

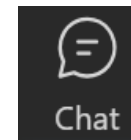
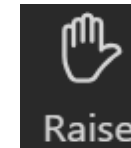
# Charles County Climate Action Plan

**WELCOME**

Stakeholder Meeting: Advocacy,  
Nonprofits, and Community Organizations



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- ✓ If you experience technological issues during the meeting, please message **Nicole Rodi** via chat or email, **Nicole.rod@mbakerintl.com**.



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# Meeting Agenda

Let's Talk About It  
Climate Action Planning in Charles County

- ✓ Introductions: 5 mins.
- ✓ Climate Action Plan (CAP) Background: 10 mins.
- ✓ GHG and Vulnerability Analysis Overview: 10 mins.
- ✓ Draft Strategies Presentation and Discussion: 60 mins.
- ✓ Resources and Meeting Adjourn: 5 mins.

# Meet the Team

Let's Talk About It  
Climate Action Planning in Charles County



**Climate Action Plan  
Project Manager**



Metropolitan Washington  
**Council of Governments**

**Contracting  
Authority**



Project Team  
Lead



Greenhouse Gas  
Analyses



Resilience  
Analyses



Financial Analyses



Community  
Engagement

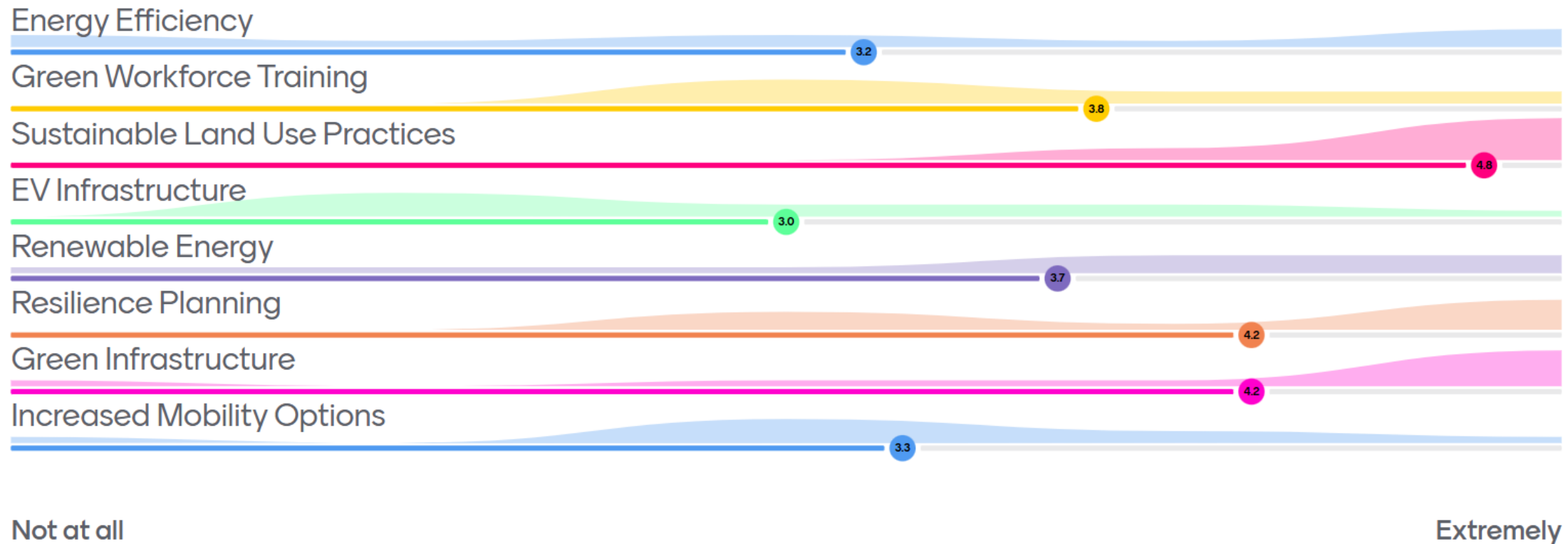
# HELLO

my name is...

**Please enter your  
name and  
organization(s) /  
affiliation(s) in the  
chat.**

Opportunities and Barriers

# Which climate topics are you most interested in?



Can you provide brief examples of any climate actions / initiatives that you are currently engaged with?

Beekeeping, Gardening and sustainable land practice

Biodiversity restoration with native plants, advocacy for electric powered lawn equipment

Protecting land from development forever.

Run off control Erosion prevention  
Oyster restoration

We build raised garden beds for groups that are trying to fight food insecurity. These beds help prevent run-off and beautify the landscape. We lobby for environmental bills with our representatives.

Invasives control in public parks. Erosion control on easement properties. Sustainable homestead (crops, livestock), protecting land from development

We have been a part of maintaining the street that leads to Milton Sommers Middle School through the Adopt- A-Road for over 30 years

Land conservation. Ecological restorations (stream restoration, Shoreline Restoration). Community outreach, education, technical and financial assistance for native landscaping. Community development.

We have worked with the parks in Calvert County to plant trees to help restore the riparian buffer.

