

Charles County



Climate Action Plan

WELCOME

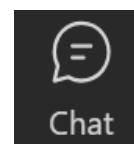
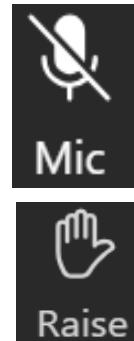
Stakeholder Meeting: Catch-All



Housekeeping

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

-  This meeting is being recorded. By staying in this session, you consent to being recorded.
-  All participants will be automatically muted when the webinar begins. Please raise your hand to ask a question and we will unmute your microphone
-  Please use the chat function to ask questions during the session.
-  If you experience technological issues during the meeting, please message **Nicole Rodi** via chat or email, **Nicole.rodi@mbakerintl.com**.



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**Enter:
7343 7878**

Scan QR Code Below



Click the Link in the Chat

- ✓ 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?

At work: my team and I are doing some research on how local county-level climate action plans measure up to state-level action plans i.e., are they more ambitious or less?

What is Climate Action Planning?

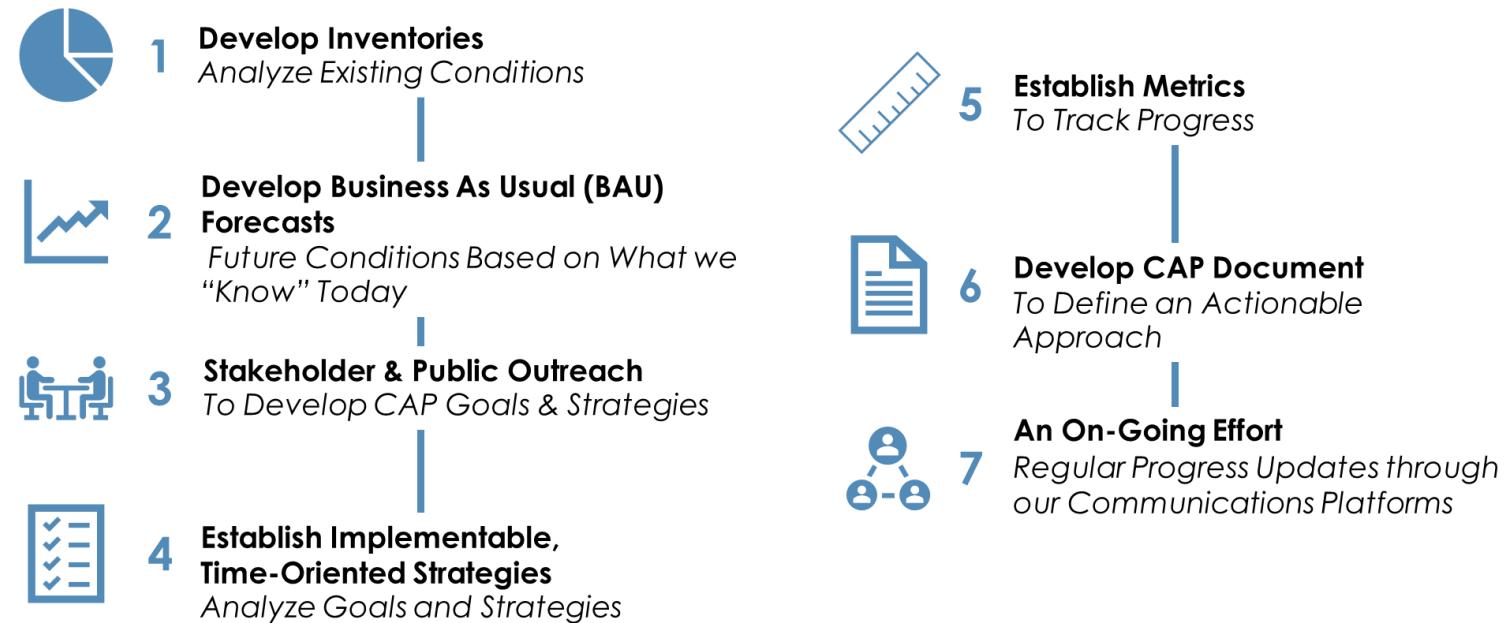
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Climate Action Planning in Charles County

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>



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.)



