

MONTGOMERY COUNTY

Draft Climate Action Plan

**Building a Healthy, Equitable,
and Resilient Community**

Review the draft. Submit comments by February 28.



MontgomeryCountyMD.gov/Climate



Overview of the Draft CAP

- Montgomery County's **strategic plan** to cut greenhouse gas (GHG) emissions 80% by 2027 and 100% by 2035 and reduce climate-related risks
- Identifies the County's largest and growing **climate hazards**
- **87 prioritized actions**

Climate Planning Principles

- Think transformationally
- Advance racial equity and social justice
- Use all levers of government
- Engage community members where they are
- Work together
- Embrace our diversity
- Take risks
- Act while planning

Community Involvement in Developing the CAP

176 Technical Climate Workgroup members

30 Workgroup Meetings

2 Racial Equity and Social Justice Workshops

130 Community Conversations with Resilience Ambassadors

ORGANIZATIONS PARTICIPATING IN THE CLIMATE PLANNING PROCESS:

22 Environmental Conservation and Climate Groups

20 Business

10 Civil Rights and Religious Groups

9 Education Groups

8 County Advisory Groups

7 Federal Agencies (Unofficial Presence) and International Organizations

7 Adaptation, Resilience and Energy Associations

4 Utilities

5 Budget, Finance, and Philanthropic Groups

4 Municipalities and Municipal Advisory Groups

3 Chambers of Commerce

2 Public Health Groups

2 Transportation Groups

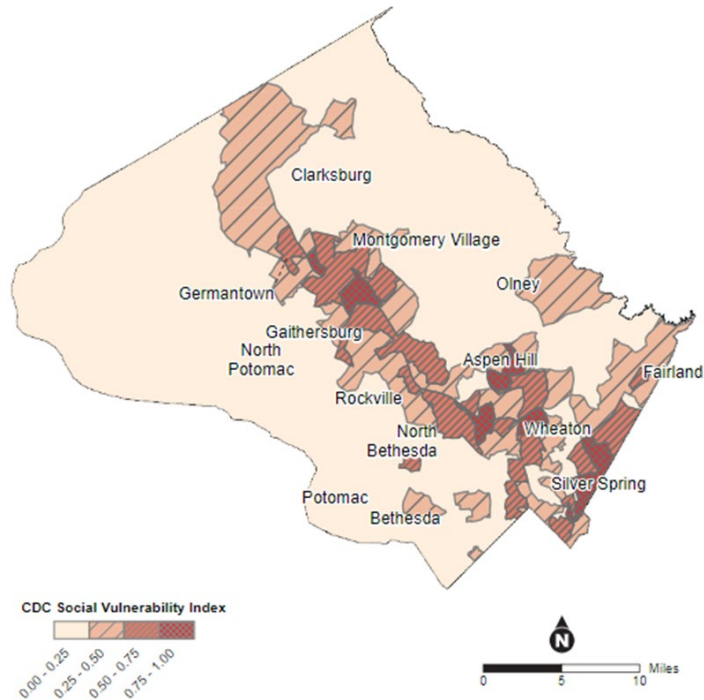