Public education for wildlife protection

Oyster gardener for CBF

# What is Climate Action Planning?

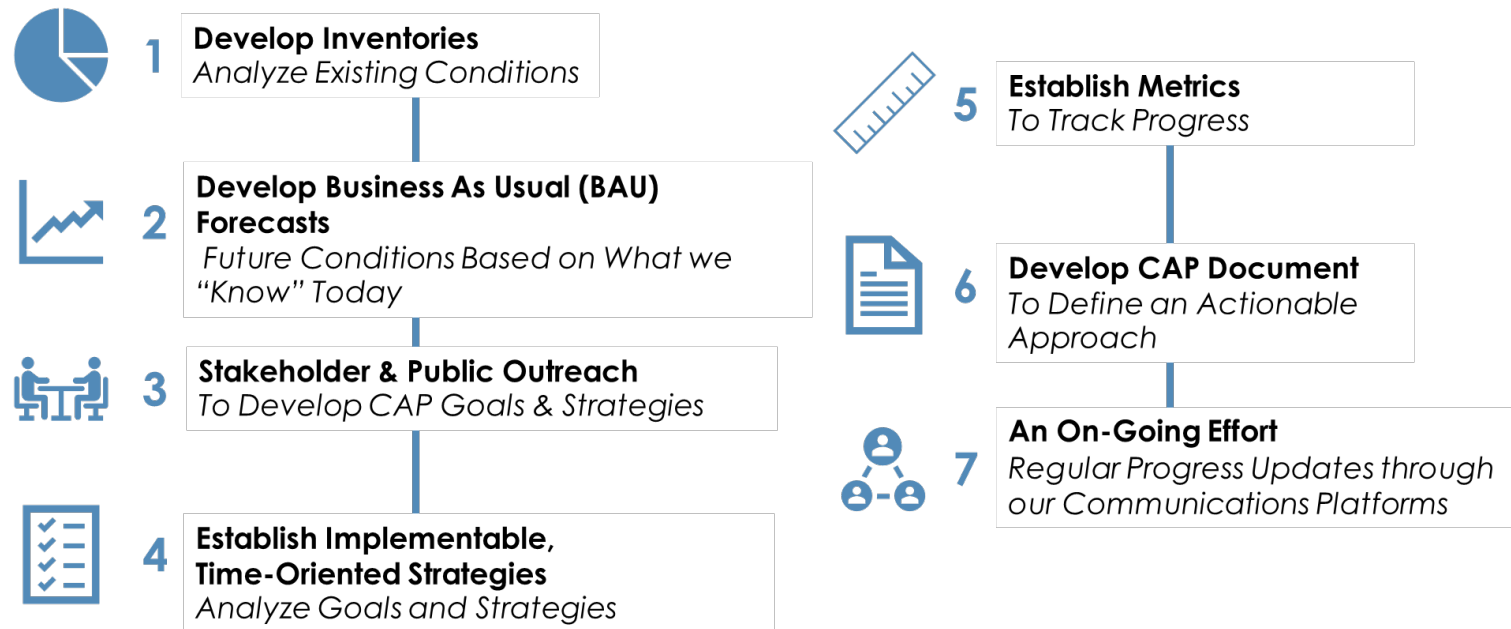
Let's Talk About It  
Climate Action Planning in Charles County

The **Climate Action Plan (CAP)** serves as a comprehensive roadmap to guide Charles County through a process of reducing its Greenhouse Gas (GHG) emissions, mitigate and respond to climate change, improve the environment, and protect communities.

## What is in a CAP?

- ✓ **Vision**
- ✓ **Goals**
- ✓ **Existing & Future Conditions**
- ✓ **Prioritized and Actionable Strategies**
  - For incorporation into existing processes / documents, e.g., Zoning and Comprehensive Plan Updates
- ✓ **Metrics to Track Progress**

## CAP Development Process Snapshot





1

## Community-Wide Resilience and GHG Mitigation Action Plan

Residential and Commercial buildings, Industrial facilities, all Vehicles in Community, etc.

To view the community strategies, visit:

<https://www.charlescountymd.gov/home/showpublisheddocument/28512>



Scan me!

2

## Government Operations Resilience and GHG Mitigation Action Plan

- Facilities the County or other units of government manage to provide essential public services e.g., buildings, fleet vehicles, wastewater treatment
- Other non-governmental critical services facilities (medical, power, etc.)

To view the government operations strategies, visit:

<https://www.charlescountymd.gov/home/showpublisheddocument/28512>



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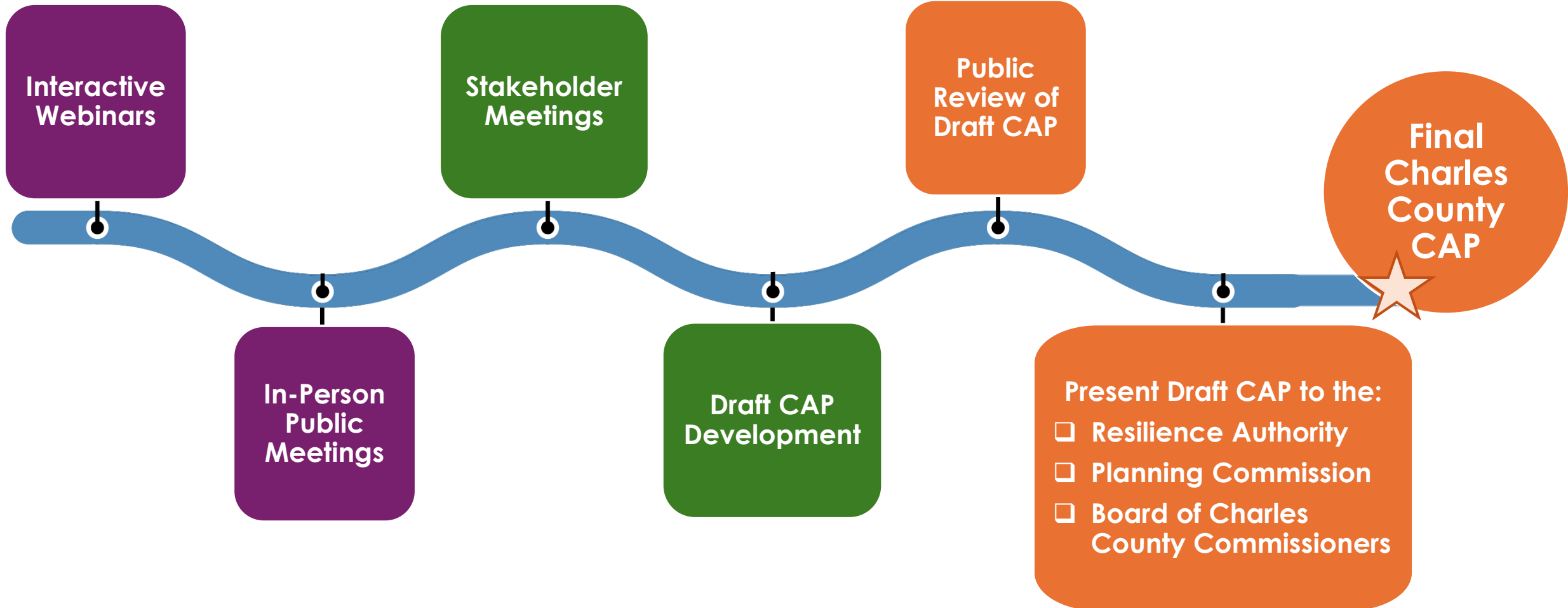
# CAP 2025 Timeline

Let's Talk About It  
Climate Action Planning in Charles County

Spring

Summer

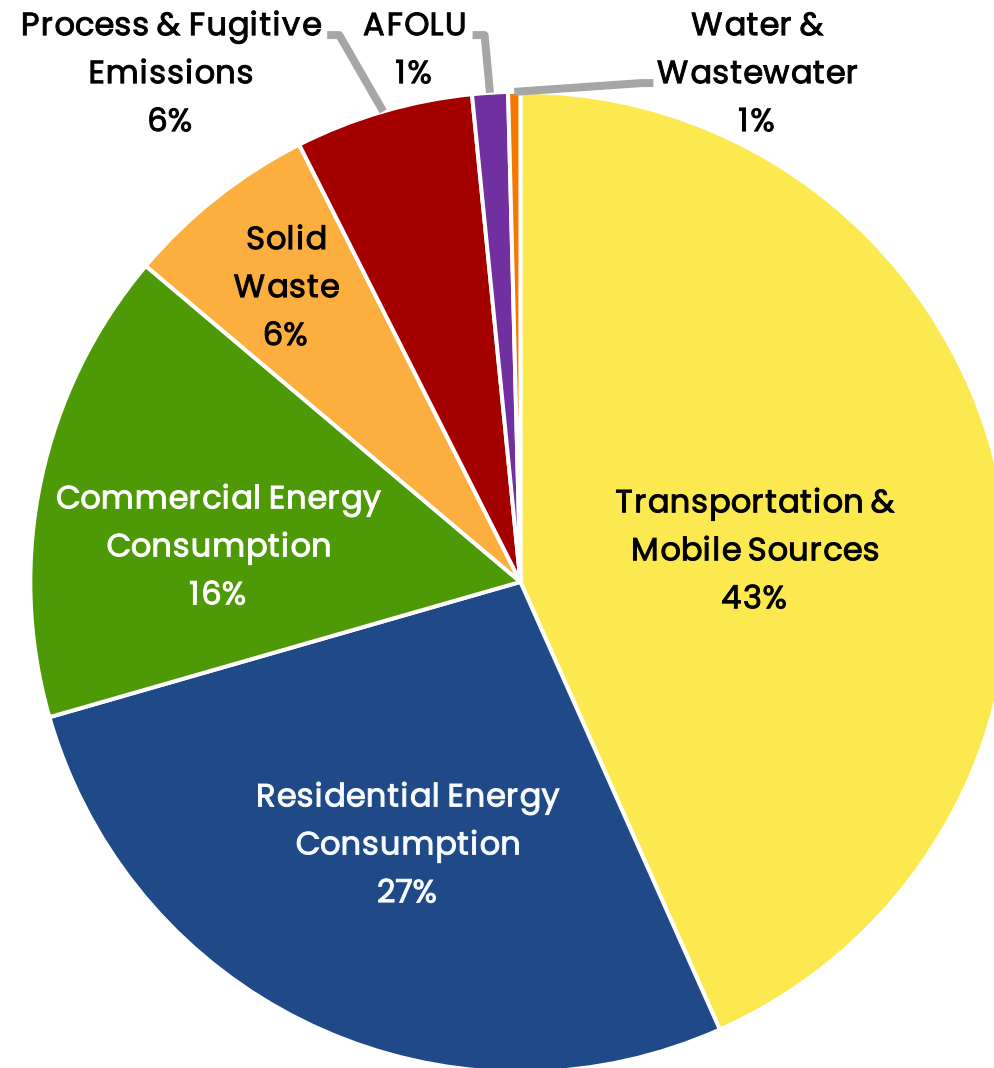
Fall



# Where do GHG Emissions Come From?

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Climate Action Planning in Charles County

