



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

October 24, 2022

Rebecca Horner, Deputy County Executive
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RE: Pathway to 2040: Comprehensive Plan Update

Ms. Horner:

Thank you for the opportunity to comment on the “Pathway to 2040” update to the Prince William County Comprehensive Plan. Pathway to 2040 updates four chapters (Land Use, Housing, Mobility, and Sanitary Sewer), two section plans (Electrical Utility Service Plan and Government Complex Activity Center), and the Long-Range Land Use Map within the Comprehensive Plan. These updates would be used to help guide future land use decisions in Prince William County.

On February 8, 2022, the Fairfax County Board of Supervisors directed Fairfax County staff in the Departments of Transportation and Planning and Development to monitor the potential impacts on Fairfax County transportation and water quality due to these possible updates. Fairfax County understands there are also two additional planning initiatives under review simultaneously with Pathway to 2040: Prince William Digital Gateway Corridor and Data Center Opportunity Zone Overlay District (DCOZOD). Fairfax County previously submitted comments and recommendations regarding the Prince William Digital Gateway Corridor on February 23, 2022. A copy of that letter is attached for reference. Fairfax County will not be providing comments on the DCOZOD at this time.

The responses in this memorandum have been coordinated among the Fairfax County Departments of Transportation (FCDOT), Public Works and Environmental Services (DPWES), Planning and Development (DPD); the Fairfax County Park Authority; and the Fairfax County Office of Environmental and Energy Coordination (OEEC). This review is primarily focused on environmental and transportation considerations.

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COUNTY COMMENTS

Occoquan Reservoir and Watershed

The Occoquan Reservoir is an important drinking water supply for 800,000 residents in Northern Virginia, including those in Prince William County, the City of Alexandria, Fort Belvoir, and Fairfax County. Changes in land use patterns in Prince William County have the potential to impact water quality in the Occoquan Watershed and the Occoquan Reservoir.

In response to severe degradation of the reservoir primarily due to point source pollution from multiple, poor-performing sewage treatment plants, the Occoquan Policy (9 VAC 25-410) was adopted as a special water quality standard for the Occoquan Watershed by the Virginia State Water Control Board in 1970. The Policy was designed to improve the water quality of the reservoir and safeguard its viability as a drinking water supply for Northern Virginia. The Policy reversed the degradation of the water quality in the reservoir through the replacement of the poor-performing sewage treatment plants with an advanced wastewater treatment plant (the Upper Occoquan Service Authority).

Since 1972, stream and reservoir water quality monitors have collected information regarding pollutants, including nutrients, sediments, carbon, metals, and synthetic chemicals. This data is used by the Occoquan Watershed Monitoring Laboratory (OWML) to identify threats to water-quality within the watershed and to assist in watershed management decision-making. An Occoquan Watershed Model, a computer modeling simulation program, is maintained to analyze major land use changes within the watershed and evaluate potential control techniques.

Information related to the protection of the Occoquan Watershed can be found in the January 27, 2003 report titled "Fulfilling the Promise: The Occoquan Watershed in the New Millennium." (See: [Occoquan Watershed Report – Pierce Edits \(novaregion.org\)](#)). The report was completed by the New Millennium Occoquan Watershed Task Force, which was appointed by the then Chairman of the Fairfax County Board of Supervisors and met from September 13, 2002 through December 20, 2002. In addition to chronicling past actions regarding protection of the Occoquan Watershed, the report included recommendations to maintain high water quality in both the Occoquan Reservoir and the Watershed.

As a common resource, regional measures are needed to protect the reservoir. Threats to the reservoir include non-point source pollution from impervious surfaces; the increased use of salt in the winter, which is related to impervious areas and the cooling of industrial uses, including water-cooled data centers; increased runoff into streams, leading to instability of the stream channels; and an increase in phosphorus, which binds to soil particles and is deposited into the reservoir.

