

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.

COMMENTS/NOTES

MIDCO - Goals need to be established and taken seriously. Policies and strategies need to be supported. And any resulting regulations need to be enforced.

MIDCO - 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.

NHS – Reword to read: Improving our residential and sustaining our rural environmental position is important... Must address residential and rural. “Critical” is too strong a word.

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

Prince William County ~~must evolve towards~~ utilizes 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.

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~~ 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~~ 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.~~

NHS – Add “restoration” to planning and development policies.

NHS - Are some environmental features important where others are not? This wording leads me to believe that relative importance will follow within this policy.

MIDCO - Has a study been done on any projects auditing what the ECA found suitable to build vs what was built (ie ER)?

NHS – Reinstate. PWC is required to be in compliance with the Chesapeake Bay Preservation Act, as the Act is a law, and this is a County policy. This statement should be a critical part of the Environmental Chapter of the Comprehensive Plan.

<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><u>DEFINITIONS</u></p> <p>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.</p>	<p>PWSWCD – How did we get from components of the environment plan to definitions?</p>
<p>Canopy: The leaf area of a tree.</p>	<p>NHS – Use Wikipedia definition: Aboveground portion of a plant community or crop, formed by plant crowns.</p>
<p>Canopy Coverage: The area underneath the dripline of a tree, group of trees or forest.</p>	<p>NHS – Use Wiki definition: The area beneath extent of the outer layer of leaves of an individual tree or group of trees</p>
<p>Coastal Plain: The physiographic province generally located to the east of Interstate 95.</p>	
<p>Contiguous: Abutting, adjoining, or touching and having a boundary, or portion thereof, which is coterminous.</p>	
<p>Critical Groundwater Areas (CGAs):</p>	<p>NHS - Get Critical Groundwater Areas definition for Virginia from the USGS.</p> <p>PWCA - Four criteria defined in 9VAC25-610-70 may be useful:</p>

- Ground water levels in the area are declining or are expected to decline excessively;
- The wells of two or more ground water users within the area are interfering or may be reasonably expected to interfere substantially with one another;
- The available ground water supply has been or may be overdrawn; or
- The ground water in the area has been or may become polluted.

PWCA - Definition should reinforce the Potable Water chapter, specifically WA-Policy 2, Action Strategy 7 (develop a Wellhead Protection Program)and Action Strategy 8 (identify critical groundwater and groundwater recharge areas throughout the County).

PWCA –Whatever definition is adopted, it needs to be followed by delineation of “critical groundwater areas” in order to minimize potential adverse impacts by inappropriate groundwater withdrawal.

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.
(Moved to EN5, AS2)

Source: USDA, Soil Conservation Service
NHS - Provide source of definition for Critical Slope Area.

<p>Forest: A community of woody and herbaceous plants dominated by trees.</p>	<p>NHS – Use Wiki definition: Area with a high density of trees. I could not find a definition that includes herbaceous plants within the definition. Where did this definition originate?</p>
<p>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.</p>	<p>NHS – Forest Resources definition should include economic resource values such as hunting leases.</p>
<p>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).</p>	
<p>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).</p>	
<p>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.</p> <p>Urban 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 in a developing community.</p> <p>(PW - This is the subject of EN-Policy 13)</p>	<p>NHS – Use Wiki definition: An urban forest is a forest or a collection of trees that grow within a city, town or a suburb.</p> <p>PWSWCD – Don't understand the definition.</p>
<p>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</p>	<p>PWSWCD – Add trails, buffers, non-working farms?</p>

<p><u>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)</u></p>	
<p>Level Spreaders: TBD</p>	<p>MIDCO - “Level Spreaders” and other technical definitions should be retained. Defining technical terms helps citizens understand land development methods and issues.</p> <p>NHS – Use Wiki definition for Level Spreaders: An erosion control device designed to reduce water pollution by mitigating the impact of high-velocity stormwater surface runoff. It is used both on construction sites and for permanent applications such as drainage for roads and highways.</p> <p>NAIOP/NVBIA – Delete specific details of stormwater techniques because they should be provided in the DCSM.</p>
<p>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.)</p>	<p>MIDCO – Other Sensitive Environmental Features” should be retained for policy development.</p> <p>PWCA – Important to retain.</p> <p>PWSWCD – Should highly leachable/permeable soils be included here?</p>
<p>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</p>	<p>NHS - Use DCR definition.</p>

~~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. 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.~~

MIDCO - "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.

MIDCO - "Water Bodies with Perennial Flow" could be considered, as proposed by NAIOP/NVBIA.

NAIOP/NVBIA – Perennial streams, using the Fairfax DPWES protocol, can have a score less than 25 points with certain biological indicators or in certain climatic conditions. Use existing regulatory structures published by DCR-CBLAD or the Federal definition published by the COE.

NAIOP/NVBIA – Replace with: Water Bodies with Perennial Flow shall be identified in a manner consistent with the latest guidance from the Virginia Department of Conservation and Recreation [this is what the DCSM uses in 740.02Q]. As currently defined by CBLAD, a water body with perennial flow 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

	<p>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.</p>
<p>Significant Non-RPA Stream: Stream that show strong morphological conditions with a defined channel sorted substrate and/or groundwater input and/or supports aquatic life and/or other stream identified as significant by County Watershed Management Plans. A stream that scores \geq 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>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.</p>	<p>PWCA – We strongly 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.</p> <p>MIDCO - “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>NHS - Use DCR definition.</p> <p>NAIOP/NVBIA – Delete. Existing regulatory definitions of stream types should be used.</p>

Jurisdictional Wetlands and Waters: ~~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. – Cowardin, December~~

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.

PWCA – There is a need to clarify differences between wetlands that require state and federal permits and those that do not. Legal interpretations of “jurisdictional” are not the issue here. Policy should be to protect wetlands as defined in current draft, in order to conserve the remaining valuable habitat that has been dramatically affected by urban/suburban development.

NHS - Use DCR definition.

NAIOP/NVBIA – Delete, as the more appropriate definition is already provided.

NAIOP/NVBIA – Replace with “wetlands,” means those areas that are inundated or saturated by surface or ground water 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. [EPA Regulations at 40 CFR 230.3(t) and U.S. Army Corps Regulations at 33 CFR 328.3 (b)]

Headwater Wetland:

MIDCO - definition is needed because it defines a type of wetland that needs protection.

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

	<p>NHS – Use definition from North Carolina Department of Natural Resources Division of Water Quality - Typically small bowl-shaped wetlands that grade into 1st order streams.</p> <p>NAIOP/NVBIA – Delete, as it is not necessary to be used in the Comprehensive Plan if our changes are accepted. If they are not accepted, then utilize the long standing Federal definition: Headwaters means non-tidal rivers, streams, and their lakes and impoundments, including adjacent wetlands, that are part of a surface tributary system to an interstate or navigable water of the United States upstream of the point on the river or stream at which the average annual flow is less than five cubic feet per second. The DE may estimate this point from available data by using the mean annual area precipitation, area drainage basin maps, and the average runoff coefficient, or by similar means. For streams that are dry for long periods of the year, DEs may establish the point where headwaters begin as that point on the stream where a flow of five cubic feet per second is equaled or exceeded 50 percent of the time. [33 CFR 330.2(d)]</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</p>	<p>NHS - Use Federal definition for "jurisdictional wetland" or delete.</p>

<p><u>vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas." EPA Regulations listed at 40 CFR 230.3(t)</u></p>	<p>MIDCO - "Wetland" definitions 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>NAIOP/NVBIA – Replace with Jurisdictional 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.</p>
<p><u>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)</u></p>	<p>PWCA – Strongly support including this to clarify how the county seeks to protect these areas.</p> <p>NHS – Delete or state absolute specific definition to which the term applies. Cannot make an accurate assessment of impact with this definition.</p> <p>NAIOP/NVBIA – Delete. This definition is open ended and thus, will stifle the use of credit to purchase land subject to not being able to build on features "as defined by the County..." which "...may include..., etc.</p>
<p><u>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</u></p>	<p>MIDCO – Retain for policy development.</p> <p>PWCA – Strongly support including this to ensure good understanding of the features included on</p>

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

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

Environmental Constraints Analysis (ECA) requirements. Areas that qualify for the state Registry of Natural Areas should be considered as Unique habitats of special concern.

NAIOP/NVBIA – This should be deleted until Prince William County locates and surveys all such areas (in conjunction with VDCR), informs the public and landowners of such areas, and reports to the Board of Supervisors on the economic, cultural, and environmental costs and benefits of preserving such areas.

Additional Definitions Suggested

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.

MIDCO - "Specimen Tree" could be added as proposed by NAIOP/NVBIA

PWCA - Add Protected Open Space definition from Open Space Chapter to make it clear that facilities such as Pfitzner Stadium, golf courses, soccer fields, waterparks, and parking lots are not appropriate mitigation measures, which are intended to offset damages to stream buffers or other sensitive green space.

NHS – Add definitions for "major regional trail," "multi-use trail," "stream valley trail" and "passive recreation" from Parks Chapter to Environment Chapter.

NAIOP/NVBIA – Add definition for 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. (Section 801.02 F of the DCSM)

NAIOP/NVBIA – Include all three types of streams recognized by the COE as defined below:

- Perennial Stream – A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
- Intermittent Stream – An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.
- Ephemeral Stream – An ephemeral stream

	<p>has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.</p>
<p>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.</p>	
<p>GENERAL ENVIRONMENTAL POLICIES AND ACTION STRATEGIES</p> <p>EN-POLICY 1: Consider environmental concerns at all levels of land use related decision-making.</p> <p>ACTION STRATEGIES:</p>	
<p>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:</p> <ul style="list-style-type: none"> • Existing Canopy Coverage map • Impervious Area map • Vegetative Cover Types map Vegetative Cover Types (PW) • Wetlands map • Existing Conservation Easements map • Critical Stream Areas map • Environmental Resources • Conservation Corridors identified on the NVRC Green Infrastructure, when published 	<p>FPWFP – Delineate habitat corridors as defined by green infrastructure</p> <p>MIDCO - Retain all proposed maps. Consider adding a “Significant Streams and Water Bodies with Perennial Flow Map.” Consider adding an “RPA Map.”</p> <p>PWCA – Strongly support the development and publication of baseline information as a part of this chapter.</p>

NHS - Do not concur with pulling resources from the Prince William County Park Authority support to the Parks, Open Space, and Trails chapter policies.

NAIOP/NVBIA – Delete. The proposal to map “Critical Stream Areas” without first defining a critical stream is problematic at best. The County needs to map all perennial streams and use that map as the core RPA definition as Fairfax County has done.

NAIOP/NVBIA – Delete Wetlands Map. Instead require applicants for rezonings (other discretionary land use approvals), site plans, and subdivision plans to submit surveyed delineations of all waters of the U.S. and Commonwealth to the County in a specified digital format to add to the County’s GIS system to create an accurate wetlands map over time.

