following comments:

- EN Policy 1, Action Strategy (AS) 1: Suggest deleting wetland map as proposed and including requirement that applicants for rezoning and other discretionary land use approvals, subdivision plans, and site plans be required to submit surveyed delineations of all Waters of the U.S. and Commonwealth in a digital format to add to the County's GIS system and create an accurate wetlands map over time.
- EN 3, AS 2: Active recreation areas should be protected along with natural open space.

Suggest adding after "natural area" add the phrase "or as an active recreation area if designated as such an area on the subdivision plan".
- EN 3, AS 4: Preservation areas should be allowed on residential lots.

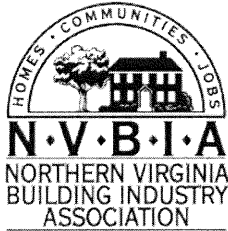
Suggest at least some minimum lot size where it would be allowed. If not allowed, then amend the zoning ordinance



to allow reductions in minimum lot area, setbacks, street frontage and other such requirements with protected preservation areas outside the lots.

- EN 3, AS 7: Encourage and include as an option the dedication of fee simple ownership to the Park Authority or Prince William County as equivalent of conservation easements.
- EN 5, AS 1: Revise language to direct this strategy to 25% or greater slopes.
In the coastal plain area of the County, slopes between 15% and 25% are the norm. Where such slopes are disturbed, geotechnical studies are already required.
- EN 5, AS 2: This strategy addresses a building / construction means and methods issue that has been resolved by a task force of Building Officials and Industry professionals.
The following policies should be incorporated into the DCSM
 - 1.13 Soils – Use of Liming During Construction, dated September 4, 2007
 - 1.13.5 Soils – Expansive Soils, dated January 9, 2009

Precluding development in these areas on “by right” and “rezoned” projects, without the opportunity to mitigate the soils of concern, will result in a reduced of development area and a corresponding reduction in land value.
- EN 5, AS 11: Eliminate. Erosion control is and should be addressed in the DCSM. See proposed EN 5, AS 9.
- EN 5, AS 16: Recommend “*Encourage identification, management, and protection of ecological communities and wildlife—especially ‘critical habitats.’*” This is a new term being introduced, but assuming it is similar/same meaning as “unique habitats of special concern”.

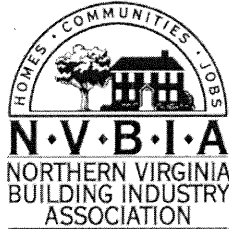


- EN 5, AS 17: Suggest adding phrase “after first cooperating with DCR to locate all such sites and areas and making such data available to landowners and the public by inclusion on the GIS mapper, with updates completed at least every five years.”
- EN 6, AS 3: Why just “encourage” agricultural BMPs when agricultural operations are significant contributors to the water quality issues we all face? BMPs should definitely be required for all properties where the agricultural operation is not the primary source of income for the property owner.
- EN 6, AS 5: Density should be calculated on the entire lot area, less the RPA and Floodplain when critical areas are preserved. To not do so only encourages sprawl as more land will be needed to accommodate the same number of homes or square feet of commercial development.
- EN 6, AS 9: Modify language as recommended by staff in Planning Commission staff report dated September 3, 2010.
- EN 6, AS 10: As noted previously, we disagree with the use of the definition of significant Non-RPA streams in the proposed text.

We also note above that protection of environmentally sensitive features that are not otherwise protected by federal or state law is a significant part of the negotiations between the County and a developer, during the rezoning process.

Adding a protocol to the DCSM will require the County to put these protections on all property in the county, rezoned or by-right. This will result in a “land taking” of privately owned property by the County not only impacting future development, but also inhibiting or potentially prohibiting expansion of existing uses and redevelopment.

It is one thing for a property owner to agree to protect features that are not protected under federal, state, or local law in exchange for the right to develop the property at a higher density.



It is a completely different situation when the county decides that every property in the county is subject to protections that are not federal or state mandated. We doubt that this is fully understood by the citizens of the County, and suspect that these proposed requirements would be extremely unpopular if they were presented to the community and understood.

- EN 8, AS 1: This strategy is undefined as written and should be removed from the text.
- EN 8, AS 2: Correct reference is a 1-year, 24-hour storm; 2-year, 24-hour storm; or 10-year, 24-hour storm. But in bigger picture, this should simply incorporate by reference the use of the new stormwater management regulations being developed by the state DCR.
- EN 8, AS 3: Rather than list possible treatment strategies or techniques, incorporate new DCR Stormwater Manual by reference.
- EN 13, AS 2: Amend the Zoning Ordinance to allow reductions in minimum lot area, setbacks, street frontage, buffers and other such requirements to encourage preservation of natural vegetation and other desirable features.

Again, we appreciate the opportunity you have given us to provide a list of our concerns with the document. We believe that local policies and strategies that attempt to address the same issues being addressed on a regional level quite simply will create conflicts, confusion, and layers of regulation that place Prince William at a competitive disadvantage with other surrounding jurisdictions and ultimately conflict with Prince William's other goals to improve the quality of life through creating local jobs and bringing upscale services to the county.

Sincerely,

J. Truett Young
Prince William Chapter President
Northern Virginia Building Industry Association.



COUNTY OF PRINCE WILLIAM


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PLANNING
OFFICE

Thomas Blaser
Acting Planning Director

November 29, 2010

TO: Board of County Supervisors

FROM: Raymond Utz, AICP 
Chief, Long Range Planning Division

THRU: Thomas Blaser 
Acting Planning Director

RE: Review of NVBIA Comments on Environment Chapter Update

For over a year, the Planning Commission has been meeting with stakeholders and interested citizens to develop recommendations for the update to the Environment Chapter of the Comprehensive Plan. Staff believes that community issues and concerns have in large part been incorporated into the recommendations that will be presented to you at your public hearing on December 7, 2010.

As part of meetings with business and development representatives subsequent to the Planning Commission's efforts, the Chairman asked staff to participate and provide advice and recommendations. In a letter dated October 25, 2010, the Northern Virginia Building Industry Association (NVBIA) provided the Board a summary of remaining industry concerns not addressed by the Planning Commission or staff recommendations. Below please find a point by point review of the NVBIA's concerns along with suggestions regarding the issues raised. Please note that staff stands by its recommendations, and that these suggestions are intended to assist the Board if they wish to address individual concerns raised by the NVBIA.

NVBIA Concern:

Significant Non-RPA Streams – A stream that is determined to significantly contribute to the health of an RPA stream or public drinking water source and/or that has a defined channel, sorted substrate, groundwater input, and supports aquatic life according to the U.S. Environmental Protection Agency's Rapid Bioassessment Protocol. The determination will also considers the Virginia Unified Stream Methodology's criteria such as channel condition, riparian buffer, in-stream habitat, presence of wetlands and overall sub-watershed conditions. The stream will generally score > 18 points when

assessed with the County's preferred stream assessment protocol during the Perennial Flow Determination (PFD) process or as part of a watershed management plan.

It has been stated that this definition does little more than add clarity to the protections that already exist in the 2003 Comprehensive Plan. While this definition does provide more clarity, the scope of this new policy is substantially more than the existing written text describes. The streams that are being protected under this definition are different from the streams that are protected under the 2003 Plan.

The text from the 2003 Plan reads as follows “*Encourage the preservation of a natural buffer of existing woodland or forestation area of a least 50 feet along each side of all waterways that are not otherwise protected under the Chesapeake Bay regulations or similar legislation*”.

The 2003 Plan encourages the protection of *woodland or forestation* areas along all waterways that are not protected by state or federal law. The proposed text encourages protection of all streams that reach a certain threshold during the PFD process, regardless of whether they are in a wooded area, pasture, or within an existing neighborhood.

When it comes to environmentally sensitive features on a project that are not protected by federal, state, or local law, negotiating the protection of these features becomes a significant part of the rezoning process. The 2003 Plan provides enough flexibility for that negotiation to take place and for those sensitive features to be protected in the context of the proposed development. This flexibility is a key to the economic growth of the County.

For this reason, we would like to request that this definition be removed from the proposed text. Delete the definition of, and all references to, “significant non-RPA streams”.

EN 6, AS 10: As noted previously, we disagree with the use of the definition of significant Non-RPA streams in the proposed text.

We also note above that protection of environmentally sensitive features that are not otherwise protected by federal or state law is a significant part of the negotiations between the County and a developer, during the rezoning process. Adding a protocol to the DCSM will require the County to put these protections on all property in the county, rezoned or by-right. This will result in a “land taking” of privately owned property by the County not only impacting future development, but also inhibiting or potentially prohibiting expansion of existing uses and redevelopment.

It is one thing for a property owner to agree to protect features that are not protected under federal, state, or local law in exchange for the right to develop the property at a higher density.

It is a completely different situation when the county decides that every property in the county is subject to protections that are not federal or state mandated. We doubt that this is fully understood by the citizens of the County, and suspect that these proposed requirements would be extremely unpopular if they were presented to the community and understood.

Staff Suggestion: Eliminating all references to significant non-RPA streams would reduce existing protections for these intermittent streams that are in place today. Staff recommendations would extend protections for these streams to by-right development by establishing standards for their protection in the DCSM. To maintain protections for these streams only during the rezoning and SUP process, you could amend EN 6, AS 10 as follows:

EN6, AS10. Update the DCSM to include a protocol for defining Significant Non-RPA Streams during the Perennial Flow Determination (PFD) process ~~and establish standards for protection of these streams including but not limited to buffers, steep slope avoidance, development setbacks and necessary mitigation measures when the proposed development affects these streams.~~

NVBIA Concern:

EN 1, AS 1: Suggest deleting wetland map as proposed and including requirement that applicants for rezoning and other discretionary land use approvals, subdivision plans, and site plans be required to submit surveyed delineations of all Waters of the U.S. and Commonwealth in a digital format to add to the County's GIS system and create an accurate wetlands map over time.

Staff Suggestion: Amend EN1, AS1 as follows:

EN1, AS1. Develop and maintain GIS mapping layers and other critical maps to be included as part of the Environment Plan, which may include the following layers and/or maps:

- Existing Canopy Coverage
- Impervious Area
- Vegetative Cover Types
- ~~Wetlands~~
- Existing Conservation Easements

NVBIA Concern:

EN 3, AS 2: Active recreation areas should be protected along with natural open space. Suggest adding after “natural area” add the phrase “or as an active recreation area if designated as such an area on the subdivision plan”.

Staff Suggestion: Amend EN3, AS2 as follows:

EN 3, AS 2. Amend the cluster ordinance to ensure that open space is permanently protected. ~~as defined in the Open Space Chapter and managed as a natural area.~~

NVBIA Concern:

EN 3, AS 4: Preservation areas should be allowed on residential lots. Suggest at least some minimum lot size where it would be allowed. If not allowed, then amend the zoning ordinance to allow reductions in minimum lot area, setbacks, street frontage and other such requirements with protected preservation areas outside the lots.

Staff Suggestion: Regarding reductions in minimum lot area and setbacks, see staff suggestion below regarding EN 13, AS2.

NVBIA Concern:

EN 3, AS 7: Encourage and include as an option the dedication of fee simple ownership to the Park Authority or Prince William County as equivalent of conservation easements.

Staff Suggestion: Amend EN 3, AS 7 as follows:

EN 3, AS 7. Encourage the use of open space/conservation easements or fee simple dedication to preserve open space in already developed areas in order to provide natural areas, protect environmentally sensitive resources, preserve wildlife habitat and ensure a scenic appearance over time. Consider development at the high end of the density range for those projects that preserve sensitive features, identified in the ECA, beyond the minimum preservation requirements such as buffers, the RPA and floodplain.

NVBIA Concern:

EN 5, AS 1: Revise language to direct this strategy to 25% or greater slopes. In the coastal plain area of the County, slopes between 15% and 25% are the norm. Where such slopes are disturbed, geotechnical studies are already required.

EN 5, AS 2: This strategy addresses a building / construction means and methods issue that has been resolved by a task force of Building Officials and Industry professionals.

The following policies should be incorporated into the DCSM

1.13 Soils – Use of Liming During Construction, dated September 4, 2007

1.13.5 Soils – Expansive Soils, dated January 9, 2009

Precluding development in these areas on “by right” and “rezoned” projects, without the opportunity to mitigate the soils of concern, will result in a reduced of development area and a corresponding reduction in land value.

EN 5, AS 11: Eliminate. Erosion control is and should be addressed in the DCSM. See proposed EN 5, AS 9.

Staff Suggestion: Amend EN 5, AS 2 and EN 5, AS 9 as follows:

EN 5, AS 2. Amend the DCSM to require identification of ~~and limit development on~~ all areas with shrink/swell soils, 15% slopes with an erodibility factor K of greater than 0.4, and/or with underlying marine clays. Where impacts are unavoidable, require mitigation.

EN5, AS9. Amend the DCSM to require enhanced erosion and sedimentation controls for properties that include jurisdictional wetlands and waters, 15% or greater slopes, or unique habitats of special concern, ~~require enhanced erosion and sedimentation controls,~~ including super silt fences, erosion control blankets, soil stabilization matting, temporary vegetative cover, and other controls, as required by the Erosion and Sediment Control Program Administrator.

NVBIA Concern:

EN 5, AS 16: Recommend “*Encourage identification, management, and protection of ecological communities and wildlife— especially critical habitats.*” This is a new term being introduced, but assuming it is similar/same meaning as “unique habitats of special concern”.

Staff Suggestion: Amend EN 5, AS 16 as follows:

EN 5, AS 16. Identify, manage, and protect ecological communities and wildlife – especially unique habitats of special concern ~~critical habitats—as well as endangered and threatened species, and species of special concern, as identified in official Federal and State lists.~~

NVBIA Concern:

EN 5, AS 17: Suggest adding phrase —after first cooperating with DCR to locate all such sites and areas and making such data available to landowners and the public by inclusion on the GIS mapper, with updates completed at least every five years.

