

# 1. LAND USE

## INTRODUCTION

*Board of Supervisors' Environmental Vision:*

*“The county will continue to refine and implement land use policies and regulations that accommodate anticipated growth and change in an economically, socially, and environmentally sustainable and equitable manner while revitalizing older commercial centers, protecting existing stable neighborhoods, supporting sustainability, and supporting a high quality of life.”*

With over a million residents, continued population growth, and little of its almost 400 square miles undeveloped, land use policies in Fairfax County are critical in determining the livability and quality of life for future residents.

In Fairfax County land use decisions are guided and implemented through the Comprehensive Plan, which consists of the Policy Plan, four Area Plan volumes, and a Plan Map. The Zoning Ordinance is the mechanism by which the Comprehensive Plan is implemented.

Fairfax County is currently undertaking a comprehensive update to its Policy Plan, known as "[Plan Forward](#)," which involves community feedback and aims to align the Policy Plan with other countywide strategies and objectives. Fairfax County released the draft land use text of Plan Forward in May of 2025 and sought public feedback. The next draft of the land use text is anticipated to be released on September 10. Public hearings on the revised Policy Plan Elements, including the Land Use Element, are expected in the fall 2025.

EQAC supports the Plan Forward initiative and provided comments on the May 2025 draft of the land use section. The timing of this report is such that it is running in parallel with development of the 2025 EQAC Annual Report on the Environment (ARE) Land Use Chapter. Therefore, EQAC cannot incorporate or be responsive to specific elements of the final version of Plan Forward. Given EQAC's review of the draft Plan Forward Land Use section and EQAC's broad mandate to advise on environmental issues, we offer these land use challenges and recommendations.

# Major Land Use Challenges in 2025

## Adopting a Heat Island Mitigation Policy

Urban heat islands (UHIs) disproportionately affect vulnerable populations—particularly lower-income residents, those living in substandard housing, and people working outdoors—and are projected to worsen due to climate change. These areas, dominated by impervious surfaces like roads and rooftops, absorb and re-emit solar heat more than natural landscapes, creating localized temperature spikes. NASA thermal imagery collected for [Resilient Fairfax](#) shows land surface temperatures in areas like Tysons Corner reach up to 15°F higher than nearby tree-covered neighborhoods. Heat islands were identified in every Supervisory district.

This increased heat is not only uncomfortable; it poses serious public health and environmental risks. Higher temperatures elevate energy demand for cooling and contribute to the formation of ground-level ozone, which exacerbates respiratory conditions and degrades air quality. Heat islands also intensify stormwater runoff and reduce overall livability. Fortunately, many of the most effective solutions—such as planting shade trees, installing vegetated or reflective roofs, and applying cool pavements—are well understood and can be integrated into development practices.

Fairfax County's draft *Plan Forward* includes [Healthy Communities Objective 4](#), which encourages green infrastructure and climate-adapted development. Implementing a comprehensive Heat Island Mitigation Policy would reinforce these goals and advance both equity and resilience. Focus should be given to high-density residential and commercial areas along transit corridors, where the impact is greatest and where mitigating actions—such as tree canopy expansion, solar canopies over parking lots, and reflective materials—can also offer co-benefits like improved air quality, mental health, and community aesthetics.

**Recommendation:** The Board of Supervisors should adopt a countywide Heat Island Mitigation Policy in the Comprehensive Plan.

## **Promoting High-Density, Transit-Oriented Development (TOD) and Environmentally Friendly Affordable and Workforce Housing**

Smart land use planning prioritizes high-density, mixed-use development near public transit to reduce vehicle miles traveled, improve air quality, and lower emissions. Fairfax County should reaffirm and strengthen its commitment to transit-oriented development (TOD), especially along the Metro corridors, while discouraging sprawl that undermines transportation goals. Development should include active, non-automobile transit such as bicycle and pedestrian walkways. The new concept in Plan Forward of [the Suburban Village Center concept](#) suggests a good model for concentrated mixed use, residential and commercial development that combines TOD and environmental sustainability.

A 2017 [Virginia Commonwealth University study](#) identified 15 “islands of disadvantage” -- clusters of census tracts where residents, disproportionately people of color, endure living conditions that take years off their lives. A [2023 follow-up study](#) found that, despite regional progress cutting poverty by 52% between 2009 and 2021, many of the “islands of disadvantage” did not share in this progress.