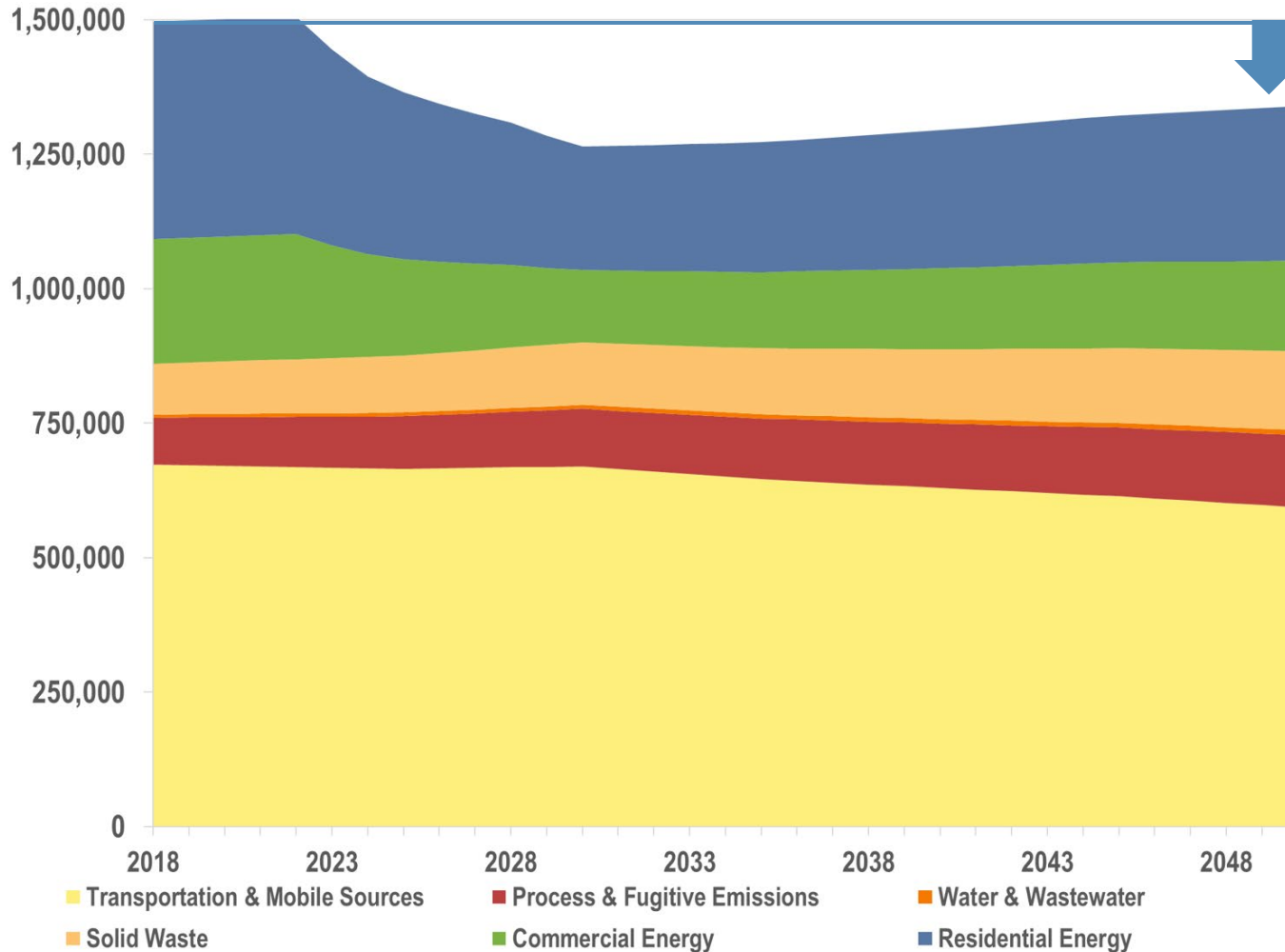
- **86%** from Transportation and Energy Use
- **AFOLU** = Agriculture, Forestry, and Other Land Use
- **Process & Fugitive Emissions** = Industrial process and manufacturing emissions as well as leaks from equipment or pipelines



*\* Charles County emissions inventory based on 2018 data available from MWCOG – to be updated with 2023 data upon release*

# What is Business-As-Usual?

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Climate Action Planning in Charles County