NAIOP/NVBIA – Replace with the following:
Develop the following maps to be included as part of the Environment Plan:

- A. As soon as practicable:
 - 1. A map of all perennial streams based upon scientific surveys conducted in the field;

	<ol style="list-style-type: none"> 2. An updated RPA map based upon said perennial stream map; and 3. Revise the DSCM to utilize these maps in lieu of the PFD process. <p>B. When funding allows, create these maps in the following order:</p> <ol style="list-style-type: none"> 1. Wetlands map; 2. Impervious Area map, updated on a 5-year basis; 3. Existing Conservation Easements map, updated as easements are recorded; and 4. Vegetative Cover Types map, updated on a 5-year basis.
<p>2. Update the Zoning Ordinance environmental constraints analysis requirements to <u>add the following</u>: show the following as three separate items:</p>	<p>PWCA – Strongly support all proposed additions to Environmental Constraints Analysis. Consideration of potential environmental impacts early in the development process is needed to ensure the goals and intent of this Chapter are met. Addressing stormwater impacts is just as significant. The environmental constraints analysis should make the stormwater data just as clear as the data about other environmental concerns.</p> <p>LOCCA – Support. An action strategy needs to be in place which lists environmentally-unique features deserving of special protection and</p>

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

	<p>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.</p>
<p>a. <u>Approximate Delineation of all jurisdictional wetlands and waters areas (Jurisdictional determination required)</u></p>	<p>PWCA – Support NAIOP/NVBIA text.</p> <p>NAIOP/NVBIA – Replace with: Surveyed Delineation of all waters of the U.S. and surface waters of the Commonwealth (Jurisdictional determination required) with such areas classified utilizing the Cowardin Classification System</p>
<p>b. <u>Approximate Location of all Chesapeake Bay Resource Protection Areas (PASA submittal required)</u></p>	<p>PWCA – Support NAIOP/NVBIA text.</p> <p>NAIOP/NVBIA – Replace with: Location of all Chesapeake Bay Resource Protection Areas (PASA submittal required)</p>
<p>c. All <u>significant non-RPA intermittent</u> streams</p>	<p>PWCA – Support.</p> <p>NAIOP/NVBIA – Add requirement to show 5-foot Contour Interval (or better) topography.</p> <p>MIDCO - Add “Five-foot contour intervals or better topography” as proposed by NAIOP/NVBIA.</p>
<p>d. <u>Ponds, culverts</u></p>	<p>PWCA – Support.</p>

		NAIOP/NVBIA – Support.
e.	<u>Contributing drainage areas</u>	PWCA – Support. NAIOP/NVBIA – Support.
f.	<u>Existing structures, roads, and the locations of known utilities and easements</u>	PWCA – Support. NAIOP/NVBIA – Support.
g.	<u>Sufficient Publicly available information on adjoining parcels to provide a preliminary assessment of stormwater impacts from the site, such as regarding the location of 100-year floodplains, wetlands, stormwater infrastructure, and streams, and other sensitive features.</u>	PWCA – Support including baseline information on stormwater issues early in the process. NAIOP/NVBIA – Replace with: Publicly available information on adjoining parcels regarding the location of 100-year floodplains, wetlands, stormwater infrastructure, and streams. NHS – “Sufficient information” too broadly defined. Recommend including information available publically such that private party assessments are not allowed or dictated.
h.	<u>Identification of the adequacy of receiving surface waters into which stormwater will be proposed for discharge</u>	FPWFP – Develop specific regulations concerning stormwater outfall from impervious surfaces. Make stormwater outfall engineering more stringent near areas of high sensitivity, i.e. wetlands, natural heritage areas, etc. NAIOP/NVBIA – Support.
i.	<u>Proposed limits of disturbance</u>	PWCA – Support.

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

		NAIOP/NVBIA – Support.
j.	<u>Existing vegetation map of the entire site</u>	PWCA – Support. NAIOP/NVBIA – Support. NHS – Define vegetation map
k.	<u>Location of all specimen trees</u>	PWCA – Support. All specimen trees should be included. NAIOP/NVBIA – Require location of specimen trees only within the proposed limits of disturbance. NHS – Define specimen tree
l.	<u>Other Sensitive Environmental Features</u>	PWCA – Support. NAIOP/NVBIA – Delete. NSH – Delete
m.	<u>Unique Habitats of Special Concern</u>	PWCA – Support. Unique habitats discovered after the fact, such as at Silver Lake, are difficult or impossible to protect. NAIOP/NVBIA – Delete. NHS – Delete.
n.	<u>Identification of environmental features proposed for preservation or conservation</u>	PWCA – Support. NAIOP/NVBIA – Support.
o.	<u>Percentage breakdown of resource types (i.e., impervious surfaces, water features, wetlands, forested areas, highly erodible soils, 100-year floodplains, steep slopes,</u>	

<p><u>etc.)</u></p>	
<p>p. <u>NVRC Green infrastructure Plan</u></p>	
<p>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.</p>	<p><i>Relocated to EN Policy 2 AS 6</i></p>
<p>3. <u>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.</u></p> <p><u>Identify and pursue opportunities for open space preservation and for park network development that preserve Unique Habitats of Special Concern with an emphasis on connecting to existing natural resources conservation areas. (PW)</u></p>	<p>FPWFP – Why was the Prince William Forest Park (PWFP) omitted from this open space preservation network? It still lies within the coastal plain.</p> <p>PWCA – Additional network opportunities in the eastern part of the county include connecting Leesylvania/Quantico with Prince William Forest Park. In western Prince William, there is an opportunity to create a corridor of mostly undeveloped “green space” between the Virginia Outdoor Foundation property at Thoroughfare Gap, Silver Lake Regional Park, Conway Robinson State Forest, and Manassas National Battlefield Park.</p> <p>NHS – Reword to read: Identify and pursue opportunities for open space and park network development for establishing and connecting Major Regional Trails, as identified in the Open Space and Corridors Map.</p>

<p>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. <u>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.</u></p>	
<p>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.</p>	<p>LOCCA – 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.</p>
<p><i>Additional Action Strategies Suggested</i></p>	<p>NHS – Encourage alternatives to the use of sand and salt as measures Prince William County utilizes in the winter as snow response resources, or identification of stormwater management measures that can be taken to minimize the impact during snow melt or subsequent stormwater runoff.</p> <p>LOCCA – 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</p>

	<p>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. There needs to be an action strategy that addresses these areas.</p>
<p>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 Zoning Ordinance or other appropriate documents, to increase open space requirements.</p>	<p><i>Now EN Policy 3</i></p>
<p>7. Amend the open space requirements in the Zoning Ordinance to ensure preservation/provision of open space within all developments.</p>	<p><i>Relocated to EN Policy 3</i></p>
<p>EN-POLICY 2: <u>Develop and implement a data collection, tracking, and analysis structure to monitor and establish the county’s environmental baseline, resource status, and sustainability.</u></p> <p>ACTION STRATEGIES:</p>	<p><i>New Policy</i></p> <p>PWCA – Strongly support development and publication of environmental resource inventory for county-owned properties. 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 improve the County opportunities to maximize returns on public investments in green infrastructure.</p> <p>LOCCA – There should be an implementation plan for adequate environmental monitoring in critical</p>

	<p>areas to protect and monitor the public water supply.</p> <p>NHS – What is the projected cost to the tax payer of this new policy? I cannot analyze the benefit without analyzing the cost.</p>
<p>1. <u>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.</u></p>	<p>FPWFP – The NPS has an Inventory & Monitoring program that may serve as a good template for the county.</p> <p>NHS – Define “ecologically important.” This may have a different meaning to agribusiness than it does to developers or environmental clubs/organizations.</p>
<p>2. <u>Map all Environmental Resources to prioritize conservation planning, and make this information available on the County Mapper.</u></p>	<p><i>Environmental Resources are defined in the Comp Plan Glossary; it may make sense to repeat it in the Environment Chapter.</i></p> <p>NHS – Define “Environmental Resources.”</p>
<p>3. <u>Complete a Countywide Stream Assessment, post the report online, and make this information available on the County Mapper.</u></p>	<p>NAIOP/NVBIA – Support.</p> <p>FPWFP – Fairfax County Watershed Planning and Assessment Branch (Chad Grupe), the Virginia Science Museum (Dr. Eugene Maurakis) would be excellent references for these assessments.</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>PWCA – Strongly support.</p> <p>NHS – Define. Environmental Resources are not mentioned in the ECA.</p>
<p>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.</p>	<p><i>Previously EN Policy 1 AS 1 in existing text</i></p> <p>PWCA – Strongly support.</p> <p>NHS - Does PWC own these tools? If not, what is the cost?</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 data and implementation of environmental protection measures.</p>	<p><i>Previously EN Policy 1 AS 3 in existing text</i></p> <p>PWCA – Support as written.</p> <p>NHS - If including some County Properties, include all County and County funded properties to include those rented office facilities. Public Works Properties? PW County Historic and Preservation Properties? Other properties expending County funding.</p> <p>NHS - If environmental organizations are to be consulted on measures that affect the public, they need to be accountable to the public.</p>
<p>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.</p>	<p>PWCA – Support. Revise to include all green infrastructure components identified in the definition for green infrastructure, above.</p>

	<p>PWSWCD – The definition of green infrastructure was much broader above on page 3.</p> <p>NHS - Define “native.” Does this include National Park Service and State DOF forests?</p> <p>NHS – Does this include value of hunting leases and permits? Does the assessment take into account the reduction in property value caused by compliance with any environmental constraints contained within this policy that go beyond that of the Chesapeake Bay Preservation Act?</p>
<p>6. <u>Develop a baseline analysis of existing tree cover. from available historic data from the year 2000 or earlier. Add struck out portion back in. (PW)</u></p>	<p>NHS – Cost to taxpayer?</p>
<p>9. <u>Publish a report each year detailing the status of the County’s environmental assets.</u></p>	<p>MIDCO – Add sentence, Make it available on the County’s website and send it to the County’s civic and homeowners’ associations.</p> <p>PWCA – Strongly support.</p> <p>NHS – Needs more definition.</p>
<p><i>Additional Action Strategies Suggested</i></p>	<p>FPWFP – There was no mention of the county deer population. The largest threat to the health of PWC forests is deer overpopulation. Without an understory new forests won’t grow and healthy</p>

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

October 14, 2009

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

ecosystems cannot thrive. Assess deer populations and use LIDAR to measure forest understory.

FPWFP – Prohibit the importation of firewood from other counties and states to PWC. The invasion of non-native pests such as Emerald Ash Borer, Gypsy Moth, and other diseases, fungi, bacteria, etc is also a powerful threat to habitat stability.

NHS – For publicly owned lands in Prince William County, partner with Virginia Department of Game and Inland Fisheries for wildlife management. Encourage best management practices including controlled hunts and hunting leases to preclude overpopulation and its deleterious effects.

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.

Previously EN Policy 1 AS 6 of existing text

PWCA – We strongly support requirements to ensure that open space gained through cluster development permanently protects environmental resources. 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.