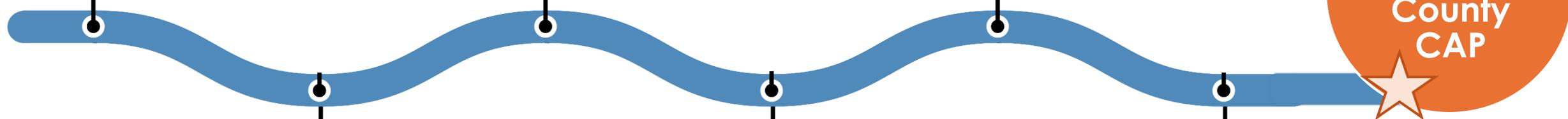
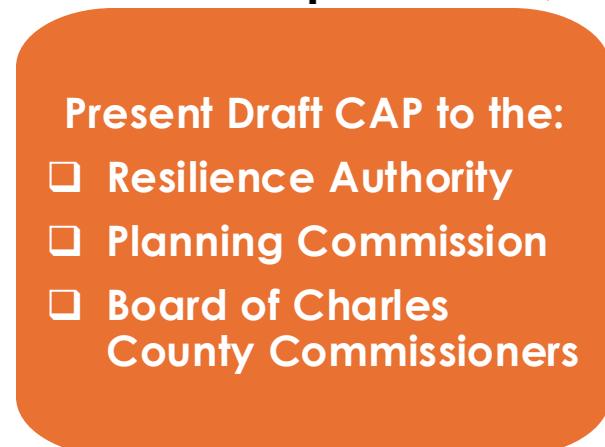
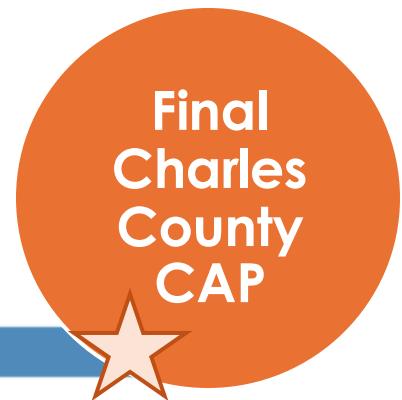
To view the government operations strategies, visit:

<https://www.charlescountymd.gov/home/showpublisheddocument/2851>

Spring

Summer

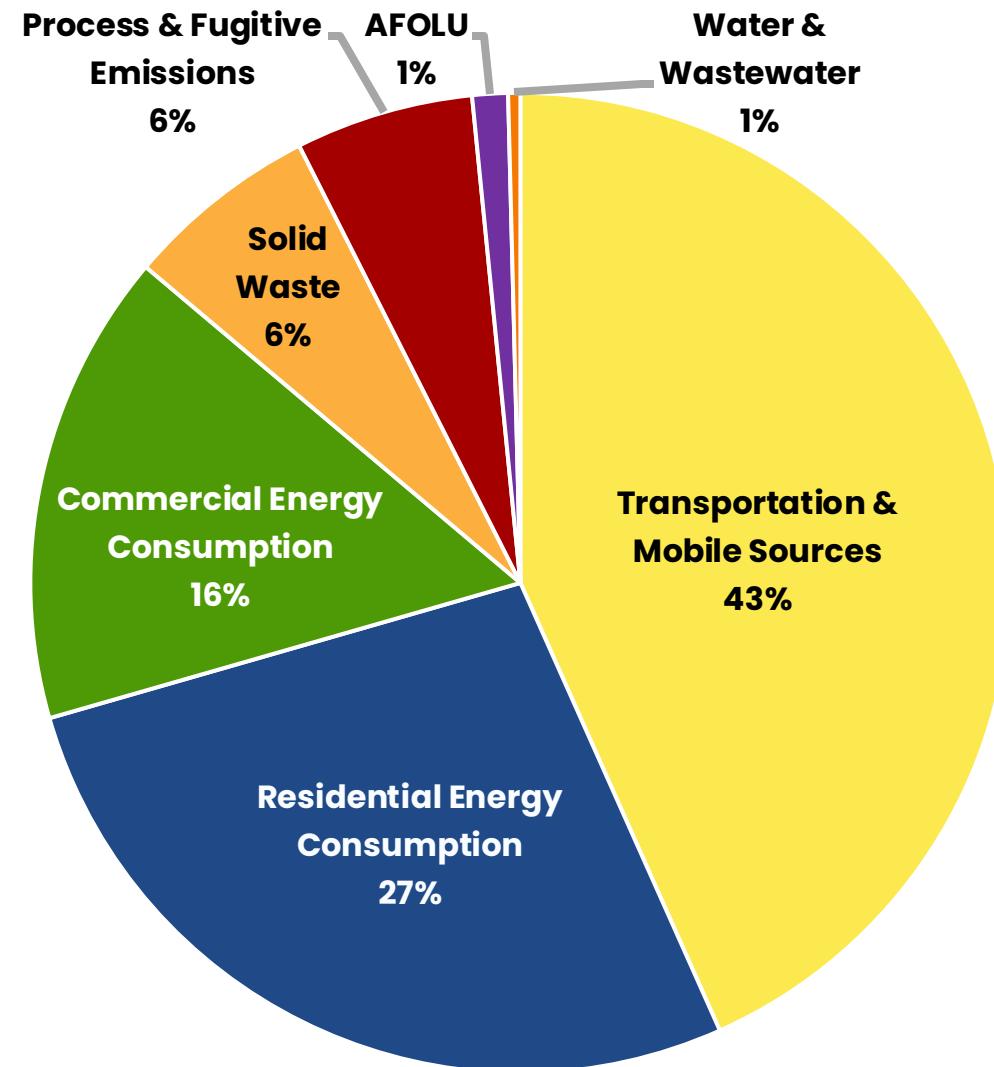
Fall



Where do GHG Emissions Come From?

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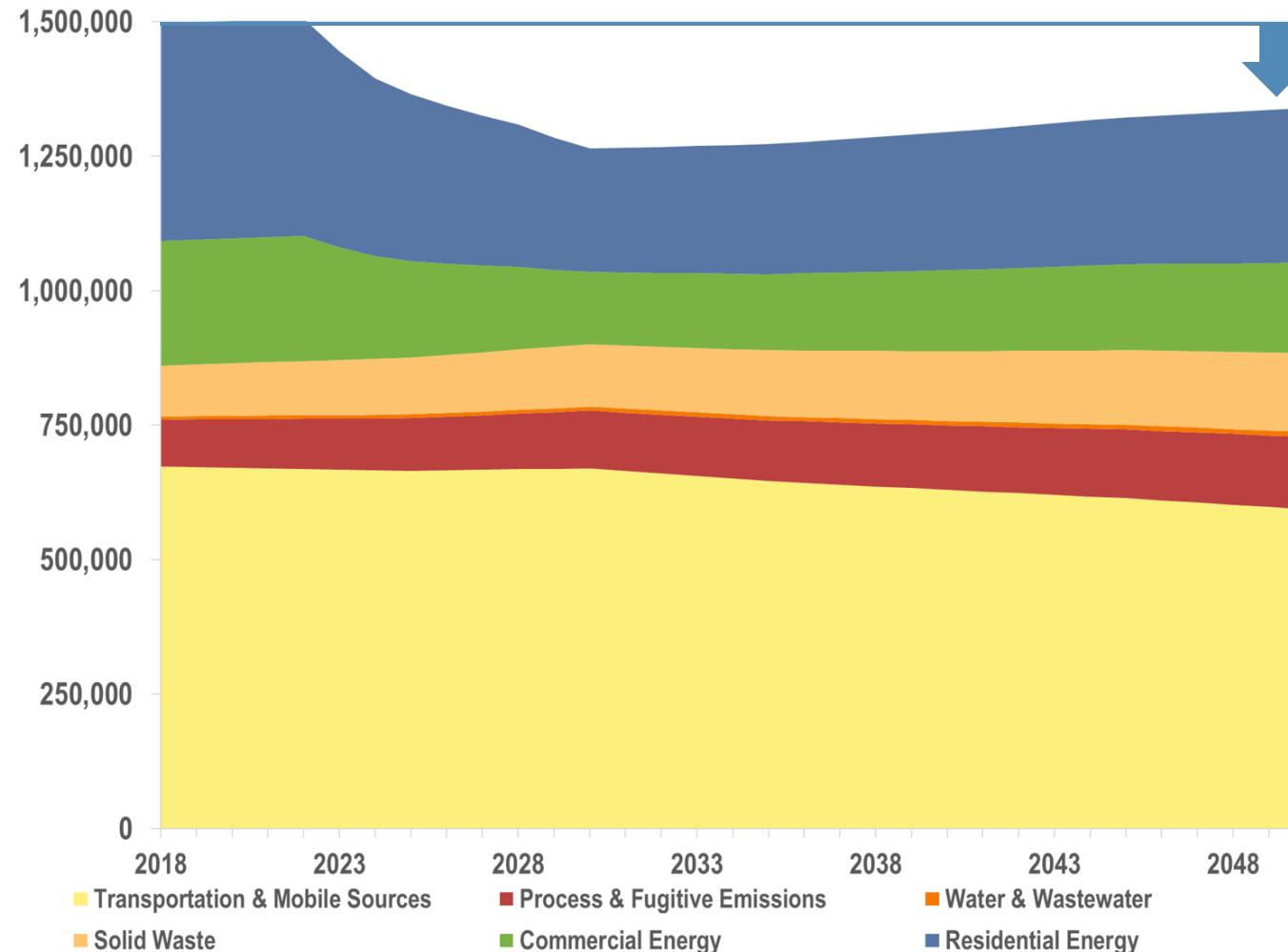
- **86%** from Transportation and Energy Use
- **AFOLU** = Agriculture, Forestry, and Other Land Use
- **Process & Fugitive Emissions** = Industrial process and manufacturing emissions as well as leaks from equipment or pipelines