Within Fairfax County, the protection of the Occoquan Watershed included a downzoning of nearly 41,000 acres of land to the R-C (Residential-Conservation) District, or one dwelling unit

per five acres, on July 26, 1982 (RZ 82-W-054) by the County Board of Supervisors, in which very low-density uses are anticipated to protect the reservoir. Very low-density development (0.1 to 0.2 dwelling units per acres) and undisturbed contiguous open space are identified in the Comprehensive Plan as key practices for the protection of the Occoquan Reservoir. In addition to the downzoning, the Board created a Water Supply Protection Overlay District (WSPOD), which implemented strict stormwater controls on approximately 63,000 acres (RZ 82-W-051) for both development and redevelopment projects to reduce runoff pollution and other impacts to water quality. Fairfax County maintains data which has demonstrated the utility of the 1982 Fairfax County downzoning action to protect this critical regional water supply. Streams within this portion of Fairfax County are some of the healthiest streams in the county. A similar approach is recommended for Prince William County. In addition to these measures, the adoption of a robust monitoring program is recommended to assess the protection of the receiving streams that drain to the Occoquan Reservoir. Long-term stream monitoring provides an ongoing evaluation of stream health and identifies trends in the conditions of waterways.

Approximately two-thirds of Prince William County is located within the Occoquan Watershed, which is designated as Agriculture and Forestry. This land use designation is designed to protect and enhance agriculture and forested land as an environmental resource with development limited to 1 dwelling unit per 10 acres. In addition to the low-density residential and agricultural designations for much of the area within the Occoquan Watershed, Prince William County proposes an additional Occoquan Reservoir Protection Area (ORPA), which would cover approximately 10% of the county between the City of Manassas and Woodbridge and is intended to help protect the Occoquan Reservoir. The designation would limit development to 1 dwelling unit per 5 acres in areas with sensitive environmental features within the southeast portion of the county. (Land Use Chapter, Page 190).

Additionally, Prince William County currently contains a Rural Area designation for approximately 117,000 acres, in which the extension of sanitary sewer service is not anticipated. Under the proposed Plan Amendment, public sewer service would be allowed throughout the entire county, to include the Rural Area. This proposed change in policy may result in increased and dispersed residential development activity throughout the Rural Area. By comparison, much of Fairfax County's land adjacent to the Prince William County border is outside of an Approved Sewer Service Area (ASSA), which reinforces the very low-density residential character of this area and protects the Occoquan Watershed.

Recommendation: Any proposed sewer service area to be considered by Prince William County should be done in the context of the designated land uses, such that sanitary sewer be extended only to those areas anticipated for urban or suburban uses.

Recommendation: A regional effort is needed to protect the Occoquan Reservoir as a regional drinking water source. Land use alternatives should include a rigorous evaluation to ensure consistency with community planning principles and to quantify the impacts of these alternatives on the larger community and surrounding resources. Evaluation criteria should consider the health and viability of the Occoquan Watershed and Reservoir. Prior to taking

any Policy action, Prince William County should take advantage of the Occoquan Model, which would be critical to gaining an understanding of the proposed changes and their impacts, and work with Fairfax Water and the Occoquan Watershed Monitoring Lab, to ensure that the reservoir is maintained as a viable regional drinking water supply. The investigation should explore the potential cumulative impacts to the reservoir under alternative land use scenarios, to prevent water quality degradation in the Occoquan Reservoir prior to approval of this Plan Amendment.

Land Use

The proposed Land Use Chapter includes a Multimodal System Plan, which is defined as “an integrated land use and multimodal transportation plan that helps ensure that there is a connected circulation network for all travel modes.” The resultant map includes activity centers, districts, redevelopment corridors, regional activity centers, and villages. (Land Use Chapter, Page 30). The proposed Comprehensive Plan also includes a Long-Range Land Use Map, which provides land use classifications for all areas within the county; a Roadway Plan Map, which includes both completed and planned roads and interchanges; a Future Transit Alternatives Map; and an Active Mobility and Recreational Trails Map, among others. Together with text policies and strategies, these documents would guide future land use within Prince William County. However, as noted in our February 23, 2022, letter regarding the Prince William Digital Gateway Corridor, the Digital Gateway proposal would not be in an Activity Center, District or Redevelopment Corridor and the proposed use and associated transportation improvements would be inconsistent with the proposed Comprehensive Plan Amendment. Additionally, the Comprehensive Plan update would also consider a change in land use designation for approximately 600 acres along the Pageland Lane corridor, north of the Manassas National Battlefield, currently designated as Agricultural or Estate (AE) to the Office Mixed Use (Low-Rise) (OMU-2), which would introduce commercial uses to this area and increase development pressures in this environmentally sensitive area that is planned for very low density residential.