Fairfax’s [Urban Centers Policy](#) anticipates that 45% of job and housing growth between 2020-2040 should occur within ½mile of Metrorail. The Northern Virginia Regional Commission found numerous climate benefits of public transit TOD in its [2024 mode share survey, including significant reductions in the time people spend driving](#). Concentrating density near stations curbs sprawl, preserves open space, and delivers cost-effective transit service.

TOD should also include affordable and workforce housing to ensure equitable access to transit and amenities. The draft Plan Forward recommends retaining development of Affordable Living Unit (ALU) and Workforce Dwelling Unit (WDU) policies to promote equitable housing development for all residents of the county. Integrating green building practices, EV infrastructure, and active transportation options within these developments will further enhance their environmental performance and appeal. Transit-ready and transit-adjacent locations should also be prioritized for in-fill and redevelopment to make efficient use of land and infrastructure.

EQAC strongly supports the draft Plan Forward’s Housing and Neighborhood Livability policies, highlighting in particular [HNL 3. “Identify and execute creative opportunities to](#)

develop affordable housing throughout the county and especially in revitalization areas, including flexible criteria for accessory dwelling units, building reuse, and repurposing and establishing community land trusts in communities that feature mobility options and walkable neighborhood amenities.” And HNL 7.” Expand innovative land development solutions, such as by-right accessory dwelling units, home sharing, co-housing, and smaller lot sizes, while incentivizing first floor or entry floor living, universal design, and energy efficiency.”

Infill housing and small-footprint dwellings represent efficient, sustainable land use strategies that expand housing choices while minimizing environmental degradation, although concerns about increased impervious cover with infill development must be addressed. These forms of development, when concentrated near public transportation, typically occur near existing infrastructure and services, reducing the need for new roads, utilities, and long commutes. Infill development also offers opportunities to revitalize underutilized parcels and blend new housing into established neighborhoods.

By encouraging compact, walkable, and transit-accessible residential options, especially near green spaces and active transportation networks, the county can support its environmental, affordability, and equity goals. Recent additions to Zoning Ordinances expand options for expanding innovative housing types, such as accessory living units (ALUs), microhomes, and cottage courts. Development of ALUs should be further studied with the aim of promoting ALUs through development incentives, while also attending to risk of tree loss and stormwater concerns.

**RECOMMENDATION:** TOD residential housing should target sites that provide access to green spaces and active transportation (pedestrian and bikes) and public transportation while considering ways to incorporate affordable housing and innovative housing types such as accessory living units.

## **Encouraging Adaptive Reuse of Vacant Office Buildings**

With shifting work patterns and rising vacancies in office parks, Fairfax County faces both a challenge and a remarkable opportunity. Recycling underutilized office properties into vibrant mixed-use developments can address housing shortages, support local economies, and reduce environmental impacts compared to new construction on undeveloped land. These conversions should prioritize mixed residential development

that includes significant affordable and workforce housing to meet pressing regional needs, while also integrating green infrastructure and community-serving amenities.

Reusing existing office buildings near transit advances the county's sustainability goals by preserving land, reducing car dependence, and revitalizing stagnant commercial zones. Additionally, adaptive reuse supports embodied carbon reduction by reusing structural materials and minimizing demolition waste. Policy incentives and planning guidance should explicitly prioritize this form of sustainable redevelopment.

[Office vacancies in Fairfax](#) hit 17% in 2023. The county's [Adaptive Reuse Program](#) seeks to promote the reuse of existing buildings by providing incentives, guidance, and reduced review timeframe. The draft Plan Forward Land Use element proposes guidance to allow increases to the floor area and height of buildings to be repurposed to facilitate these conversions as well as additional residential uses in parking lots to further create cohesive communities. An example of an innovative use of vacant warehouse space is the indoor vertical farm, [Area 2 Farms](#), that produces a wide range of vegetables for 300 residents within a 10 mile radius. [Objective 2 of the Healthy Communities Element](#) of Plan Forward specifically recommends food production such as urban farms, community gardens, and urban orchards as a component of the open space network within new and redevelopment. Adaptive reuse could reduce food deserts in the county, increasing availability of fresh food through urban agriculture.

