



# Charles County Climate Action Plan

## Frequently Asked Questions (FAQ)



Welcome to our Climate Action Plan FAQ document. Here, you'll find answers to common questions about our initiatives, goals, and how you can contribute to a cleaner and more resilient future.

### CLIMATE CHANGE BASICS

#### What is Climate Change?

Climate change refers to significant changes in global temperatures and weather patterns over time. While climate change is a natural phenomenon, scientific evidence shows that human activities, particularly the burning of fossil fuels, are accelerating this process<sup>1</sup>.

#### What are the Main Causes of Climate Change?

The primary cause of recent climate change is the increase in greenhouse gases in the atmosphere due to human activities like burning fossil fuels, deforestation, and industrial processes<sup>1</sup>.

#### How is Climate Change Affecting Charles County?

Climate change can impact our County through more frequent and severe weather events, such as storms, floods, droughts, and heatwaves. It can also affect local agriculture, water supply, and public health, leading to challenges for our community.

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<sup>1</sup> U.S. Environmental Protection Agency. (n.d.). Frequently asked questions about climate change. Retrieved February 5, 2025, from <https://www.epa.gov/climatechange-science/frequently-asked-questions-about-climate-change>

## What are Greenhouse Gases (GHGs)?

Greenhouse gases are gases that trap heat in the atmosphere, creating a “greenhouse effect” that keeps the Earth's surface warmer than it would be otherwise. The main greenhouse gases include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases<sup>1</sup>.

## What is Climate Adaptation?

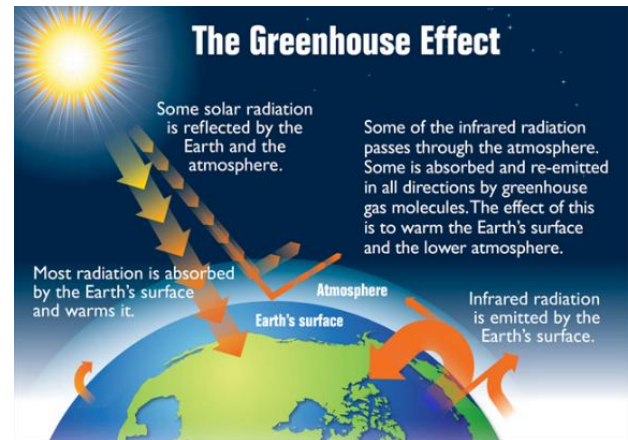
Climate adaptation means taking action to prepare for and adjust to both the current and projected impacts of climate change<sup>2</sup>.

## What is Climate Mitigation?

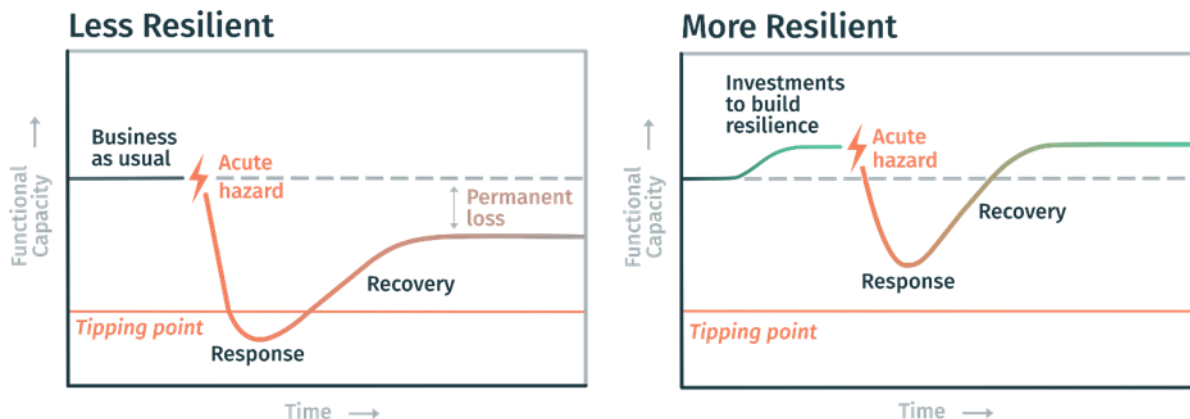
Climate mitigation refers to actions limiting the magnitude and rate of future climate change by reducing greenhouse gas emissions<sup>2</sup>.

## What is Climate Resilience?

Climate resilience refers to the ability of communities, ecosystems, and economies to withstand, adapt to, and recover from the impacts of climate change<sup>3</sup>.



From U.S. Environmental Protection Agency.  
"Basics of Climate Change."  
EPA, <https://www.epa.gov/climatechange-science/basics-climate-change#greenhouse>.



Source: U.S. Climate Resilience Toolkit<sup>4</sup>.