Fairfax County uses a Concept for Future Development as a first step in envisioning the desired character of various activity centers; highlighting regional connections; and acting as a guide for more detailed planning efforts and the future vision of the county. Fairfax County concentrates its highest level of development intensity in development centers, which also helps to ensure that impacts to environmentally sensitive areas are avoided. Fairfax County recognizes that Prince William County is pursuing a similar approach, but notes that the proposed commercial and data center development in the northern part of the County would be inconsistent with the very low density residential planned for this part of the County.

Transportation

The proposed Mobility Chapter of the Comprehensive Plan addresses the road network, transit, and trails. There are currently six major road transportation crossings between Fairfax County and Prince William County: Route 1, I-95, Route 123, Route 28, I-66, and Route 29; as well as

two rail crossings: the Virginia Railway Express (VRE) Manassas line and the VRE Fredericksburg line. Prince William County's draft Roadway Plan Map shows planned improvements in the I-95 and Route 28 corridors and in the Route 29 area. As with all transportation improvements shown on the Comprehensive Plan, the ultimate alignment should be dependent upon the satisfactory completion of further studies including a rigorous analysis of the need for the road and the specific impacts associated with the proposal. Studies should include an analysis of alternative alignments, environmental studies, and means of addressing any impacts on features such as animal habitat movement, historic sites, parks, cemeteries, and horse trails. More detailed corridor studies should be initiated to determine ultimate alignments and for citizen engagement in both jurisdictions. Fairfax County requests continued discussions of all transportation connections across jurisdictional boundaries to help ensure the coordinated development of transportation facilities across county lines and a multimodal transportation system for our residents.

While Fairfax County supports portions of the roadway, transit, and trails plans, a proposed closure of Route 29 through the Manassas National Battlefield and the southern Route 29 bypass alternative (US-29 Alternate) does not align with the vision of Fairfax County's Transportation Plan.

Impacts in Fairfax County are noted below.

Route 29:

- Route 29 in Fairfax County is currently a four-lane arterial, which tapers down to two lanes west of Bull Run Post Office Road, as it approaches the Prince William County border. In Prince William County, Rt. 29 is a two-lane major collector, which traverses through the Manassas National Battlefield Park. However, Prince William County proposes to close Route 29 through the Battlefield and has provided two bypass options, as described below.

The northern bypass option (Battlefield Bypass):

- Fairfax County's Transportation Plan has a conceptual road connection at this location. However, there are significant hurdles to implementing this plan, given the environmental constraints and the impacts on Fairfax County residents and businesses.

The southern bypass option (US-29 Alternate):

- There is no planned or existing road in Fairfax County that connects to the proposed US-29 Alternate shown in Prince William County's draft Roadway Plan Map.
- The north-south alignment near Bull Run is expected to pass through several single-family residential properties on Bull Run Post Office Road, depending on the alignment and roadway design.
- The southern bypass option would directly impact Cub Run, the Cub Run Stream Valley Park, and Big Rocky Run within Fairfax County.

Recommendation: In summary, the proposed road connections should evaluate the impacts on local resources, including existing residences and commercial areas, regional parks, county parks, floodplains, RPAs, steep slopes, perennial streams, and vegetated buffers, including those within Fairfax County, and be mutually agreed upon by both jurisdictions prior to adoption of the Pathway to 2040 Plan. Please see additional comments by the Fairfax County Park Authority in Appendix 6.

Ecological Resources

Both Fairfax County and Prince William County have designated expansive areas of the Occoquan Watershed for agricultural or low-density residential uses. These areas contain some of the most extensive remaining wildlife habitat and rural landscape in the region. Intermittent and perennial streams, wetlands, floodplains, and Resource Protection Areas (RPAs) exist along the Fairfax County/Prince William County border. Low-density development, the preservation of undisturbed contiguous open spaces, the limited expansion of public infrastructure (public water and sewer), development designs that encourage preservation of water features and other sensitive lands, and the creation of Agricultural and Forestal Districts can be used to protect the Occoquan Reservoir; maintain the rural character of the area; create corridors of open space for wildlife; and provide recreational opportunities.