* 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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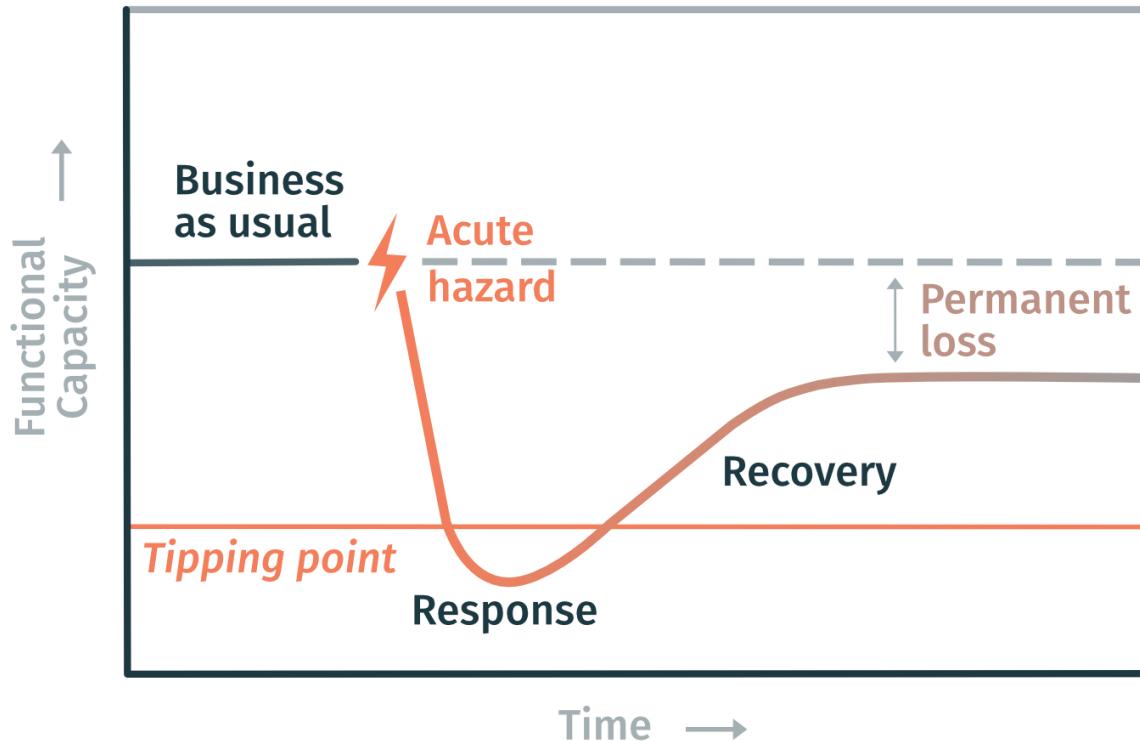
10% reduction from 2018

- **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.