10% reduction from 2018

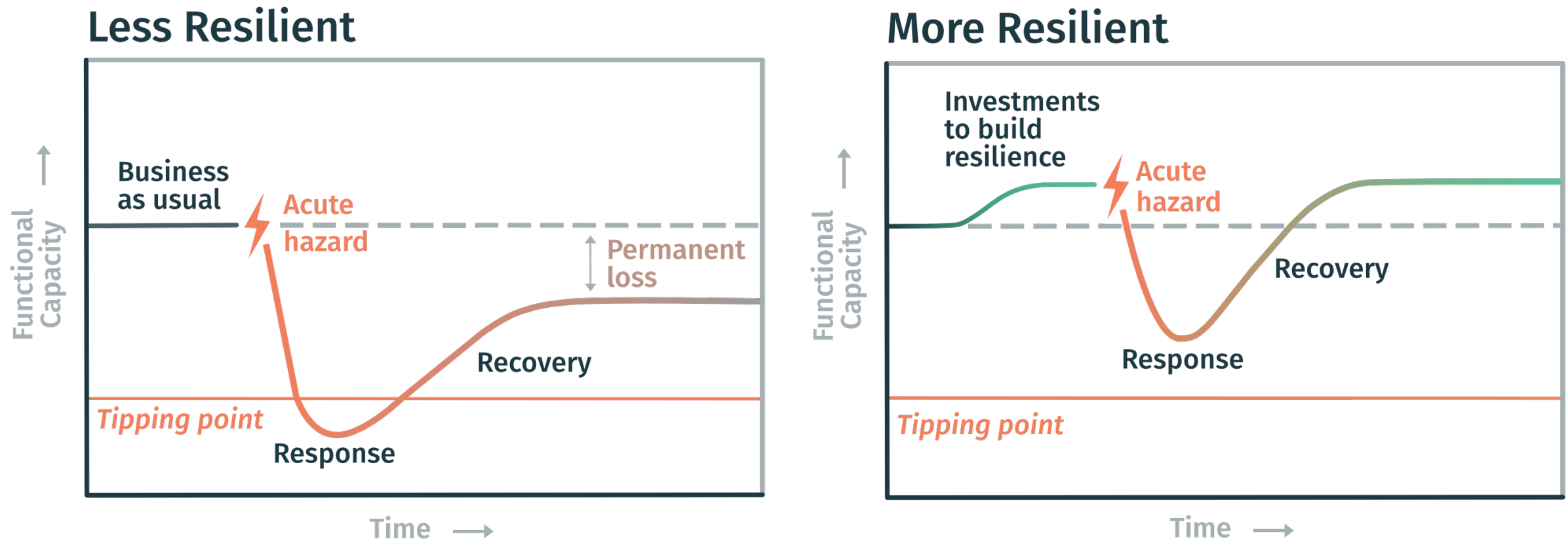
- **MWCOG** cooperative forecast for Charles County.
- **National Renewable Energy Laboratory (NREL) Cambium** projections for electricity emissions factors through 2030. Electricity emissions factor is constant from 2030 onwards.
- **Federal** vehicle efficiency standards through 2050.

\* Charles County emissions inventory based on 2018 data available from MWCOG – to be updated with 2023 data upon release

# Understanding Resilience

Let's Talk About It  
Climate Action Planning in Charles County

"The capacity of a community, business, or natural environment to **prevent, withstand, respond to, and recover from** a disruption."



From U.S. Climate Resilience Toolkit, adapted from M.E. Hynes, B. Ross and CARRI (2008); White et al. (2015)



# Understanding Vulnerability

Let's Talk About It  
Climate Action Planning in Charles County



All three homes are exposed to flooding, but their level of vulnerability varies.

# Resilience Assessment – Hazards & Assets

Let's Talk About It  
Climate Action Planning in Charles County

Resilience assessment identifies communities and community assets that have, **high, medium, and low vulnerability** associated with climate hazards.

## High Tide Flooding and Future Sea Level Rise

- Legend**
- County Boundary
  - Current High Tide Flooding
  - 2050 High Tide Flooding
  - 2100 High Tide Flooding



## FEMA Floodplain Inundation (Riverine Flooding)

- Legend**
- County Boundary
  - Annual Chance
  - 100-yr (0.2%)
  - 500-yr (1.0%)
  - Floodway, Wave Action



## Asset Categories

**Government Operations Assets:** Government owned properties, critical infrastructure

**Community Wide Assets:** Residential and commercial property, cultural and community resources

**Transportation:** Roads and parcels potentially isolated from Emergency Services due to flooding

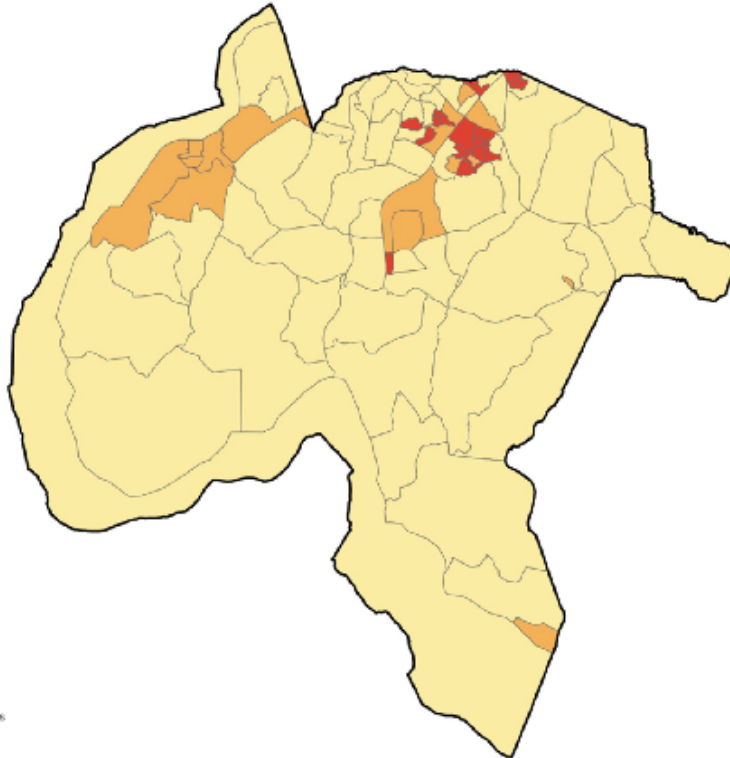
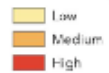
# Resilience Assessment – Hazards & Assets