Staff Suggestion: Amend EN 5, AS 17 as follows:

EN 5, AS 17. Ensure the County considers the most recent information available on the status and location(s) of unique habitats of special concern ~~rare, threatened and endangered species, rare plant communities and critical habitat areas.~~

NVBIA Concern:

EN 6, AS 3: Why just “encourage” agricultural BMPs when agricultural operations are significant contributors to the water quality issues we all face? BMPs should definitely be required for all properties where the agricultural operation is not the primary source of income for the property owner.

Staff Suggestion: Staff does not have any suggestion as agricultural practices are largely exempt from local land use regulation.

NVBIA Concern:

EN 6, AS 5: Density should be calculated on the entire lot area, less the RPA and Floodplain when critical areas are preserved. To not do so only encourages sprawl as more land will be needed to accommodate the same number of homes or square feet of commercial development.

Staff Suggestion: Amend EN 6, AS 5 as follows:

RESIDENTIAL

Preclude the development of habitable structures within 100-year floodplains. The allowable dwelling unit density for a property in the Urban, ~~and~~ Suburban, and Semi-Rural Areas shall be calculated based on the area outside the ~~Environmental Resource (ER) area, floodplain, and Chesapeake Bay RPAs,~~ as shown in the environmental constraints analysis submitted with a rezoning or special use permit application. The allowable dwelling unit density areas of the property encumbered by such features shall be based upon the maximum density permitted by the existing zoning of the property at the time of adoption of the Comprehensive Plan. Other relevant Comprehensive Plan components – such as the capacity of the transportation network, environmental constraints, and zoning requirements – must be addressed, as well, in determining the appropriate number of dwelling units on a property. Amend the land use classifications in the Long-Range Land Use Plan chapter to reflect these guidelines.

NVBIA Concern:

EN 6, AS 9: Modify language as recommended by staff in Planning Commission staff report dated September 3, 2010.

Staff Suggestion: Referenced language is included in the staff recommendation.

NVBIA Concern:

EN 8, AS 1: This strategy is undefined as written and should be removed from the text.

EN 8, AS 2: Correct reference is a 1-year, 24-hour storm; 2-year, 24- hour storm; or 10-year, 24-hour storm. But in bigger picture, this should simply incorporate by reference the use of the new stormwater management regulations being developed by the state DCR.

EN 8, AS 3: Rather than list possible treatment strategies or techniques, incorporate new DCR Stormwater Manual by reference.

Staff Suggestion: Amend EN 8, AS 2 as follows:

EN8, AS2. Amend the DCSM to ~~manage stormwater, to meet the 1-year, 10-year and 24-hour storm event~~ require the extended detention of the 1-year, 24-hour storm volume for a minimum of 24 hours, in addition to the traditional peak control of the 2- and 10-year storm events.

NVBIA Concern:

EN 13, AS 2: Amend the Zoning Ordinance to allow reductions in minimum lot area, setbacks, street frontage, buffers and other such requirements to encourage preservation of natural vegetation and other desirable features.

Staff Suggestion: Amend EN 13, AS 2 as follows:

EN 13, AS 2. Amend the Zoning Ordinance ~~and DCSM requirements for buffer areas, landscaping, and tree cover requirements to prioritize tree preservation instead of tree replacement.~~ to allow reductions in minimum lot area, setbacks, street frontage, buffers, and other such requirements to encourage preservation of natural vegetation and other desirable features.

ENVIRONMENT	COMMENTS/NOTES
<p>Intent</p> <p>The intent of the Environment Plan is to ensure that in developing the County, the natural beauty is preserved, water quality is protected, property values and quality of life are enhanced, and ecological diversity is preserved. With sound protection measures, such as those presented herein, Prince William County's citizens, business community, and visitors enjoy a healthy environment co-existing with a vibrant economy. In this regard, this Plan is to be used to address environmental issues, evaluate development proposals in their earliest stages, and develop ordinances. Prince William County is one of a few jurisdictions on the Atlantic Seaboard that extends from sea level to mountain crest. The natural environment of the County is diverse. Streams, creeks, rivers, lakes, marshes, forests, meadows, and shores provide habitat for plants and animals, as well as contribute to the economic well-being and aesthetics of the County.</p> <p>One way to preserve the County's natural environment is to see that applicants for development approval address environmental issues at the earliest planning phase. This Plan assists in this early planning process by defining those areas of a site that are environmentally sensitive and need to be preserved for the purpose of protecting water quality, maintaining the County's natural beauty, enhancing property values and quality of life, and preserving ecological diversity.</p> <p>Sustaining our environmental position is critical to the County's capacity to ensure a high quality of life, provide for continued economic growth, and actively conserve and protect natural resources, including public drinking water supplies. To this end, it is critical for the County to establish clear measurable goals and environmental benchmarks in order to gauge its progress and plan for the future.</p> <p>Prince William County must evolve towards a sustainability approach in its planning and development policies. Prince William County embraces the "green" movement, recognizing the environmental and economic benefits of our green infrastructure, considering emerging green technology, ensuring a multi-faceted decision-making approach that balances green and gray infrastructure needs, while balancing environmental, economic, and social issues.</p> <p>On its rezoning and special use permit applications, the Zoning Ordinance requires an environmental constraints analysis to determine areas of a site that are suitable for development and those areas that are not. The environmental constraints analysis determines the presence and extent of certain important environmental features as described in this Plan. It is used as a tool to outline in a rezoning or special use permit application the preservation or conservation areas that will be provided and environmental protection practices included with those applications.</p> <p>The components of the Environment Plan include text and fold-out maps as follows:</p> <ul style="list-style-type: none"> • Intent, Goal, Policies, and Action Strategies. Highly Erodible Soils Map (Figure 1). Highly Permeable Soils Map (Figure 2). Chesapeake Bay Resource Protection Areas Map (RPAs) (Figure 3). <p>ADD: STEEP SLOPES (25% OR GREATER) MAP AS FIGURE 4.</p>	<p>Goals need to be established and taken seriously. Policies and strategies need to be supported. And any resulting regulations need to be enforced.</p> <p>Unfortunately, in the past, environmental goals and policies have sometimes been given low priority, particularly in the area of implementation and enforcement. We hope that this revision of the Environmental Chapter will bring more attention to this issue.</p> <p>Has a study been done on any projects auditing what the ECA found suitable to build vs what was built (ie ER)?</p>

DEFINITIONS

Brownfield:

Canopy: The leaf area of a tree.

Canopy Coverage: The area underneath the dripline of a tree, group of trees or forest.

Contiguous: Abutting, adjoining, or touching and having a boundary, or portion thereof, which is coterminous.

Critical Groundwater Areas (CGAs):

Critical Slope Area: An area with a greater than 15% change in elevation over the same horizontal distance (15% slope) or an erodibility factor K of greater than 0.4.

Forest: A community of woody and herbaceous plants dominated by trees.

Forest Resources: Refers to wildlife habitat values and ecosystem services provided by forests, including but not limited to water purification, reduced air pollution, carbon sequestration, soil stabilization, natural flood control, timber production, etc.

Forest Type: A category defining forests based on the natural groups of different tree species commonly occurring together over large areas, named for one or more dominating species (e.g., birch-beech-maple, oak-hickory).

Mature Hardwood Forest: A forest dominated by deciduous trees with a minimum diameter of 12 inches dbh (diameter at breast height or 4.5 feet from the ground).

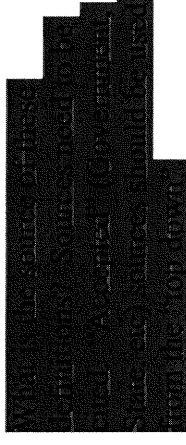
Urban Forest: A regional term that incorporates tree resources. Urban forests may include rural, suburban and urban areas. For example, trees in parking lots, streetscapes, buffer areas, natural woodlands and major forested areas, such as Prince William Forest Park.

Green Infrastructure: Green Infrastructure is our nation's natural life support system – an interconnected network of waterways, wetlands, woodlands, wildlife habitats, and other natural areas; greenways, parks and other conservation lands; working farms, ranches and forests; and wilderness and other open spaces that support native species, maintain natural ecological processes, sustain air and water resources, and contribute to the health and quality of life for America's communities and people. *2007 Virginia Outdoors Plan (Benedict and McMahon, 2006)*

Level Spreaders:

Other Sensitive Environmental Features: Those natural resource features as defined by the County which provide intrinsic water quality value due to the biological and ecological processes they perform and are sensitive to impacts which may cause significant degradation to the quality of state waters. (These features may include headwater wetlands, intermittent streams, non-jurisdictional wetlands, etc.)

Perennial Stream: A body of water flowing in a natural or man-made channel year-round, except during periods of drought. To include all bodies of water identified as perennial when using a scientifically valid system of in-field indicators. A stream that scores above the threshold of 25 points when assessed with the County's preferred stream assessment method of Fairfax DPWES stream assessment protocol.



“Level Spreaders” and other technical definitions should be retained. Defining technical terms helps citizens understand land development methods and issues.

“Other Sensitive Environmental Features” should be retained for policy development.

<p>Significant Stream: Stream that show strong morphological conditions with a defined channel sorted substrate and/or groundwater input and/or supports aquatic life. A stream that scores \$ 18 points when assessed with the County's preferred stream assessment method of Fairfax DPWES stream assessment protocol. Field verification by County staff is required.</p> <p>Wetland: Lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. <i>Cowardin, December 1979</i></p> <p>Headwater Wetland:</p> <p>Jurisdictional Wetland: For regulatory purposes under the Clean Water Act, the term wetlands means "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas." <i>EPA Regulations listed at 40 CFR 230.3(i)</i></p>	<p>"Significant Stream" should be retained to identify and protect streams that are not protected by the Chesapeake Bay Act but which must be protected in order to protect the quality of the County's surface waters and Green Infrastructure.</p> <p>"Stream" definitions proposed by NAIOP/NVBIA should be considered, especially if they are the same as used by federal and state governments; however, definitions need to be clear and widely understood.</p> <p>"Wetland" definitions likewise could be those used by federal and state governments, but should include non-jurisdictional wetlands and should contribute to everybody's understanding of wetland issues and policies.</p> <p>"Headwater Wetland" definition is needed because it defines a type of wetland that needs protection.</p> <p>"Water Bodies with Perennial Flow" could be considered, as proposed by NAIOP/NVBIA.</p> <p>"Specimen Tree" could be added as proposed by NAIOP/NVBIA.</p>
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<p>Unique Habitats of Special Concern: Rare and exemplary natural communities as identified or defined by VDCR Natural Heritage Division.</p>	<p>Retain for policy development.</p>
<p>GOAL: Preserve, protect, and enhance the environmental resources and features of the County</p>	
<p>ENVIRONMENTAL POLICIES AND ACTION STRATEGIES</p>	
<p>EN-POLICY 1: Consider environmental concerns at all levels of decision-making.</p> <p>ACTION STRATEGIES:</p> <ol style="list-style-type: none"> 1. Develop other critical maps to be included as part of the Environment Plan, which may include the following: <ul style="list-style-type: none"> • Existing Canopy Coverage map Impervious Area map Vegetative Cover Types map Wetlands map Existing Conservation Easements map • Critical Stream Areas map 	<p>Retain all proposed maps. Consider adding a “Significant Streams and Water Bodies with Perennial Flow Map.” Consider adding an “RPA Map.”</p>
<ol style="list-style-type: none"> 2. Update the Zoning Ordinance environmental constraints analysis requirements to add the following: : <ul style="list-style-type: none"> elineation of all wetland areas including both Jurisdictional and Non-jurisdictional wetlands (Jurisdictional determination required) b. Location of all Chesapeake Bay Resource Protection Areas (PASA submittal required) c. All intermittent streams d. Ponds, culverts e. Contributing drainage areas f. Existing structures, roads, and the locations of known utilities and easements g. Sufficient information on adjoining parcels to provide a preliminary assessment of stormwater impacts from the site, such as 100-year floodplains, wetlands, stormwater infrastructure, streams, and other sensitive features h. Identification of the adequacy of receiving surface waters into which stormwater will be proposed for discharge i. Proposed limits of disturbance j. Existing vegetation map of the entire site k. Location of all specimen trees l. Other Sensitive Environmental Features m. Unique Habitats of Special Concern and/or presence of threatened or endangered species. n. Identification of natural/ environmental features proposed for preservation or conservation 	<p>Add “Five-foot contour intervals or better topography” as proposed by NAIOP/NVBIA.</p>

<p>3. Identify and pursue opportunities for open space preservation and for park network development connecting Quantico and Leesylvania State Park with Washington, D.C., using greenway corridors along the Potomac River and its tributaries, as identified in the Open Space and Corridors Map.</p>	
<p>4. Seek and consider as part of the rezoning or special use process input from adjacent jurisdictions to promote regional green infrastructure planning efforts as well as other environmental concerns that have multi-jurisdictional impacts.</p>	
<p>5. Encourage developers to incorporate into site planning various environmentally sensitive approaches to stormwater management, including low-impact development (LID) techniques and preservation and restoration of natural land forms, as discussed in this Plan and the Community Design Plan.</p>	
<p>EN-POLICY 2: Develop and implement a data collection, tracking, and analysis structure to monitor and establish the county's environmental baseline, resource status, and sustainability.</p> <p>ACTION STRATEGIES:</p>	
<p>1. Utilize the information gathered through the studies and assessments included in Policy 2, above, to establish criteria to establish and priorities for protecting ecologically important areas during land use decision-making processes.</p>	
<p>2. Map all Environmental Resources to prioritize conservation planning, and make this information available on the County Mapper.</p>	
<p>3. Complete a Countywide Stream Assessment, post the report online, and make this information available on the County Mapper.</p>	
<p>4. Inventory county-owned properties, to include Park Authority and Prince William Public School properties, to identify environmental resources, as identified in the Environmental Constraints Analysis. Provide inventory/mapping of forest areas in Prince William County and make this information available to the public.</p>	
<p>5. Utilize tree assessment tools to account for the depreciation of renewable resources (such as forest, Previously EN Policy 1 AS 1 in groundwater) and non-renewable resources (such as unique habitat) when evaluating the economic health of the existing text County.</p>	
<p>6. All County offices, to include Park Authority and Prince William Public School properties, involved in land use will coordinate with local, federal, state, and regional environmental organizations to facilitate the exchange of</p>	<p>Previously EN Policy 1 AS 3 in existing text</p>

data and implementation of environmental protection measures.	
7. Conduct a County-wide analysis of the economic value of our existing green infrastructure (native and urban forests) toward energy conservation, storm water control off-sets, property values, protecting and improving water quality, and reducing air pollution.	
8. Develop a baseline analysis of existing tree cover from available historic data from the year 2000 or earlier.	
9. Publish a report each year detailing the status of the County's environmental assets. Make it available on the County's website and send it to the County's civic and homeowners' associations.	
EN-POLICY 3: To further support OS-Policy 5, a minimum of 39 percent of the total area in the County, (exclusive of acreage of Marine Corps Base Quantico for all calculation purposes), will be retained as protected open space, as defined in the Open Space Chapter.	
ACTION STRATEGIES:	
1. Encourage cluster development to protect contiguous natural open space, as defined by the Zoning Ordinance.	

