

### COG's Air and Climate Public Advisory Committee

### January 24, 2022

Amanda Campbell acampbell@rockvillemd.gov



### **Overview**

- Plan development process
- Greenhouse gas inventory, goals, and projections
- Climate impacts and social vulnerability
- List of 42 actions







### What is a Climate Action Plan?



### Mitigation Strategies

...reduce or offset greenhouse gas emissions to <u>reduce long-term</u> <u>climate risks</u>.

#### Examples:

Energy efficiency Renewable energy Sustainable transport Carbon sinks Crossover strategies:

Building performance

Green infrastructure

Smart growth

Green jobs

### **Resiliency Strategies**

...reduce vulnerability by protecting or adapting community systems to <u>manage</u> <u>unavoidable climate risks</u>.

#### **Examples:**

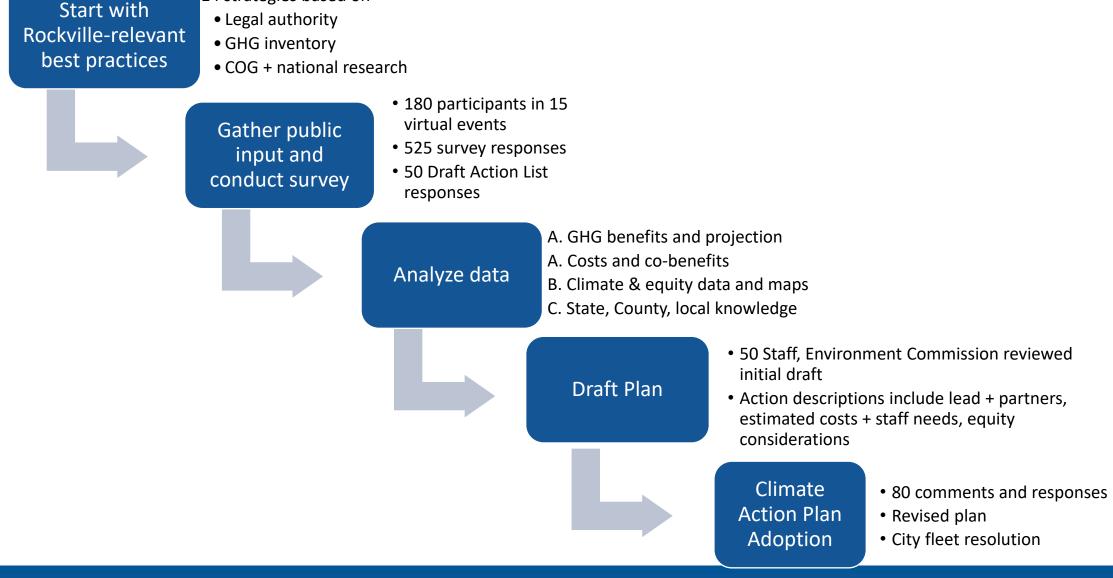
Emergency and business continuity planning