Let's Talk About It  
Climate Action Planning in Charles County

## Extreme Heat

### Extreme Heat Vulnerability

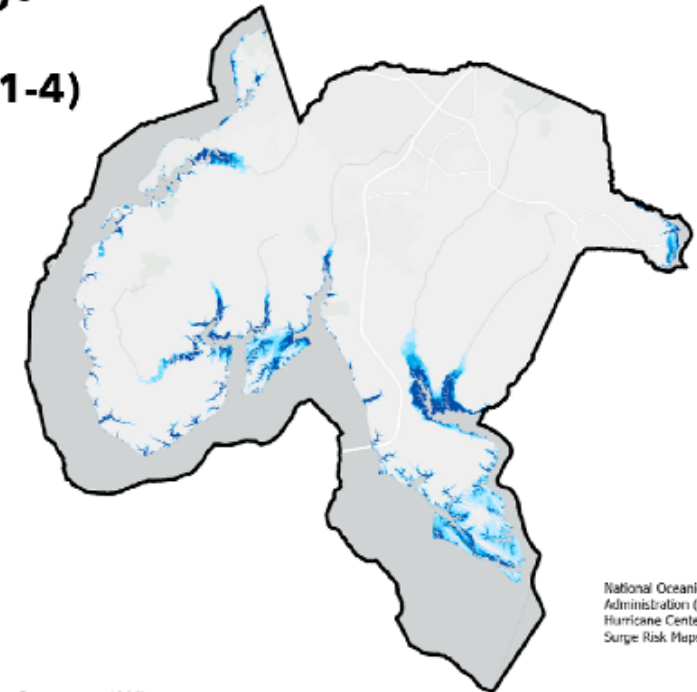
Vulnerability Score



VGPI, Esri, TomTom, Garmin, SafeGraph, FAD, MET/NASA, USGS, EPA, NPS, USFWS

## Storm Surge Flooding (Category 1-4)

### Legend



National Oceanic and Atmospheric  
Administration (NOAA) National  
Hurricane Center National Storm  
Surge Risk Maps version 3

## Asset Categories

**Government Operations Assets:** Government owned properties, critical infrastructure

**Community Wide Assets:** Residential and commercial property, cultural and community resources

**Transportation:** Roads and parcels potentially isolated from Emergency Services due to flooding



# Strategy Discussion

Let's Talk About It  
Climate Action Planning in Charles County

The CAP strategy analyses will include **high-level** evaluation of the following:



**Responsible Parties**



**Timeline:** Short, Mid, Long



**Cost:** Low, Med., High, and  
**Potential Funding Sources**



**Impact:** Low, Med., High and  
**Potential Tracking Metrics**

## Strategy Discussion Guide:

### ➤ **Barriers?**

- Do you have any specific examples related to funding, process, regulatory, communication / education, or other barriers?
- Have you found any successful strategies to address barriers?

### ➤ **Opportunities?**

- For collaboration?
- Helpful resources for CCG, communities, and stakeholders?

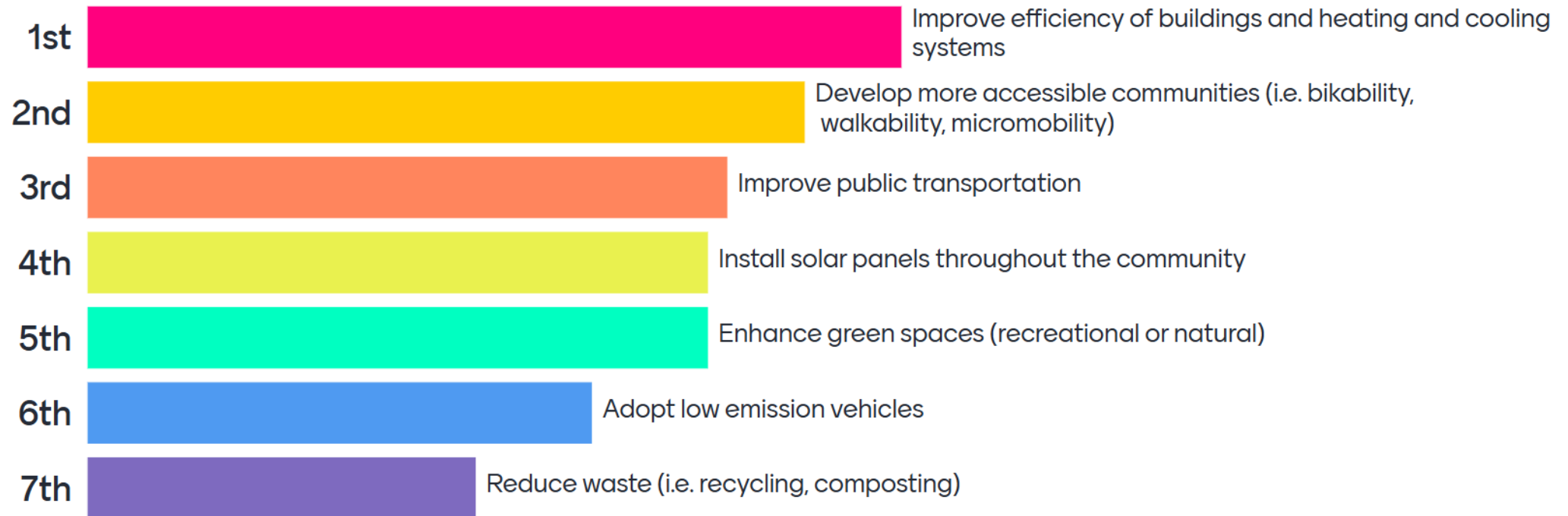
### ➤ **What are the most important strategies to you and why?**

### ➤ **What are you working on that could inform the Charles County CAP?**

### ➤ **Are we missing anything?**

\* The strategies presented today have been abbreviated. Please follow along in the draft Community Strategy document to review the entire strategy and to see a full list of strategies under consideration.