2. Amend the cluster ordinance to ensure that open space is permanently protected, as defined in the Open Space Chapter and managed as a natural area.	Dedication to Park Authority does not assure management as a natural area, due to Authority's recreation facility orientation (which is not in contention here)
3. Amend the Zoning Ordinance to ensure that a minimum of a 50/100-foot buffer is required on new development adjacent to existing public lands and private conservation easements. Recommend the following additional strategies: Amend the Zoning Ordinance to provide that waivers for buffers may only be granted by the Planning Commission following a public hearing (with standard notice). Amend the Zoning Ordinance to require a minimum 50- or 100-foot vegetated buffer adjacent to any wetland or significant stream that is to be preserved.	<p>"Setback for buildings" might work better than "buffer." Creating a wide buffer or setback adjacent to public land has a real public purpose. However, requiring the same adjacent to a private conservation easements may be questionable</p>
4. Amend the Zoning Ordinance and DCSM to ensure that proffered conservation and preservation areas shall not be allowed on residential lots.	Retain as written. To do otherwise creates a virtually unenforceable imposition on homeowners.

5. Develop and publish guidelines for homeowner associations that detail how to manage conservation areas, while providing information on responsibilities and a checklist of standard management measures and benefits.
6. Make information on conservation easements available to landowners, including distribution points at the Tax Assessment Department and other relevant county offices, to encourage the use of open space/conservation easements as tools to preserve environmental resources.
7. Encourage the use of open space/conservation easements to preserve open space in already developed areas in order to provide natural areas, protect environmentally sensitive resources, preserve wildlife habitat, and ensure a scenic appearance over time.
8. The County shall review and implement opportunities for a Purchase of Development Rights (PDR) Program.
9. Explore the use of available federal and state funding resources, including grants, foundations, and transportation related funds, to support green infrastructure planning initiatives and a Purchase of Development Rights (PDR) Program.
10. Establish partnerships with local agencies and organizations to initiate and provide public information programs each year aimed at conserving lands in the watershed through civic engagement and community stewardship.
11. Investigate the benefits of involving a private conservancy for the purpose of purchasing privately held lands for preservation purposes and seeking perpetual conservation easements to preserve open space.
12. Support initiatives promoted by the County's Trails and Blueways Council to establish a Countywide greenway and path system through the voluntary donation of land and conservation easements from interested property owners, as a means of environmental protection.
<p>CLIMATE & AIR QUALITY POLICIES</p> <p>EN-POLICY 4: Monitor and collaborate with DEQ, MWCOG, and other regional entities to identify and implement strategies to improve air quality. Collaborate with State and regional entities in identifying and implementing strategies to monitor and improve air quality.</p>
<p>ACTION STRATEGIES:</p> <p>1..Support and coordinate with the Council of Governments (COG) Metropolitan Washington Air Quality Committee's Air Quality Monitoring Program; the Climate, Energy and Environmental Policy Committee for the region; and other entities within the County.</p>

<p>2. Analyze and suggest locations for air, water and energy <u>Analyze existing locations of air quality monitoring sites to encourage and suggest additional</u> locations where COG and the Virginia Department of Environmental Quality (DEQ) to might <u>might</u> establish additional air quality monitoring stations in the County, as applicable.</p>
<p>3. Where applicable, review and consider <u>the</u> air quality impacts for <u>of</u> public utilities and private industries in conjunction with the rezoning and/or special use permit application process.</p>
<p>4. Continue to m <u>Maintain and extend</u> regional COG agreements and contingency plans to deal with stationary and mobile sources of pollution to protect residents, and especially sensitive residents (such as the young; and the elderly; and sensitive populations).</p>
<p>5. Develop a process to determine whether <u>adequate</u> controls, including new technologies for disposing of compact fluorescent light bulbs, are in place to prevent metals, Polychlorinated Biphenyls (PCBs); and other carcinogenic materials, <u>medications, and other harmful chemicals</u> from entering the trash stream.</p>
<p>6. Request MWCOC or VDOT to review <u>conduct</u> air quality/transportation studies along major transportation corridors and at congested intersections, in order to better define the impacts and trends of vehicle-generated pollution.</p>
<p>7. Encourage the Virginia Department of Transportation (VDOT) and <u>Ensure that private development plans, Virginia Department of Transportation (VDOT) projects, and County projects</u> develop <u>preserve and/or re-establish</u> vegetative buffers along arterial roadways as a means of filtering and absorbing pollutants, and reducing noise pollution. Encourage Virginia Department of Transportation (VDOT) projects to do the same.</p>
<p>8. ⁸⁹ Reduce vehicle pollution by encouraging the use of alternative modes of transport – including van/carpooling, public transit, bicycles, light rail, and pedestrian paths.</p>

<p><u>97.</u> Require developments, including and not limited to transit-oriented and mixed use projects, to provide the appropriate support facilities for the use of public transit and non-motorized means of transportation, shall optimize the use of transit and non-motorized trips in order to reduce pollution impacts from vehicles and contain the appropriate support facilities, such as bus shelters, dedicated bicycle lanes, bicycle parking facilities, trails, crosswalks, sidewalks, etc.</p>	<p>10. Locate future public facilities, including schools, parks and libraries, to maximize pedestrian access and reduce air pollution.</p>
<p>11. At the time of rezoning, encourage site layouts that orient structures to maximize solar gain in the winter months and prevailing winds in the summer months.</p> <p>Retain and consider expanding this strategy in order to include other factors that may be involved in minimizing energy consumption.</p>	<p>WATERSHED PLANNING AND SUSTAINABILITY POLICIES</p> <p>EN-POLICY 5: Protect and manage the County's soils and natural landscape, and to enhance their associated economic, aesthetic and ecosystem benefits.</p> <p>ACTION STRATEGIES:</p> <p>1 . Preservation/conservation of the County's green infrastructure is important. Accordingly, discourage/prohibit development contiguous to a significant stream in the following areas:</p> <ul style="list-style-type: none"> •All areas of 25% or greater slopes contiguous to the 100-year floodplain. <p>If no 100-year floodplain is present, 25% or greater slopes starting <u>within</u> approximately 50 feet of the stream channel. All areas of 15% or greater slopes where shrink-swell soils exist for a distance of 100 feet from the stream channel.</p> <p>This is a difficult strategy to state -- our effort to clarify it may not be an improvement. More effort may be needed. We support this strategy.</p>

2 . Amend the DCSM to require identification and protection of all areas with shrink/swell soils, critical slope areas, and/or with underlying marine clays. Where impacts are unavoidable, require mitigation.	Can this step be addressed at the zoning stage in some manner? Final engineering may be too late to accomplish sound and environmentally sensitive development. We support this strategy.
3 . Seek commitments prior to the time of rezoning and special use permit approval that the landforms identified in the Environmental Constraints Analysis above will be set aside as a preservation/conservation area.	
4 . Use native plants that are adapted to local soil and weather conditions when re-vegetating disturbed areas.	

5. Amend the design evaluation guidelines, criteria, and techniques included in the Community Design Chapter to better promote the preservation of natural landscapes – especially those that tend to be drought resistant – and apply them in the evaluation of rezoning and/or special use permit applications.	
6 . Where toxic waste soil contamination is suspected, require that a rezoning and/or special use permit applicant submit an Environmental Site Assessment Phase II – Contaminated Sites and Remediation Plan as part of the application.	
7 . If environmental clean-ups efforts have been conducted at toxic waste sites to meet state and federal standards, development can be proposed. Actively support and encourage “brownfield” redevelopment, where appropriate.	
8 . Monitor the effectiveness of the Prince William County Erosion and Sediment Control Ordinance and upgrade as appropriate.	

<p>9.For properties that include streams, tidal or non-tidal wetlands, headwaters, 15% or greater slopes, headwaters or other environmental features of significance, require enhanced erosion and sedimentation controls, including increased buffer widths, super silt fences, erosion control blankets, soil stabilization matting, temporary vegetative cover, and other controls, as required by the Erosion and Sediment Control Program Administrator. [REDACTED]</p>	
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<p>10 . County development, and transportation, projects and any other construction projects constructed using taxpayer funds shall lead by example, incorporating the highest environmental leadership standards and requiring plan review and erosion and sediment control inspection frequencies that meet or exceed state standards.</p>	
<p>11. For State, Federal, and other publicly-funded development and transportation projects, the County shall coordinate with appropriate State and Federal agencies to ensure that all projects within the County demonstrate leadership standards by incorporating the highest environmental standards, while meeting or exceeding the County’s minimum standards.</p>	
<p>12. Request courtesy review of erosion control plans for all federal and state projects in Prince William County.</p>	<p>Retain as written – This is a good idea and should not be objected to by federal and state agencies.</p>
<p>13. Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on developing properties. At the time of rezoning or special use permit, apply these standards to require development sites to be designed in a manner that limits clearing and grading to the minimum area needed to construct the proposed use.</p>	
<p>14. Promote the use of vegetative or “soft” stabilization techniques along shorelines to maintain a natural buffer.</p>	
<p>15. Address issues of sea level rise along shorelines in County. Utilize current data and information on sustainable shorelines to protect shorefronts and property and incorporate sea level rise into County policy.</p>	
<p>16. At the time of rezoning or special use permit, require development sites to be designed in a manner that limits clearing and grading to the minimum area needed to construct the proposed use. (Moved to AS 13)</p>	
<p>167. Update the DCSM to preclude the use of all invasive, non-native species.</p>	
<p>SURFACE & GROUNDWATER POLICIES EN-POLICY 6: Maintain or enhance the integrity of surface bodies of water and watersheds.</p>	<p>Previously EN Policy 5 in existing text</p>
<p>ACTION STRATEGIES:</p>	
<p>1. As appropriate, for new construction and redevelopment, phosphorous loading per acre per year are to be in accordance with final State stormwater regulations.</p>	
<p>2. Locate away from the County’s water bodies those nonresidential activities that use, store, transport or manufacture significant quantities of toxic substances.</p>	

<p>3. Study and recommend measures to improve contingency planning by parties who use, handle, transport or store hazardous substances in sufficient quantities so as to constitute a threat to surface and groundwater quality. The measures should address identification of trigger amounts of materials and procedures for prevention of leaks or spills and for containment of leaks, spills, and water runoff from fire fighting, and include commitments for the pretreatment of storm water quality to prevent contamination.</p>		
<p>4. Require adherence to the following guidelines for determination of density or intensity of development:</p>		
<p>RESIDENTIAL</p>	<p>Preclude the development of structures within 100-year flood plains. The allowable dwelling unit density for a property in the Urban and Suburban Area shall be calculated based on the area outside the Environmental Resource (ER) area, which includes the flood plain, the Chesapeake Bay RPA's and areas shown in the environmental constraints analysis submitted with a rezoning or special use permit application with wetlands; 25 percent or greater slopes; areas with 15 percent or greater slopes in conjunction with soils that have severe limitations; soils with a predominance of marine clays; public water supply sources; jurisdictional wetlands and critically erodible shorelines and stream banks. The allowable dwelling unit density areas of the property encumbered by such features shall be based upon the maximum density permitted by the existing zoning of the property at the time of adoption of the Comprehensive Plan. Other relevant Comprehensive Plan components – such as the capacity of the transportation network, environmental constraints, and zoning requirements – must be addressed, as well, in determining the appropriate number of dwelling units on a property.</p> <p>We support this strategy, which is very important for guiding all residential development in undeveloped areas. We Suggest adding “Semi-Rural Residential Area” after “Suburban Area,” as the approach to residential development set forth here should apply to the SRR area as well. The concept of the Environmental Resource (ER) Area is important to citizens, who have seen it shrink or virtually disappear in some instances of development.</p>	
<p>NON-RESIDENTIAL</p>	<p>On non-residential-zoned property encumbered with areas of 100-year floodplain or Chesapeake Bay RPAs the allowable intensity is determined based on the floor area ratio (FAR) specified by the existing or proposed zoning district and the total site area. Development within the 100-year floodplain and Chesapeake Bay RPAs is to be precluded. The intensity of development is to be evaluated on the basis of other relevant environmental resource action strategies, the compatibility of the proposed uses with surrounding existing uses and other applicable portions of the Plan.</p>	
<p>5. Establish partnerships with local agencies and organizations to develop and distribute public service information to reduce nutrient loading in stormwater runoff from yards and farms.</p>		<p>Consider NAIOP/NV/BIA proposed language for this strategy.</p>
<p>6. Use the Virginia Marine Resources Commission (VMRC) criteria for the Siting of Marinas or Community Boat Moorings in evaluating future waterfront access sites to the County.</p>		
<p>7. Encourage innovative stormwater management techniques. Promote LID (Low-Impact Development) and on-site stormwater management (SWM).</p>		