	<p>FPWFP – PWFP makes up approximately 20% of the 39%. Why was Marine Corps Base Quantico excluded from these #'s but PWFP not excluded? PWFP is federal land, owned and operated by the NPS.</p>
<p>ACTION STRATEGIES:</p>	
<p>1. Amend the Zoning Ordinance to increase open space requirements.</p>	<p><i>Previously EN Policy 1 AS 6 of existing text</i></p>
<p>1. Encourage cluster development to protect contiguous natural open space, as defined by the Zoning Ordinance.</p>	
<p>2. Amend the open space requirements in the Zoning Ordinance to ensure preservation/provision of open space within all developments.</p>	<p><i>Previously EN Policy 1 AS 7 in existing text</i></p>
<p>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.</p>	<p>NAIOP/NVBIA – After “natural area,” add the phrase “or as an active recreation area if designated as such an area on the subdivision plan.”</p> <p>MIDCO - 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).</p> <p>PWCA – Oppose developer’s request to revise the definition of Protected Open Space to include Park</p>

	<p>Authority owned properties as equivalent to conservation easements. This would make a significant difference to the Open Space Chapter, which would then need to be reviewed.</p> <p>Dedication to Park Authority does not ensure preservation of environmental resources or management as a natural area.</p> <p>PWSWCD – Support “permanently protected.”</p> <p>NHS – What is the definition of a natural area? Too broad. Too constraining. Reword to read: Amend the cluster ordinance to ensure that open space is permanently protected and managed, as defined in the Parks, Open Space and Trails Chapter of the Comprehensive Plan.</p>
<p>3. Amend the <u>DCSM Zoning Ordinance</u> to ensure that <u>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.</u></p> <p><u>Amend the Zoning Ordinance to ensure that a minimum 50-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, and private lands with conservation easements.</u> (PW)</p> <p><i>Draft text (not published)</i> <i>Amend the Zoning Ordinance to ensure that a minimum of a 50/100 foot buffer is required</i></p>	<p>MIDCO - “Setback for buildings” might work better than “buffer.” Creating a wide buffer or setback adjacent to public land has a real public purpose.</p> <p>PWCA – Strongly support. Note that this action strategy affects just new development. Including a 100-foot buffer adjacent to public parkland and conservation easements is do-able for undeveloped land. Buffers mitigate impacts between neighbors. Including this policy in the Zoning Ordinance will ensure that federal, state and local public investments for land conservation</p>

~~on new development adjacent to existing public lands with passive recreational uses, public lands with conservation areas, public lands with historic sites, and private lands with conservation easements.~~

land are not abandoned in the development process.

FPWFP concurs that the buffer would be most effective at 100 feet.

NAIOP/NVBIA – Delete. This means that a neighbor could place an easement on his land and by doing so, prohibit uses on 50 to 100 feet of a neighbor’s land without compensation.

NHS – Define buffer. Can this be mowed lawn? 100 feet is also a significant amount if held by a small acreage landowner. What does that do to property value next to a landowner that establishes a conservation easement on his land? Could be devastating to many PWC residents, including those of small business farmers and horticulturists.

4. Amend the Zoning Ordinance and/or DCSM to prohibit the establishment of ensure that proffered conservation and preservation areas shall not be allowed on residential lots.

MIDCO - Retain as written. To do otherwise creates a virtually unenforceable imposition on homeowners.

PWCA – Strongly support the current text. Conservation areas located on private property restrict the use of private property and create an enforcement nightmare for County government.

	<p>NAIOP/NVBIA – Either delete in its entirety or delete the word “not” or revise to read: shall not be allowed on residential lots unless at least 40 feet is provided between said areas in the rear of the house footprint and 15 feet is provided between said areas and the side of the house footprint to allow room for maintenance and a rear deck.</p> <p>NHS – Does this definition include lots of all sizes? 1 acre, 5 acres, 10 acres, 100 acres, etc? Please define as this has potentially huge impact if not properly defined.</p>
<p>5. <u>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.</u></p>	
<p>6. <u>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.</u></p>	<p>FPWFP – Wouldn’t these policies also protect and enhance property values?</p>
<p>7. <u>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.</u></p>	<p>FPWFP – Wouldn’t these policies also protect and enhance property values?</p> <p>LOCCA –The County should promote conservation and land-use practices, including such tools as conservation easements, that target potentially</p>

	<p>savable open space and rural viewscales.</p> <p>PWCA – Support.</p> <p>PWCA – Strongly oppose developer’s request to revise the definition of Protected Open Space to include Park Authority owned properties as equivalent to conservation easements. Dedication to Park Authority does not ensure preservation of environmental resources or management as a natural area.</p> <p>NAIOP/NVBIA – Revise to include dedication of fee simple ownership to the Park Authority as an option equivalent to conservation easements.</p>
<p>8. <u>The County shall review and implement opportunities for a Purchase of Development Rights (PDR) Program.</u></p>	<p>PWCA – 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.</p>
<p>9. <u>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.</u></p>	

<p>10. Establish <u>and continue</u> partnerships with local agencies and organizations to initiate and provide public information programs <u>each year</u> aimed at conserving lands in the watershed through civic engagement community stewardship.</p>	<p>FPWFP – The NPS is starting to initiate citizen science programs. This would include such programs as stream health assessments by volunteer groups.</p> <p>NHS – Partnership not necessary for local organizations to provide public information programs. Encouragement is free, partnership is not. Replace “establish” with “encourage.”</p>
<p>11. Investigate the benefits of establishing <u>involving</u> a private conservancy for the purpose of purchasing privately held lands for preservation purposes and seeking perpetual conservation easements to preserve open space.</p>	<p><i>Previously EN Policy 12 AS 4 in existing text</i></p>
<p>12. Continue the progress towards <u>Support initiatives promoted by the County’s Trails and Blueways Council to establishing</u> a Countywide <u>trails and corridors greenway and path system</u> through the voluntary donation of land and conservation easements from interested property owners, as a means of environmental protection.</p>	<p><i>Previously EN Policy 11 AS 4 in existing text</i></p> <p>NHS – As a member of the Prince William County Trails and Blueways Council, I prefer the Committee’s expanded support of use of parkland and trail use easements as well. Reword to read: Support initiatives promoted by the County’s Trails and Blueways Council to establishing Countywide blueway accesses and multi-use trail systems through use of County parkland, the voluntary donation of land and conservation easements, and donation of public trail easements from interested property owners.</p>

<p>13. <u>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.</u> (Relocated from EN-15, AS3)</p>	
<p>CLIMATE & AIR QUALITY POLICIES AND ACTION STRATEGIES</p> <p>EN-POLICY 4: <u>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.</u></p>	<p><i>Previously EN Policy 3</i></p> <p>MIDCO – Restate to read Collaborate with State and regional entities in identifying and implementing strategies to monitor and improve air quality.</p>
<p>ACTION STRATEGIES:</p> <p>1. <u>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.</u></p>	<p>MIDCO – add “other entities” before “within the County.”</p>
<p>2. <u>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.</u></p>	<p>FPWFP – PWFP may be a good location for an air quality station, as a potential control site for the area.</p> <p>MIDCO – Restate to read: Analyze existing locations of air quality monitoring sites and suggest additional locations where COG and the Virginia Department of Environmental Quality (DEQ) might establish additional air quality monitoring stations in the County.</p>

<p>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).</p>	
<p>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.</p>	<p>MIDCO – Restate to read: Where applicable, review and consider the air quality impacts of public utilities and private industries in conjunction with the rezoning and/or special use permit application process.</p>
<p>4. <u>Continue to maintain regional COG</u> 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).</p>	<p>MIDCO – Restate to read: Maintain and extend 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).</p>
<p>5. <u>Develop a process to determine if adequate controls, including new technologies for disposing of compact fluorescent light bulbs,</u> 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.</p>	<p>MIDCO – Restate to read: Develop a process to determine whether 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, medications, and other harmful chemicals from entering the trash stream.</p> <p>PWSWCD – If you are going to address proper disposal of the bulbs might we also address proper</p>

	disposal of medications and other chemicals, in the appropriate section?
<p>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.</p>	<p>MIDCO – Change “review” to “conduct.”</p>
<p>7. Encourage the reduction of emitted gas pollutants from point sources.</p>	
<p>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.</p>	<p>MIDCO – Revise to read: Ensure that private development plans, and County projects preserve and/or re-establish 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. Where appropriate, Ensure that development plans, encourage the Virginia Department of Transportation (VDOT) and County projects to <u>developers to preserve and/or re-establish</u> vegetative buffers along arterial roadways as a means of filtering and absorbing pollutants, <u>and reducing noise pollution.</u></p> <p><u>Encourage</u> the Virginia Department of Transportation (VDOT), <u>County Transportation Department,</u> and developers to preserve <u>and/or re-establish</u> vegetative buffers along arterial roadways as a means of filtering and absorbing pollutants. (PW)</p>	
<p>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.</p>	<p><i>Last sentence covered in Energy section.</i></p> <p>MIDCO – Revise to read: Developments, including and not limited to transit-oriented and mixed use</p>

	<p>projects, to provide the appropriate support facilities for the use of public transit and non-motorized means of transportation, such as bus shelters, dedicated bicycle lanes, bicycle parking facilities, trails, crosswalks, sidewalks, etc.</p>
<p>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.</p>	<p><i>Relocated to EN Policy 13 AS 10</i></p>
<p>10. Locate future public facilities, including schools, parks and libraries, to maximize pedestrian access and reduce air pollution.</p>	
<p>10. 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. Design and construct buildings and associated landscapes to conserve use energy and water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants. (PW)</p>	<p>MIDCO - Retain and consider expanding this strategy in order to include other factors that may be involved in minimizing energy consumption.</p> <p>PWCA – Support. Efforts to maximize energy efficiency are best considered early in the process. Comp Plans for neighboring jurisdictions include similar text. The Fairfax Comp Plan specifically includes this under the Objective titled “Design and construct buildings and associated landscapes to use energy and water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants.”</p> <p>NAIOP/NVBIA – Delete, not appropriate for the Comp Plan.</p>

	<p>NHS - Define or provide an example of where this is being successfully employed before mandating for Prince William County. This tells me that all development in PWC will be in straight line rows that tend to be unsightly and low demand for both residential and business properties.</p>
<p>TOPOGRAPHY & SOILS POLICIES AND ACTION STRATEGIES <u>WATERSHED PLANNING AND SUSTAINABILITY POLICIES</u></p> <p>EN-POLICY 4: Protect and manage the County’s soils and natural vegetation.</p> <p>EN-POLICY 5: Protect and manage the County’s soils and natural landscape, <u>to retain and enhance</u> their associated economic, aesthetic and ecosystem benefits. (PW)</p> <p>ACTION STRATEGIES:</p>	<p>MIDCO – Change to read: Protect and manage the County’s soils and natural landscape <u>to enhance</u> their associated economic, aesthetic and ecosystem benefits.</p>
<p>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:</p> <ul style="list-style-type: none"> • 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. Preservation/conservation of the County’s green infrastructure is important.

Accordingly, discourage/prohibit development contiguous to a significant stream in the following areas:

- All areas of 25% greater slopes contiguous to the 100-year floodplain.
- If no 100-year floodplain is present, 25% or greater slopes approximately 50 feet of the stream channel.
- All areas of 15% or greater slopes where shrink-swell soils exist.
- Discourage development in all areas of 25% or greater slopes up to a distance of 100 feet from the edge of the significant non-RPA stream.

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.
- 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.

PWCA – Strongly 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 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.

FPWFP - Prohibit not discourage.

MIDCO – We support this strategy. Revise to read (note that our effort to clarify it may not be an improvement):

- If no 100-year floodplain is present, 25% or greater slopes starting within 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.