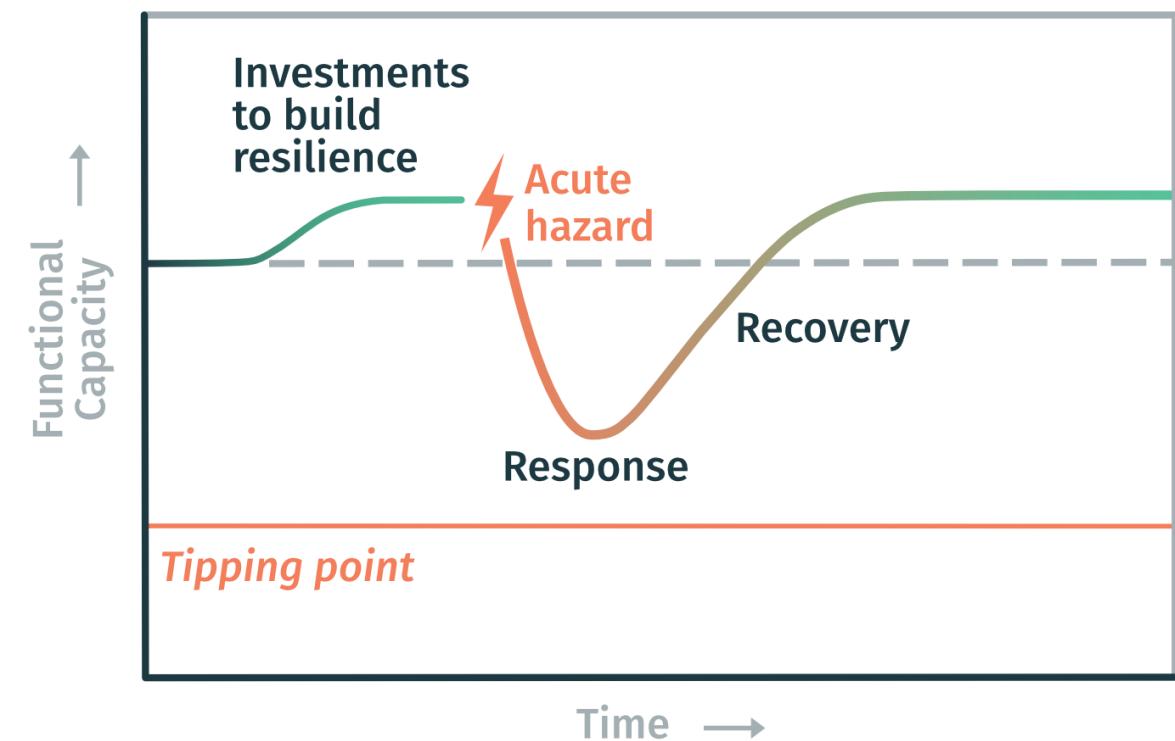
* Charles County emissions inventory based on 2018 data available from MWCOG – to be updated with 2023 data upon release

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

Less Resilient



More Resilient



Understanding Vulnerability

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

Resilience Assessment – Hazards & Assets

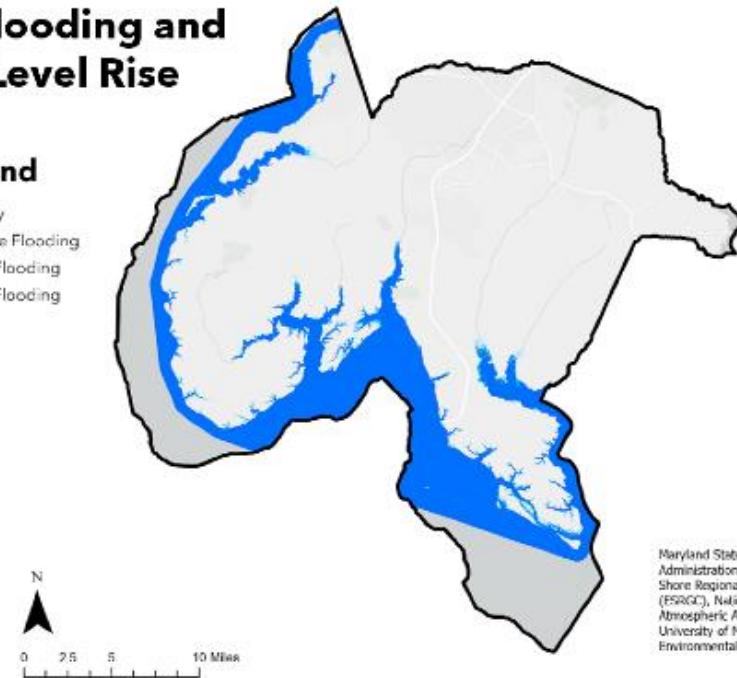
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Resilience assessment identifies communities and community assets that have, [high](#), [medium](#), and [low vulnerability](#) associated with climate hazards.