<p>8. Except where a crossing is unavoidable, – public utilities shall be located outside of the 100-foot Resource Protection Area buffer, wetlands, and other water bodies. Gravity sewer lines are allowed, as needed, with a requirement for lining closed system sewer pipes parallel to streams in order to provide protection against overflows and spills. Where impacts are unavoidable, require mitigation backed by financial assurances, such as bonds or escrows.</p>	<p>NAIOP/NVBIA proposed wording might be OK here. Could the Service Authority be consulted for language?</p>
<p>EN-POLICY 7: Manage watersheds through a comprehensive watershed management planning-based approach.</p>	<p>New Policy</p>
<p>ACTION STRATEGIES:</p>	
<p>I. Develop future watershed management plans.</p> <p>As appropriate, the following resources and/or components are to be considered:</p> <ul style="list-style-type: none"> o Existing impervious surfaces o Determine estimated future impervious surfaces, based on established land use-impervious cover relationships, the most recent comprehensive plan, and zoning information o Stormwater management facilities o Water quality monitoring stations o Stormwater hotspots/flooding o Forest cover/tree cover o Topography o Soils and geologic features o Floodplains o Hazardous waste sites o Wells o Land ownership (public/private) o Subwatershed area o Land use, by zoning category o Downstream water resources <p>• Include public input</p> <p>Address the protection, conservation and restoration of stream corridors, riparian forest buffers and wetlands</p> <p>Reflect the goals and objectives of improving habitat and water quality.</p> <p>Determine the most vulnerable subwatersheds and evaluate restoration capabilities</p> <p>Rank priority subwatersheds for implementation and identifies areas that merit prompt restoration actions</p> <p>Identify solutions for protecting and restoring streams and other natural resources in the watershed</p> <p>Identify implementation mechanisms</p>	

Include a mechanism to monitor progress.	
2. Present completed watershed management plans to the Board of County Supervisors for adoption and consider these in making land use decisions, and the CIP.	
3. Utilize watershed plans to define the condition of County streams and waterways and define areas that are prioritized for restoration or improvement – Critical Stream Areas (CSAs). Produce a CSA Overlay map to include areas that require restoration or improvements due to impairment.	
4. At the time of Rezoning and Special Use Permit, seek commitments to improve conditions within Critical Stream Areas in proximity to project application or provide restoration project.	
5. Explore the feasibility of developing a citizen-based Watershed Advisory Council to act as a sounding board and vehicle for discussion of watershed issues. Objective of the Council is to incorporate community ideas into watershed planning efforts and increase understanding of stormwater management and watershed issues.	
EN-POLICY 8: Protect waterways and downstream properties from stormwater runoff.	
ACTION STRATEGIES TO BE EMPLOYED WHERE APPLICABLE:	
1. Limit densities on unstable soils, including marine clays, highly erodible and other Category 3 soils. Encourage cluster development to ensure these soil areas remain undisturbed.	Retain.
2. Employ field observation as well as stormwater management plans to assess impact of proposed development on downstream properties for water quantity, quality, volume and velocity up to 300 feet downstream.	Retain.
3. Encourage higher standards for stormwater management – including low-impact development standards – that require all development projects to establish systems – preferably natural – for filtering the “first flush” of urban runoff (delivery of disproportionately large amounts of pollutants that occurs during the early stages of a storm) near its source	Retain.
4. At the time of rezoning or special use permit, seek commitments to manage stormwater to meet one-year, 10-year, and 24-hour storms.	
5. Preclude construction of stormwater management impoundment structures or facilities within wetlands and significant streams. Encourage innovative designs/practices to utilize onsite wetlands resources as community amenities, (i.e., trails).	

6. For plans with multiple sections and/or phases, encourage comprehensive stormwater management plans to be developed for the entire development, while being consistent with watershed management plans, prior to preliminary site plan approval.		
7. Encourage enhanced extended detention.		Retain.
8. At the time of rezoning or special use permit, encourage the use of constructed stormwater wetlands and the use of multiple controls placed in a series, as appropriate	Retain.	We would assume that such wetlands would be shown on the proffered development plan.
9. At the time of rezoning or special use permit, seek commitments for environmentally-sensitive siting and construction of development to minimize the need for excessive grading. Avoid disturbance of steep slopes, the “commitments” would show up on particularly up-slope of natural resource areas, such as wetlands and streams.		Retain. Again, we would assume that the “commitments” would show up on the proffered development plan.
10. Discourage the concentrated flow of stormwater through stream buffers through the use of level spreaders and vegetated buffers to minimize the use of piping and/or channels through stream buffers.		Retain.
11. Identify the location of all county-maintained stormwater facilities and county-inspected low impact development (LID) projects on the County Mapper.		
EN-POLICY 9: Limit the amount and extent of impervious surfaces to protect water quality.		
ACTION STRATEGIES:		
1. Require acceptable retrofit techniques in redevelopment in order to minimize stormwater runoff. The consultants to the developers think this is bad because it may make redevelopment not economically feasible. This action is necessary, but the County might have to provide guidance on what are acceptable retrofit techniques.		Retain.
2. At the time of rezoning or special use permit, encourage the use of semi-pervious or pervious surfaces and other low-impact development techniques. This is an excellent idea and will allow groundwater recharge instead of runoff. It is used in high quality developments where sustainability is important. Recommend “require” instead of “encourage” unless costs are prohibitive. County could also offer some incentive for doing this.		Retain.
3. Continue to evaluate and reassess the DCSM for minimum parking requirements.		

<p>4. At the time of rezoning or special use permit, seek commitments to reserve parking areas for compact cars, structured parking for high-density mixed-use developments, shared parking opportunities, and other low-impact design strategies in order to reduce impervious surfaces.</p> <p>As the County continues to grow with increased densities, structured parking will become more feasible.</p>	<p>Recommend removing “mixed-use” because any type of high density developed should be encouraged to include structured parking (example: IKEA)</p>
<p>EN-POLICY 10:</p> <p>Ensure the preservation and use of natural site features which facilitate the effective management of stormwater runoff.</p> <p>ACTION STRATEGIES:</p>	
<p>1. At the time of rezoning or special use permit, emphasize preservation of wetlands over mitigation. Where impacts are unavoidable, require mitigation within the County backed by financial assurances, such as bonds or cash escrows.</p> <p>Recommend revised statement as follows:</p> <p>At time of rezoning or special use permit, emphasize preservation and protection of existing jurisdictional and non-jurisdictional wetlands on properties proposed for development.</p>	<p>Revised statement is proposed to emphasize the need to preserve and protect wetlands where they are. The goal is to save the wetlands in place. A mitigated wetland is a lost wetland, no matter if, or where, it may be “replaced.” State law does not prohibit localities from protecting wetlands.</p>
<p>2. Amend the Zoning Ordinance to prohibit direct discharge of untreated stormwater into wetlands. Ensure discharge does not exceed non-erosive velocities.</p> <p>This may be difficult to accomplish at the zoning stage; would the DCSM and better enforcement be involved in improving these practices?</p>	
<p>3. At the time of rezoning or special use permit, require commitments to ensure that wetlands proposed for preservation will retain their functionality.</p> <p>Again, we assume “commitment” means at least a proffered development plan that appears to provide adequate protection of the functionality of wetlands proposed for preservation. A factor here may be in the enforcement of the “commitments.” Is an additional strategy needed for this?</p>	
<p>4. At the time of an application for a rezoning or special use permit, seek commitments to use low-impact design, including bioretention and the conservation of natural site features, such as wetlands, slopes, Category 3 soils and forested areas.</p>	<p>We support this strategy, but it may need to be restated. Many of these “commitments” should again be apparent to interested citizens in the proffered development plan.</p>

5. Encourage the preservation of a natural buffer of existing woodland or forestation area of at least 100 feet along each side of significant streams and a 50-foot buffer around headwater wetlands areas that are not otherwise protected under the Chesapeake Bay regulations or similar legislation. Require mitigation for impacts to waterways where buffers are not provided at the time of rezoning or special use permit, backed by financial assurances, such bonds or cash escrows. Change “Encourage” to “Require.”	All wetlands to be protected need a buffer, not only “headwater” wetlands. [REDACTED]
6. Align new roads to follow the natural contours of the land. Amend the DCSM to include road standards that will allow greater preservation of the natural terrain, water resources and woodland areas.	Retain.
EN-POLICY 11: Ensure the protection of the County’s groundwater and aquifers. ACTION STRATEGIES:	
1. Acquire GIS and other information from the Health Department and State Water Control Board and others identifying Critical Groundwater Areas (CGAs) and make this information available to the public on the County Mapper.	Retain.
2. Encourage conservation of natural features and limit impervious surfaces in Critical Groundwater Areas. Develop procedures to protect or improve, if necessary, the water quality of Critical Groundwater Areas.	Change “Encourage” to “Require.”
3. Evaluate groundwater conditions for potential pollution, using available data from the Virginia Department of Environmental Quality (for leaking underground storage tanks) and the Prince William County Health Department (for failing septic systems) when reviewing rezoning and/or special use permit applications.	
4. Promote the use of secondary containment storage tanks for petroleum products and other hazardous materials, for all development and redevelopment.	Change “Promote” to “Require.”
5. Review and upgrade, as appropriate, the Best Management Practice and soil and erosion maintenance enforcement program for all types of development.	
6. Study options to consider the adoption of an ordinance that requires new wells be tested for toxic and radiological substances at the same time that they are being tested for bacterial contaminants.	
7. Require the use of pre-treatment devices for stormwater runoff and/or small spills or leakages on sites where petroleum products or hazardous wastes are handled.	
8. Amend the DCSM to require the use of appropriate native vegetation in the stormwater system..	
9. For new development and retrofits, study and consider increasing landscape requirements around County maintained stormwater facilities.	

<p>10. Work with local regulations (DCSM), the PWC Service Authority, Virginia Cooperative Extension to promote low water use landscapes on new and existing development through conservation landscaping principles, including reducing lawn areas.</p>	
<p>EN-POLICY 12: Ensure the high quality of public drinking water sources., In addition to the policies and action strategies listed for surface and groundwater protection, the following action strategies will serve to implement this policy:</p> <p>ACTION STRATEGIES:</p> <p>1.Require the minimum density/intensity of development, as reflected by the appropriate land use classification shown on the Long-Range Land Use Plan Map, around the shorelines of water bodies and headwaters areas that drain to a public drinking water supply.</p> <p>MIDCO is particularly concerned about the Occoquan Reservoir. This very important strategy needs to be expanded and made more specific, as it is not clear what area is affected or how this area is to be determined. Since the policy objective here is to protect the drinking water supply from the impacts of the development process and also from impacts of continued use of developed properties, perhaps a study (or research of other reservoirs) may be needed to determine the areas around each reservoir within which such a restriction would provide significant protection. This strategy may result in delineation of an overlay district similar to the one proposed below and may involve more features than density.</p>	
<p>2. Develop and implement a Drinking Water Protection Overlay District for areas within the Occoquan Reservoir and Lake Manassas Watersheds to protect the quantity and quality of public drinking water supplies, to include the following:</p> <ul style="list-style-type: none"> •Minimum standards for vegetated buffers along all streams and headwater areas <p>Minimum standards for vegetated buffers contiguous to wetlands that drain to a public drinking water supply</p> <p>Minimum standards for setbacks from the 300-foot contour line around Lake Manassas and the Fairfax Water Authority easement boundary</p> <p>Minimum distance standards for the installation of septic fields, tanks, or other on-site subsurface sewage disposal system from the shoreline of reservoirs.</p>	<p>This important strategy should be retained and strengthened, possibly drawing from some of the strategies set forth below.</p>
<p>3. At the time of rezoning or site plan approval, require development plans to meet the lowest densities for allowed land use classifications.</p>	<p>This strategy could be incorporated into strategy 2, above.</p>
<p>4. At the time of rezoning or special use permit, prioritize preservation of wetlands, intermittent streams, and headwater areas. Where impacts are unavoidable, require mitigation, preferably on-site, backed by financial assurances, such as bonds or cash escrows.</p>	<p>This strategy could be incorporated into strategy 2, above.</p>
<p>5. At the time of rezoning or special use permit, require commitments for enhanced erosion and sedimentation controls, as appropriate.</p>	<p>This strategy could be incorporated into strategy 2, above.</p>