Upgrade or harden buildings, infrastructure Health programs

## **Developing the Draft Plan**

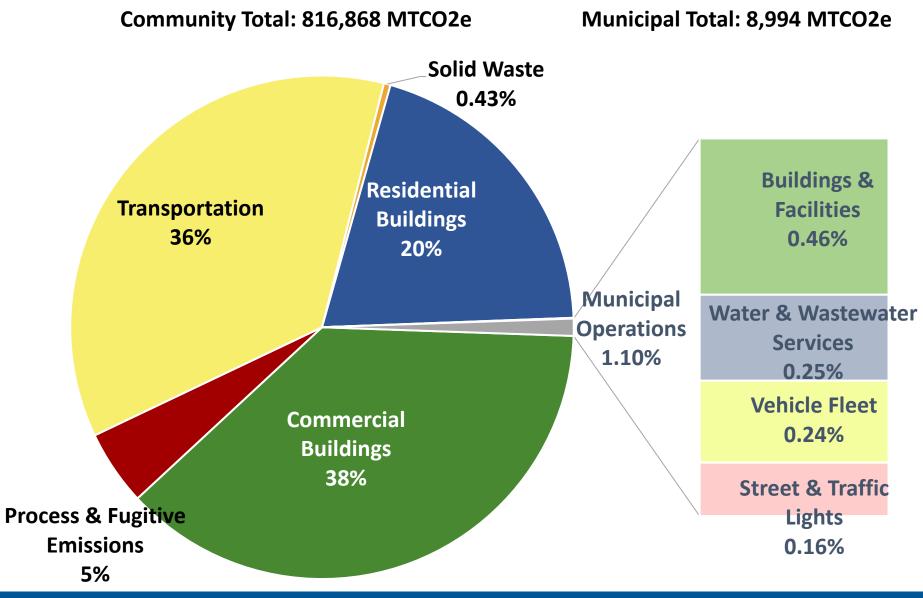
14 strategies based on





### **Greenhouse Gas Emissions**



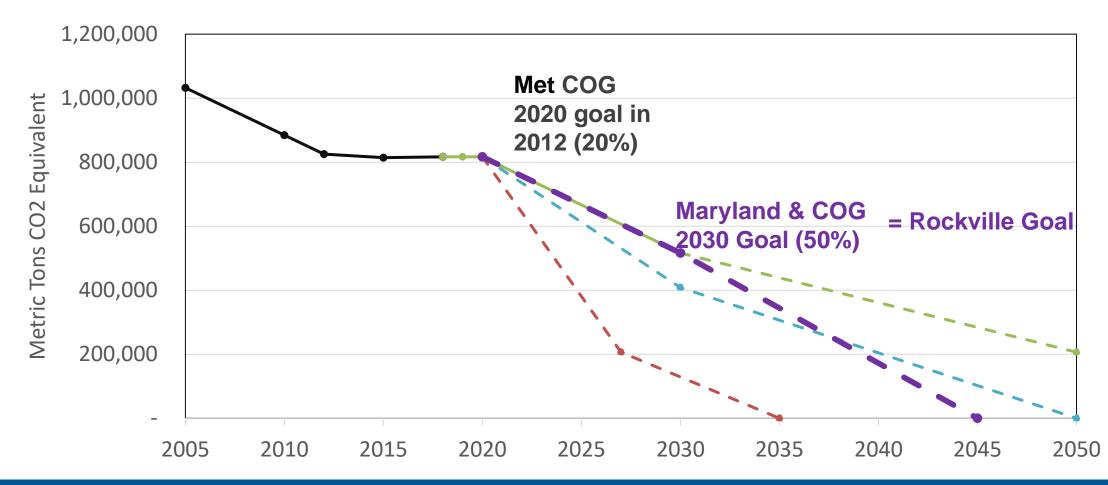


### **Emissions Reduction Goals**

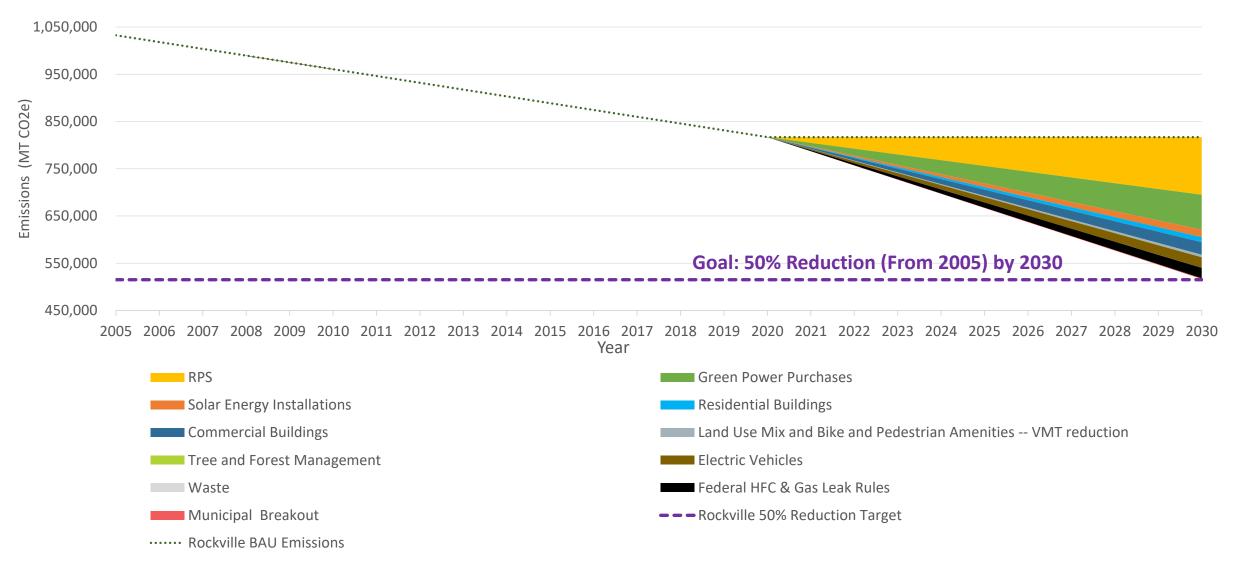


- -- Montgomery Co. (Net zero by 2035)