NAIOP/NVBIA – Limiting density, when proven engineering solutions are available, would have an unwarranted negative impact on land values and tax revenue. Revise to read: In areas contiguous to significant streams, according to the following, encourage cluster development where practicable and employ appropriate engineering and environmental solutions that address issues including, but not limited to, slope instability, shrinking and swelling of soils, and soil erosion, as they relate to the disturbed area.

- All areas of contiguous 25% greater slopes contiguous to the 100-year floodplain with a drainage area greater than 100 acres, up to 200 feet in width (per side) from the stream edge;
- If no 100-year floodplain is present, all areas of contiguous 25% or greater slopes starting within 50 feet of the intermittent or perennial stream channel, up to 200 feet in width (per side) from the stream edge;
- 100-year floodplains with a drainage area greater than 100 acres; and
- A buffer of 25 to 50 feet in width from

	<p><u>intermittent streams with exact dimensions based upon land use compatibility.</u></p> <p>NHS – Delete term significant stream and use Chesapeake Bay Preservation Act terminology.</p>
<p>2. <u>Amend the DCSM to require identification of and limit development on—and protection of all areas with shrink/swell soils, 15% slopes with an erodibility factor K of greater than 0.4, critical slope areas, and/or with underlying marine clays. Where impacts are unavoidable, require mitigation.</u></p>	<p>MIDCO - 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.</p> <p>NAIOP/NVBIA – Replace with: Incorporate into the DCSM the following Building Development Policies and Procedures:</p> <ul style="list-style-type: none"> • 1.13 Soils – Use of Lime during Construction, dated September 4, 2007; and • 1.13.5 Soils – Expansive Soil, dated January 9, 2009. <p>For the full, extensive explanation of concerns, see NAIOP/NVBIA April 28 comments p. 12-14.</p>
<p>3. <u>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 area and any appropriate mitigation.</u></p>	<p><i>In Comp Plan since 2003.</i></p> <p>PWCA – Strongly support. The rezoning stage is the appropriate time to identify which natural resources are proposed for preservation and how this would be accomplished. The Environment</p>

	<p>Chapter should articulate this policy, loud and clear.</p> <p>PWCA – Park Authority ownership does not protect environmental resources, is not equivalent to conservation easements and does not qualify as Protected Open Space. It is not an appropriate solution for preserving environmental resources or mitigating environmental impacts.</p> <p>NHS – Define preservation/conservation area.</p> <p>NAIOP/NVBIA – After the phrase, “above will be set aside as a preservation/ conservation area,” add the following text, “outside of the proposed limits of disturbance. If such areas are proffered to be dedicated to the Park Authority, then a bonus density equal to 10% times the fraction of the site area that this represents shall be granted (e.g., if the dedication area is 20% of the site and the density range in the Comprehensive Plan is 6 to 10 d.u./acre, then the range after bonus is 6.12 to 10.20.”</p>
<p>4. Use native plants that are adapted to local soil and weather conditions when re-vegetating disturbed areas.</p>	<p>FPWFP - What about regulations for weed free soil?</p>
<p>5. Develop, in coordination with the Community Design Plan general Amend the design</p>	<p>Previously EN Policy 5 AS 6 in existing text</p>

<p>evaluation guidelines, criteria, and techniques included in the Community Design Chapter to better 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.</p>	
<p>6. Where toxic-hazardous waste soil contamination is suspected, request <u>require</u> 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.</p>	
<p>7. Prohibit development at toxic waste sites to the extent provided by law. If environmental clean-up efforts have been conducted at hazardous toxic waste sites to meet state and federal standards, development can be proposed. <u>Actively support and encourage “brownfield” redevelopment, where appropriate.</u></p>	<p><i>Need to define brownfield in Glossary; (EPA definition)</i></p>
<p>8. Monitor the effectiveness of the Prince William County Erosion and Sediment Control Ordinance and upgrade as appropriate.</p>	
<p>9. <u>For properties that include streams, jurisdictional wetlands and waters, tidal or non-tidal wetlands, headwaters, 15% or greater slopes, or unique habitats of special concern, environmental features,</u> 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.</p>	<p>MIDCO – Add “increased buffer widths” after “including.”</p> <p>PWCA – Strongly support higher standards for erosion controls, which are considered routine and ordinary in surrounding jurisdictions.</p> <p>NAIOP/NVBIA – Revise to read: For sites exceeding ten acres in size and those with steep slopes and erodible soils, require a preconstruction meeting and regularly scheduled meetings during construction between the site engineer, contractor, and County inspectors to determine</p>

	<p>site-specific methods for erosion control. Methods used will include early seeding and other means of protecting disturbed soils from raindrop impact, as well as providing structural controls in series both within the site and along the perimeter to provide additional removal efficiency and backup for overloaded controls. The DCSM will be revised to provide specific requirements.</p> <p>NHS – Use Chesapeake Bay Preservation Act terminology.</p>
<p>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.</p>	<p><u>PSWCD – Retain “leadership standards.”</u></p> <p><u>NHS – Delete “leadership.”</u></p> <p>PWCA – Strongly support. Government-initiated projects should meet or exceed the County’s minimum standards. The county should ensure that government projects lead by example and minimize environmental harm, demonstrating sensitivity to the setting. In particular, close attention should be paid to construction of new roads, schools, and active recreation facilities.</p>
<p>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.</p>	<p>NHS – Change “leadership standards” to “leadership.”</p> <p>PWCA – Strongly support.</p>

<p>10. Request <u>courtesy review of</u> erosion control plans for all federal and state projects in Prince William County.</p>	<p>MIDCO - Retain as written – This is a good idea and should not be objected to by federal and state agencies.</p> <p>PWCA – Support.</p> <p>NAIOP/NVBIA – Delete. This could have the effect of dampening activities by the Federal and State government in Prince William County – hurting our local economy.</p> <p>PWSCD – Could the PWC staff handle this increase in workload? Is this a good use of tax dollars or is this redundancy necessary to protect the environment?</p>
<p>13. Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on developing properties.</p> <p><u>Amend the Zoning Ordinance to establish minimum standards and thresholds that limit clearing and grading on developing properties.</u></p> <p><u>Keep this. It is not the same as EN-5, AS-16 (PW).</u></p>	<p>MIDCO – Revise to read: 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>PWCA – Support.</p> <p>NAIOP/NVBIA – Delete. This already exists. All</p>

	<p>projects disturbing more than 2,500 square feet must obtain a permit from the County. Reducing this further will impact our County’s competitive position.</p>
<p>11. <u>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.</u></p>	<p>LOCCA – The Comprehensive Plan should have clear descriptors of the Potomac River 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.</p>
<p>12. <u>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.</u></p>	
<p>13. <u>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.</u></p>	<p>MIDCO – Combine with AS 13, above.</p> <p>PWCA – 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.</p>
<p>14. <u>Update the DCSM to preclude the use of all invasive and non-native species.</u></p>	<p>PWSWCD – What if a non-native plant is better for erosion control? Ex. Small-acreage farms use KY31 Tall Fescue.</p>

	<p>NHS - What is the definition of invasive? I believe that all non-native species are invasive. Does this AS include residential properties?</p>
<p>15. <u>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.</u></p> <p>(Moved from EN Policy 15)</p>	
<p>16. <u>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.</u></p> <p>(Moved from EN-15, AS1)</p>	
<p>17. <u>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.</u></p> <p>(Moved from EN-15, AS2)</p>	
<p><u>SURFACE & GROUNDWATER POLICIES AND ACTION STRATEGIES</u></p>	<p><i>Previously EN Policy 5 in existing text</i></p>

<p>EN-POLICY 6: Maintain or enhance the integrity of surface bodies of water. (lakes, ponds, rivers, and streams) and watersheds.</p>	
<p>ACTION STRATEGIES:</p>	
<p>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.</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>NHS – Delete “final.”</p>
<p>2. Establish a program to monitor the effectiveness of the implementation of Chesapeake Bay Regulations.</p>	
<p>2. Locate away from the County’s water bodies those nonresidential activities that use, store, or manufacture significant quantities of hazardous toxic substances.</p>	<p>FPWFP – Needs more definition, be specific.</p> <p>MIDCO – Add “transport” after “store.”</p>
<p>3. 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. <u>and include commitments for the pretreatment of storm water quality to prevent contamination.</u></p>	
<p>5. To the extent permissible under law, require industries and utilities to monitor for</p>	

<p>chemical leaks.</p>	
<p>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.</p>	<p><i>Relocated to EN Policy 5 AS 5</i></p>
<p>4. 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.</p>	<p>PWSWCD – Why was this deleted?</p> <p>NHS – Restore this Action Strategy. Encouragement of farming conservation methods is important to preservation of farmland, a major portion of the environment.</p>
<p>5. Continue and promote a local, coordinated “Adopt-a-Stream” program.</p>	<p>PWSWCD – Why was this deleted? Suggest that the name AAS be deleted but include in conjunction with PWSWCD educate citizens about the importance of streams and function of storm drains, encourage installation/maintenance of buffers, facilitate litter removal from waterways,</p> <p>NHS – Why deleted? DCR encourages this: It's up to each of us to keep Virginia's rivers, streams, lakes and bays clean. That's the idea behind DCR's Adopt-A-Stream Program (AAS).</p>
<p>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.</p>	<p><i>Relocated to EN Policy 10 AS 6</i></p>

<p>10. Encourage cluster development in areas of the County that have steep slopes and highly erodible soils.</p>	<p><i>Relocated to EN Policy 8 AS 1</i></p>
<p>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.</p>	
<p>6. Require adherence to the following guidelines for determination of density or intensity of development:</p>	
<p>RESIDENTIAL</p> <p>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, which includes the 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; jurisdictional wetlands and waters 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>MIDCO - 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>PWCA – The formulas, as proposed, are fair and balanced. “Semi-Rural Residential Area” should be added after “Suburban Area.”</p> <p>NAIOP/NVBIA – Revise to read:</p> <p>A. On property encumbered with areas of 100-year floodplain or Chesapeake Bay RPAs the allowable intensity is determined based</p>

on the floor area ratio (FAR) or dwelling unit density 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, subject to the bonus provisions described below.

B. The existing or proposed density range shall be increased by a factor of 10% on a pro rata basis for all such land areas described above, other environmentally sensitive land areas, and any active recreational areas proposed for dedication to the Park Authority.

PWCA – Park Authority ownership does not protect environmental resources, is not equivalent to conservation easements and does not qualify as Protected Open Space. It is not an appropriate solution for preserving environmental resources or mitigating environmental impacts.

PWSWCD – Is there anywhere in this document

	<p>that we would want to ask that PWC consider the amount of usable pasture acreage (not house, septic, well, driveways, RPA, etc.) when determining allowable stocking rates?</p> <p>NHS – Define Environmental Resource area.</p>
<p>NON-RESIDENTIAL</p> <p>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.</p>	
<p>7. <u>Establish partnerships with local agencies and organizations to</u> Ddevelop and distribute public service information to reduce nutrient loading in stormwater runoff from yards and farms.</p>	<p>MIDCO - Consider NAIOP/NVBIA proposed language for this strategy.</p> <p>PWSWCD – Incorporate education on the function and protection of storm drains.</p> <p>NHS – Replace “yards and farms” with “residential, industrial, and agricultural land use.”</p>
<p>8. 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>	

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

10. 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 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.

