CLIMATE ASSESSMENT FOR

ZTA 25-10, Landscaping Requirements – Native Plants

PURPOSE OF CLIMATE ASSESSMENT

The purpose of this Climate Assessment is to evaluate the anticipated impact of the zoning text amendment (ZTAs) on the county's contribution to addressing climate change. The assessment will provide the County Council with a better understanding of the potential climate impacts and implications of the proposed ZTAs, at the county level. The scope of the Climate Assessments is limited to addressing climate change, specifically the effect of the land use recommendation of the ZTA on greenhouse gas (GHG) emissions and carbon sequestration, and how actions proposed by the ZTA could improve the county's adaptive capacity to climate change and increase community resilience.

SUMMARY

The ZTA will not have any discernible impacts on greenhouse gas emissions or carbon sequestration, but will have minor positive and negative impacts on the county's goals of ensuring resilience and adaptive capacity of our communities. Positive impacts stem from the increase in biodiversity, the strengthening of ecosystems and wildlife, and thus the overall resilience of communities to adapt to climate change and the associated hazards of a changing climate. Concurrently, the reduction in biodiversity in Rural Open Spaces could reduce the resilience of communities in these areas.

BACKGROUND AND PURPOSE OF ZTA 25-10

This Zoning Text Amendment was introduced by the District Council on June 17, 2025. The purpose of the ZTA is to require 50% of required landscaping to use native plant species. Under the current Zoning Ordinance, there is no specified amount of native plant species required in Open Space Landscaping, except for Rural Open Space, which does require native species. With this ZTA, native species will be defined as from the Mid-Atlantic Region, which includes Maryland, Virginia, Delaware, New Jersey, New York, Pennsylvania, North Carolina, West Virginia, and the District of Columbia. This ZTA will increase resiliency against climate change, as all required landscape plantings will have at least half (or more) native plant species. However, in Rural Open Spaces, there will be a decrease in native plantings required, since the current requirement is 100%. Thus, Rural Open Spaces will have a reduction in native plant species.

VARIABLES THAT COULD AFFECT THE ASSESSMENT

For many ZTAs, it is difficult to determine the impacts on climate because of variables such as the scale and location of change, which may be difficult to ascertain. With this ZTA, there are a variety of locations and situations where this activity could occur, resulting in some uncertainty, though the impacts will likely be county-wide to some degree.

ANTICIPATED IMPACTS

There are slight positive impacts anticipated with ZTA 25-10. The impacts will be minor overall, as there will not be more plantings, but rather higher quality of plantings due to this ZTA. There will be a larger impact on Climate resiliency, as the higher quality plantings will have a positive impact on biodiversity, except in Rural Open Spaces. In Rural Open Spaces, planting quality will decrease, as less natives will be required in these areas with this change. There will be minor negative impacts on Rural Open Spaces' climate resiliency. The variables and impacts are determined in the assessment worksheets found in *Climate Assessment Recommendations for Master Plans, and Zoning Text Amendments in Montgomery County.*

GREENHOUSE GAS EMISSIONS, CARBON SEQUESTRATION, AND DRAWDOWN

ZTA 25-10 does not involve any impacts on greenhouse gas emissions, carbon sequestration, or drawdown.

COMMUNITY RESILIENCE AND ADAPTIVE CAPACITY

Montgomery Planning anticipates that ZTA 25-10 will most likely have a net positive impact on Community Resiliency and Adaptation, as the increased number of native plants will improve biodiversity, thus better capability of handling exposure-related factors, sensitivity-related factors, and adaptive capacity factors.

Community Resilience and Adaptive Capacity Checklist of Variables

Exposure Related Factors.

- **Activity in flood risk areas**: There may be a minor to slight positive impact in flood risk areas. Increasing the number of native plantings will improve water absorption, as native plants are able to develop root systems, as they will be suited for the soil type and environment. Stronger root systems can help reduce the amount of erosion that occurs from storms and flooding.
- **Activity in urban heat island**: There will be a slight positive impact on the resiliency of an area to urban heat island effects, as native plantings will support biodiversity in urban areas that

may be lacking native plants. Native plant species are suited to support and interact with other native plant species, which could collectively increase the stability of planting in urban areas. These native plantings may be able to withstand heatwaves and have the ability to recover more quickly from extreme heat, thus helping maintain cooler temperatures in urban areas, as healthy vegetation is able to provide shade and reduce greenhouse gases.

- **Exposure to other hazards (e.g., storms, wind, drought):** An increase in native plantings will increase biodiversity and create resilient ecosystems that can better withstand storms, wind, droughts, and other hazards. Native plantings will be able to support a more resilient ecosystem overall as they will support native wildlife, insects, and microorganisms, which will contribute to natural pest control and pollination. Ecosystems will be stronger and more self-sustaining in the midst of severe storms and other climate events, which will reduce the risk communities face against environmental hazards.

With the reduction in the requirement of native plantings in Rural Open Spaces, communities will be less resilient and adaptive to flooding, heat, and other hazards in these areas specifically. While all other landscape planting will increase in quality, Rural Open Spaces will decrease in planting quality and thus lose the benefits of biodiversity and the stability that a biodiverse ecosystem has.

Sensitivity Related Factors.

- **Change to quality or quantity of other green areas (e.g., wetlands, meadows, turf)**: There will be positive impacts on the quality of green areas, as the root systems may grow stronger and deeper, as native plantings will be well-suited to their environment and coexist with other plantings naturally. Wetlands and meadows may expand naturally and will improve in quality, as they will support native wildlife, which will increase pollination and natural pest management. Native plantings and vegetation should also require less maintenance, which will increase the likelihood of the plantings surviving and doing well over time. These plantings will create improved habitats for wildlife as well.

With the reduction in the requirement of native plantings in Rural Open Spaces, there will be a reduction in quality of wetlands, meadows, and other green areas. Rural Open Spaces will not support natural pest management, wildlife, and will require more maintenance by planting less native plant species.

RELATIONSHIP TO GREENHOUSE GAS (GHG) REDUCTION AND SEQUESTRATION ACTIONS CONTAINED IN THE MONTGOMERY COUNTY CLIMATE ACTION PLAN (CAP)

ZTA 25-10 does not involve any greenhouse gas or sequestration reductions or improvements related to the County's Climate Action Plan.

RECOMMENDED AMENDMENTS

Planning staff supports ZTA 25-10 because it will have positive impacts on the County's goals regarding community resiliency and adaptive capacity. However, current zoning, under Section 6.3.8.B.3., Rural Open Space must contain native species only. ZTA 25-10 amends this section to replace the existing language with new language requiring all open space to provide 50% native. While this ZTA will already have great benefits and set a positive standard for the other types of open spaces, this is a negative impact on Rural Open Space. Rural Open Space is intended to be maintained as either farmland or land in a more natural state, complementary to rural residential development patterns. These spaces are critical for planting with only native species to fit the intention of a natural area. The Climate Assessment could encourage a greater percentage of native plants required in plantings for the other open spaces, but this new minimum being introduced will lead to improvements in planting quality without being overly burdensome. The climate assessment recommends revising the proposed amendments to keep the requirement of only native species for Rural Open Space while retaining the new 50% native requirement for other open spaces.

SOURCES OF INFORMATION, ASSUMPTIONS, AND METHODOLOGIES USED

The climate assessment for ZTA 25-09 was prepared using the methodology (tables 1, and 2) for ZTAs contained within the Climate Assessment Recommendations for Master Plans and Zoning Text Amendments in Montgomery County, December 1, 2022.