6. Coordinate with the Fairfax Water Authority to address existing contamination from pharmaceuticals and prevent future associated impacts to the Occoquan Reservoir.	
7. Develop and publish information detailing the human health issues associated with the presence of pharmaceuticals in public drinking water supplies and list preventative measures that the public can employ to prevent additional problems.	
8. Encourage conservation plans for properties within the Lake Manassas and Occoquan Reservoir watersheds. Change "Encourage" to "Require."	
9. Continue to support the Occoquan Monitoring Laboratory, the Northern Virginia Regional Commission's technical studies, and the multi-jurisdictional Occoquan watershed program. Obtain annual reports for presentation to the Board of County Supervisors.	
10. Promote open space uses and — acquire land along the Occoquan Reservoir for special use parks that are designed to promote an appreciation of the natural environment and facilitate passive recreation (such as fishing, hiking, and non-motorized boating).	
11. Actively support Fairfax Water Authority efforts to increase compliance and enforce regulations established by their Occoquan Shoreline Easement Policy.	
12. Request that the Occoquan Laboratory continue to identify types of point/non-point pollution sources upstream from the reservoirs and to suggest ways that the non-point source pollution can be eliminated or controlled.	
EN-POLICY 13: Preserve natural vegetation – especially existing and mature trees – and provide for the replacement and management of urban forest resources. ACTION STRATEGIES:	
1. Initiate and support a community-based Urban Forestry Council to monitor tree preservation progress and make recommendations for improvements to County policies and standards.	<p>1. Form a Cooperative Extension Subunit to involve participating localities in the State Extension Program and are limited to reporting data and managing specimens.</p>
2. Develop, adopt, and implement a Tree Preservation Ordinance, incorporating standards for both Countywide and watershed goals. Amend the Zoning Ordinance, DCSM, Subdivision Ordinance, and other relevant policies to reflect the standards established by the Tree Preservation Ordinance.	<p>2. Coordinate Extension Subunit with the Tree Preservation Ordinance, DCSM, Subdivision Ordinance, and other relevant policies to reflect the standards established by the Tree Preservation Ordinance.</p>
2. Amend the Zoning Ordinance and DCSM requirements for buffer areas, landscaping, and tree cover requirements to prioritize tree preservation instead of tree replacement.	
4. Require tree preservation plans for all new development, to include commitments for the preservation of	

	specimen trees and commitments to ensure that trees designated for preservation will survive construction in a manner that substantially retains their pre-development level of biological function, health, and structural condition.
	<p>5. Utilizing existing data and analysis tools, Conduct a professional study including coordination with the Virginia Department of Forestry, to identify the County's mature hardwood forests and the location of those forests. Maintain an inventory of forest cover in the County and track change to contiguous forest as development occurs. Make this information available to the public on the County Mapper.</p>
	<p>6.Consider acquisition of select sites for public parks/forests and/or encourage the dedication of such sites by private property owners. Perhaps there could be some incentive for private property owners to do this.</p>
	<p>7. Maintain the County's Registry of Historic and Champion Trees. Use this registry at the time of rezoning and special use permit application to determine the presence of such trees on the property.</p>
	<p>8. Establish and adopt reforestation standards to address areas where unauthorized clearing has occurred. Amend relevant ordinances, as needed, including the Zoning Ordinance and DCSM, to support these standards.</p>
	<p>9. On lots served by public sewer and water and where a tree canopy exists, the limits of clearing and grading, shall be configured to minimize the loss of woodlands.</p>
	<p>10.Encourage utility companies to share easements where technically feasible to reduce the amount of disturbance along a roadway and provide enough areas for street trees. Change "Encourage" to "Require."</p>
	<p>11. Utilize tree preservation to protect community appearance, property values and provide other economic and community benefits.</p> <p>GENERAL COMMENT FOR THIS POLICY AREA: Can removal of trees from undeveloped properties be regulated by zoning? It may not be possible to regulate timbering and logging in the rural crescent, where agricultural uses such as forestry are permitted. However, it may be possible to control these activities in areas shown on the Long Range Land Use Plan Map for Semi-Rural Residential and higher intensity uses. Regulation could take the form of prohibiting logging using the "clear cut" method, but allowing one or more other methods, such as "selective cut." It may also be possible to establish regulations that could limit the environmentally destructive impacts of logging, such as requiring setbacks from streams and soil erosion control measures.</p>
	<p>EN-POLICY 14: Increase the environmental awareness of County residents, organizations, businesses, and Previously EN Policy 2 in existing government agencies.</p>

ACTION STRATEGIES:

<p>1. Make the following GIS layers available to the public on the County Mapper:</p> <ul style="list-style-type: none">•SlopesWetlandsEnvironmental Resource AreasCanopy Coverage by Forest TypeStormwater infrastructureProtected open space, including name of easement holder and number of acres, if different from the total acreage of the parcelCritical Groundwater AreasCounty-maintained stormwater facilities and county-inspected low impact development (LID) facilitiesUpdate Watershed layer to include the total number of acres and % of impervious surfaces in small watershed.	
2. Publish electronically (scalable PDF) and in print a map(s) showing the features listed in AS 1, above. Provide developers with information on County conservation requirements.	
3. Conduct a series of workshops to educate, engage and increase communication between citizens, organizations, businesses, industry, government officials and agencies on sustainable development, green infrastructure, and associated opportunities.	
4. Publish a webpage and associated e-notification component to provide information and updates on the County's green development and green infrastructure initiatives.	
5. Publish a webpage and associated e-notification component to promote and provide current information on local Farmer's Markets and other sources of locally produced food.	
6. Continue to expand or exceed the recycling rate mandated by the Virginia Department of Environmental Quality and publish on the webpage developed through AS 5, above.	
7. Update current informational brochures explaining the importance of soils and the proper maintenance of private sewer/septic systems, including the importance of such maintenance to the owner and to the environment. Make this information available to users of these systems.	

<p>8.. Provide brochures on sustainable practices for home gardening and lawn care. Work with local nurseries and retail facilities that sell fertilizers to ensure these are distributed to the public.</p> <p>ADD THE FOLLOWING STRATEGIES:</p> <p>9. Educate citizens, via web, brochures, PSA's, on recycling programs. (Question: PWC has recently switched to single stream recycling: what is the benefit? Is the recovery comparable to traditional recycling?)</p> <p>10. Educate citizens, via web, brochures, PSA's, regarding sand and salt left in streets after snow. There is no budget for street sweeping. Therefore, citizens need to sweep up sand and salt to prevent runoff into storm water drains. Many drains lead directly to creeks, not storm water ponds.</p>	<p>EN-POLICY 15: Identify, manage, and protect all ecological communities and wildlife – especially critical habitats – as well as endangered and threatened species, and species of special concern, as identified in official Federal and State lists.</p>
<p>1. Ensure the County considers the most recent information available on the status and location(s) of rare, threatened and endangered species, rare plant communities and critical habitat areas.</p>	
<p>2. At the time of rezoning or special use permit and all County projects, seek implementation of state and federal guidelines for the protection of rare, threatened, and endangered species and encourage preservation of habitats where these species could occur.</p>	
<p>3. To protect the biological diversity, processes, and functions of natural habitats, identify a network of preservation corridors or large woodland areas to be incorporated into an overall habitat protection network.</p>	
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<p>ENERGY POLICIES</p>	<p>New Policy/Section; To be eventually moved into separate Comp Plan chapter or other policy document</p>
<p>EN-POLICY 16: Develop a Community Energy Master Plan.</p>	
<p>1. Collect data and establish a baseline that best defines the energy, water, waste water and greenhouse gas data situation for County government operations and community at large.</p>	
<p>2. Incorporate input from all major stakeholders, including public authorities, residents, businesses, community associations, elected officials, schools, universities and colleges.</p>	
<p>3. Establish a long-term Vision with clear targets supported by short to medium term implementation strategies.</p>	
<p>4. Define targets, tracking measurements reporting and accountability for overall energy Vision and CEMP implementation.</p>	

EN-POLICY 17: Implement cost-effective energy-conservation measures at County facilities.

ON STRATEGIES:

1. Remain active in EPA ENERGY STAR program and continue to use EPA's Portfolio Manager to rate the energy performance of eligible county-owned buildings. Audit County facilities, including Vehicle Fleet Management, for energy use and pursue projects with a payback period of less than 10 years.
2. Consider giving priority to facilities, that rate 75 or higher according to the U.S. EPA's ENERGY STAR Performance Rating when leasing new space for County use or when renewing existing leases.
3. Consider designing and building all new County facilities so they rate 75 or higher by using the U.S. EPA's ENERGY STAR performance rating system, and measure performance annually using EPA's Portfolio Manager benchmarking tool.
4. Consider designing and constructing County renovation projects consistent with energy performance standards at least as stringent as LEED Silver or Green Globes 2 Globes standards whenever those projects are valued at 50% of the assessed building value. When replacing or installing appliances and equipment in County facilities, select items that are ENERGY STAR compliant whenever available.
5. Become a Green Partner with George Mason University (GMU), and encourage use of transit to access the GMU-Prince William campus. Explore opportunities to partner with non-public schools and other transportation systems to reduce the energy used for public school transportation.
6. Consider re-directing local consumer utility tax revenues to support new or enhance existing energy conservation-related funds, such as the existing state/federal weatherization assistance programs or developing a new low-interest revolving loan fund for energy efficiency investments made by low-income homeowners and small businesses in the County.
7. Require new residential development seeking rezoning and site plan approval to maximize opportunities for transit and to consider potential for solar/wind energy production in the development. Encourage construction that qualifies for ENERGY STAR Qualified Homes designation.

EN-POLICY 18: Provide recognition and incentives for energy conservation at non-government facilities and residences.

ACTION STRATEGIES:

1. Consider establishing a separate, lesser rate of tax for energy efficient buildings as defined in Code of Virginia § 58.1-3221.2.
2. Consider additional incentives (financial, tax, expedited permits, density bonuses, etc.) for development that builds to LEED or Green Globes standards and ENERGY STAR.
3. Recognize and publicize those in the community whose facilities achieve LEED, Green Globes, and ENERGY STAR certifications.

EN-POLICY 19: Provide recognition and incentives for renewable energy application at non-government facilities and residences. ACTION STRATEGIES:	
1. Evaluate current policies and ordinances to remove obstacles to renewable energy (wind, solar, biomass, landfill gas, geothermal, etc.) application.	
2. Evaluate and recommend incentives for projects that create on-site renewable energy application.	
3. Recognize and publicize for those projects that use on-site renewable energy.	
EN-POLICY 20: Provide leadership by example and education in the areas of energy efficiency, demand response and renewable energy application. ACTION STRATEGIES:	
1. Consider inventorying greenhouse gas (GHG) emissions from county facilities to create a baseline and using it to develop and implement short, medium and long-term plans to reduce or eliminate them by 2050. Also consider the feasibility of creating a short, medium and long-term community level GHG baseline and reduction plan. In setting these goals, evaluate reduction goals in other programs, plans and reports such as the Virginia Energy Plan, Cool Counties, COG Climate Registry Report to determine a reduction goal that is challenging yet achievable.	Needs more discussion.
2. Consider re-investing utility budget savings and cost-avoidance from completed energy projects in future energy efficiency and renewable energy projects as well as the creation of a Sustainability Office or Group.	
3. Consider providing active citizen education and awareness about energy efficiency, renewable energy, and “demand response” (i.e. shifting power usage away from periods when usage is peaking such as hot weekday summer afternoons) best practices.	
4. Consider reducing the rate of the growth of county government’s energy use by 40%.	
5. Consider reducing electricity use in County facilities by 10% of 2006 level by 2022.	
6. Consider reducing natural gas use in County facilities by 7.5% over next ten years.	Needs more discussion; Vehicle Fleet Management?
7. Consider reducing total diesel/gasoline use by all (County) vehicles by 10% over next five years.	
8. Consider reducing total diesel/gasoline used for County government landscaping operations by 20% over next five years.	
9. Consider purchasing the equivalent of 12% of the County’s 2009 level electricity needs from renewable sources either through Dominion and NOVEC rate offerings, renewable energy credits, or through on-site generation.	

10. Publicize energy conservation efforts at county facilities. Prominently display the ENERGY STAR label on county-owned buildings that qualify. Post building energy “report cards” for county-owned buildings on the county’s website, to highlight impact of energy conservation efforts. Encourage Prince William County Public Schools to do the same.	
11. Continue actively participating County Government facilities in demand response programs.	
12. Consider utilizing life-cycle cost analysis when constructing new facilities.	
13. Continue increasing landfill gas utilization at the County landfill with the goal of completely eliminating flaring.	
14. Continue exploring waste reduction and re-use technologies in lieu of landfilling.	

(Note: Viewsheds & Community Design components – All to be relocated to Community Design chapter of Comp Plan.) [REDACTED]

GOAL: Preserve, manage, and where necessary, integrate viewsheds that are character-defining features of Prince William County into development.	We support the proposed goal, policies and action strategies in this section.
	DES-POLICY 9: Preserve and enhance the unique architectural and landscape (agricultural, cultural, natural) qualities of the County’s rural area. ACTION STRATEGIES:
1. Encourage commercial development in the Rural Area to provide design compatibility between new and existing development. When there is more than one building on a site, design new commercial structures as a cluster of small-scale buildings to minimize their mass and to blend them in with existing buildings.	
2. Use appropriate indigenous plant materials and traditional planting patterns in areas visible from public thoroughfares so that new buildings blend into their landscape surroundings.	
3. Prepare a viewshed preservation plan that incorporates site plans and building designs that protect the existing visual quality and natural resource values that make these areas distinctive.	
4. Encourage any new development in the Rural Area to preserve the visual character of the rural landscape by providing appropriate building setbacks, with landscaped/preserved open space occupying the setback area; and preserving important scenic resources - hedgerows, mature trees, farm buildings, walls and fences, and open fields.	
5. Conduct a survey of the Rural Area to identify viewsheds, their type, and their potential boundaries.	

<p>DES-POLICY 10: Encourage site plans and building designs for new development that enhance the settings of the County Registered Historic Sites, as identified in the Cultural Resources Plan.</p> <p>ACTION STRATEGIES:</p>	
<p>1. Design projects to mitigate the adverse effects of development on the architectural and landscape features of archaeological and historic sites and structures when developing properties or adjacent properties.</p>	
<p>2. Encourage the preservation of views to and from historic properties through the protection of farm fields, meadows, and woodlands, and where possible combine with viewshed types.</p>	
<p>3. Incorporate adaptive reuse of historic structures into new developments, rather than demolition, and provide sufficient land around archaeological and historic sites and structures to preserve the integrity of the site in the historic context.</p>	
<p>DES-POLICY-12: Integrate new development into the natural landforms, particularly the existing woodland areas of the County.</p>	
<p>DES-POLICY 13: Encourage the preparation of plans for the preservation and restoration of viewshed resources.</p>	
<p>NATURAL VIEWSHEDS POLICIES AND ACTION STRATEGIES</p>	
<p>DES POLICY 14: Identify significant natural viewsheds in Prince William County.</p> <p>ACTION STRATEGIES:</p>	
<p>1. Seek funding from federal, state, local, and private organizations in order to secure professional services needed to conduct a Countywide or area-specific viewshed inventory or study. Ensure public participation in viewshed study projects and complete funded viewshed studies on a timely basis.</p>	
<p>Prince William County Comprehensive Plan Environment Chapter DRAFT October 14, 2009</p>	
<p>2. Amend the Zoning Ordinance, DCSM and other relevant ordinances to reflect the goals and standards included in viewshed studies that are endorsed by the Board of County Supervisors.</p>	
<p>3. Conduct a County-wide survey and identify viewsheds, their type and potential boundaries, and list on a map as an Appendix to this Chapter. The survey should include land within the County's Rural Area, as well as along the Potomac River.</p>	
<p>4. Prepare viewshed preservation plans for viewsheds identified in this Chapter.</p>	
<p>5. Identify viewshed preservation and management tools.</p>	
<p>6. As a condition of submittal for Comprehensive Plan Amendments and Rezoning applications, require preparation of a viewshed preservation plan for viewsheds identified in this Chapter.</p>	
<p>Viewshed: A viewshed is an area that can include one or more of the following: of land, water, cultural resources, and other environmental elements. A viewshed can have both interior and exterior views and one or more vantage points .</p>	<p>Revise viewshed definition</p>

The term is used widely in such areas as urban planning, archaeology, and military science. In urban planning, for example, viewsheds tend to be areas of particular scenic, natural, or historic value that are deemed worthy of preservation against development or other change. The preservation of viewsheds is a goal in the designation of open space areas, green belts, and community separators, as well as natural and cultural resources preservation.

in Glossary



Prince William Conservation Alliance

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Preliminary Comments on the October 26 Draft Environment Chapter of the Comprehensive Plan:

DEFINITIONS

Definitions are important, and greater clarity should be the goal. Proposals to generalize definitions “fuzz up” the impact of guidance, weakening implementation of policies and action strategies. Vague definitions have the effect of providing Planning Department staff greater flexibility. “On balance,” staff uses that flexibility to maximize development potential, negotiating away environmental constraints during site plan approval/revision. To ensure the Planning Commission guidance is implemented throughout the planning process, definitions should be as specific as possible.

