



CLIMATE ASSESSMENT FOR ZONING TEXT AMENDMENT (ZTA) 25-05, DEVELOPMENT STANDARDS - OPTIONAL METHOD PUBLIC BENEFITS

PURPOSE OF CLIMATE ASSESSMENTS

The purpose of the Climate Assessments is to evaluate the anticipated impact of Master Plans and zoning text amendments (ZTAs) on the county's contribution to addressing climate change. These assessments will provide the County Council with a better understanding of the potential climate impacts and implications of proposed Master Plans and ZTAs, at the county level. The scope of the Climate Assessments is limited to addressing climate change, specifically the effect of land use recommendations in Master Plans and ZTAs on greenhouse gas (GHG) emissions and carbon sequestration, and how actions proposed by Master Plans and ZTAs could improve the county's Adaptive Capacity to climate change and increase Community Resilience.

While co-benefits such as health and cost savings may be discussed, the focus is on how proposed Master Plans and ZTAs may impact GHG emissions, community resilience and adaptive capacity, and the County's Climate Action Plan (CAP) actions.

SUMMARY

The public benefits proposed in ZTA 25-05 do not increase density in the CR and CRT zones but provide public benefits to give applicants the credit needed to realize the density of the underlying zoning, which is unchanged by the ZTA. The ZTA is designed to ensure that the permitted density we already expect in these zones provides the public benefits we want to see, as guided by the county's CAP and Thrive Montgomery 2050. Requiring the provision of the proposed public benefits in the CR and CRT zones is expected to result in:

- Mostly minor to moderate positive, and in a few cases minor negative impacts on the county's goals of addressing GHG emissions;
- Mostly no impacts but in a few cases minor positive or negative impacts on carbon sequestration;
- For the most part, no impact to minor positive or, in few cases, minor negative impacts on community resilience and adaptive capacity; and,
- Mostly either no impact or positive effects on implementing CAP Actions.

The Montgomery County Planning Board anticipates that removing the requirement to provide public benefits in the EOF zone will have no significant climate impacts as only one EOF project (now CR zoned) used the optional method of development in 14 years. Likewise, no significant climate impacts are expected from removing the requirement to provide public benefits in the LSC zone outside of the Great Seneca Science Center (GSSC) Overlay Zone (which will continue to stipulate what benefits need to be provided within the overlay zone), because there are only three LSC zoned properties in the county outside of the GSSC Overlay Zone and no LSC projects used the optional method of development in 10 years.

BACKGROUND AND PURPOSE OF ZTA 25-05

This ZTA would implement the new public benefit recommendations that came from the Incentive Zoning Update project. This project proposes new public benefits in the CR and CRT zones to better align with County priorities around land use, urban design, infrastructure, and the environment including elements of the CAP, Thrive Montgomery 2050, and recent sector plans. Development of the recommendations in the Incentive Zoning Update was a collaborative effort led by Montgomery Planning but included representatives from Montgomery County Department of Transportation, Montgomery County Department of Permitting Services, Montgomery County Department of Environmental Protection, Montgomery County Department of Housing and Community Affairs, and others.

VARIABLES THAT COULD AFFECT THE ASSESSMENT

The following climate-related variables were considered in this assessment as impacted by ZTA 25-05. Climate related variables include GHG reduction, sequestration, resilience, and adaptive capacity activities in the climate assessment checklists (Tables 1 and 8) contained in the *Climate Assessment Recommendations for Master Plans and Zoning Text Amendments in Montgomery County*.

CLIMATE-RELATED VARIABLES

- Transportation – Vehicle miles traveled by type, Number of trips, non-vehicle modes of transportation, Public transportation use, and Electric vehicle infrastructure access.
- Building – Building certifications, Building square footage, Building life span, Pavement infrastructure, Material waste produced, and Use of green building materials.
- Energy – Electricity usage, Stationary fuel usage, Electricity efficiency, and Stationary fuel efficiency.
- Land Cover and Management – Area of non-forest tree canopy, Area of green cover, and Implementation of nature-based solutions.

COMMUNITY RESILIENCE-RELATED VARIABLES

- Exposure-Related Factors – Activity in urban heat islands.
- Sensitivity-Related Factors – Change to non-forest tree canopy, Change to quality or quantity of other green areas, Change to impacts of heat, Change in perviousness, Change in stormwater management system treatments, Change to water quality or quantity, Change to air quality, Infrastructure design decisions.