The western portion of Fairfax County, adjacent to the Prince William County border, contains one of the largest areas of forest and wildlife habitat in Fairfax County. This area is complementary to Prince William County's extensive forest and grassland areas, which include the Conway Robinson Memorial State Park, the Prince William Forest Park, Leesylvania State Park, Featherstone National Wildlife Refuge, Occoquan Bay National Wildlife Refuge, the Manassas National Battlefield Park, and numerous other natural areas.

These and other ecological resources were highlighted in the creation of the *Conservation Corridor Planning* document by the Northern Virginia Regional Commission (NVRC) in January 2012 with the participation of all the jurisdictions within Northern Virginia, including Prince William County, Fairfax County, Loudoun County, Arlington County, and the towns and cities of Northern Virginia. The Conservation Corridor Plan offers an organizational framework for priority regional conservation corridors across Northern Virginia, which are complementary to activity centers throughout the region. The document emphasizes the value of regional collaboration and cross-jurisdictional coordination. By working regionally, the project identified opportunities to collaboratively plan for the connection, restoration, and enhancement of Northern Virginia's natural resource assets, strengthening public health, local quality of life and the region's economy. The assessment identified regional high-value natural resources, along with potential multi-jurisdictional applications and recommended next steps. Project goals included: (i) refine state-level analyses for local applications using local data and priorities; (ii) identify and map high-value habitat cores and corridors across the region; (iii) highlight opportunities for regional connections; (iv) quantify the benefits of these areas; and (v) collaborate on cross-jurisdictional efforts to pursue these regional opportunities.

Healthy ecosystems perform many functions, including climate regulation; air and water cleaning; water supply retention; erosion and sediment control; hazard mitigation; pollination; habitat functions; waste decomposition and treatment; enhancement of human health and well-being; production of food and renewable non-food products; and generation of cultural benefits. The incorporation of these functions into the Comprehensive Plan would help further regional climate resiliency goals.

The Environmental Resource Protection Overlay (ERPO) is proposed as part of the Prince William County Comprehensive update to help to maintain the integrity of sensitive environmental resources to include 100-year floodplains, Resource Protection Areas, areas of 25% or greater slopes, and areas of 15% or greater slopes with soil limitations. These areas generally follow stream corridors. (Land Use Chapter, Page 196). Fairfax County has a similar policy for environmentally sensitive areas referred to as “Environmental Quality Corridors.”

Staff notes that the Prince William County Board of Supervisors adopted Climate and Resiliency goals and authorized the creation of a Community Energy and Sustainability Master Plan (CESMP) on November 17, 2020, to serve as a roadmap for the county to reach its goals. On April 27, 2021, the Prince William County Board of Supervisors created the Office of Sustainability.

Recommendation: It is recommended that Prince William County use the proposed ERPO and the NVRC Conservation Corridor Plan as an organizational framework to prioritize regional conservation corridors to be complementary to activity centers throughout the county. The development of such a framework could emphasize the value of regional collaboration and cross-jurisdictional coordination.

Recommendation: In furtherance of regional climate resiliency goals, it is recommended that coordination occur with federal and State agencies, regional authorities, and neighboring jurisdictions to analyze the proposed changes and to assess how development could create ecologically resilient communities that are able to withstand and recover from floods, droughts, and other disruptive events. Resiliency could be fostered through protecting and restoring natural resources such as soil, water, and vegetation; encouraging biodiversity; enhancing landscapes to provide multiple ecosystem services such as cleaning air and water, providing habitat, and storing carbon; mitigating for evolving hazards and disruptive events; planning for monitoring and adaptive management; and increasing the capacity of carbon sinks through re-vegetation.

Cultural Resources

The Comprehensive Plan update would also consider a change in land use designation for approximately 600 acres along the Pageland Lane corridor, north of the Manassas National Battlefield, currently designated as Agricultural or Estate (AE) to the Office Mixed Use (Low-Rise) (OMU-2).

This area is proximate to significant heritage resources, including the 5,071-acre Manassas National Battlefield Park, a national heritage resource located on the shared border of Fairfax County and Prince William County. We note that the National Park Service (NPS) submitted review comments to Prince William County specifically regarding the related Digital Gateway proposal on December 3, 2021, and May 2, 2022. In these memoranda, the NPS noted that the area retains a high degree of integrity as both a cultural and natural landscape and that hundreds of acres of land currently in agricultural use have been designated as historically significant. The NPS voiced strong opposition to the Digital Gateway proposal due to “*certain*” and “*substantial negative impact[s] on historic resources both within and outside of the Park.*” While the designation of OMU-2 along the Pageland Lane corridor would not be as extensive as the proposed Digital Gateway proposal, it would, like the Digital Gateway proposal, introduce commercial uses across a broad area incongruous with the surrounding landscape and resources.