## Which strategies do you think are most important for reducing GHG in Charles County?



## Strategies

- EC 1 Expand and promote solar cooperative programs that allow residents and small businesses to install on-site solar with simplified process and discounted price.
- EC 12 Promote weatherization of commercial and residential properties.
- CT 21: Engage youth in sustainable transportation through active mobility and transit education.
- CT 15: Create a vibrant downtown atmosphere along the Waldorf Urban Corridor by supporting community and government-led projects (e.g., road painting, sidewalk upgrades, & traffic calming.)

## Questions for Discussion

- What barriers have you seen residents or small businesses face when trying to install solar panels?
- What are the most common weatherization needs you see in the communities you serve?
- How can the County partner with your organization to expand awareness and uptake of solar and weatherization programs?
- How can we better integrate climate change awareness education into schools or after-school programs?
- Are there youth leaders or organizations we should connect with to co-design these initiatives?
- Have you seen any examples of community-led projects that have contributed to the atmosphere and walkability of a downtown?

## Strategies

- AFL 1: Explore policy options to limit the removal of existing tree canopy for new developments and protect mature shade trees.
- LU 4 Expand urban forestry programs and provide incentives to increase canopy cover, prioritizing communities with heightened vulnerability.
- AFL 6: Review and revise County code to remove barriers to community gardening and develop a parallel program to support and incentivize Homeowners Associations (HOAs) in establishing shared garden spaces, promoting local food production, green space access, and community resilience.



= Linked Strategies

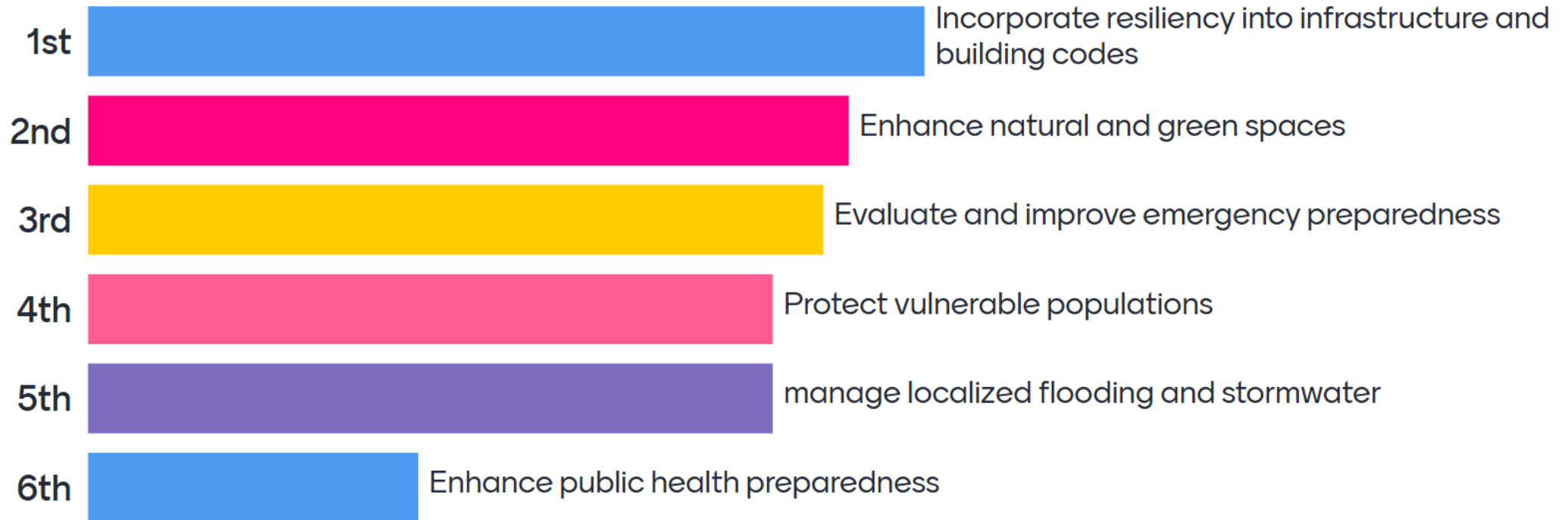
## Questions for Discussion

- What challenges have you observed in preserving mature trees during new development projects?
- How can the County better support community-led efforts to inventory and protect tree canopy?
- What barriers have your organization or community members faced when trying to start a community garden?
- Does your HOA restrict gardens or require turf grass? Are there examples of successful HOA garden programs you're aware of?