<sup>2</sup> Intergovernmental Panel on Climate Change. (2022). FAQ 6: What is climate resilient development and how do we pursue it? In Climate change 2022: Impacts, adaptation and vulnerability. Retrieved February 5, 2025, from <https://www.ipcc.ch/report/ar6/wg2/about/frequently-asked-questions/keyfaq6/>

<sup>3</sup> U.S. Environmental Protection Agency. (n.d.). Climate adaptation and EPA's role. Retrieved February 5, 2025, from <https://www.epa.gov/climate-adaptation/climate-adaptation-and-epas-role>

<sup>4</sup> US Climate Resilience Toolkit. <https://toolkit.climate.gov/> adapted from M.E. Hynes, B. Ross and CARRI (2008); White et al. (2015) <https://www.ipcc.ch/report/ar6/wg2/about/frequently-asked-questions/keyfaq6/>.

## How Can We Build Climate Resilience?

Building climate resilience involves implementing strategies to reduce vulnerability to climate hazards, such as improving infrastructure, enhancing emergency preparedness, protecting natural ecosystems, and promoting sustainable development.

## Why is Climate Resilience Important?

Climate resilience is crucial for minimizing the adverse effects of climate change on human health, livelihoods, and ecosystems. It helps ensure that communities can continue to thrive despite changing climate conditions.

## What are the Co-Benefits of Climate Action?

In addition to reducing GHGs, climate action has the potential to produce additional positive changes (co-benefits) such as improved health (*i.e., reduced chronic health, heat related stress etc.*), improved environmental conditions (*i.e., improved ecosystems, beautified landscapes, improved air quality, etc.*), and improved economic opportunities (*i.e., investment in communities, enhanced greenspaces, etc.*).

## Why is Climate Action important?

We are approaching a tipping point in the fight against global climate change. This means that if emissions and warming continue at the rate they are now, changes will be made to the ecosystem that cannot be reversed, such as a shifting of the climate zones that determine what crops will survive in our county, massive coral death resulting in decimated fisheries, and melting of polar ice caps that could cause sea level to rise, which could increase flooding in the County.

Outside of just doing our part to contribute to global emissions reductions efforts, the effects of taking Climate Action can be felt at the local level, through such outcomes as cleaner waters, better air quality, beautified landscapes, and reduced urban heat island effects.

## Why approach this at the local level?

While climate change is a global issue, it is felt acutely at the local and individual level, and localities and individuals must do their part to combat it. As climate change is deemphasized at the national level, the role of state and local governments in producing a greener future is more important than ever—and we are equipped to make real change. Analysis from the University of Maryland's Center for Global Sustainability shows that, even without federal support, sustained and high-ambition

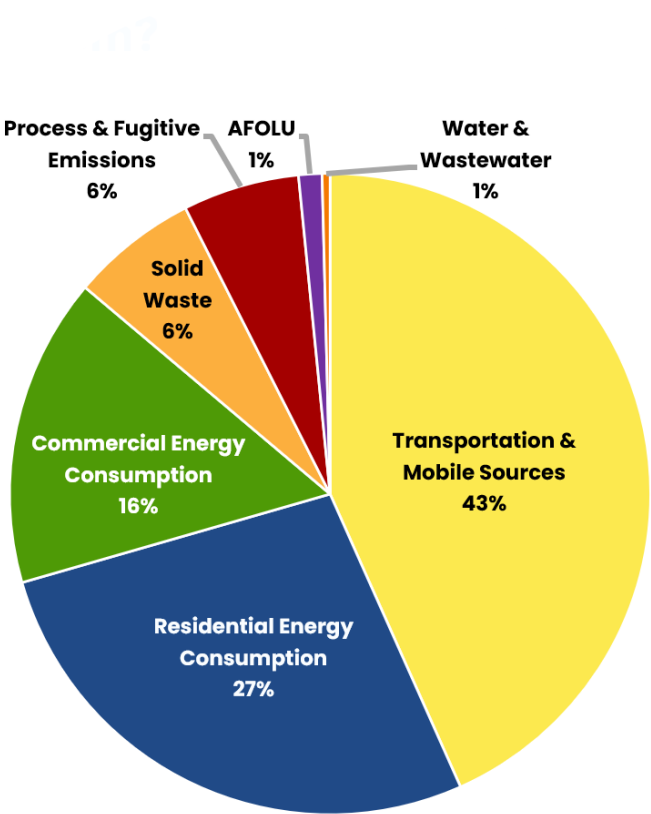
actions from non-federal actors can achieve a 48–60% reduction by 2035. This highlights the impact that non-federal actors can still have<sup>5</sup>.

**CLIMATE ACTION IN CHARLES COUNTY**

**What are the Main Sources of GHGs in Charles County?**

The main sources of GHGs in Charles County include transportation, residential energy consumption, commercial energy consumption, and solid waste. Eighty-six percent (86%) of emissions in the county come from transportation and energy use.