Additionally, the intensive development being considered is expected to result in significant adverse impacts on the Manassas National Battlefield Park and the surrounding historic landscape. At the same time, allowing the extension of public utilities across the entirety of the county could result in increased development potential in other adjacent areas, permanently altering views within the landscape, and further exacerbating impacts.

The development of commercial uses in this rural area with the attendant expansion of public sewer and water is expected to result in major direct impacts, which would include the grading of expansive tracts of land and the replacement of pervious areas with impervious surfaces; indirect impacts to surrounding areas, which would include increased runoff, stream channel erosion, sedimentation, water salinization, heat buildup, and noise; and cumulative impacts, which would threaten the ability of remnant areas to remain viable over time. Impacts are expected to intermittent and perennial streams, wetlands, steep slopes, soil resources, wildlife habitat (including that of rare, threatened, and endangered species), and wildlife corridors.

Recommendation: The Pageland Corridor should be designated as Agriculture and Forestry (AF), in order to ensure compatibility with surrounding uses and to protect the viability of the Occoquan Reservoir as a regional drinking water source.

Recommendation: In order to ensure the protection and viability of the historic Pageland Lane landscape, a GIS-based viewshed analysis should be completed to accurately define views from all portions of the Manassas National Battlefield and its contributing historic landscapes. Land use designations for the surrounding areas should be sympathetic to Park and other historic assets. Policies should also be put in place to protect the viability of all battlefield areas, buildings, cemeteries, and other features of national, state, regional, and local significance.

CONCLUSION

The Pathway to 2040 Comprehensive Plan Amendment provides the opportunity for regional cooperation to implement a shared vision for environmental protections and transportation

improvements. As noted in this letter, Fairfax County staff have significant concerns regarding the impacts that would accrue to the region from the adoption of the proposed Comprehensive Plan Amendment, in addition to the other two concurrent planning initiatives (the Prince William Digital Gateway Corridor and the Data Center Opportunity Zone Overlay District). These proposals will likely lead to land use changes that would result in land use conflicts both within Prince William County and the larger region, the impacts of which have not been clearly defined. Proposed changes to the Comprehensive Plan have the potential to directly impact the natural environment and the heritage of the built environment. Changes may also engender auto-dependent development patterns, particularly in areas currently considered for agricultural uses, and increase impacts to the Occoquan Reservoir water supply. Ideally, the Pathway to 2040 Plan Amendment should not advance for approval until information is provided for each change in policy, with special attention to the interrelatedness of land use decisions and the long-range impacts of present actions. Analysis should consider the interaction of all elements of the built environment, including land use, transportation, housing, energy, and infrastructure, to determine how to best serve the public interest.

We concur with the comments of Fairfax Water, dated March 21, 2022, and May 4, 2022, i.e., reducing sodium and bromide concentrations in industrial wastewater before they enter the public sanitary sewer system. We also concur with the National Park Service, dated December 3, 2021, and May 2, 2022, which are attached.

Thank you for consideration of our comments. Fairfax County looks forward to continued cooperation with Prince William County in this major planning effort. It should be noted that Fairfax County staff has provided these comments for the purpose of identifying issues that we believe should be resolved and that these comments represent staff analysis and do not necessarily reflect the opinion of the Fairfax County Board of Supervisors. If you have any questions regarding these comments, please contact me.

Sincerely,



Rachel Flynn, AIA
Deputy County Executive

RF:JG

cc: Fairfax County Board of Supervisors
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Prince William County Board of County Supervisors
Prince William County Planning Commissioners

Attachments:

1. Memorandum, Fairfax County DPD, February 23, 2022
2. Memorandum, Fairfax Water, March 21, 2022
3. Memorandum, Fairfax Water, May 4, 2022
4. Memorandum, National Park Service, December 3, 2021
5. Memorandum, National Park Service, May 2, 2022
6. Memorandum, Fairfax County Park Authority, October 12, 2022