Except where a crossing is unavoidable, and to the extent practicable due to factors such as steep slopes, mature trees and sensitive soil types, such as marine clays, the waterside edge of public utility easements shall be located at least 40 feet from perennial streams and 25 feet from significant non-RPA streams. Revise the DCSM to include mitigation measures when utilities must be located closer than said distances. Mitigation may include 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.

(Check with Service Authority)

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, wetlands and other water bodies. 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

Previously EN Policy 9 AS 1 in existing text.
Review by Service Authority pending.

MIDCO - NAIOP/NVBIA proposed wording might be OK here. Could the Service Authority be consulted for language?

NAIOP/NVBIA – Revise to read: Except where a crossing is unavoidable, and to the extent practicable due to factors such as steep slopes, mature trees and sensitive soil types, such as marine clays, the waterside edge of public utility easements shall be located at least 40 feet from perennial streams and 25 feet from intermittent streams. When such utilities must be located closer than said distances, the DCSM shall be revised 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.

NHS – Use Chesapeake Bay Preservation Act terminology

<p><u>by PWCSA) to protect the pipe in the case of future lateral stream migration. (PW)</u></p> <p>The existing Comp Plan language is stronger than that proposed by staff in yellow above. (PW)</p>	
<p><i>Additional Action Strategy Suggestion</i></p> <p>11. Update the DCSM to include a protocol for defining Significant Non-RPA Streams 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.</p>	<p>NHS - Encourage restriction of residential lawn watering and car washing where runoff is not filtered prior to entering stormwater drains.</p> <p>NAIOP/NVBIA – Develop an Ordinance to regulate the use of lawn fertilizers containing phosphorous in a manner similar to that done by the City of Annapolis. The Annapolis legislation allows phosphorous to be used on lawns during their first growing season, as well as when used and applied in accordance with soil tests that determine if/how much phosphorous is needed. Otherwise, you must use no-phosphorous fertilizers on lawns.</p>
<p>EN-POLICY 7: <u>Manage watersheds through a comprehensive watershed management planning-based approach.</u></p>	<p><i>New Policy</i></p> <p>PWCA – Strongly support current text promoting and defining parameters for Watershed Management Planning. Formal approval of completed watershed plans would ensure implementation, including through CIP. Why invest in watershed management planning if you don't intend to use the information?</p>
<p>ACTION STRATEGIES:</p>	<p>FPWFP – PWFP and Quantico Marine Base (QMB)</p>

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
- 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 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

have watershed plans for the Quantico Creek and Chopawamsic Creek Watersheds.

FPWFP – VA Science Museum has been working on a detailed model showing the effects of impervious land covers, among other cover types and model inputs, on water quality. Refer back to Dr. Eugene Maurakis.

PWSWCD – Downstream water resources: Is it helpful to also consider the implementation of soil and water quality conservation plans on farm (buffers, conservation tillage and other BMPs)?

NHS – Replace “include public input” with “solicit public input.” Not all public input will be relevant or acceptable.

NHS – I assume here that watershed is the Chesapeake Bay area watershed? Use Chesapeake Bay Preservation Act terminology.

<ul style="list-style-type: none"> • <u>Identify solutions for protecting and restoring streams and other natural resources in the watershed</u> • <u>Identify implementation mechanisms, such as amendments to the Open Space and Corridors Map.</u> • <u>Include a mechanism to monitor progress.</u> 	
<p>2. <u>Present completed watershed management plans to the Board of County Supervisors for adoption and consider these in making land use decisions, and the CIP.</u></p>	
<p>3. <u>Utilize watershed plans to define the condition of County streams and waterways, and define streams in need of restoration. areas that are prioritized for restoration or improvement – Critical Stream Areas (CSAs). Produce a CSA Overlay map to include streams in need of restoration. areas that require restoration or improvements due to impairment.</u></p>	<p>LOCCA – Support. Priority stream corridors, such as Neabsco Creek or Quantico Creek that need special priorities for protection and restoration need to be identified.</p>
<p>4. <u>At the time of Rezoning and Special Use Permit, seek commitments to improve conditions within Critical Stream Areas of streams in need of restoration affected by the proposed project and other issues identified in the watershed plan. improve conditions in proximity to project application or provide restoration project.</u></p>	<p>NHS – Use Chesapeake Bay Preservation Act terminology.</p>
<p>5. <u>Expand public input opportunities during the watershed management planning process. 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.</u></p>	<p>LOCCA – Support. Establish An Environmental Commission to Monitor and Implement the Environmental Chapter and Other Strategic Elements of the Comprehensive Plan</p>
<p>EN-POLICY 8: <u>Protect waterways and downstream properties from stormwater runoff.</u></p>	<p>New Policy</p>

<p>(Replaced with new EN-Policy 8 on page 61)</p> <p>ACTION STRATEGIES:</p> <p>(All new, starting on page 61)</p>	<p>MIDCO - Retain.</p> <p>NHS – Follow DCR standards, definitions, and strategies where applicable through reference to the DCR.</p>
<p>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, in areas of the County that have steep slopes and highly erodible soils.</p>	<p><i>Previously EN Policy 5 AS 10 in existing text</i></p> <p>MIDCO - Retain.</p> <p>PWCA – If builders insist they have the engineering expertise to cope with unstable soils, require builders to bond their projects for 20 years, so the potential costs of retrofitting after slope failure will be absorbed by the developers, and will not be transferred to the public. Expensive lessons have already been learned, there is no reason for taxpayers to provide free insurance to developers of high-risk properties.</p> <p>PWCA – For good reasons, builders avoided the sites in Prince William County with unstable soils until almost all of the land east of Route 1 was already developed. These two action strategies reflect the reality that soil disturbance in some places is excessively risky, and should be avoided/minimized.</p> <p>PWCA – Clustering development to avoid high-risk</p>

	<p>areas is common sense, and a reasonable action strategy in Prince William. Permanent protection for the resources conserved through cluster development is needed to ensure that the conservation values are preserved over time.</p> <p>NAIOP/NVBIA – Revise to read: In areas of unstable soils, including marine clays, highly erodible, and other Category 3 soils, encourage cluster development where practicable and employ appropriate engineering and environmental solutions that address issues including, but not limited to, slope instability, shrinking and swelling of soils, and soil erosion, as they relate to the disturbed area.</p>
<p>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.</p> <p>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.</p> <p>(This will be addressed as part of watershed planning efforts. New stormwater regulations will protect downstream properties more satisfactorily than current regulations.)</p>	<p><i>Previously EN Policy 6 AS 3 in existing text</i></p> <p>MIDCO - Retain.</p> <p>PWCA – The county should measure the environmental impacts of new development in the real world, rather than rely exclusively upon mathematical models. This chapter of the Comprehensive Plan is the appropriate place to establish, as county policy, that the county should create more-detailed procedures for conducting field observations.</p>

	<p>NAIOP/NVBIA – Delete for three reasons:</p> <ol style="list-style-type: none"> 1. There is simply not enough technical description to understand precisely what is requested. 2. The current requirements of adequate outfall under DCR’s Minimum Standard #19 require a more extensive analysis than proposed herein. 3. The proposed DCR stormwater regulation will protect downstream waters significantly better than what is currently being done.
<p>3. Encourage higher standards for stormwater management. 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.</p>	<p><i>Previously EN Policy 7 AS 1 in existing text</i></p> <p>MIDCO - Retain.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p> <p>NAIOP/NVBIA – Delete, they conflict and will be superseded by DCR regulations.</p>
<p>4. At the time of rezonings or special use permits, seek commitments to manage stormwater to meet one-year, 10-year, and 24-hour storms.</p>	<p>MIDCO - Retain.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p>

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

	<p>NAIOP/NVBIA – Delete, they conflict and will be superseded by DCR regulations.</p>
<p>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).</p> <p>(A state/federal requirement. The State typically doesn't permit this.)</p>	<p>MIDCO - Retain.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p> <p>NAIOP/NVBIA – Delete, they conflict and will be superseded by DCR regulations.</p>
<p>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.</p>	<p>MIDCO - Retain.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p>
<p>7. Encourage enhanced extended detention.</p>	<p>FPWFP – Have levels of enhancement depending on the location and adjacent or downstream resources.</p> <p>MIDCO - Retain.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p> <p>NAIOP/NVBIA – Delete, they conflict and will be</p>

	<p>superseded by DCR regulations.</p>
<p>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.</p>	<p>MIDCO - Retain. We would assume that such wetlands would be shown on the proffered development plan.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p> <p>NAIOP/NVBIA – Delete, they conflict and will be superseded by DCR regulations.</p>
<p>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, particularly up-slope of natural resource areas, such as wetlands and streams.</p>	<p>MIDCO - Retain. Again, we would assume that the “commitments” would show up on the proffered development plan.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p> <p>NAIOP/NVBIA – Delete last sentence (Avoid disturbance of steep slopes...). Add: Where practicable, avoid disturbance of steep (>25%) slopes, particularly up-slope of natural resource areas, such as wetlands and streams.</p>
<p>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</p>	<p><i>Add definition for level spreaders to Glossary.</i></p>

<p><u>through stream buffers.</u></p>	<p>MIDCO - Retain.</p> <p>PWCA – The county needs these action strategies in order to respond to state/Federal mandates to reduce pollution flowing to the Chesapeake Bay.</p> <p>NAIOP/NVBIA – Delete, they conflict and will be superseded by DCR regulations.</p>
<p>11. Identify the location of all county-maintained stormwater facilities and county-inspected low impact development (LID) projects on the County Mapper.</p>	
<p><u>EN-POLICY 8: In preparation for new State stormwater regulations and Federal Chesapeake Bay TMDL requirements, develop new standards for Stormwater Management.</u></p>	
<p>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.</p> <p>2. Amend the DCSM to manage stormwater, when appropriate, to meet the 1-year, 10-year, and 24-hour storm event.</p> <p>3. Amend the DCSM to establish and encourage low impact development (LID) standards, including, where appropriate:</p> <ul style="list-style-type: none"> • 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) <p>(Need examples)</p>	

<p>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.</p> <p>5. Amend the DCSM to develop standards for acceptable retro-fit techniques for re-development and develop incentives to expand and encourage their use.</p> <p>6. Identify the location of all county-maintained stormwater facilities and county-inspected LID projects on the County Mapper.</p> <p>7. Amend the DCSM to encourage reductions in impervious surfaces, including the following:</p> <ul style="list-style-type: none"> • 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 <p>8. Amend the DCSM Zoning Ordinance to prohibit direct discharge of untreated stormwater from a developed site into jurisdictional wetlands and waters. Ensure discharge does not exceed non-erosive velocities.</p> <p>(Moved from EN-10 AS2 and edited)</p>	
<p>EN-POLICY 9: Limit the amount and extent of impervious surfaces to protect water quality.</p> <p>(Deleted this policy and combined parts of action strategies below into new EN-Policy 8 above)</p> <p>ACTION STRATEGIES:</p>	<p>Previously EN Policy 6</p>
<p>1. Encourage the minimization of the amount of impervious surfaces of development and utilize <u>Require acceptable retrofit techniques in redevelopment in order to minimize</u></p>	<p>MIDCO - Retain. The consultants to the developers think this is bad because it may make</p>