1 Buildings Group

1 Environmental Justice Group

Racial Equity & Social Justice

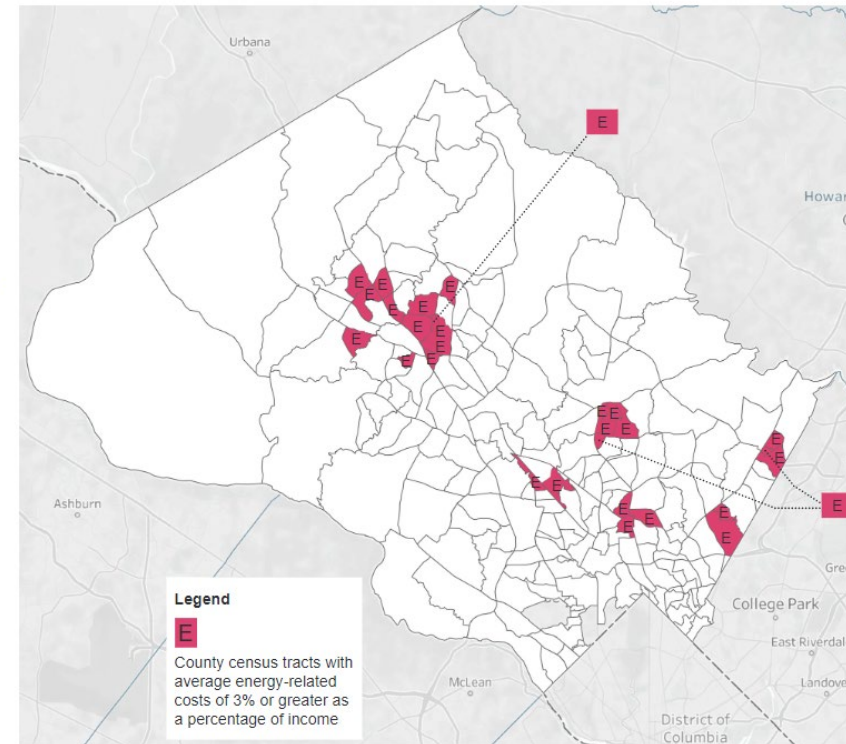
Racial Equity

When race can no longer be used to predict life outcomes and outcomes for all groups are improved



Social Justice

When all people have access to the same rights and resources and there is a fair distribution of resources



Equity-enhancing Measures

EXAMPLE:



B-2

Electrification Code Requirements for Existing Residential Buildings

Primary Benefit:



GHG Mitigation – High

Co-Benefits:

Racial Equity and Social Justice – Very Negative
Public Health – Somewhat Positive
Economic Prosperity – Somewhat Positive

Authority:

Outside County – Requires County Collaboration with Other Public or Private Entities or Is Outside County Authority

Investment Level:

County: \$\$
Private: \$\$\$

Development Stage:

Proposed

Lead:

DPS

Contributor:

DEP

EQUITY-ENHANCING MEASURES

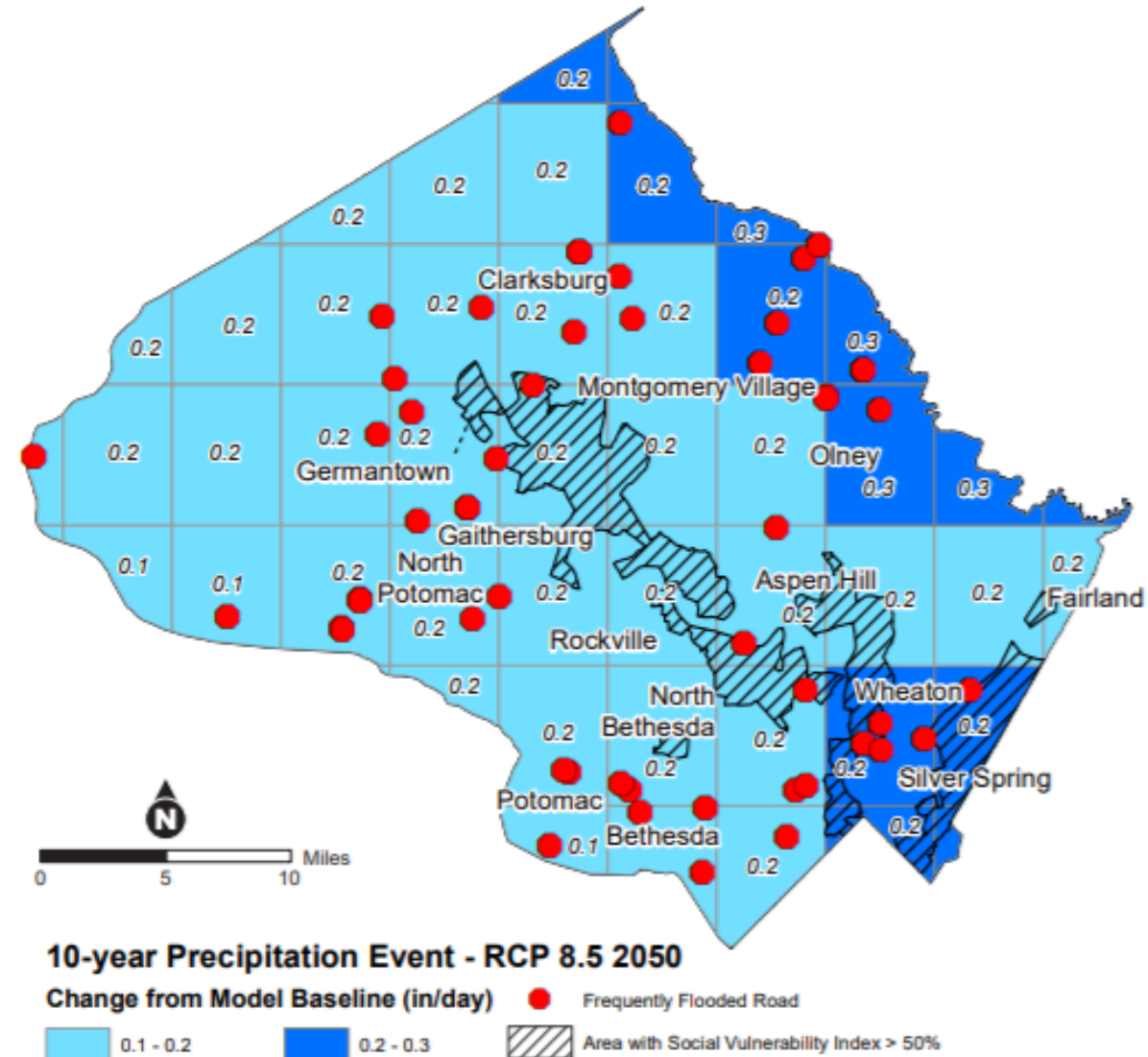
- Provide financial support (such as partial or full subsidies) to low-income households to replace fossil fuel appliances and equipment with electric options.
- Develop an awareness campaign related to the ordinance, including what it means, how to access financial incentives (such as subsidies or affordable financing), and what the benefits are of transitioning to electric appliances and equipment. Ensure the awareness campaign is developed in multiple languages.