ADAPTIVE CAPACITY-RELATED VARIABLES

- Adaptive Capacity Factors – Change to accessibility or prevalence of community and public spaces, Change to emergency response and recovery capabilities, Change in access to transportation, Change to accessibility or prevalence of local food sources and other goods, Change in availability or distribution of economic and financial resources, Change to community connectivity, Change in distribution of resources and support.

OTHER ADAPTIVE CAPACITY FACTORS

- None

ANTICIPATED IMPACTS

The Montgomery County Planning Board anticipates that removing the requirement to provide public benefits in the EOF zone will have no significant climate impacts, as there has been only one EOF project (now CR zoned) in 14 years. Likewise, no significant climate impacts are expected from removing the requirement to provide public benefits in the LSC zone outside of the Great Seneca Science Center (GSSC) Overlay Zone (which will continue to stipulate what benefits need to be provided within the overlay zone), because there are only three LSC zoned properties in the county outside of the GSSC Overlay Zone and no LSC projects in 10 years that have used the optional method of development. Small to moderate, mostly positive impacts are anticipated from implementing the new public benefit categories on future optional method development in the CR and CRT zones described below.

GREENHOUSE GAS EMISSIONS, CARBON SEQUESTRATION, AND DRAWDOWN

Implementing the new public benefits is expected to result in mostly minor to moderate positive, and in a few cases, minor negative impacts on the county's goals of addressing GHG emissions. For more details and impact breakdown by proposed public benefits, see Table 1.

COMMUNITY RESILIENCE AND ADAPTIVE CAPACITY

ZTA 25-05 is expected to result in mostly no impacts, but in a few cases, minor positive or negative impacts on Carbon Sequestration; and, for the most part, no impact to minor positive impacts or, in a few cases, minor negative impacts on Community Resilience and Adaptive Capacity. For more details and impact breakdown by proposed public benefits, see Table 1.

TABLE 1. CLIMATE AND CAP IMPACTS OF PROPOSED CR AND CRT ZONE PUBLIC BENEFITS						
Policy Priorities/Public Benefits Categories	Public Benefit	Greenhouse Gas Emissions	Carbon Sequestration	Community Resilience	Adaptive Capacity	Climate Action Plan Actions
Housing for All	MPDUs	Minor Positive	No Impact	No Impact	No Impact	No Impact
	Family-Sized Units	No Impact	No Impact	No Impact	Minor Positive	No Impact
	Deeper Levels of Affordability	Minor Positive	No Impact	No Impact	Minor Positive	No Impact
Environmental Resilience	Energy Efficiency	Moderate Positive	No Impact	Minor Positive	No Impact	B-6, B-7: Minor Positive
	Renewable Energy	Minor to Moderate Positive	No Impact	Minor Positive	Minor Positive	B-5, B-6, B-7, E-2, E-3 Moderate Positive
	Green Buildings	Moderate Positive	No Impact	Minor Positive	No Impact	A-17, B-3, B-7, E-3 Minor Positive
	Sustainable Site Design	Minor Positive	Minor Positive	Minor Positive	Minor Positive	A-7, A-10, S-1, S-2 Minor Positive
Infrastructure for Compact Growth	Offsite Improvements	Minor Positive and Negative	Minor Positive or Negative	Minor Positive or Negative	Minor Positive	A-2, T-2 Minor Positive
	Public Facility	Minor Positive and Negative	No Impact	Minor Positive and Negative	Minor to Moderate Positive	No Impact
	Street Grid and Trail Extensions	Minor Positive and Negative	Minor Negative	Minor Negative	Minor Positive	T-2: Minor Positive T-4: Minor Negative
	Art and Placemaking	No Impact	No Impact	No Impact	Minor Positive	No Impact

TABLE 1. CLIMATE AND CAP IMPACTS OF PROPOSED CR AND CRT ZONE PUBLIC BENEFITS						
Policy Priorities/Public Benefits Categories	Public Benefit	Greenhouse Gas Emissions	Carbon Sequestration	Community Resilience	Adaptive Capacity	Climate Action Plan Actions
Complete Community Amenities	Neighborhood Services & Mixed Use	Minor Positive or Negative	No Impact	Minor Negative	Moderate Positive	No Impact
	Great Public Realm	No Impact	No Impact	No Impact	Minor Positive	No Impact
	Design Excellence	Minor Positive	No Impact	No Impact	Minor Positive	A-17, B-7, E-3 Minor Positive

RELATIONSHIP TO GREENHOUSE GAS EMISSION REDUCTION, CARBON SEQUESTRATION, AND OTHER RELEVANT ACTIONS CONTAINED IN THE MONTGOMERY COUNTY CLIMATE ACTION PLAN (CAP)

The CAP details the effects of a changing climate on Montgomery County and includes interagency strategies to reduce GHG emissions and climate-related risks to the county's residents, businesses, and the built and natural environment.