<p>stormwater runoff, through the use of appropriate low impact development techniques, for example as outlined in the Center for Watershed Protection manuals.</p>	<p>redevelopment not economically feasible. This action is necessary, but the County might have to provide guidance on what are acceptable retrofit techniques.</p> <p>NAIOP/NVBIA – Delete. This can prevent redevelopment from being economically feasible. It is also being addressed by the new DCR regulations.</p>
<p>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., for example as outlined in the Center for Watershed Protection manuals.</p>	<p>PWCA – NAIOP/NVBIA suggest developers should be granted a bonus density in order to incentivize use of one technology, pervious surfaces. This is a slippery slope. The county should focus on performance measures, especially controls on quantity and quality of stormwater leaving a site after development. Developers should have the flexibility to choose the technology they prefer for minimizing runoff, so long as the performance standards are met.</p> <p>FPWFP - Perhaps the county should consider establishing a county goal expressed in a percentage for newly developed parking areas to have pervious surfaces.</p> <p>MIDCO – Retain. This is an excellent idea and will allow groundwater recharge instead of runoff. It is used in high quality developments where</p>

	<p>sustainability is important. Recommend “require” instead of “encourage” unless costs are prohibitive. County could also offer some incentive for doing this.</p> <p>NAIOP/NVBIA – Add following to end of sentence: ...by providing a pro rata density bonus equal to 10% times the portion of the site when pervious materials have been used to replace surfaces that traditionally would be impervious.</p>
<p>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.</p>	<p><i>Relocated to EN Policy 8 AS 2 and revised</i></p>
<p>3. Continue to evaluate and reassess the DCSM for minimum parking requirements.</p>	<p><i>James City County has this.</i></p>
<p>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.</p>	<p><i>Relocated to EN Policy 10 AS 4</i></p>
<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><i>Structured parking has been in Environment and Land Use Chapters of the Comp Plan since 2003.</i></p> <p>MIDCO - Recommend removing “mixed-use” because any type of high density development should be encouraged to include structured parking (example: IKEA). As the County continues to grow with increased densities, structured</p>

	<p>parking will become more feasible.</p> <p>NAIOP/NVBIA – Delete “structured parking for high-density mixed use developments.”</p>
<p>5. At the time of rezoning or special use permit, require structured parking for high density mixed use developments.</p>	<p><i>Combined with AS 4 above</i></p>
<p>EN-POLICY 10: Promote Ensure the preservation and use of natural ground surface site features which facilitate the effective management of stormwater runoff.</p> <p>Covered in EN Policies 5 and 8</p> <p>ACTION STRATEGIES:</p>	<p><i>Previously EN Policy 7</i></p>
<p>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.</p>	<p><i>Relocated to EN Policy 8 AS 3</i></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>(Covered in EN-5, AS2)</p>	<p>PWCA – The county may not have legal authority to require mitigation within the County. If the County Attorney confirms this assumption, language should be revised to encourage mitigation within the County.</p> <p>MIDCO – Revise to read: At time of rezoning or special use permit, emphasize preservation and protection of existing jurisdictional and non-</p>

jurisdictional wetlands on properties proposed for development.

MIDCO - 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.

NAIOP/NVBIA – Delete for several reasons:

- a. The statement, “emphasize preservation of wetlands over mitigation,” is not a logical connection. Mitigation, pursuant to Section 404 (b)(1) of the Clean Water Act is a three-step sequential process of avoidance, minimization, and then compensation.
- b. Requiring mitigation within the county subverts the watershed-based regulatory permit processes for mitigation banking established by the COE and DEQ.
- c. Virginia Code 62.1-44.15.20.E specifically states that “E. No locality may impose wetlands permit requirements duplicating state or federal wetlands permit requirements.” This proposed strategy is contrary to state law.

<p>2. Maintain or establish areas of natural vegetation downstream of disturbed soils to help filter sediments and other pollutants.</p>	
<p>2. Amend the DCSM Zoning Ordinance to prohibit direct discharge of untreated stormwater into wetlands. Ensure discharge does not exceed non-erosive velocities.</p> <p>(Moved to EN-8, AS8)</p>	<p>PWCA – Support. Direct discharge of stormwater into wetlands will reduce the value of the wetlands, subsidizing development at the expense of the environment. In the Environment Chapter of the Comprehensive Plan, it is appropriate to focus on action strategies that will enhance the county’s environmental assets.</p> <p>MIDCO - This may be difficult to accomplish at the zoning stage; would the DCSM and better enforcement be involved in improving these practices?</p> <p>NAIOP/NVBIA – Delete, it is already addressed by existing and proposed state regulations.</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, hydrology to sustain the wetland.</p> <p>(Moved to EN-5, AS2 and edited)</p>	<p>MIDCO - 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>NAIOP/NVBIA – Delete. Virginia Code 62.1-44.15.20.E specifically states that “E. No locality</p>

	<p>may impose wetlands permit requirements duplicating state or federal wetlands permit requirements.” This is contrary to state law.</p>
<p>4. At the time of an application for a rezoning or special use permit, seek commitments to use low impact design, where appropriate, including bioretention and the conservation of natural site features, such as wetlands, slopes, Category 3 soils and forested areas, to mitigate the impact of parking areas, for example as outlined in the Center for Watershed Protection Manuals, and encourage structured parking.</p> <p>(Covered in EN-Policy 5 and EN-Policy 8)</p>	<p><i>Previously EN Policy 6 AS 4 in existing text</i></p> <p>MIDCO - 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> <p>NAIOP/NVBIA – Delete. New DCR regulations, expected to be implemented on July 1, 2010, preclude its need. These types of engineering issues need to be addressed in a technical review process under the DCSM – not within the context of this Plan.</p>
<p>5. Encourage the preservation of a natural buffer of existing woodland or forestation area of at least 50/100 feet along each side of all waterways 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.</p> <p>(Moved to EN-5, AS2 and edited)</p>	<p><i>Previously EN Policy 5 AS 9 in existing text; Relocated from EN Policy 6 AS 9;</i></p> <p>PWCA – Strongly support. This is one of the most significant policy statements in the chapter. The County should adopt environmental policies that meet the Clean Water Act requirements at the lowest cost. Vegetated buffers are far more cost-effective than other techniques to remove pollution that has already reached a stream. You don’t need a finance degree to</p>

understand that the cheapest method to meet the state/Federal clean water mandates is to avoid polluting streams in the first place. If you avoid polluting the little streams, then you reduce pollution reaching the “perennial” streams.

MIDCO - Change “Encourage” to “Require.” All wetlands to be protected need a buffer, not only “headwater” wetlands.

LOCCA – 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.

NHS – Use Chesapeake Bay Preservation Act terminology

NAIOP/NVBIA – Delete or revise to read:
Encourage the preservation of a natural buffer of existing woodland or forestation area of at least 25 to 50 feet along each side of intermittent streams and adjacent wetlands areas that are not otherwise protected under the Chesapeake Bay regulations by providing a density bonus of 5% for

	<p>placement of a conservation easement or 10% if said area is dedicated on a fee simple basis to the Park Authority.</p> <p>PWCA –Dedication to Park Authority does not protect environmental resources and is not an appropriate solution for preserving environmental resources.</p>
<p>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.</p>	<p><i>Relocated from Community Design Chapter</i></p> <p>MIDCO - Retain.</p> <p>NHS – This requirement encourages additional impervious surfaces and extra vehicle pollution through additional miles. Has there been any discussion on tradeoffs? This AS seems to be counter to EN policies 4, 5, and 9.</p>
<p><i>Additional Action Strategies proposed</i></p>	<p>NAIOP/NVBIA – The County will develop a partnership 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</p>

	<p>minimization and compensatory mitigation, such as buffer protection and enhancement, as well as stream and wetlands restoration or creation.</p>
<p>EN-POLICY 11: Ensure the protection of the County's groundwater and aquifers.</p> <p>(Policy no longer relevant; Moved retained action strategies into EN-Policy 11)</p> <p>ACTION STRATEGIES:</p> <p>(“Critical Groundwater Areas” is 30-year + term, which has been phased out and is not relevant.)</p> <p>(Move retained strategies into EN-Policy 12, which addresses public drinking water supplies.)</p>	<p><i>Previously EN Policy 8 in existing text</i></p> <p>LOCCA – Support. Approximately 60% of PWC residents rely on clean, safe ground water for their drinking water supply. 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</p>
<p>1. Coordinate with Acquire GIS and other information from the Health Department and State Water Control Board and others to identify Identifying Critical Groundwater Areas (CGAs) and make this information available to the public on the County Mapper.</p>	<p>Add definition of Critical Groundwater Areas (CGAs) to Glossary section.</p> <p>FPWFP - Please request Critical Ground Water Areas (CGA's) for PWFP and use the VA Department of Natural Heritage as a tool for this data.</p> <p>PWC – Support. The county and cities of Manassas/Manassas Park have already been forced to shut down wells that once provided drinking water. It is in our interest to conserve the</p>

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

	<p>groundwater resource, and to educate the general public on the location of Critical Groundwater Areas.</p> <p>MIDCO - Retain.</p>
<p>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.</p>	<p>MIDCO - Change "Encourage" to "Require."</p>
<p>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.</p> <p>(Moved to EN-12, AS7)</p>	
<p>4. Promote the use of secondary containment storage tanks for petroleum products and other hazardous materials, for all development and redevelopment.</p> <p>(Moved to EN-12, AS8)</p>	<p>MIDCO - Change "Promote" to "Require."</p>
<p>5. Review and upgrade, as appropriate, the Best Management Practice and soil and erosion maintenance enforcement program for all types of development.</p>	
<p>6. Conduct a study to predict the pollution content of proposed stormwater management ponds.</p>	
<p>6. Study options to consider the adoption of Develop an ordinance that requires new wells be tested for toxic and radiological substances at the same time that they are being tested for</p>	

<p>bacterial contaminants.</p>	
<p>7. Publish a yearly report on the status of the pollution content of the sediment in existing stormwater management ponds.</p>	
<p>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.</p>	
<p>7. Promote <u>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.</u></p> <p>(Moved to EN-12, AS9)</p>	
<p>8. Encourage <u>Amend the DCSM to require the use of appropriate native vegetation in the stormwater system.</u> that will remove nutrients from the storm flow.</p> <p><u>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. (PW)</u></p>	
<p>9. For new development and retrofits, study and consider increasing landscape requirements around County maintained stormwater facilities.</p>	
<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>PWCA – Support. One low-cost opportunity to reduce nitrogen and phosphorous pollution reaching streams in Prince William is to reduce the</p>

(Moved into EN-14, AS9)

amount of fertilizer than we place on lawns. Outreach to encourage appropriate use of fertilizer in different seasons, and to reduce the amount of fertilizer we use, can help the county meet the Clean Water Act mandates.

LOCCA – 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.

~~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.~~

Addressed in EN Policy 6

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

Previously EN Policy 10 in existing text

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 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. the reservoirs.~~

PWCA – Support. These action strategies would 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.