Major Climate Hazards & Climate Vulnerability

- The CAP identifies the County's four largest and growing climate hazards:
 1. Extreme heat
 2. Extreme precipitation
 3. High winds
 4. Drought
- The CAP analyzes the impact of climate hazards on a variety of community asset categories, including the built and natural environment as well as people.

Precipitation Projections, Frequently Flooded Roads, & Social Vulnerability

- The **10-year precipitation event** from the RCP 8.5 scenario for the year 2050 is mapped with a record of **frequently flooded roads**.
- This information is combined with the **social vulnerability index** showing the areas of the County that are considered the more vulnerable half of the County's population.
- Combining the hazard data, asset information, and social vulnerability index, priority areas can be identified.





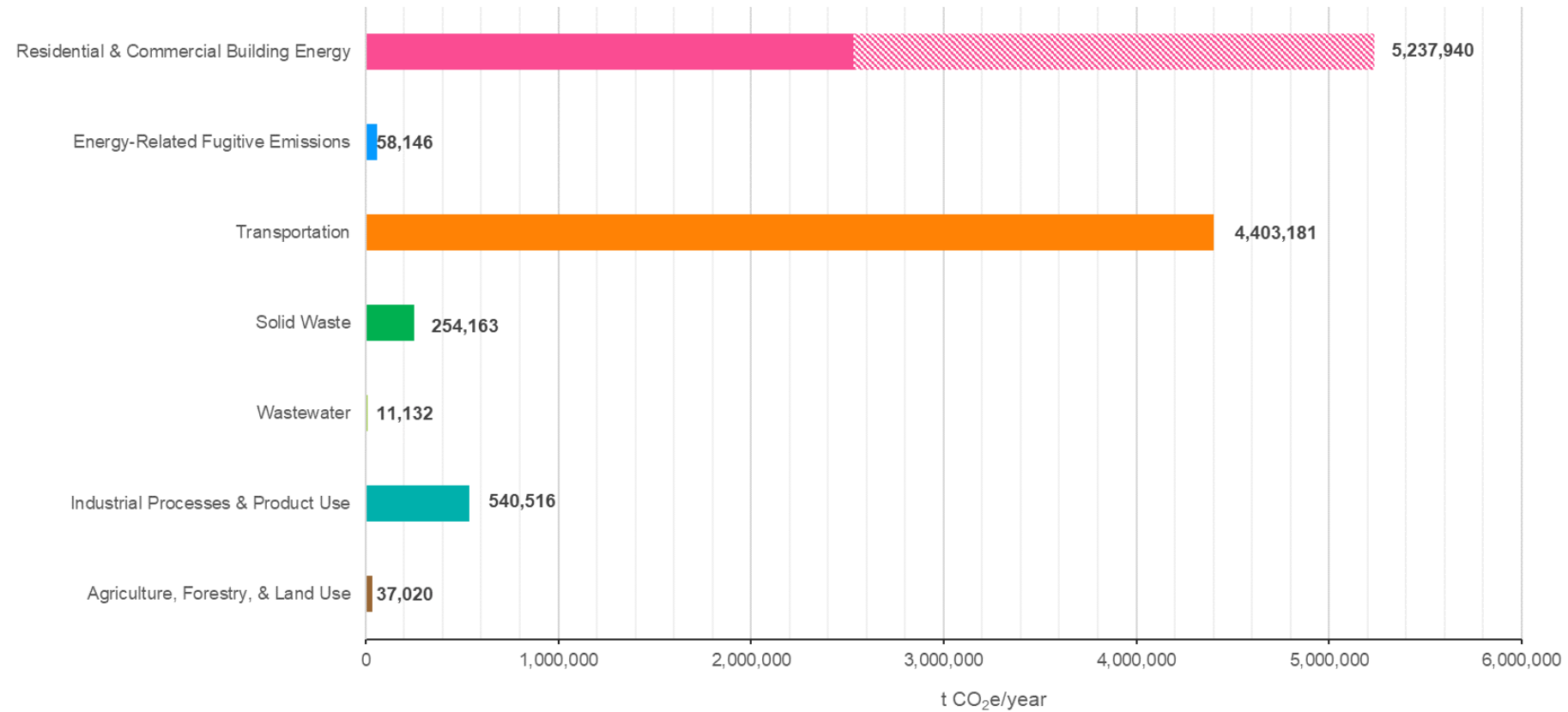
Adaptation Actions

The Plan identifies 20 climate adaptation actions, including:

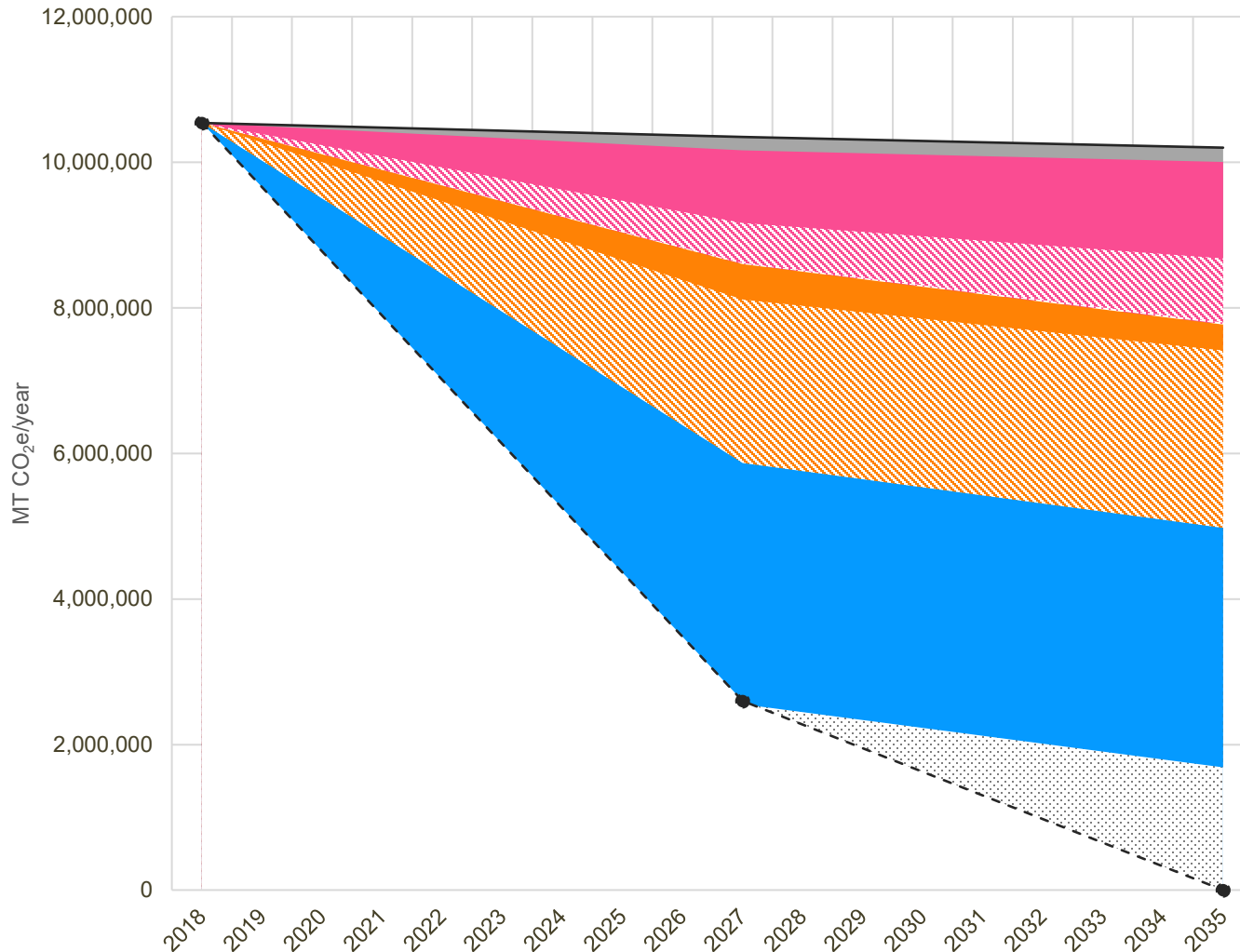
- **Repair and upgrade stormwater drainage and management systems**
- **Enhance temperature and stormwater monitoring and alerts**
- **Update green streetscape and green infrastructure standards**
- **Harden emergency shelters and install resilience hubs** (public facilities such as community centers that can island from the grid and provide continuous power during outages)
- **Update floodplain maps**

Montgomery County's Measured GHG Emissions Sources

2018 Base Year Community Emissions by Sector



County Emissions Reductions Pathway



- Solid Waste
- Buildings - Existing Residential
- ▨ Buildings - Existing Commercial
- ⋯ Buildings - New Residential
- Buildings - New Commercial
- Transportation - Mode Shift
- ▨ Transportation - Vehicle Fuel Switch
- Energy - Grid Decarbonization
- ⋯ Remaining Emissions
- Baseline Forecast
- Target Trajectory

2018 Base Year Emissions Level	Emissions Metric
10,542,097	Base Year
2027 Emissions Levels	
10,350,170	Baseline Forecast
75.4%	Target (% below 2018 base year level)
2,598,627	Allowable Emissions
2,625,326	Achieved w/ Actions
26,699	Achievement Gap
2035 Emissions Levels	
10,201,406	Baseline Forecast
100.0%	Target (% below 2018 base year level)
0	Allowable Emissions
1,787,259	Achieved w/ Actions
1,787,259	Achievement Gap

Emissions Sources Not Measured in the County's GHG Inventory

- **Consumption emissions** are emissions that go into making goods or materials.
- **Embodied carbon emissions** is a related term which most commonly refers to the emissions associated with building materials, such as concrete and steel.
- Consumption emissions and embodied emissions are typically excluded from GHG inventories because the emissions occur outside of the geographic boundary of the community and thus are difficult to reduce or regulate.
- A recent study issued by C40 Cities concludes these emissions for high-income cities are significant.
- The CAP includes actions to begin measuring and reducing consumption emissions and embodied carbon emissions.



Carbon Sequestration Actions

- Carbon sequestration can offset emissions by capturing and storing carbon dioxide from the atmosphere.
- The Plan identifies 6 nature-based carbon sequestration actions, including **retaining, managing, and expanding forests, wetlands, and grasslands**, as well as individual **trees** and small groups of trees that comprise the urban forest.
- Carbon sequestration actions also include **increasing carbon in soils** and **improving agricultural practices**.