***Charles County Emissions Inventory based on 2018 Data Available from the Metropolitan Washington Council of Governments (MWCOG).***



<sup>5</sup> Zhao, A., K. O’Keefe, S. Kennedy, M. Binsted, C. Dahl, C. Squire, K. Ordonez Olazabal, A. Bryant, J. Snarski, D. Churlyayev, S. J. Smith, J. Lou, K. Kennedy, G. Chalef, N. Hultman, and R. Cui (2024). “Toward 2035: Forging a High-Ambition U.S. Climate Pathway.” Center for Global Sustainability, University of Maryland. 68 pp

GHG Emitting Sector	Description
<b>AFOLU</b>	Agriculture, Forestry, and Other Land Use.
<b>Process &amp; Fugitive Emissions</b>	Industrial process and manufacturing emissions as well as leaks from equipment or pipeline.
<b>Transportation &amp; Mobile Sources</b>	Automobiles, Buses, Trains, Planes, Vessels
<b>Commercial Energy Consumption</b>	Industrial Buildings (e.g., <i>Government Buildings</i> )
<b>Residential Energy Consumption</b>	Electricity (e.g., <i>light bulbs, heating/cooling, electronics</i> )
<b>Solid Waste</b>	Municipal/Private Landfills, animal waste produced by Confined Animal Feeding Operations (CAFOs)

### What Is a Climate Action Plan and How Does it Impact Climate Change?

A Climate Action Plan (CAP) serves as a comprehensive roadmap to guide Charles County through a process of reducing its GHG emissions, thereby reducing local contributions to climate change. A Climate Action Plan also helps direct the County on how to respond to the changes in climate we are already seeing. By mitigating and responding to climate change, Charles County can improve our environment and protect our communities.

### How are CAP goals and actions established?

The goals and actions will be established based on several factors:

- The baseline resilience and GHG analyses which identify existing conditions and needs.
- Input from the community and stakeholders.
- The political, economic, and overall implementation feasibility of the actions.
- Research on similar CAPs prepared in other jurisdictions such as the MWCOC region, or the state, and the relative applicability for Charles County.

### What does “Actionable Strategies” mean in the CAP?

An “actionable strategy” refers to a well-defined, practical action that can be implemented to achieve specific goals in mitigating or adapting to the impacts of climate change. These strategies are characterized by their clarity, feasibility, and measurable outcomes.

### How is CAP Development Funded?

The Charles County CAP is being funded under the County Department of Planning and Growth Management. The CAP will provide general cost estimates for some suggested actions, but there is not a separate budget for implementation of CAP

initiatives. The CAP will identify federal, state, and local funding sources to fund specific prioritized strategies from the CAP.

### **When will the CAP be completed?**

The draft CAP will be available over the summer and will go through a public review process as well as through the Resilience Authority and the Board of Commissioners. Our goal is to develop a transparent plan, metrics, and milestones that can be tracked and shared as we make progress.

### **Once the CAP is complete, how will the actions and strategies be implemented?**

The CAP will establish a multi-departmental, whole-of-government approach. There will be coordination across departments with the Department of Planning and Growth Management acting as a resource and tracking entity that will assist other departments with implementation through the County's family of plans, such as the Comprehensive Plan and assisting with identifying funding opportunities such as grants.

## **COMMUNITY AND STAKEHOLDER ENGAGEMENT**

### **Why Participate?**

Communities across Charles County may experience the impacts of climate change differently. Members of the community that participate will have the opportunity to inform the County of climate change priorities and/or concerns. By sharing your life experiences, and/or concerns, you can help shape initiatives within the CAP.

### **How Can I Learn More About the CAP and CAP Initiatives?**

There are several opportunities and ways to find out more information and stay engaged. We invite you to visit the resources below and share them with your community!

To find out more information about the CAP including Public Engagement opportunities, participate in surveys, please visit the CAP Engage Page: <https://charles-county-md.civilspace.io/en/projects/charles-county-climate-action-planning>.

To sign up for the Climate Action Mailing list, please visit:  
<https://www.charlescountymd.gov/government/climate-action>

Visit Charles County Government social media pages:  
<https://linktr.ee/CharlesCAP>



## How Can I Get Involved Now?

Charles County will hold several engagement opportunities beginning in Fall 2024 through Summer 2025. Interactive Webinars, In-person public meetings, attendance at community events, and more will be opportunities for the County to listen to and gather input on communities' climate experiences, current climate actions, and resilience needs and priorities.

To stay up-to-date with community engagement events or to register for upcoming meetings, please visit: <https://charles-county-md.civilspace.io/en/projects/charles-county-climate-action-planning>

Additionally, the County will host a series of in-person meetings at various community locations. To find the meeting closest to you, please visit: <https://charles-county-md.civilspace.io/en/projects/charles-county-climate-action-planning>.

## Accessibility

Charles County is committed to ensuring equal access for all meeting participants. If information is needed in alternative formats or languages, or if other reasonable accommodations are required to participate fully, please contact: [ClimateAction@CharlesCountyMD.gov](mailto:ClimateAction@CharlesCountyMD.gov)

## Where Can I Find Past Meeting Information?

Charles County will make all efforts to ensure time-of-day and locations are accessible whether they are in-person or online/virtual. If you are unable to attend a specified engagement event, past meeting information can be found by navigating to the Previous Meetings dropdown through the Climate Action Planning webpage: <https://charles-county-md.civilspace.io/en/projects/charles-county-climate-action-planning>.

## Who do I contact?

For more comments/questions, to request Americans with Disabilities (ADA) accommodations, or receive information in languages other than English, please contact:

**Beth Groth**  
Climate Resilience and Sustainability Officer

**Noelani Brockett**  
Planner

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