MIDCO – We are 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

	<p>below and may involve more features than density.</p> <p>NAIOP/NVBIA – Delete. Instead, make sure that the densities on the Long Range Land Use Plan Map reflect what is appropriate in a given area.</p>
<p>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.</p> <p>1. Amend the Zoning Ordinance to include 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:</p> <ul style="list-style-type: none"> • 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 standards for setbacks from reservoirs. –the 300-foot contour line around Lake Manassas and the Fairfax Water Authority easement boundary • Minimum setbacks distance standards 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. 	<p>MIDCO – Support. This important strategy should be retained and strengthened, possibly drawing from some of the strategies set forth below.</p> <p>LOCCA – Support. 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.</p> <p>PWCA – Support. These action strategies would 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</p>

	<p>appropriate.</p> <p>NAIOP/NVBIA – Revise bullets to read:</p> <ul style="list-style-type: none"> • Minimum standards for setbacks from the 300-foot contour line around Lake Manassas and the Fairfax Water Authority easement boundary; and • Requirements that stormwater quality requirements be met either onsite, offsite, within the same drinking water supply watershed, or with payment options (e.g., nutrient offsets, local fee programs, or the “State Buy Down Option”) only if said payments result in water quality improvement projects within the same drinking water supply watershed as the subject project.
<p>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.</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>MIDCO - This strategy could be incorporated into strategy 2, above.</p> <p>NAIOP/NVBIA – Delete, it negates the density range basis of the Land Use Plan.</p>
<p>4. At the time of rezoning or special use permit, prioritize preservation of wetlands,</p>	<p>MIDCO - This strategy could be incorporated into</p>

~~intermittent streams, and headwater areas. Where impacts are unavoidable, require mitigation, preferably on-site, backed by financial assurances, such as bonds or cash escrows.~~

strategy 2, above.

PWCA – This policy is consistent with state and Federal policies. In particular, the county should make clear to developers that protection of intermittent streams is a key part of the county’s strategy to protect the county’s environment, and to meet the Chesapeake Bay TMDL mandates.

LOCCA – 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.

NHS – Use Chesapeake Bay Preservation Act terminology

NAIOP/NVBIA – Delete. Virginia Code 62.1-44.15.20.E specifically states that “E. No locality may impose wetlands permit requirements duplicating State or Federal wetlands permit requirements.” This is contrary to State law.

~~5. At the time of rezoning or special use permit, require commitments for enhanced erosion and sedimentation controls, as appropriate.~~

MIDCO - This strategy could be incorporated into strategy 2, above.

(Addressed in EN-12, AS2)

PWCA – Support. The county already requires a

	<p>financial commitment to ensure compliance with transportation commitments. The county should obtain the same financial commitments to ensure compliance with environmental requirements.</p>
<p>6. Coordinate with the Fairfax Water Authority to address existing contamination from pharmaceuticals and prevent future associated impacts to the Occoquan Reservoir.</p>	
<p>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.</p>	<p>PWSWCD – Agree that education is needed</p>
<p>2. Encourage farmers to develop conservation plans for properties agricultural activities undertaken within the Lake Manassas and Occoquan Reservoir watersheds.</p>	<p>PWSWCD – Why was the language changed? Is the intent to begin to develop conservation plans for non-ag homeowners?</p> <p>NHS – What are the standards? PWC Soil and Water Conservation standards?</p>
<p>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.</p>	
<p>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).</p>	<p>NHS – Delete fishing, hiking and non-motorized boating. Passive recreation is already defined in Parks, Open Space, and Trails Chapter.</p>
<p>5. Encourage Fairfax County to continue restricting by ordinance the use of internal</p>	

<p>combustion engines on the Occoquan Reservoir. <u>Actively support Fairfax Water Authority efforts to increase compliance and enforce regulations established by their Occoquan Shoreline Easement Policy.</u></p>	
<p>6. Request that the Occoquan Laboratory <u>continue to identify</u> 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.</p>	
<p>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.</p> <p>(Relocated from EN-11, AS3)</p>	
<p>8. Promote the use of secondary containment storage tanks for petroleum products and other hazardous materials, <u>for all development and redevelopment.</u></p> <p>(Relocated from EN-11, AS4)</p>	
<p>9. Promote <u>Require</u> 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 <u>currently required for all fuel dispensing facilities.</u></p> <p>(Relocated from EN-11, AS7)</p>	
<p>EN-POLICY 13: Preserve natural vegetation – especially existing and mature trees – and provide</p>	<p><i>Previously EN Policy 11 in existing text</i></p>

<p>for the replacement and management of urban forest resources. of trees.</p> <p>ACTION STRATEGIES:</p>	<p>LOCCA – Support. 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.</p>
<p>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>	
<p>2. Support legislation that will enable local a tree preservation ordinance.</p> <p>2. <u>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. Solicit community input to help identify and define priorities for tree preservation and tree cover standards.</u></p>	<p>PWCA – Strongly support. The General Assembly has authorized such an ordinance. The Environment Chapter should make clear that the county will use its authority to preserve its forests.</p>
<p>3. Continue to support and implement the Agricultural and Forestal District program to preserve farmland and woodland areas in the County.</p> <p>3. <u>Amend the Zoning Ordinance and DCSM requirements for buffer areas, landscaping, and tree cover requirements to prioritize tree preservation instead of tree replacement. 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.</u></p>	<p><i>Previously within EN Policy 11 AS 1 in existing text</i></p>
<p>4. Continue the progress towards establishing a Countywide greenway and path system</p>	<p><i>Previously EN Policy 11 AS 4; Relocated to EN</i></p>

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

<p>through the voluntary donation of land and conservation easements from interested property owners, as a means of environmental protection.</p> <p>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> <p>(To be determined with tree preservation ordinance)</p>	<p><i>Policy 3 AS 12</i></p> <p>NHS – What kind of development? Farms, nurseries, residential, economical...?</p>
<p>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.</p> <p>5. Utilizing existing data and analysis tools, conduct a professional study. Coordinate with, including coordination with the Virginia Department of Forestry, to implement an urban forestry program. 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><i>Previously EN Policy 11 AS 5 and AS 6 in existing text</i></p> <p>NHS – What is the additional cost to the taxpayer?</p> <p>NHS – Does it have to be the mapper? What if there is a more economical way to do it?</p>
<p>6. Consider acquisition of select sites for public parks/forests and/or encourage the dedication of such sites by private property owners.</p> <p>6. Consider acquisition of select sites for public parks/forests and/or encourage the dedication of such sites by private property owners.</p> <p>Keep this existing language. (PW)</p>	<p><i>Previously EN Policy 11 AS 7 in existing text</i></p> <p>MIDCO - Perhaps there could be some incentive for private property owners to do this.</p>
<p>4. Maintain the County’s informal Registry of Historic and Champion Trees. Use this registry</p>	<p><i>Previously EN Policy 11 AS 8 in existing text</i></p>

<p>at the time of rezoning and special use permit application to determine the presence of such trees on the property.</p>	
<p>5. <u>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.</u> Study the practicality of adopting various reforestation strategies.</p>	<p><i>Previously EN Policy 11 AS 9 in existing text</i></p> <p>NHS – What does this mean? Does a residential or agriculture zoned property owner have to obtain county concurrence to remove a tree on that property? Two trees? What is the standard?</p>
<p>9. <u>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.</u></p> <p>(Covered in EN-5, AS16)</p>	
<p>6. 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.</p>	<p><i>Previously EN Policy 3 AS 12 in existing text</i></p> <p>MIDCO - Change “Encourage” to “Require.”</p>
<p>11. <u>Increase public awareness on how to utilize tree preservation to protect community appearance, property values and provide other economic and community benefits.</u></p> <p>(Moved to EN-14, AS10)</p>	<p>FPWFP – Encourage and promote native plants and restrict specific non-natives that may have severe impacts to the ecosystem.</p> <p>MIDCO – 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</p>

	<p>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>NHS – What does this mean? Does a residential or agriculture zoned property owner have to obtain county concurrence to remove a tree on that property? Two trees? Does this encourage the use of trees native to Northern Virginia?</p>
<p>EN-POLICY 14: Increase the environmental awareness of County residents, <u>organizations, businesses, and government agencies.</u></p> <p>ACTION STRATEGIES:</p>	<p><i>Previously EN Policy 2 in existing text</i></p> <p>FPWFP – Highlight the relevancy of PWFP and its participation in the Climate Friendly Park’s program, a joint program between the EPA and NPS to curb park’s Green House Gas (GHG) emissions.</p> <p>PWCA – 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</p>

	<p>constraints in their neighborhoods. The Comprehensive Plan is a policy document, and it is appropriate to put this direction into the Environment Chapter.</p>
<p>1. Make the following additional GIS layers available to the public on the County Mapper:</p> <ul style="list-style-type: none"> a) Slopes [topo already available] b) Wetlands [NWI maps] c) Environmental Resource Areas d) Canopy Coverage by Forest Type e) Stormwater infrastructure f) Protected open space, including name of easement holder and number of acres, if different from the total acreage of the parcel g) Critical Groundwater Areas h) All stormwater infrastructure, including County-maintained stormwater facilities and county-inspected low impact development (LID) facilities i) Update Watershed layer to include the total number of acres and percentage breakdown of resource types and % of impervious surfaces in small watershed. 	<p>PWCA – Strongly support.</p> <p>LOCCA – The Environmental Chapter of the Comprehensive Plan should identify critically important areas for wetlands preservation and groundwater recharge</p> <p>NHS – Use Chesapeake Bay Preservation Act terminology</p> <p>NHS – Does it have to be the mapper?</p> <p>NAIOP/NVBIA – Slopes using soil data, USGS terrain models, 5’ county topo of 2’ or better engineering topo? Which do you want and when?</p> <p>NAIOP/NVBIA – Wetlands using National Wetland Inventory, hydric soils, Color Infrared (CIR) interpretations, a County model, or approved delineations?</p>
<p>1. Continue to develop and conduct educational programs on important environmental issues for the business, agriculture, and residential communities.</p>	<p><i>Previously EN Policy 2 AS 1 in existing text</i></p>

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

<p>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.</p>	
<p>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.</p> <p>2. <u>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.</u></p>	<p><i>Previously EN Policy 2 AS 2 in existing text</i></p>
<p>3. <u>Publish a webpage and associated e-notification component to provide information and updates on the County’s green development and green infrastructure initiatives.</u></p>	
<p>4. <u>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.</u></p>	
<p>5. Enhance the County’s recycling program, including yard waste composting, that will meet or <u>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, through the following means:</u></p> <ul style="list-style-type: none"> • 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. 	<p><i>Previously EN Policy 2 AS 3 in existing text</i></p> <p>NHS – Change “expand” to “meet.”</p>