Action Analysis

The GHG reduction and adaptation actions in the Plan were assessed for:

- **Primary benefits** - GHG emissions and climate risk reduction
- **Secondary co-benefits** - public health, environmental stewardship, economic prosperity, racial equity & social justice
- **Feasibility** - for example, authority level and financial need
- **Equity-enhancing measures** were developed to ensure that actions truly respond to the key issues and priorities of the County's most climate vulnerable communities.

Table 12: Co-Benefit and Feasibility Evaluation Criteria and Definitions

CO-BENEFITS	FEASIBILITY CRITERIA
<p>► PUBLIC HEALTH Increased life expectancy or reduced incidents of diseases or deaths attributed to air quality (indoor or outdoor), weather, poor sanitation, or lack of access to nutrients</p>	<p>► COUNTY AUTHORITY Does the County have the legal authority to implement this action or would it need to be implemented by another entity, such as the national government, a utility, or an agency outside of the County government, or by the private sector?</p>
<p>► ENVIRONMENTAL STEWARDSHIP Increased creation, preservation, or restoration of natural environments</p>	<p>► INITIAL INVESTMENT - COUNTY Beyond any funding that is currently secured or identified, how much total additional County investment would be required to implement the action (initial upfront costs)?</p>
<p>► ECONOMIC PROSPERITY Increased employment rate, access to quality jobs (full-time versus temporary; high-paying versus low-paying), income and social mobility, and/or total number of jobs</p>	<p>► INITIAL INVESTMENT - PRIVATE Beyond any funding that is currently secured or identified, how much total additional private investment would be required to implement the action (initial upfront costs)?</p>
<p>► RACIAL EQUITY AND SOCIAL JUSTICE When race can no longer be used to predict life outcomes, when all people have access to the same rights and systems, when there is a fair distribution of resources, and when life outcomes are improved for all groups</p>	



Governance Actions

The Plan identifies 16 climate governance actions, including:

- Establish a **climate academy** for County government staff; identify and train departmental **“Climate Ambassadors”**
- Integrate climate considerations into the **budgeting process**
- Stand up a workgroup to **develop financing strategies** for implementing climate actions
- Evaluate and Update County Planning, Policy, and Operations Activities to Reduce Greenhouse Gases



Public Engagement, Partnerships, & Education Actions

The Plan includes 20 public engagement, partnerships, and education actions, including:

- Conduct **public outreach campaign** to empower the public with information on how to reduce emissions and adapt to climate change impacts.
- Form a **climate change communication coalition** to coordinate outreach.
- Form a **racial equity and climate change task force** to help guide plan implementation.
- Establish a **statewide coalition of local governments** focused on advancing ambitious state climate policy, such as a 100 percent Renewable Portfolio Standard.
- Engage County artists through **public art installations** to raise awareness and spark discussion and action on climate change.
- Develop a **standardized climate change curriculum** and provide **professional development for educators** on climate change.

Other Sections of the CAP include:

- **Personal Actions**
- **Connections to Thrive Montgomery 2050 Plan**
- **Connections to Zero Waste Planning and Initiatives**
- **Remaining Emissions Sources and Potential Reduction Strategies**

Paying for Climate Action

- Implementing many actions in the CAP will require **substantial financial resources**.
- **County Government resources alone are not sufficient** to fully implement the Climate Action Plan.
- Implementing the actions in the Plan calls for commitment from **both the public and private sectors**, while **leveraging state and federal government resources**.
- The County will need to creatively pursue actions that provide multiple benefits.
- While the costs of implementing the CAP are high, the cost of inaction on climate change will be even higher.

Ways to Provide Feedback on the Draft CAP



- Complete a brief survey
- Participate in the **Climate Action Plan Art Contest**
- Visit the **virtual information room**
- Email your **questions or comments** to: climate@montgomerycountymd.gov
- Participate in upcoming CAP events, including the **Climate Youth Town Hall**.
- For more information, visit: MontgomeryCountyMD.gov/Climate

- The public comment period is open until **February 28, 2021**. We anticipate releasing the final CAP in the spring of 2021.

Virtual Information Room