High Tide Flooding and Future Sea Level Rise

Legend

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

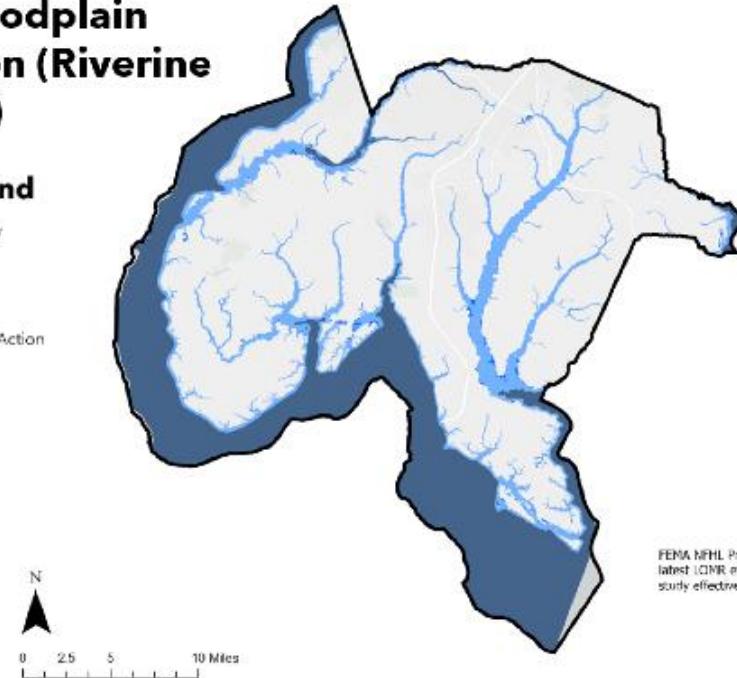


Maryland State Highway
Administration (MDSHA), Eastern
Shore Regional GIS Cooperative
(ESRG), National Oceanic and
Atmospheric Administration (NOAA),
University of Maryland Center for
Environmental Science (UMCES)

FEMA Floodplain Inundation (Riverine Flooding)

Legend

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



FEMA NFHL Product ID 24017C;
latest LCINR effective date 7/23/2021;
study effective date 5/4/2015

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

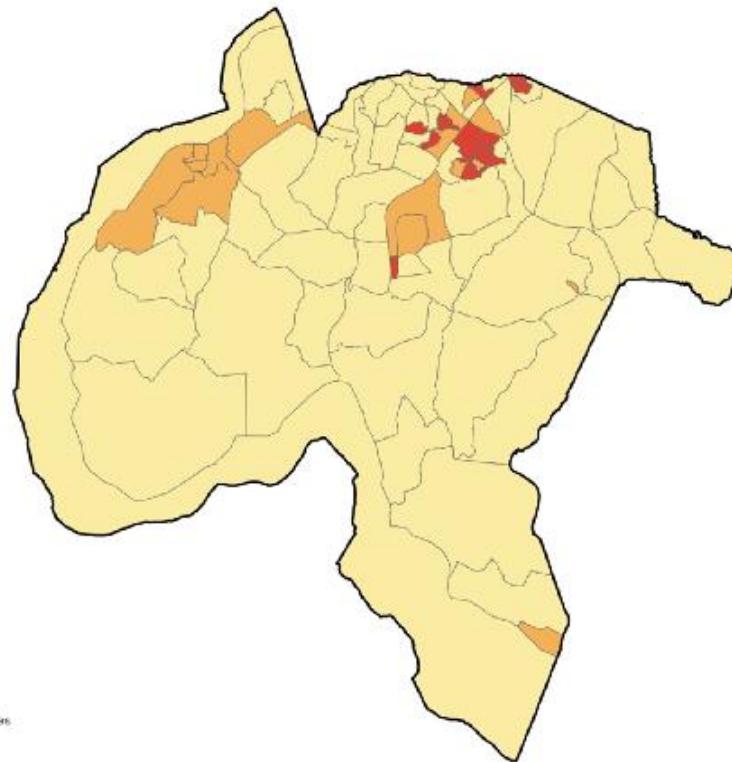
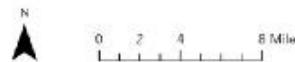
Resilience Assessment – Hazards & Assets