<p>4. Maintain current informational brochures for public distribution that explain the importance of protecting and managing the County's soils.</p>	<p><i>Previously EN Policy 2 AS 4 in existing text</i></p>
<p>6. Prepare or acquire <u>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.</u></p>	<p><i>Previously EN Policy 2 AS 5 in existing text</i></p>
<p>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.</p>	<p><i>Previously EN Policy 2 AS 6 in existing text</i></p> <p>LOCCA – 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.</p>
<p>Additional Action Strategies Suggested</p> <p>8. <u>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.</u></p> <p>(Moved from EN Policy 14, old AS 6)</p>	<p>MIDCO:</p> <ul style="list-style-type: none"> • 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?) • 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>9. <u>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.</u></p> <p>(Moved from EN-11, AS10)</p> <p>10. <u>Increase public awareness on how to utilize tree preservation to protect community appearance, property values and provide other economic and community benefits.</u></p> <p>(Moved from EN-13, AS11)</p>	<p>LOCCA – 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.</p>
<p>11. <u>Through public education and outreach, promote the use of phosphorous-free lawn fertilizer.</u></p>	<p>NAIOP/NVBIA – Develop an Ordinance to regulate the use of lawn fertilizers containing phosphorous in a manner similar to that done by the City of Annapolis. The Annapolis legislation allows phosphorous to be used on lawns during their first growing season, as well as when used and applied in accordance with soil tests that determine if/how much phosphorous is needed. Otherwise, you must use no-phosphorous fertilizers on lawns.</p>
<p>7. Prepare or acquire information brochures and make public service announcements that explain the importance of water conservation and water quality protection.</p>	
<p>8. Prepare and distribute information on household hazardous waste.</p>	
<p>9. Enhance the litter control program.</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>[Relocated policy language to EN-5, AS18]</p> <p>ACTION STRATEGIES:</p>	<p><i>Previously EN Policy 12 in existing text</i></p>
<p>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.</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>(Moved and integrated into EN-5, AS19)</p>	<p>PWCA – 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.</p> <p>NAIOP/NVBIA – Add the 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 5 years.”</p>
<p>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.</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>	

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

<p>(Moved to EN-5, AS20)</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> <p>(Moved to EN-3, AS13)</p>	<p><i>Previously EN Policy 12 AS 3 in existing text</i></p>
<p>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.</p>	<p><i>Relocated to EN Policy 3 AS 11</i></p>
<p>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.</p>	
<p><u>ENERGY POLICIES</u> (Retain entire section)</p>	<p><i>New Policy/Section</i></p>
<p><u>EN-POLICY 16: Develop a Community Energy Master Plan.</u></p>	
<p>1. <u>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.</u></p>	
<p>2. <u>Incorporate input from all major stakeholders, including public authorities, residents, businesses, community associations, elected officials, schools, universities and colleges.</u></p>	
<p>3. <u>Establish a long-term Vision with clear targets supported by short to medium term implementation strategies.</u></p>	

<p>4. <u>Define targets, tracking measurements reporting and accountability for overall energy Vision and CEMP implementation.</u></p>	
<p>EN-POLICY 17: <u>Implement cost-effective energy-conservation measures at County facilities.</u></p> <p>ACTION STRATEGIES:</p>	
<p>1. <u>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.</u></p>	
<p>2. <u>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.</u></p>	
<p>3. <u>Consider designing and building all 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.</u></p>	
<p>4. <u>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.</u></p>	
<p>5. <u>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.</u></p>	

<p>6. <u>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.</u></p>	<p>NHS – What services are they being re-directed from? Why limit beneficiaries? Delete “made by low-income homeowners and small businesses in the County.”</p>
<p>7. <u>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.</u></p>	<p>NHS – What does this mean? Set aside land for wind farm or solar panel farm to service the HOA? There is little wind in Northern Virginia that could serve as a resource, making it unreliable at best.</p>
<p><u>EN-POLICY 18: Provide recognition and incentives for energy conservation at non-government facilities and residences.</u></p> <p><u>ACTION STRATEGIES:</u></p>	
<p>1. <u>Consider establishing a separate, lesser rate of tax for energy efficient buildings as defined in Code of Virginia § 58.1-3221.2.</u></p>	<p>NAIOP/NVBIA – Revise to read: Establish a separate tax rate for energy efficient buildings as defined in Code of Virginia § 58.1-3221.2 that is lower than the standard rate by at least 5%.</p>
<p>2. <u>Consider additional incentives (financial, tax, expedited permits, density bonuses, etc.) for development that builds to LEED or Green Globes standards and ENERGY STAR.</u></p>	<p>NAIOP/NVBIA – Revise to read: Establish a program of additional and substantial incentives (financial, tax, expedited permits, density bonuses, etc.) for development that builds to LEED standard, Green Globes Standards, NAHB Model Green Home Building Guidelines, National Green Building Standard, Builders Challenge, or ENERGY STAR by January 1, 2011. Said incentives shall be</p>

	<p>developed on a tiered basis, such that higher levels of achievement result in greater incentives, such as:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">LEED Level</td> <td>Density Bonus</td> </tr> <tr> <td>Certified</td> <td>None</td> </tr> <tr> <td>Silver</td> <td>5%</td> </tr> <tr> <td>Gold</td> <td>10%</td> </tr> <tr> <td>Platinum</td> <td>15%</td> </tr> </table>	LEED Level	Density Bonus	Certified	None	Silver	5%	Gold	10%	Platinum	15%
LEED Level	Density Bonus										
Certified	None										
Silver	5%										
Gold	10%										
Platinum	15%										
<p>3. <u>Recognize and publicize those in the community whose facilities achieve LEED, Green Globes, and ENERGY STAR certifications.</u></p>											
<div style="border: 1px solid black; background-color: #e0ffe0; padding: 5px; margin-bottom: 10px;"> <p>EN-POLICY 19: <u>Provide recognition and incentives for renewable energy application at non-government facilities and residences.</u></p> </div> <p><u>ACTION STRATEGIES:</u></p>											
<p>1. <u>Evaluate current policies and ordinances to remove obstacles to renewable energy (wind, solar, biomass, landfill gas, geothermal, etc.) application.</u></p>											
<p>2. <u>Evaluate and recommend incentives for projects that create on-site renewable energy application.</u></p>											
<p>3. <u>Recognize and publicize for those projects that use on-site renewable energy.</u></p>											

<p><u>EN-POLICY 20: Provide leadership by example and education in the areas of energy efficiency, demand response and renewable energy application.</u></p>		
<p><u>ACTION STRATEGIES:</u></p>		
<p>1. <u>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.</u></p>	<p>FPWFP – Climate Friendly Parks, a great example of this type of program.</p> <p>NHS – What is the cost of implementation to the Taxpayer? What premium is acceptable compared to what is most economical?</p>	
<p>2. <u>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.</u></p>		
<p>3. <u>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.</u></p>		
<p>4. <u>Consider reducing the rate of the growth of county government’s energy use by 40%.</u></p>	<p>Needs more discussion.</p> <p>NHS - Is this total use, per building use, per square ft use? Not clearly defined.</p>	
<p>5. <u>Consider reducing electricity use in County facilities by 10% of 2006 level by 2022.</u></p>	<p>NHS - Is this total use, per building use, per square ft use? Not clearly defined.</p>	

Prince William County Comprehensive Plan

Staff Edits (8/4/10)

NVBIA/NAIOP – Development community

PWSWCD – Prince William Soil & Water Conservation District

NHS – Nokesville Horse Society

Environment Chapter DRAFT

PWCA – Prince William Conservation Alliance

MIDCO – MidCounty Civic Assoc. & Dale City Civic Assoc.

FPWFP – Friends of Prince William Forest Park

LOCCA – Lake Ridge Occoquan Coles Civic Assoc.

October 14, 2009

<p>6. <u>Consider reducing natural gas use in County facilities by 7.5% over next ten years.</u></p>	<p>NHS - Is this total use, per building use, per square ft use? Not clearly defined.</p>
<p>7. <u>Consider reducing total diesel/gasoline use by all (County) vehicles by 10% over next five years.</u></p>	
<p>8. <u>Consider reducing total diesel/gasoline used for County government landscaping operations by 20% over next five years.</u></p>	
<p>9. <u>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.</u></p>	<p>NHS – What is the additional cost to the taxpayer?</p>
<p>10. <u>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.</u></p>	<p>PWCA – The County could spur a healthy competition between schools by posting site-specific “report cards” on energy use. Arlington County has already done this.</p>
<p>11. <u>Continue actively participating County Government facilities in demand response programs.</u></p>	
<p>12. <u>Consider utilizing life-cycle cost analysis when constructing new facilities.</u></p>	
<p>13. <u>Continue increasing landfill gas utilization at the County landfill with the goal of completely eliminating flaring.</u></p>	
<p>14. <u>Continue exploring waste reduction and re-use technologies in lieu of landfilling.</u></p>	

<p>GOAL: <u>Preserve, manage, and where necessary, integrate viewsheds that are character-defining features of Prince William County into development.</u></p>	<p>MIDCO - We support the proposed goal, policies and action strategies in this section.</p> <p>New goal; To be moved into Community Design chapter;</p>
<p>DES-POLICY 9: Preserve and enhance the unique architectural and landscape <u>(agricultural, cultural, natural)</u> qualities of the County’s rural area.</p> <p>ACTION STRATEGIES:</p>	<p>Existing text and proposed edits to Community Design chapter</p>
<p>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.</p>	
<p>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.</p>	
<p>3. Provide 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.</p>	
<p>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.</p>	

<p>5. <u>Conduct a survey of the Rural Area to identify viewsheds, their type, and their potential boundaries.</u></p>	
<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>Existing text and proposed edits to Community Design chapter</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>FPWFP – DES Policy 10.1 – PWFP has developed a Historic Resource Study context paper for the submission of the entire park to the national register of historic places as a historic site with national significance. Siting themes such as the Recreational Demonstration Area program, the Civil Conservation Corps (CCC) Office of Strategic Services (OSS), and African American Heritage</p>
<p>2. Encourage the preservation of views to and from historic properties through the protection of farm fields, meadows, and woodlands, <u>and where possible combine with viewshed types.</u></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: Fit <u>Integrate</u> new development into the natural landforms, particularly the existing woodland areas of the County.</p>	<p>Existing text and proposed edits to Community Design chapter</p>
<p>DES-POLICY 13: Encourage the preparation of plans for the preservation and restoration of <u>viewshed landscape</u> and landscape resources.</p>	<p>Existing text and proposed edits to Community Design chapter</p>
<p><u>(Relocate EN-POLICY 13 into Community Design Chapter as new DES POLICY 14 with intact existing language, as shown and retain existing DES-Policy 13 language) (PW)</u></p> <p>NATURAL VIEWSHEDS POLICIES AND ACTION STRATEGIES</p> <p>EN-POLICY 13: DES POLICY 14: Identify significant natural viewsheds in Prince William County.</p>	<p>Existing section in Environment chapter</p> <p>Previously EN Policy 13 in existing text; Proposed to be relocated as new policy to Community Design Chapter.</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. <u>Ensure public participation in viewshed study projects and complete funded viewshed studies on a timely basis.</u></p>	<p>Previously EN Policy 13 AS 1 in existing text</p>
<p>2. <u>Develop an incentive system for the preservation of viewsheds.</u></p>	<p>Previously EN Policy 13 AS 2 in existing text</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. <u>Determine whether it is desirable to establish viewshed overlay districts in the County.</u></p>	<p>Previously EN Policy 13 AS 3 in existing text</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</p>	

<p><u>County's Rural Area, as well as along the Potomac River.</u></p>	
<p><u>4. Prepare viewshed preservation plans for viewsheds identified in this Chapter.</u></p>	
<p><u>5. Identify viewshed preservation and management tools.</u></p>	
<p><u>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.</u></p>	
<p>Viewshed: A viewshed is an area <u>that can include one or more of the following:</u> of land, water, <u>cultural resources,</u> and other environmental elements. <u>A viewshed can have both interior and exterior views and one or more vantage points that is visible from a fixed vantage point.</u> 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, <u>natural,</u> 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, <u>as well as natural and cultural resources preservation.</u></p>	<p>Revise viewshed definition in Glossary</p>