Protected Open Space

The Planning Commission has received suggestions to mitigate impacts to environmentally sensitive areas by proffering, as a replacement, land for active recreational areas. A facility such as Pfitzner Stadium, golf courses, soccer fields, Splashdown waterparks, and parking lots are not a suitable tradeoff for damages to stream buffers or other sensitive green space.

Significant stream

We support this definition, including use of current Perennial Flow Determination (PFD) methodology. Switching techniques to measure streams would invite confusion. Consistency with the current definition would simplify understanding of policies and action strategies to protect streams of various sizes.

Unique habitats of special concern

Support including this to ensure good understanding of the features included on Environmental Constraints Analysis (ECA) requirements. Areas that qualify for the state Registry of Natural Areas should be considered as Unique habitats of special concern

EN-POLICY 1: Consider environmental concerns at all levels of decision-making.

Action Strategy 1: Develop other critical maps to be included as part of the Environment Plan, which may include the following...

We support the development and publication of baseline information as a part of this chapter.

Action Strategy 2: Update the Zoning Ordinance environmental constraints analysis requirements to add the following...

Support all proposed additions to Environmental Constraints Analysis. Considering potential impacts, including those from stormwater, early in the process is key to accomplishing the goals. It is also the most cost effective approach, preventing problems is significantly less expensive than fixing them.

EN-POLICY 2: Develop and implement a data collection, tracking, and analysis structure to monitor and establish the county's environmental baseline, resource status, and sustainability.

We strongly support the development and publication of environmental resource inventory for county-owned properties, especially Action Strategies 4-9. This would provide the baseline information needed to realize the County's smart growth goals, improve the County's capacity to negotiate the terms of development proposals, and increase opportunities to maximize returns on public investments in green infrastructure.

County agencies need to inventory their environmental assets before transforming the landscape with new roads, trails, or other facilities. Similarly, private landowners seeking to develop their property need up-to-date information to complete an Environmental Constraints Analysis.

EN-POLICY 3: To further support OS-Policy 5, a minimum of 39 percent of the total area in the County, (exclusive of acreage of Marine Corps Base Quantico for all calculation purposes), will be retained as protected open space, as defined in the Open Space Chapter.

We strongly support standards that require permanent preservation of open space gained through cluster development. We oppose any text that would allow development of active recreation or other facilities within open space areas secured

through cluster or other development projects. Active recreation facilities have their place in Prince William – but not as a trade-off for natural areas.

Action Strategy 3: Amend the Zoning Ordinance to ensure that a minimum of a 50/100-foot buffer is required on new development adjacent to existing public lands and private conservation easements.

Good planning would be to establish an effective buffer in the design process, prior to developing parcels adjacent to existing public lands and private conservation easements. Including this policy in the Zoning Ordinance will ensure the public investment is not abandoned in the site plan approval process.

Action Strategy 4: Amend the Zoning Ordinance and DCSM to ensure that proffered conservation and preservation areas shall not be allowed on residential lots.

We support this text. Conservation areas that are located on private property create an enforcement nightmare for County government. Initial landowners might understand the restrictions on use of private property in order to protect streams. The behavior of subsequent buyers indicates that strict limitations on use of yards of small lots are not workable in the long run.

Action Strategy 8: The County shall review and implement opportunities for a Purchase of Development Rights (PDR) Program.

A PDR program offers flexibility in developing and protecting land. Prince William has sufficient expertise to implement and manage a PDR program, especially considering the success of PDR initiatives elsewhere in the last 20 years. In addition, a PDR program would create the opportunity for obtaining special funds from state/Federal agencies.

EN-POLICY 5: Protect and manage the County's soils and natural landscape, and their associated economic, aesthetic and ecosystem benefits.

We support requirements that minimize development on unstable soils as well as slopes $\geq 15\%$ slopes east of Route 1 and slopes $\geq 25\%$ Countywide. The greater the development of such properties, the greater the risk of slope failure and "natural disaster" damages that taxpayers might be asked to absorb. There's nothing natural about carving into a slope, or overloading a slope until it fails. There nothing surprising when houses slide, after development of unstable sites. It should be county policy to minimize development, and thus minimize risk, on such sites.

Action Strategy 1: When designing a project, use the following priorities for protecting the natural landscape... Encourage the preservation of a natural buffer of existing woodland or forestation area of at least 50 feet along each side of all significant non-RPA streams.

We support this standard. The County should adopt environmental policies that meet the Clean Water Act requirements at the lowest cost. Vegetated buffers prevent pollution from reaching streams. Such buffers are far more cost-effective than other techniques to remove pollution that has already reached a stream.

When the final "pollution budget" in the Chesapeake Bay TMDL results in county-specific limits, Prince William will be required to manage nitrogen, phosphorous and sediment levels in our streams. If we don't minimize pollution from new construction, then farmers and owners of already-developed property will be required to reduce existing pollution, while developers are authorized to create new pollution from new development.

Action Strategy 3: Seek commitments prior to the time of rezoning and special use permit approval that the landforms identified in the Environmental Constraints Analysis above will be set aside as a preservation/conservation area.

The rezoning stage is the appropriate time to identify which natural resources are proposed for preservation and how this would be accomplished. The Environment Chapter should articulate this policy, loud and clear.

~~**Action Strategies 10:**~~ County development and transportation projects and any other projects constructed using taxpayer funds shall lead by example, incorporating the highest environmental leadership standards and requiring plan review and erosion and sediment control inspection frequencies that meet or exceed state standards.

~~**Action Strategy 11:**~~ For State, Federal, and other publicly-funded development and transportation projects, the County shall coordinate with appropriate agencies to ensure that all projects within the County demonstrate leadership standards by incorporating the highest environmental standards, while meeting or exceeding the County's minimum standards.

~~**Action Strategy 12:**~~ Request courtesy review of erosion control plans for all federal and state projects in Prince William County.

Staff proposes to eliminate standards encouraging government-initiated projects to meet or exceed the County's minimum standards. We believe the County should ensure that government projects lead by example and minimize environmental harm, demonstrating sensitivity to the setting.

Action Strategy 11: Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on developing properties. ~~cluster developments.~~

We strongly support all requirements aimed at minimizing clearing and grading on developing properties. Stripping the mature vegetation, then replanting grass and young trees, results in excessive stormwater runoff and excessive transport of sediment and other pollution into local creeks.

EN-POLICY 7: Manage watersheds through a comprehensive watershed management planning-based approach.

We support the text promoting and defining parameters for Watershed Management Planning. However, formal approval of completed watershed plans should not be deleted if the County plans to fund the recommendations, including through grant opportunities and the CIP. Why invest in watershed management planning if you don't intend to use the information?

EN-POLICY 8: In preparation for new State stormwater regulations and Federal Chesapeake Bay TMDL requirements, develop new standards for Stormwater Management.

We strongly support the current text, which represents a fair and reasonable step forward toward protecting waterways, communities and private property from flooding and pollution, and ball fields that are unusable after a rain. We need better standards to avoid adding to the problems. The County needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.

EN-POLICY 13: Preserve natural vegetation – especially existing and mature trees – and provide for the replacement and management of urban forest resources

The General Assembly has authorized the adoption of Tree Ordinances. The Environment Chapter should make clear that the county will use its authority to preserve its forests.

EN-POLICY 12; AS 1 Amend the Zoning Ordinance to develop and implement a Drinking Water Reservoir Protection Overlay District for areas within the Occoquan Reservoir and Lake

We support a Drinking Water Reservoir Overlay District to protect our clean water resources. This would also have the effect of encouraging dense development in the Potomac Communities area, steering redeveloping of the Route 1 corridor. Protecting our drinking water supplies, while shaping development to match the Potomac Communities guidance in the Land Use chapter, is appropriate.

EN-POLICY 14: Action Strategy 1: Make the following GIS layers available to the public on the County Mapper...

Prince William County is the third-largest jurisdiction in the state, and seeks to attract high-tech businesses. The county should provide this data to potential and current residents, so they can understand the environmental resources and constraints in their communities.



Lake Ridge Occoquan, Coles Civic Association
of Prince William County
P.O. Box 204
Occoquan, Virginia 22125

Officers

Dr. Jack Kooyoomjian, President
VACANT Vice President
Kathleen Harding, Secretary
Tom Burrell, Acting Treasurer

PELT Committee

Chairman – Tom Burrell
Coles District Vice Chairman – Vacant
Occoquan District Vice Chairman – Vacant

The Charter Virginia Green Community, 1991

June 7, 2010

Mr. Scott F. Meyer, Planner III
PWC Planning office
Prince William County Government
5 County Complex Court, Suite 210
Prince William, VA 22192

Dear Mr. Meyer:

The Lake Ridge-Occoquan-Coles Civic Association (LOCCA) hereby forwards the attached comments on the Environmental Chapter of the Prince William County Comprehensive Plan. These comments incorporate comments from LOCCA's Planning Environment and Land-Use (PELT) Committee which enhance and expand upon the oral comments provided by Dr. K. Jack Kooyoomjian at the May 12, 2010 interactive work session for Environmental and Civic Group leaders held in the Powell's Creek Conference Room of the McCoart Building, located at 1 County Complex Court.

These comments do not appear in any priority order and are not explicitly linked to the specific environmental Goals, Objectives or Action Strategies. We are willing to work with staff, if necessary, to make such linkages. However, we believe it most important that you have input from us regarding the overall context of the Environmental Chapter as well as our specific comments and vision about what should be in this absolutely critical part of the Comprehensive Plan.

Additionally, as citizens, we strongly urge caution on any recommendations to staff, the Planning Commission, or the Board of County Supervisors, by other parties and stakeholders, to unilaterally "delete" anything in the plan simply because it is not understood, reduces certain standards, or lessens requirements of any particular stakeholder in the overall planning process. Instead, we recommend a cautious approach to retain definitions, policies and action strategies with the express purpose to clarify intent and strengthening implementation of the action strategies.

Thank you very much for the opportunity to provide these comments and we look forward to a continuing participation in the process to develop a new visionary Environmental Chapter for our County's Comprehensive Plan. Should you have any questions, please do not hesitate to contact me.

/S/

K. Jack Kooyoomjian, PhD
President, LOCCA

Attachment

1.0 Identify all “Special Places” in PWC Environmental and Historical Chapters of the Comprehensive Plan:

The Environmental chapter and the Historical chapter of the Comprehensive Plan need to do a better job of identifying the “Special Places” in PWC. This involves inventorying all the places having special environmental characteristics of benefit to people, communities, and wildlife providing appreciation and enjoyment of environment, and impacting “Quality of Life” on the County’s residents (See recommendation below on the use of LOCCA’s Project Review Checklist).

A list of “Special Places” should include something simple as the local Lake Ridge Park because it is an area directly adjacent to and bordering the shores of the Occoquan. This park currently houses five high school crew teams, and is the only crew facility in PWC. This 63 acre site was acquired by providing the developer (Ridge Development) density credits for Lake Ridge Section 16 within the RPC known as Lake Ridge. It is considered by the rowing community as a world-class rowing venue on the Occoquan. (NOTE: LOCCA observes that there needs to be citing for and construction of at least one additional crew facility in PWC for crew over the next three decades, since this site is maxed out.) This park also contains an Eagle Scout Hiking Trail (it was built as a volunteer project by a local boy scout to obtain a merit badge toward his Eagle award), a golf course, a mini-golf facility, hiking, biking, boating, picnic facilities, and a variety of other outdoor activities.

An action strategy might be to inventory features of historical assets by the County’s Historical Commission with the County’s Public Work Staff. All historic towns need special attention in the Comprehensive Plan. For instance, the Historic Town of Occoquan along the Occoquan Reservoir needs to be highlighted and described. Other historic sites such as Historic Dumfries, Historic Manassas, the Manassas Battlefield Park, the Historic Brentsville Church and Courthouse, Rippon Lodge, the “King’s Highway (US Route 1 –The Washington/Rochambeau Route),” and various areas designated historic and of significant cultural value, and especially those areas identified as “Hallowed Ground” need expansion in the historic element of the Comprehensive Plan. These sites also need to be cross-referenced to the Environmental chapter of the CLUP. All sites need linkages, highlighting their special nature and the need for protections from intrusion by careless or short-sighted land-use decisions, including preservation of view sheds. Other “Special Places” include historical sites that need to be accounted for, listed and described regarding their special nature, such as the Historic Bacon Race Cemetery, etc. Again, those parties with special knowledge of these places should be invited to contribute to text descriptions and this should be entered in some fashion directly in the development text to the Comprehensive Plan, or an Appendix to the Comprehensive Plan.