**RECOMMENDATION:** Provide incentives to recycle vacant office buildings and office parks to other desired uses, including mixed residential and commercial use.

### **Strongly encourage Data Centers to commit to Higher Environmental Standards**

The rapid expansion of data centers in Northern Virginia brings substantial energy, water, and environmental challenges. While recent Fairfax zoning amendments have set new standards for data centers, more could be asked from data center developers. Data center developers should be encouraged through zoning and proffers to energy efficiency, renewable energy use, sound mitigation, visual integration, and water conservation. Loudoun County's Board of Supervisors is grappling with the exceptional demands that data centers are making on electrical and water resources. Fairfax should learn from their experience and leadership. The Loudoun County Board of Supervisors approved [changes to its Comprehensive Plan and Zoning Ordinance](#) that make data centers a conditional use that now require an approved special exception application by the Board of

Supervisors. This eliminates data centers as a “by-right” use in the county. “By-right” development refers to a use that is allowed within existing zoning permissions for that property. In addition to recent changes to the Zoning Ordinance, the draft Plan Forward recommends additional policy guidance and use-specific standards for data centers and utility substations to address concerns related to land use, compatibility, aesthetics, infrastructure, and natural and environmental resources. Data center and broader electrification demands are driving major changes to regional power infrastructure, including substations and transmission lines. To ensure this infrastructure is environmentally responsible and equitably sited, Fairfax should collaborate closely with Dominion Energy and peer jurisdictions in Northern Virginia. Coordinated regional planning can avoid unnecessary environmental degradation, minimize community impacts, and promote strategic investments in clean, resilient energy systems.

A leadership role for the Northern Virginia Regional Commission could help align local government priorities, share data, and build a collective voice in discussions with utilities. Ensuring that new energy infrastructure supports—not undermines—the region’s climate and land use goals will require sustained engagement, transparency, and a strong advocacy position. Data center developers should be encouraged to meet high, aspirational standards of energy efficiency, non-polluting energy sources, water efficiency, aesthetics, and sound levels, as described on pages 28 to 31 of Plan Forward draft [Land Use criteria](#). Recent zoning changes require noise study. aesthetic requirements in most districts. Developers should be strongly encouraged to meet higher levels described in the draft Land Use criteria.

**RECOMMENDATION:** Support EQAC’s recommended legislative initiative on data centers, specifically requiring data centers’ reporting of energy, highlighting renewable energy, and water utilization reporting by data centers.

### **Incorporating Environmental Performance Requirements into Proffers**

Fairfax County’s ongoing development offers a vital opportunity to integrate sustainability directly into land use practices. By recommending environmentally focused proffers and offering examples of well crafted, environmentally strong proffers, the county can advance climate and environmental goals while shaping the built environment to reflect community values. Exemplary proffers could demonstrate how developments can support energy-efficient construction, renewable energy adoption, EV charging readiness, green infrastructure, and active transportation. Proffer guidance and exemplary models would promote consistency and transparency, ensuring that environmental gains are not left to chance or negotiation.

Encouraging such proffers allows the county to respond to climate imperatives within the existing legal framework. As buildings are responsible for [49% of greenhouse gas emissions](#) in the county, encouraging improved building environmental performance in new developments is one of the most impactful steps the county can take to reduce its carbon footprint and enhance public health, resilience, and livability.

Fairfax County already tracks proffered conditions through the [PLUS Proffer Module](#)—over 1,400 environmental proffers have been logged since 2018, ranging from solar-ready roofs to EV charging conduits. The Planning and Land Use System (PLUS) is a new multi-agency platform for Fairfax County customers to complete their zoning, building, permitting or other land development processes online. Standardizing green proffer language would speed staff review and ensure developers deliver quantifiable benefits such as minimum ENERGY STAR® scores, rooftop solar commitments, or tree canopy targets.

**RECOMMENDATION:** Through the Comprehensive Plan update, encourage environmental proffers for development that is not by-right, to include building energy efficiency, renewable energy, electric vehicle charging infrastructure, green space and trees to mitigate heat islands, and active transportation. Issue 'Model Environmental Proffer Guidelines' and require every discretionary rezoning to provide a proffer matrix consistent with the Environmental Guidelines.