- COG (50% by 2030; 80% by 2050)
   UN Paris 1.5C (Net zero by 2050)
- Maryland 2030 Plan (50% by 2030, Net zero by 2045)

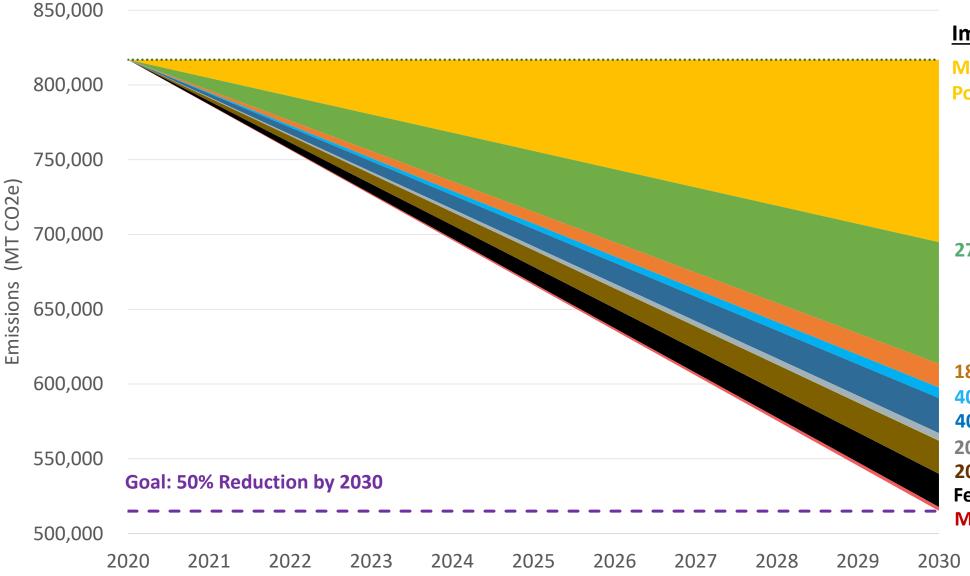


### How Can We Reduce Emissions? CLIMATE ACTION PLAN



Source: Cadmus Reduction Analysis Tool, 2021. Based on COG Business as Usual Projections.

### **Emissions Reduction Pathway**





#### **Impactful Actions**

Maryland 50% Renewable Portfolio Standard

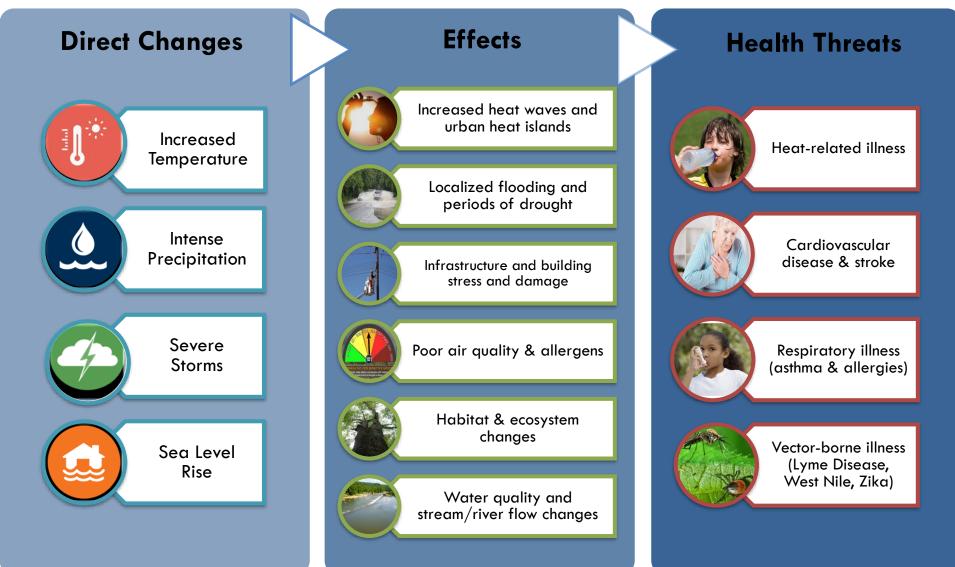
27% Green Power Purchase

1800 Solar Installations
4000 Residential Energy Efficiency
400 Commercial Energy Efficiency
2000 Households Near TOD
2000 Electric Vehicles
Federal HFC/ NG Rules
Municipal Operations

Climate Action Plan Source: Cadmus Reduction Analysis Tool, 2021, with COG Business as Usual Projections.