Environmentally significant sites like Bull Run Mountain, Merrimac Farm, Silver Lake, the entire Occoquan Watershed, the Woodbridge Wildlife Refuge, Lake Manassas, Lake Jackson, the Potomac River, and many others need to be inventoried, protected, preserved and enhanced. Priority stream corridors, such as Neabsco Creek or Quantico Creek that need special priorities for protection and restoration need to be identified. Placement of PWC within the Chesapeake Bay watershed also should be clear from the text and accompanying maps within the Comprehensive Plan. Descriptions need to be provided at the “50,000 foot level,” as well as “on

the ground” for specific sites and should include photographs attached where appropriate. PWC’s “Special Places” need also to be posted onto a PWC Web Site for broader access to the public.

Another very set of “Special Places” includes various systems that tie together, but are not necessarily contiguous, and even traverse across County and magisterial district borders, such as the flyway system created by the system of parks, refuges and open spaces along the shores of the Potomac River. This would include the Hartwell Environmental Center & the Mason Neck Refuge containing breeding and nesting Eagles (there is an Annual Eagle Festival at Mason Neck, which is also an environmentally educational as well as an economically rewarding draw for businesses in the Northern VA region), the PWC side of parks, refuges, and open space includes Belmont Bay, the Woodbridge Wildlife Refuge, Featherstone Shores/Veterans Park area, Cherry Hill, Leesylvania State Park, the Quantico Marine Corps Base, and Prince William Forest Park. The Comprehensive Plan should have clear descriptors of this flyway and feeding system, and include photos, as well, so that it is clear this area needs special attention to preserve and enhance its functionality as a flyway and for wildlife habitat preservation.

Prince William County (PWC) also needs to formally recognize in the Environmental chapter of the Comprehensive Plan that we (PWC and its’ residents, businesses, cultural & historical resources) are a major “player” and “participant” in cleaning up the Chesapeake Bay watershed. In a “big picture” sense, PWC should be listed among the “Special Places” that needs special controls and considerations to clean-up, protect and restore the Chesapeake Bay. When we read the Environmental Chapter of the Comprehensive Plan, it should have a separate write-up on all these special places, and how it fits into the Chesapeake Bay Watershed area. If there isn’t yet a write-up, there should be a “place-holder” reserved for these items and various stakeholder groups should be invited to contribute to describing and enhancing our understanding of these “Special Places.”

If we have a list of our “Special Places” in PWC, the County can manage the Staff’s work load to assess various aspects of the “Special Places” (i.e., an Action Strategy should be in place to inventory and develop criteria for these “Special Places). For instance, one action strategy could be to promote conservation and land-use practices, including such tools as conservation easements, that targets potentially savable open space and rural view scapes. Another action strategy might target the land bordering the Occoquan Reservoir, since the Occoquan Reservoir as a water supply needs special attention with the view toward protections and determining where an overlay district might be appropriate to provide such protections of our water supply.

An action strategy needs to be in place which lists environmentally-unique features deserving of special protection and enhancements, and an overall quality assessment of that “Special Place” to determine what actions should or could be taken now to mitigate potential damage to the site, and what proffers might be appropriate if the site were to be proposed for development, re-development or changes. For instance an action strategy to have the County’s Arborist inventory the Specimen or Champion trees on sites that qualify as “Special Places,” needs to take place. Since there is only one staff person assigned as an Arborist in Prince William County, this task might need modest contractual or grant funding arrangements to assist the one Arborist in this effort.

2.0 List and Inventory All Relevant Planning Tools Helpful to Achieve Goals, Policies and Action Strategies in the Environmental Chapter of the Comprehensive Plan:

With regard to environmental issues, LOCCA has been involved through its predecessor organization, the Lake Ridge Communities Civic Association, Inc. (LRCCA, Inc.) and through LOCCA's PELT (Planning, Environment, Land-Use & Transportation) Committee for 4 decades of civic involvement. LOCCA and its predecessor organizations (the LRCCA, Inc. and LOCA/PELT) have been a catalyst to encourage implementation of such planning tools as the Residential Planned Community (RPC), where facilities such as a variety of housing types, parks and open space, schools, libraries, roads, neighborhood shopping centers, and infrastructure have been planned ahead. In addition, along the way, we have supported adoption of a landscaping, buffer and screening ordinance between different types of uses, a tree preservation ordinance, the Highway Corridor Overlay District (HCOD) ordinance, enhancements to the HCOD ordinance, and other venues to address "Quality-of-Life" and community design principles. LOCCA was awarded the designation as a Charter "Virginia Green Community;" the first and only civic association in the State of Virginia to be so recognized as a Charter Virginia Green Community in 1991. This accomplishment and fact-of-life might also be recognized in some fashion within the Environmental chapter of the Comprehensive Plan among the "Special Places," since it is the only officially designated Virginia Green Community in PWC. Signage with this designation was installed next to the Gazebo adjacent to Tackett's Mill and the Gazebo adjacent to Springwoods Drive along the Old Bridge Road corridor

3.0 Proactively Address "Quality-of-Life," Community Design, Green Design, and Pedestrian Friendly Principles: [NOTE: Please Review LOCCA/PELT's Project Review Checklist:

Recently, LOCCA/PELT has adopted a Project Review Checklist (see attached), to encourage community design principles, pedestrian-friendly and green design principles, connectivity with adjacent developments and neighborhoods, continuity of walking and biking trails, sidewalks and paths leading to livable, walkable and environmentally-friendly and pedestrian-friendly designs. PWC needs to embrace, move more formally, and aggressively engage in implementing these community design principles. This means the PWC needs to launch into defining what many parties often refer to as "Quality-of-Life. While this term needs to be defined in the Environmental Chapter for the Comprehensive Plan, "Quality-of-Life" should include more factors than just the environment. This term should include improved service levels on our roadways, enhanced safety and security in our communities, and many other factors. LOCCA recommends that as a means of getting at these others factors, including livable, walkable communities, connectivity of land-uses and developments, adoption of green design principles, and other factors, the County needs to embrace and somehow codify the most important of the 56 elements currently contained in LOCCA's Project Review Checklist (see attached). This should include public safety, better & smarter transportation options (including public transportation), green building design principles, and many other factors.

4.0 Establish An Overlay District Along The Shores of The Occoquan Reservoir and the "Flyway Area" Along the Occoquan and Potomac to Protect the Wildlife, as Well as the Water Supply for Northern Virginians:

There are many tools that can be used to achieve goals, but there are some tools that are currently **not** used in the Environmental Chapter of the Comprehensive Plan, such as an Overlay District to protect the Occoquan Reservoir as a public water supply for over 1.5 million Northern Virginia residents. Also, there is no overlay tool to protect the feeding, flyway and nesting areas of Eagles, wildlife and other water fowl and preservation of those special places for waterfowl and wildlife along the Potomac shores and the unique and special system of parks, open space and refuges. The Occoquan Reservoir and the flyway system along the shores of the Occoquan and the Potomac should at least be highlighted as one of the “Special Places” in the Environmental Chapter of Comprehensive Plan. Of course, policies and action strategies need to be proposed to achieve these ends to preserve and enhance these unique and essential quality features of our environment that provides utility, services to people, communities and wildlife, and economic prosperity to the region.

5.0 Getting “Back to Basics” for Sediment and Runoff Controls is Critical:

Getting back to basics on the environment is very important. The largest pollutant mass-wise and world-wide is sediment (1st Annual Report of the Council of Environmental Quality, 1970). That was 4 decades ago, and it still is today the largest pollutant. What does that tell us? It means that simple adherence to sound engineering principles on managing land-use, runoff and storm water and erosion controls can make a very big difference in environmental quality, and at modest cost when approached in a sensible manner. It also means that such items as protecting intermittent streams which lead to perennial streams will also make a very big difference to improve and enhance environmental and water quality for protection of surface water bodies, protecting our water supply and especially contribute to meeting cleanup and restoration goals for the Chesapeake Bay area.

Approximately 60% of nitrogen (and also a significant amount of phosphorus, metals, pesticides, salts, etc.) is carried by sediment and runoff into the Chesapeake Bay watershed. The message is abundantly clear. This source (sediments) needs special controls in order to meet the Chesapeake Bay cleanup goals. This also means that storm water, sediment and erosion controls, best management practices for agriculture and managing the land adjacent to both intermittent streams and perennial streams must take place and is a very important contributor to the eventual success of any goals, efforts and strategies to clean up and protect the Chesapeake Bay watershed. Nearly 50% of nitrogen comes from Agriculture and non-point sources. This means that these sources are very significant contributors to stresses on the Chesapeake Bay watershed, and accordingly needs to be explicitly recognized in the Environmental Chapter of the Comprehensive Plan action strategies. For instance, an action strategy which requires Best Management Practices (BMPs) for stormwater controls, such as swales to absorb storm water runoff and require reservation of open-space areas to infiltrate storm water runoff into the ground near water bodies, and not pipe water & sediments directly to these water bodies might make more sense to achieve water quality goals for the Chesapeake Bay. Also, at least 20% and nearly 30% and higher of the nitrogen load to the Chesapeake Bay comes from atmospheric deposition on land and water and mixing with the surface waters. This calls for an action strategy clearly beyond the control of local governments with amendments to the Clean Air Act that must be managed by the Federal government for these inter-state transfers of pollutants.

6.0 Establish Land-Use Control and Overlay District to Protect the Occoquan Reservoir as a Water Supply for Northern Virginians:

Protecting the water supply should be a priority in the Environmental chapter of the Comprehensive Plan. Action Strategies should call for creation of an Overlay District on the lands bordering the Occoquan Shoreline to protect this water supply for the region's 1.5 million people who live, work & play in this reservoir and also use it as a public drinking water supply. As a start to implementing the Overlay District, the following items need to be considered, including proactive policies and action strategies, which explicitly protect recharge areas.

6.1 Identify And Protect Recharge Areas:

Approximately 60% of PWC residents rely on clean, safe ground water for their drinking water supply. As an essential element of the Environmental chapter of the Comprehensive Plan, these areas of the County need special protections and controls. We recommend that as a first step, there is a need to simply identify the recharge areas needing protection, and where hazardous substances and intense industrial uses need to be prohibited in order to protect the recharge areas as a source of ground-water for PWC residents who use this source for drinking water and their various needs. Policies and action strategies which preserve open space, mature forested areas, and maximize tree preservation all contribute to the success of protecting the recharge areas.

6.2 Maximize Tree Preservation And Buffers By Encouraging Variances To The DCSM Slopes Requirement, And Best Practices Such As Bundling Of Utilities For Public Use Facilities:

The DCSM currently requires 4 to 1 slopes in order to protect areas from erosion. However, there are sites where a variance to save treed buffers makes sense. The applicant should work with the County officials to seek variances in those cases. The DCSM and the text in the Environmental chapter of the Comprehensive Plan should encourage tree preservation and enhanced buffers wherever feasible, along with bundling of utilities for the express purpose of maximizing tree-save and tree planting areas. One action strategy to achieve this end would be to make bundling of utilities, tree preservation and protection of intermittent streams connecting to RPAs a requirement for public-use facilities, such as County buildings and school sites.

6.3 Courtesy Review of Sediment, Storm Water Runoff & Erosion Control Plans:

There should be consideration of focused discussion to optimize sediment, erosion and storm water plans for "significant" sites (e.g., sites 5 acres or larger) within the Overlay District. This means consideration of exceeding current code requirements and possibly "beefing up" the codes to minimize sediment, storm water runoff and erosion in the Overlay District.

6.4 Establish Goal Of “No Net Loss Of Wetlands” & Incentives For Wetlands Gains:

There should be an explicit goal in the Environmental chapter of the Comprehensive Plan for no net loss of wetlands, encouraging re-establishment of high quality wetlands in case of loss, and incentives to reward applicants that provide for net gain of quality wetlands in the Overlay District.

A rationale with accompanying policy and action strategies needs to be in place in the Environmental Chapter of the Comprehensive Plan to make the case for net gain for wetlands & ground-water recharge areas. The Environmental Chapter of the Comprehensive Plan should identify critically important areas for wetlands preservation and groundwater recharge:

6.5 Change DCSM To Require BMPs Next To Critical Water Bodies:

The current DCSM encourages piping storm water to adjacent water bodies, This needs to be changed to encourage Best Management Practices, and have swales near such water bodies to allow storm water and runoff to infiltrate into the soil. This calls for open areas near water bodies to achieve this purpose. Over 60% of nitrogen enters the Chesapeake Bay watershed in the form of sediments. Also phosphorus, metals, pesticides, herbicides, and other pollutants enter water bodies via this route. Changing this practice will have a significant beneficial effect on the Chesapeake Bay water quality and ecosystem restoration goals, and should be implemented County-wide and region-wide, but especially in the Overlay District.

6.6 Do Not Allow Parks, Trails & Open Space To Be A “Land-Bank” For Future Development:

There needs to be an explicit statement in the Environmental Chapter of the Comprehensive Plan that parks, trails and open space are not intended to be “land banks” for future development. The parks, trails and open space aspects of the Comprehensive Plan need to be linked into the Environmental Chapter to cross-reference these as goals with the accompanying action strategies. While these should be applied County-wide, there should be special attention as to how these designations work within the Overlay District to explicitly protect the water supply.

7.0 Watershed Boundaries Are Significant And Need To Be Highlighted In The Environmental Chapter Of The Comprehensive Plan:

The Environmental Chapter of the Comprehensive Plan needs to closely tie into the watershed boundaries, indicating those areas that need special controls. This is particularly relevant to protections needed in an Overlay District for the Occoquan Watershed. As for the action strategies, there should be an implementation plan for adequate environmental monitoring in critical areas to protect and monitor the public water supply.

8.0 Largest Crop In PWC Is Lawns:

In the suburban and rural areas of PWC, the largest “crop” is lawns. This fact should focus our action strategies to proactively educate the homeowner on proper fertilization and insecticide use practices on home sites, as well as properly managing storm water and other practices impacting our watershed.