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Extreme Heat

Extreme Heat Vulnerability
Vulnerability Score

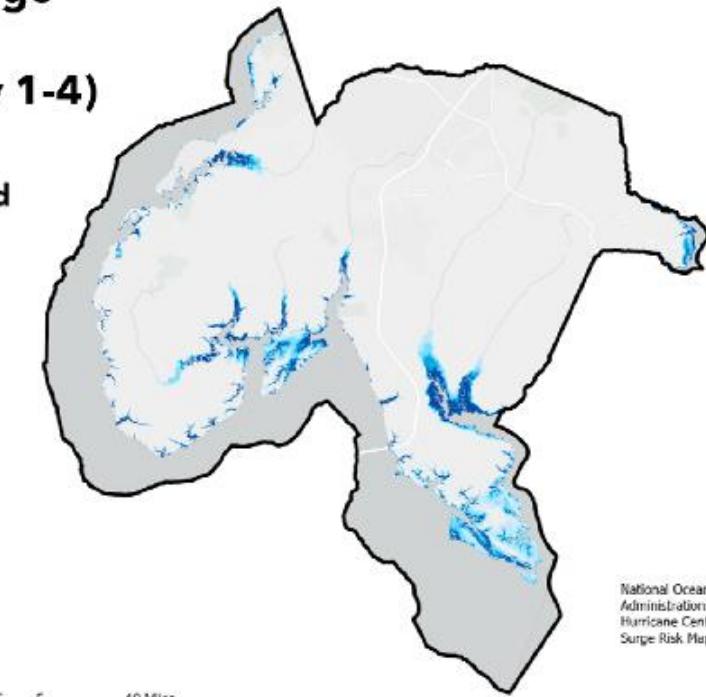
- Low (Yellow)
- Medium (Orange)
- High (Red)



Storm Surge Flooding (Category 1-4)

Legend

- County Boundary
- Category 1
- Category 2
- Category 3
- Category 4



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

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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?

1. Install solar panels throughout the community

2. Improve efficiency of buildings and heating and cooling systems

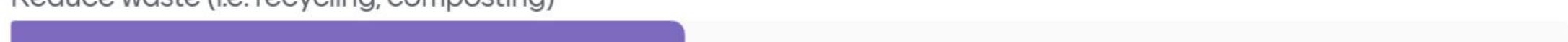
3. Improve public transportation

4. Adopt low emission vehicles

5. Reduce waste (i.e. recycling, composting)

6. Develop more accessible communities (i.e. bikability, walkability, micromobility)

7. Enhance green spaces (recreational or natural)



Strategies

- **EC 1:** 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.
- **AFL 1:** Explore policy options to limit the removal of existing tree canopy and protect mature shade trees. / **LU 4:** Expand urban forestry programs and incentivize increased 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.
- **CT 9:** Update zoning codes to support walkable, transit-oriented communities by prioritizing infill development and revitalizing underutilized areas

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 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 programs?
- Do you know of any campaigns in Charles County aimed at improving mobility?

Discussion Highlights

- Questions about what might make solar installation easier for community given phase out of federal incentives.
- County asked for any initiatives people are a part of or have heard about to connect low-to-moderate-income residents to solar.
- Touched on potential ability to collaborate with HOAs on gardens and natural plantings if those plantings can be made aesthetically pleasing.
- County asked if there are any emissions reductions initiatives happening at the state level that might be better implemented at the county level.

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

Enhance public health preparedness

Evaluate and improve emergency preparedness

Enhance natural and green spaces

Protect vulnerable populations

manage localized flooding and stormwater

Incorporate resiliency into infrastructure and building codes

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.

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?

[= Linked Strategies

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.

[= Linked Strategies

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?

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>