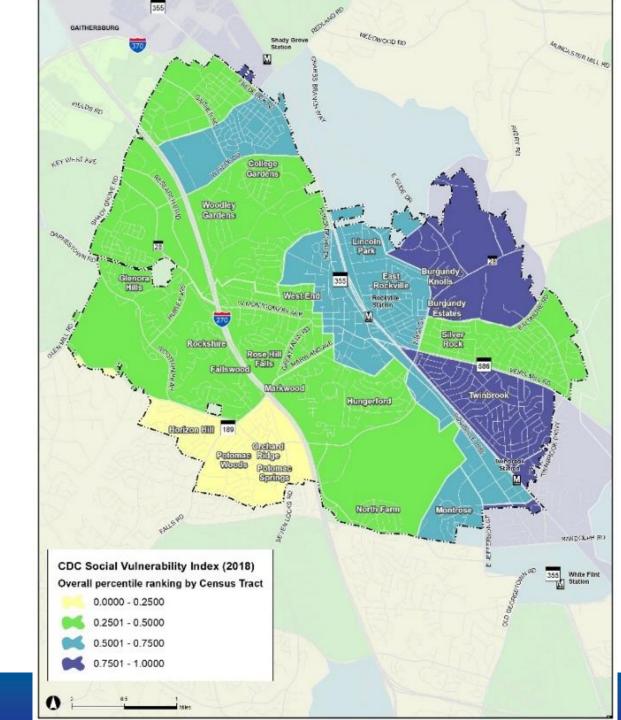
## **Climate Resilience Challenges**





### **Rockville Social Vulnerability**

- CDC Social Vulnerability Index:
- Socioeconomic Status
  - Poverty, unemployed, no HS diploma
- Household composition
  - Elderly, youth, disability, single-parent
- Minority status and language
- Housing quality and transportation access





Improve the capacity of our community, homes, businesses, and natural

environment to prevent, withstand, respond to, and recover from climate

change impacts such as rising temperatures, more frequent and intense

heat waves, heavy rainfall and severe storms.

## 7 Categories, 42 Actions





#### **Energy Efficiency (9 actions)**

Increase energy conservation and efficiency and reduce fossil fuel use in all existing and new buildings and infrastructure.



#### Renewable Energy (5 actions)

Increase the generation, use and access to affordable, reliable and clean energy systems.



#### **Transportation (9 actions)**

Expand safe, efficient, affordable, and equitable multi-model transportation options that utilize clean and efficient energy sources.

#### Land Management (3 actions)

Maximize the economic and social benefits of land while maintaining or enhancing natural systems and ecological health to ensure resiliency.



#### Materials and Waste (3 actions)

Manage solid waste by reducing, reusing, recycling, composting, and sustainable purchasing.

#### **Resiliency (9 actions)**



Improve the capacity of our community, homes, businesses, and natural environment to prevent, withstand, respond to, and recover from climate change impacts such as rising temperatures, more frequent and intense heat waves, heavy rainfall and severe storms.



#### Public Education and Oversight (4 actions)

Conduct inclusive and equitable public engagement and involvement and establish systems for monitoring and accountability to encourage participation and support plan success.

# Action List – Energy Efficiency



#### Action ID Energy Efficiency Actions

- C-01 Advocate for Montgomery County to adopt a Building Energy Performance Standard (BEPS) for existing commercial and multifamily buildings
- C-02 Expand low and moderate income (LMI) home repair and weatherization program to increase energy efficiency, resiliency and renewable opportunities
- C-03 Progressively strengthen green/efficiency building codes for new construction to reach net zero or equivalent
- C-04 Opt into Montgomery County's point of sale energy disclosure (Chapter 40, Real Property, Section 40-13B)
- C-05 Expand home energy efficiency outreach program to increase participation in utility energy audits and rebates
- C-06 Coordinate with Montgomery County on electrification incentives for existing building systems
- M-01 Complete energy assessments of City facilities and develop a strategic plan to reduce facility energy consumption
- M-02 Convert City-owned streetlights to energy efficient LEDs (CIP TA22)

M-03 Advocate for a Pepco-owned streetlight LED conversion agreement that serves the public interest