9.0 Hallowed Ground: The 180-Mile *Journey Through Hallowed Ground* is a treasure trove of local culture, loaded with vibrant downtowns, wonderful inns, restaurants, markets and shops. It’s alive with breathtaking views, natural landscapes, and a bounty of farms, wineries and local foods for everyone to enjoy. There are more than 10,000 Listings on the National Register of Historic Places, including 9 presidents’ homes, 30 historic Main Street communities, 13 National Parks, and hundreds of African and Native American historical sites. Sites along the Journey include significant sites from the French and Indian War, the Revolutionary War, and the War of 1812. Some of those places that are a part of the treasure-trove of this historically and culturally unique system contained within Prince William County include the following:

- Brentsville Courthouse Historic Centre
- Bristoe Station Battlefield
- Buckland Historic District
- Greenwich Presbyterian Church and Cemetery
- Liberia Plantation House
- Manassas Industrial School and Jennie Dean Memorial
- Manassas National Battlefield Park
- Rippon Lodge
- St. Paul's Episcopal Church

10.0 National Trails Systems:

The Environmental Chapter of the Comprehensive Plan should also show the national trails systems as a part of our unique environmental perspective as a “Special Place.” In our geographic area, the location of PWC along the shores of Occoquan and Potomac Rivers and along the Washington-Rochambeau Route (also know as the Kings’ Highway) places us in a pivotal part of the Potomac Heritage National Scenic Trail, which extends from Pittsburgh, PA to the Chesapeake Bay (Brickley editorial, *News & Messenger*, Friday, June 4, 2010, p. A5). In PWC, the planned Potomac Heritage Trail will travel from Occoquan and the Occoquan Bay National Wildlife Refuge to Leesylvania State Park and continue on to Prince William Forest Park. PWC is ideally situated to engage in this important resource to directly affect resident’s Quality-of-Life, and in the process, also capture a portion of the tourism, travel and conservation opportunities (See also Section 9.0, above on Hallowed Ground).

There is a need to build a walking & non-motorized biking rail connecting the Lake Ridge Community to the Historic Town of Occoquan. The possibility of a trail system has been discussed within LOCCA/PELT and other community organizations for nearly three decades, and is not yet a reality. There needs to be a focus and an action strategy to make this become a reality for over 30,000 residents.

11.0 Resource Protection Areas (RPA's) Need Special Attention and Expansions in the Environmental Chapter for the Comprehensive Plan:

The DCSM needs to be reviewed in light of changing goals by the US Environmental Protection Agency to focus on accomplishments and targets in meeting the Chesapeake Bay watershed cleanup and restoration goals. An essential part of this strategy will be to address controls around intermittent, as well as perennial streams. The County's Environmental Chapter of the Comprehensive Plan needs to keep in touch with these changing goals & priorities, since they will eventually become federal and/or state performance requirements.

12.0 Identify Contiguous Habitat and Green Space:

The Environmental Chapter of the Comprehensive Plan needs to focus on maintaining adequate wildlife and waterfowl habitat and incorporate the concept of connectivity of the green space in the action strategies. That means targeting land, open space, woods, wetlands, marshy areas, and other habitats, and especially contiguous green space for set asides, controls, preservation, and enhancement for better functionality as open space wherever possible.

13.0 Establish An Environmental Commission to Monitor and Implement the Environmental Chapter and Other Strategic Elements of the Comprehensive Plan:

We are not advocating growth in government. There is a need for checks and balances on implementing the above recommendations, along with the numerous recommendations of other parties. The County should establish an Environmental Commission in the same manner as the Historical Commission to minimize our foot print on the environment and maximize our volunteer expertise to save and preserve our Virginia native plants and other precious natural resources. In the spirit of making change happen in the manner it was intended, and not creating additional bureaucracy, it is suggested that a discussion should take place on how best to monitor implementation. For instance, it makes sense to have the Directors of Planning, Public Works, and Permits & Review on the review body, as collateral duties. Others players might include an equal balance of volunteers from citizen organizations and the development community. The manner in which this body should be constituted and how often they should meet (perhaps quarterly), is all a subject of discussion. The main point is that recommendations need monitoring and input so the decisions made are balanced and sensible and the process does not create another burden on the taxpayer.



14.0 Let's Not Forget What We Can Do For The Environment Now!

Nearly the entire environmental chapter is devoted to future building – there is no or very little emphasis or guidance or action strategy for improvement of areas that we can address right now. For example: the county

recently switched to single stream recycling. That means all recycles are dumped together and sorted on a kind of conveyer belt. Has anyone addressed the quality of this method of recycling? Is it worth the cost savings for a lower quality product? Has any information been made available to citizens in the operation of single stream? Are the haulers participating in this method? Are there penalties and/or rewards for participation, and do they outweigh the lower quality of that method?

What is the percentage of recycled materials in PWC? After all these years, how many citizens still do not know they cannot recycle any plastic that contained oil or that the landfill only accepts "1" and "2" designated plastics and is that still the case for single stream? Or has that changed? ...and has it reached the target audiences? What about public service community notices inserts in County mailings or in monthly billings from the PWC Service Authority, or Dale Service and VA American Water Co? Do most people know they should remove the plastic cap from a plastic bottle, because the cap is not recyclable? Is there any penalty for citizens who do not recycle?

Is there any plan for PWC to ban plastic bags? The entire country of China banned plastic bags! DC has enacted a .05 fee per plastic bag, but that does not appear as a good answer-that's to offset the cost of clean up, and the real answer is to eliminate the need for such clean up.

The PW Clean Community Council and volunteer groups will be labeling all storm drains in PWC to advise citizens that the drains lead to our water supply. Is there any penalty for citizens who pour gas, motor oil, grass clippings, paint, leaves, etc. in the storm drain? Is that penalty ever enforced?

What about the adverse effects of irresponsible dog (and cat) owners who allow their pets to defecate when they are walking their pets, then leave that feces to wash into the storm drains that lead to the creeks? What are those penalties? Are they enforced? Education only serves people willing to learn and improve...education is not going to prevent the millions of people who just don't care from polluting the ground, ground waters and surface water.

Finally, VDOT pours millions of pounds of salt and sand on our roads in winter. VDOT states they do not have funding for street sweepers, consequently, all that sand and salt washes into the storm drains. In older communities, especially Woodbridge, Dale City and Manassas, that were built without benefit of storm water ponds, most of that salt and sand winds up in the creeks. What can we do about that? There needs to be an action strategy that addresses these areas.

Yes, our eye should be on the future, but where is the emphasis on the present? There should be action strategies to answer these very near-term every-day questions raised by citizens and to implement sensible solutions.

Project Review Checklist

The Charter Virginia Green Community, 1991

This checklist is used as a gauge to determine if the development being reviewed contains those features and design elements that embody community expectations of green building & LEED design, energy independence, "livability," "quality-of-life," historic preservation (including enhancement, tourism, and education), schools, parks, open space, trails, transportation connectivity, and functionally-oriented design concepts. It is not intended to be all-inclusive, but rather highlight those aspects of a development that, over the years, have come to signify the expectations of the community.

	Smart Location & Linkage	Y	N	N/A	
1	Compatibility with PWC Comprehensive Plan Zoning Intent				Land Use Matrix and Map Review
2	Proximity to Water and Wastewater Infrastructure				
3	Imperiled Species and Ecological Communities				
4	Wetland and Water Body (RPA) Conservation				
5	Floodplain Avoidance				
6	Proximity to Projected Capacity of Existing Development and Public Services Including: Utilities; Safety; Transit; Education; Waste Management (Landfill)				
7	Reuse and Restoration of Contaminated Land				
8	Reduced Automobile Dependence				
9	Proximity to Pedestrian and Bicycle Network				
10	Steep Slope Protection				
11	Site Design for Habitat or Wetlands Conservation				
12	Restoration of Habitat or Wetlands				
13	Conservation Management of Habitat or Wetlands				
14	Proximity to county registered historic site or historic district				
	Neighborhood Pattern & Design	Y	N	N/A	
15	Walkable Streets				Clustering
16	Compact Development and Open Space Protection				
17	Interparcel Connection				
18	Walkable Streets				
19	Diversity of Residential, Office, and Commercial Uses				Technologies and facilities
20	Mixed-Income Diverse Communities				
21	Reduced Parking Footprint				
22	Street Network				
23	Transit Facilities Proximity and Connection				
24	Transportation Demand Management Strategies				
25	Access to Indoor and Outdoor Recreation Facilities				
26	Access to Trails and Bicycle Paths and Storage				
27	Universal (Handicap) Accessibility				
28	Community Outreach and Design Involvement				
29	Tree-Lined and Shaded Streets				
30	Neighborhood Schools				
31	Buffers and HCOD Review				

Project Review Checklist

The Charter Virginia Green Community, 1991

	Green Infrastructure & Buildings	Y	N	N/A	
32	Construction Activity Pollution Prevention				
33	Green Building Rating				
34	Has an analysis been performed on Energy Efficiency Measures?				
	Is a copy of the analysis of Energy Efficiency Measures available for review				
35	Has an Alternative Energy Analysis been performed?				
	Is a copy of the Alternative Energy Analysis available for review				
36	Water Efficient Landscaping				
37	Existing Building Reuse				
38	Preservation of any Historic Building(s)				
39	Adaptive use of any Historic Building(s)				
40	Minimize Site Disturbance in Design and Construction				
41	Storm water Management				
42	Heat Island Reduction				
43	Solar Orientation				
44	Infrastructure Energy Efficiency Improvements				
45	Wastewater management				
46	Recycled Content in Infrastructure				
47	Waste Management				
48	Light Pollution Reduction				
	Innovation & Design Process	Y	N	N/A	
49	Architectural Compatibility with Community				
50	Color Scheme Compatibility with Community				
51	Material Compatibility with Community				
52	Architectural/Color/Material Compatibility with Historic features				
	Regional Priority Credits	Y	N	N/A	
53	Regional Transportation Mitigation				
54	Regional Electrical Grid Impact				
55	Impact on Regional Health, Safety, and Education Capacity				
	Proffer Statement(s)	Y	N	N/A	
56	Does the applicant commit to the following Condition or Proffer:				
	"The applicant agrees to meet with [<i>name of citizen group</i>] prior to final site plan approval. The purpose of the meeting will be to conduct a review of the final site plan in terms of landscaping, architectural features, lighting, signage, placement of buildings, archeological surveys conducted and/or historic preservation action taken/contemplated, and inform the community of steps taken to meet the standards set forth by LEED. Proof of such meeting will be a letter from [<i>name of citizen group</i>] explaining the outcomes of the meeting. Such letter will be received prior to approval of the final site plan."				

Utz, Raymond E.

From: Thacker, Paige E.
Sent: Tuesday, November 23, 2010 11:00 AM
To: Utz, Raymond E.
Cc: Griffin, Stephen K.; 'kenavon@aol.com'; 'ajw1manas@aol.com'; Holley, Edgar; 'Al alborn'; Berlin, Nancy L.; Bolles, Thomas; Graham, Jennifer
Subject: VCE input on Environmental Chapter of comprehensive plan

Hi Ray,
 VCE has failed to provide comments on the Environmental Chapter of the Comprehensive plan until now. I apologize for this, but recognize we have programs and services already in place to assist the County in meeting this plan. Please see my comments below. Let me know if you have any questions
 Thank you
 Respectfully,
 Paige

Opportunities for Virginia Cooperative Extension to assist with Environmental Chapter of Prince William County's Comprehensive Plan

Virginia Cooperative Extension in Prince William's Environment and Natural Resources program is funded in part by a transfer from Public Work's Watershed Management Branch to provide environmental education that assists the County in maintaining its VPDES stormwater permit. It seems logical for the County's agencies to utilize the expertise of staff and volunteers they fund to help it meet the goals and objectives in the Comprehensive Plan. Our goal is to provide assistance and education that enable citizens to have aesthetically pleasing landscapes while protect water quality and our watersheds.

Comments in general

- There seems to be no mention of acid sulfate soils and their impact upon development. I would suggest including mapping them once identified. See comments below referencing page 40 of the comp plan.
- VCE responds to questions regarding health of trees, shrubs and turf for commercial as well as residential plantings after they have been planted improperly. If there is some way we can ensure that before properties are released from bond they have been planted/installed properly, the landscapes will be healthier and more sustainable. See page 36 comments below.

See below for comments/suggestions on how VCE can help address these issues.

Page 30— #5- VCE could work collaboratively with other agencies and our volunteers to develop a handout for HOA's on managing conservation areas, as well as a resource for HOA on management and care of common areas, tree planting, lawn care; as well of caring for grass until residences are occupied.
 Page 32—#10- VCE could assist with this partnership offering regional programs such as Woods in Your Backyard, and the Woods and Wildlife Conference. Scheduled on odd years in Manassas.
 Page 36 #10 —VCE currently provides educational programs on best management practices on establishing and maintaining landscapes. There should be something in here about doing them correctly, and inspecting them properly before bond is released; IE)sighting appropriate plants per soil pH, ultimate size; planting them and mulching them properly for plant health and longevity. Encourage

use of natives. We have and will continue to provide landscape inspection training and checklist for inspectors as requested.

Page 40—#2-Include language about acid sulfate soils in eastern end of the County. Virginia Tech provides files to help map them locally with GIS.

<http://www.cses.vt.edu/revegetation/remediation.html>

Page 41—#4 VCE encourages the use of native plants, offering programs on options

#5- Ensure landscape is planted properly. Use landscape checklist in the evaluation of rezoning and special use permits.

Page 45 #15—VCE has provided plant lists for recent DCSM revision.

Page 48 #3 if not deleted, Virginia Cooperative Extension provides soil testing for home lawns, nutrient management plans for turf areas; could help with this for County properties.

Page 51 #6 VCE has and can develop materials on reducing nutrient loads to lawns through the BEST Lawns program.

Page 82 #3 VCE Master Gardeners maintain this list currently although we have had very few additions in recent years. MG's were trained and dispatched to measure nominations.

Page 85 #2 VCE can provide training through its network of specialists and trained volunteer educators

Page 85 #4- VCE could add this to its website

Page 86 #7--VCE has unbiased, research based brochures and information on these topics. Working with local retailers is only part of the picture.

Page 87 #11--This is what our BEST Lawns program is all about. It is not only targeted at phosphorus, but pesticides and fertilizers in general, as well as organic debris that can affect water quality.

Paige E. Thacker, Horticulture Agent
Unit Coordinator/Agency Director

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