## Discussion & Chat Highlights

- Participants advocated for adoption of ASHRAE standards 62.1 and 62.2 to improve public health through building efficiency.
- Recommendations included installing solar panels and canopies on county-owned rooftops, parking lots, and brownfields.
- Suggestions were made to require green roofs on new commercial buildings and to explore models from Washington, D.C.
- The conversion of unused road rights-of-way into pedestrian and bike trails was proposed to enhance walkability and reduce emissions.
  - It was noted that the Potomac Heritage Trail development is supported by National Park Service and could be a major part of active transportation infrastructure in the county.
- Participants recommended promoting community gardens and native plant landscaping through county outreach and incentives.
- The Southern Maryland Sierra Club shared its experience building raised garden beds at places of worship and community centers, noting challenges in funding and volunteer coordination.
- The need for a prioritized list of suitable tree planting locations was emphasized, along with landscaping guides and long-term maintenance plans to ensure sustainability.
- HOAs were identified as both potential partners and barriers to community gardens due to aesthetic concerns and limited capacity for maintenance.
- Concerns were raised about clear-cutting by developers and the importance of preserving mature trees for stormwater management and carbon sequestration.
- Bird City, USA Bird Park in La Plata identified as a model for a community-revitalizing gardening installation.

Which strategies do you think are most important for increasing resilience in Charles County?



## Strategies

- BI 3: Develop outreach programs targeted to historic property owners within hazard areas regarding hazard mitigation and disaster preparedness.
- PM 8: Utilize existing mapping of food islands and food deserts to develop a plan for addressing barriers to food access across the County.
- AFL 8: Promote greenmarkets and local food markets, especially in areas underserved by grocery stores.
- LU 2: Protect and restore parks, wetlands, and floodplain areas to enhance flood control, recreation, and biodiversity benefits.
- LU 3 Investigate and implement shoreline management techniques, including land acquisition along the shoreline to reduce development pressure and erosion in flood-prone areas.



= Linked Strategies

## Questions for Discussion

- What restoration or conservation efforts are already underway in your community?
- What work is being done to improve food security in Charles County? Are there regulatory barriers that obstruct this work?
- Are there community leaders or groups already working on food access that we should connect with?
- Have you done any work with serving heat-vulnerable populations during extreme weather events? What resources would have helped you better serve populations?
- Are there specific parks or natural areas you believe should be prioritized for restoration?

## Discussion & Chat Highlights

- Charles County was noted as the only county in Maryland without a comprehensive agritourism bill; participants urged legislative action to support hybrid urban-rural communities.
- Stakeholders recommended creating a unified definition of agritourism, and greenmarkets, as well as identifying the appropriate places for greenmarkets, making sure inequities in access to gardens are addressed.
- Stakeholders highlighted the need to increase awareness of unique erosion and stormwater protections needed for Charles County given the abundant surrounding waterways.
- Stakeholders strongly supported expanding public access to and awareness of waterways by hosting County initiatives such as “Community Days on the Water” to promote environmental education and recreational activities like paddleboarding and kayaking.
- Environmental organizations offered to promote water-related events via social media, while also emphasizing the need for monitoring access areas to prevent misuse and maintain community aesthetics.
- The “Free Paddle Play Day” at Jug Bay Wetlands Sanctuary was cited as a successful model for community engagement.
- Participants called for better park-like facilities to access streams and rivers and stressed the importance of preserving forests to support flood mitigation efforts.
- The County was urged to ensure that Swan Point complies with its MOU to provide public shoreline access along the Potomac River.



## Strategies

- CO12: Educate HOAs and developers on their long-term responsibilities for maintaining private stormwater infrastructure and the benefits of incorporating green infrastructure into developments.
- BI 5: Engage private owners on best practices for increasing resilience of stormwater systems.
- CO 4: Publish climate readiness materials in languages that are most prevalent in Charles County.
- CO 9: Develop a process for identifying potential locations for resilience hubs around the county that consider proximity to climate hazards and vulnerable populations.
- AFL 11: Develop a dedicated page on the County Administrator's website to showcase local partners to foster community engagement and collaboration.



## Questions for Discussion

- If you are part of an HOA, do you feel that you or your org is aware of who is responsible for maintenance in the neighborhood?
- Do you conduct outreach in other languages? Do you know of any groups that specifically engage non-English speakers?
- Do you know of any community gathering spaces that you think might function well as resilience hubs?
- Would your organization be interested in being featured on a County partners directory? What kinds of information would you like to share?



= Linked Strategies

## Discussion & Chat Highlights

- Organizations such as 4H, Young Marines, and the Maryland Sierra Club's Youth Leadership Council were identified as key partners for youth outreach and volunteerism.
- Participants emphasized the importance of integrating environmental education into school programs and leveraging PTA networks for collaboration.
- Calls were made to expand environmental literacy programs, including promotion of the Maryland Naturalist program and development of accessible education through Parks and Recreation.
- Participants stressed the importance of engaging non-native English speakers and underserved communities in climate education.
- Recommendations included developing a centralized list of environmental organizations and contact information to facilitate collaboration.
- Participants encouraged the County to share event and volunteer opportunities through digital platforms and social media.
- Offers were made to assist with outreach through established networks such as the Southern Maryland Homeowners Association Federation and the Chesapeake Network.
- Cross-promotion of regional partnerships, including Southern Maryland Agricultural Development Commission, was encouraged to amplify messaging and engagement.

# Next Steps

Let's Talk About It  
Climate Action Planning in Charles County

Review the DRAFT Community and Government Operations strategies:

<https://www.charlescountymd.gov/government/climate-action-plan/-fsiteid-1#!/>

## Community CAP Strategies Feedback Form:

<https://forms.office.com/r/Uy3ZeFwyYW>



## Government Operations CAP Strategies Feedback

Form: <https://forms.office.com/r/Q6tJVPwT2r>



## What Else Can I do?

Visit our website and sign up for our CAP Mailing List to learn more and to stay up to date on next steps:

<https://www.charlescountymd.gov/government/climate-action>