



Montgomery County Climate Action Plan

Carbon Sequestration Actions



VISION: Montgomery County has conserved and enhanced its nature-based solutions, including forest, meadow, and wetland ecosystems, green spaces, and trees, while reversing carbon dioxide emissions. The County is committed to continuing to enhance the wide array of benefits from these resources.

- Work across sectors and integrate nature-based solutions.
- Support and implement policies and strategies for land conservation.
- Retain, increase, and restore terrestrial ecosystems, including forests, meadows, wetlands, green spaces, and urban trees.

ACTIONS:

- S-1: Retain and Increase Forests
- S-2: Retain and Increase Tree Canopy
- S-3: Restore and Enhance Meadows and Wetlands
- S-4: Regenerative Agriculture
- S-5: Restore Soil Fertility, Microbial Activity, and Moisture-Holding Capacity
- S-6: Whole-System Carbon Management and Planning

SUMMARY:

Achieving the County’s climate change goals cannot be accomplished through greenhouse gas (GHG) emissions reduction alone. Carbon sequestration captures and stores carbon dioxide from the atmosphere. Carbon sequestration can be maximized through the retention, management, and expansion of nature-based systems, such as forests, wetlands, and meadows, as well as individual trees and small groups of trees that comprise the urban forest. It is essential for the County to prioritize retention of forests, wetlands, and meadows, as any loss of these carbon sinks will add carbon to the atmosphere. Sequestration can be further enhanced by increasing forest and tree canopies, increasing carbon stored in soils, and improving agricultural practices. These efforts are known as nature-based solutions (NBS). Enhancing and increasing these natural systems should be a priority. It will be essential to conduct detailed and robust assessments of existing systems in order to set meaningful and measurable goals for increased carbon sequestration through NBS.

Compared to most other strategies, NBS are relatively low-cost to implement and maintain and they increase in value over time. They provide multifaceted co-benefits that are essential for thriving communities. One of the more critical co-benefits of NBS is an increase in the overall resilience of communities because NBS support the ecological systems upon which we depend. For example, a well-distributed tree canopy in urban areas reduces summertime temperatures and provides winter windbreaks, thereby reducing energy consumption.

Some of the other benefits of conserving natural ecosystems include improved air and water quality, reduced impacts from the urban heat-island effect, improved stormwater management, and enhanced flood hazard management. In addition, NBS improve human health, encourage active lifestyles, reduce crime, and increase our sense of well-being.

Read the [Annual Climate Work Plan](#) for the current status of Carbon Sequestration Actions.