### **Action List – Renewable Energy**



#### Action ID Renewable Energy Actions

- C-07 Advocate to increase the Maryland Renewable Portfolio Standard by 2030
- C-08 Coordinate with Montgomery County on development of the Community Choice Energy Program to aggregate green power purchasing
- C-09 Promote private solar and geothermal installations through the solar coop program, streamlined permitting, and expanding access to low-tomoderate income residents
- M-04 Identify and install feasible solar photovoltaic opportunities on City property
- M-05 Purchase green power renewable energy certificates (RECs) for municipal electricity

## **Action List – Transportation**



Action ID	Transportation Actions
C-10	Work with WMATA, MDOT, and Montgomery County to maximize transit accessibility and ridership and enhance mobility options
C-11	Develop a Rockville Community Electric Vehicle (EV) Readiness Plan
C-12	Require new developments and redevelopments to be electric vehicle-ready
C-13	Promote a regional electric vehicle purchasing cooperative (EVPC)
C-14	Expand active transportation and shared micro-mobility network by implementing improvements in Bicycle Master Plan and Vision Zero Plan
C-15	Adopt and implement a Pedestrian Master Plan
M-06	Convert the City fleet to cleaner and more efficient fuel sources
M-07	Establish a new Capital Improvement Plan (CIP) to expand electric vehicle charging infrastructure on City property to serve employees, fleet and the community
M-08	Update city teleworking and transit benefit policies to encourage City employees to reduce vehicle miles traveled (VMT)

### **Action List – Land Management**



### Action ID Land Management Actions

- C-16 Implement the Comprehensive Plan to steer the densest development/redevelopment to mixed-use, transit-served locations, reduce vehicle miles traveled (VMT) and emissions, and conserve/restore environmental areas
- C-17 Expand education and incentives to support tree planting and maintenance, environmentally friendly landscape conversations, and management of non-native invasive plants on private property
- M-09 Develop a Green Space Management Plan for public lands to assess and restore trees, forests, meadows, stream valleys and wetlands

## Action List – Materials and Waste CLIMATE ACTION PLAN

Action ID	Materials and Waste Actions
C-18	Develop a food waste composting program for residents
C-19	Expand residential recycling and waste reduction outreach program to increase recycling compliance and waste diversion
M-10	Develop a City sustainable procurement policy

## **Action List – Resiliency**

 $\prec$ 



Action ID	Transportation Actions
C-20	Incorporate climate resilient building and infrastructure design features in new buildings and retrofits
C-21	Partner with Federal Emergency Management Agency to update the Flood Insurance Rate Maps (100-year floodplain maps) used to implement the National Flood Insurance Program
C-22	Work with Montgomery County and state agencies to provide cooling centers, resiliency hubs, and other services to strengthen community resiliency
C-23	Work with Montgomery County and community partners to measure and map urban heat islands to mitigate exposure to extreme heat
C-24	Increase tree planting, green, cool and photovoltaic roofs, and cool pavements on public and private property
M-11	Continue assessing the vulnerability of Rockville's critical infrastructure, facilities, and services, and prioritize areas for improved climate resiliency
M-12	Advocate for state and federal authorities to update stormwater infrastructure design, operations and maintenance standards to accommodate new rainfall/ storm event projections and help reduce projected flooding issues
M-13	Assess Rockville's risk of flooding and develop a Flood Resiliency Master Plan to reduce or mitigate flooding impacts
M-14	Develop and implement Heat Illness Prevention Plans for various City services and operations

## Action List – Public Engagement CLIMATE ACTION PLAN & Oversight

#### Action ID Public Engagement Oversight Actions

- C-25 Work with community partners to conduct an inclusive public engagement campaign to reduce emissions and adapt to the impacts from climate change
- C-26 Develop metrics and performance indicators for climate actions to establish a datadriven assessment and reporting process
- M-15 Incorporate climate mitigation, resiliency, and equity considerations into the City's budget prioritization process
- M-16 Develop an interdepartmental climate action team to implement and track plan progress



## **Next Steps**

### **Implementing Plan**

- Ongoing/funded actions move forward
- Continuing to leverage grants and partnerships
- Other action's status depends on budget appropriation and resources



### **Acknowledgements**

Rockville Mayor and Council City Manager's Office Department of Public Works All City Departments

Environment Commission, Planning Commission, Traffic and Transportation Commission, Human Services Advisory Commission, Human Rights Commission, Recreation and Parks Advisory Board

All participants in public engagement

Partners



Rockville Environment Commission



### CADMUS