The CAP includes 86 climate actions as a pathway to meet the county's ambitious climate goals while building a healthy, equitable, and resilient community. Each county department has responsibilities for specific climate actions that are relevant to the work of that department. The following section provides a list of the CAP action items relevant to ZTA 25-05. While it is not possible to know the rate of implementation, development, funding, or other implications, each action item was rated major, medium, or minor positive or negative impact for its potential to support GHG gas reduction, carbon sequestration, or other relevant CAP actions. The proposed requirements for public benefits in the CR and CRT zones are expected to have mostly either no impact or positive effects on implementing the Climate Action Plan Actions. For more detail, see Table 1.

CLIMATE ADAPTATION ACTIONS

- A-2: Repair and Enhancement of Stormwater Conveyance Systems: Minor Positive.
The Infrastructure for Compact Growth priority has an Offsite Improvement public benefit that could support this CAP Action.

- A-7: Green Public Spaces: Minor Positive. The Environmental Resilience priority has Green Buildings and Sustainable Site Design public benefits that could support this CAP Action.
- A-10: Green Infrastructure: Minor Positive. The Environmental Resilience priority has a Sustainable Site Design public benefit that could support this CAP Action.
- A-17: On-Site Water Reuse: Minor Positive. The Environmental Resilience has a Green Buildings public benefit, and the Complete Communities Amenities priority has a Design Excellence public benefit that could support this CAP Action.

BUILDING ACTIONS

- B-3: Energy Performance Standard for Existing Commercial and Multifamily Buildings: Minor Positive. The Environmental Resilience priority has a Green Buildings public benefit that could support this CAP Action.
- B-5: All-Electric Building Code for New Construction: Minor Positive. The Environmental Resilience Priority has a Renewable Energy public benefit that could support this CAP Action.
- B-6: Disincentivize and/or Eliminate Natural Gas in New Construction: Minor Positive. The Environmental Resilience priority has Energy Efficiency and Renewable Energy public benefits that could support this CAP Action.
- B-7: Net Zero Energy Building Code for New Construction: Minor Positive. The Environmental Resilience priority has Energy Efficiency, Green Building, and Renewable Energy public benefits, and the Complete Communities Amenities priority has a Design Excellence public benefit that could support this CAP Action.

CLEAN ENERGY ACTIONS

- E-2: Private Building Solar Photovoltaic Code Requirements: Minor Positive. The Environmental Resilience priority has a Renewable Energy public benefit that could support this CAP Action.
- E-3: Promote Private Solar Photovoltaic Systems: Minor Positive. The Environmental Resilience priority has Renewable Energy and Green Buildings public benefits, and the Complete Community Amenities priority has a Design Excellence public benefit that could support this CAP Action.

CARBON SEQUESTRATION ACTIONS

- S-1: Retain and Increase Forests: Minor Positive. The Environmental Resilience priority has a Sustainable Site Design public benefit that could support this CAP Action.
- S-2: Retain and Increase Tree Canopy: Minor Positive. The Environmental Resilience priority has a Sustainable Site Design public benefit that could support this CAP Action.

TRANSPORTATION ACTIONS

- T-2: Expand Active Transportation and Micro-mobility Network: Minor Positive and Negative. The Infrastructure for Compact Growth priority has Offsite Improvements and Street Grid and Trail Extensions, public benefits that could, in some cases, support this CAP Action and in others result in new road construction.
- T-4: Constrain Cars in Urban Areas, Limit Major New Road Construction: Minor Negative. The Infrastructure for Compact Growth priority has a Street Grid and Trail Extensions public benefit that could result in some new road construction.

RECOMMENDED AMENDMENTS

The Climate Assessment Act requires the Planning Board to offer appropriate recommendations such as amendments to the proposed ZTA 25-05 or other mitigating measures that could help counter any negative impacts identified through this Climate Assessment. No amendments to the ZTA are recommended by Staff as most of the impacts are either insignificant or positive. Negative impacts are mostly minor, and existing code requirements that govern the implementation of the benefits involving design and construction include specifications intended to limit negative impacts. In addition, for some of the proposed benefits, negative impacts occur in conjunction with positive impacts.

SOURCES OF INFORMATION, ASSUMPTIONS, AND METHODOLOGIES USED

The climate assessment for ZTA 25-05 was prepared using the methodology for Master Plans contained within the *Climate Assessment Recommendations for Master Plans and Zoning Text Amendments in Montgomery County*, December 1, 2022.