

MWCOG REGIONAL RESILIENCE AND ADAPTATION EFFORTS

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COG Resiliency

- **COG has historically been focused on climate mitigation and emergency response coordination.**
 - COG currently focusing on ways to better align and coordinate resilience program efforts to enhance capability to support local and regional efforts.
- **Resiliency is currently being addressed through multiple avenues at COG, including the Climate, Energy and Environment Policy Committee (CEEPC), NCR Homeland Security Executive Committee (HSEC), related technical committees (RESF-12), and others.**
- **Equity and inclusion are being actively incorporated into current and future resilience efforts.**

2030 Climate and Energy Action Plan

- **2030 Climate and Energy Action Plan**
 - COG has been actively working with the Global Covenant of Mayor's (GCoM) to develop a 2030 Regional Climate and Energy Action Plan, including updating regional mitigation and adaptation-related goals and actions
 - Draft plan is scheduled to be reviewed September 2020.
- **Overall Resilience Goals**
 - Currently developing an overall guiding resilience goal to be a ***"Climate Ready" region by 2030.***
 - By 2050, the region is ***climate resilient.***

Regional Resilience Goals Description

By 2030, the region will be climate ready.

- Local climate risks have been assessed and climate planning is incorporated into *all* government plans.
- Climate risks are being communicated across governmental offices and to the public, with a particular emphasis on engaging potentially vulnerable populations.
- Climate planning is actively being incorporated into government operations.
- All communities are undertaking implementation strategies to mitigate risks.
- Establish the necessary plans, networks, funding, and other actions to ensure implementation of full resilience by 2050.



Regional Resilience Goals Description

By 2050, the region is climate resilient.

The region has the ability to adapt and absorb against disturbances caused by current and future climate impacts and successfully maintain function.

- The region is a network of resilient and socially connected people, governments, and institutions that have constructed resilient communities. (resilient people = resilient communities)
- Measures have been implemented across the region to mitigate against current and future climate impacts.
 - All critical infrastructure and functions are climate resilient.
 - Resilient solutions to protect public health and safety, particularly of potentially vulnerable populations, have been deployed.
- The region is monitoring measures to address current and future climate risks and vulnerabilities.

2030 Climate And Energy Action Plan Resilience Regional Actions Groupings

- Guidance and Framework Materials
- Information Sharing
- Integrated Training Series
- Regional Public Education
- Capacity Building
- Regional Emergency Plans and Non-Emergency Plans
- Critical Infrastructure
- Resilience Hubs
- Microgrids
- Urban Heat Islands
- Tree Canopy
- Equity
- Equitable Energy Access
- Vulnerable Populations
- FEMA Pre-Disaster Mitigation Program and other funding

Guiding Questions for Resilient Plan Development

- Regional Support Action
- Tracking Metrics
- Level of Implementation
- Driving Factors
- Desired Outcome
- How Can COG Support?
- How Member Jurisdictions Can Support
- Co-Benefit

Example Action: Regional Integration

Regional Support Activity

- Develop guidance and framework Materials.

Driving Factors

- Many programs across the region may benefit from regional coordination and sharing.

How can COG Help?

- Coordinate sharing of best practices and develop regionally appropriate resilient design guidelines.
- Provide regional distribution of federal and state practices and standards to facilitate consistency and coordination of approaches.
- Develop a regional consensus on projections on climate risks and definitions to use in planning.

Main Areas of Focus/Desired Outcome

Coordinate and share activities and findings to move towards enhanced local and regional capacity to address climate risks and vulnerabilities.

Example Action: Education Outreach

Regional Support Activity

- Support climate resilience outreach initiatives to vulnerable populations.

Driving Factors

- Vulnerable populations are most at risk for climate impacts.
- Benefit from regional coordination on best practices.

How can COG Help?

- Coordinate sharing of best practices and region-specific messaging.
- Further build partnerships with community groups to improve communication strategies.
- Coordinate translation services to support dissemination of climate risk and actions to non-English speaking populations.

Main Areas of Focus/Desired Outcome

- Improve communication methods of climate risks to vulnerable communities.

Climate Risk & Vulnerability Assessment

- **GCoM Framework Requirements:**
 - Identifies the **type** of climate hazards and **current and future risk** level of each hazard
 - Assesses **intensity and frequency** of past/current hazards and expected change in intensity and frequency for future hazards
 - Describes **impacts** experienced in the past, list of impacted sectors and the magnitude of impact for each sector
- **Climate Hazards:**
 - Coastal Flooding
 - Flooding (Flash and Riverine)
 - Extreme Heat Days
 - Drought
 - Extreme Winter Conditions
 - Lightning / Thunderstorm

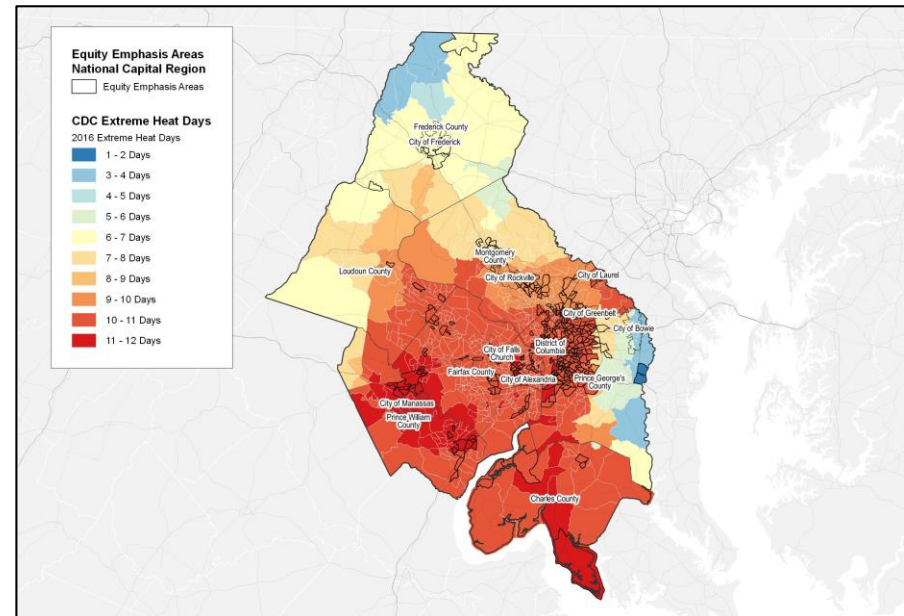
Climate Hazards and Adaptive Capacity

Hazard	Probability	Consequence	Risk
Extreme Heat Days	3	3	9
Drought	2	3	6
Flooding (Flash and Riverine)	3	3	9
Lightning & Thunderstorm	3	2	6
Extreme Winter Conditions	2	3	6
Coastal Flooding	3	2	6

Factor	Degree of Challenge
Access to Basic Services	Moderate
Access to Healthcare	Moderate
Public Health	Moderate
Housing	Moderate
Poverty	Moderate
Economic Health	Low
Environmental Conditions	Moderate
Infrastructure Conditions/ Maintenance	High
Community Engagement	Moderate

Extreme Heat

Probability	3
Consequence	3
Risk Level	9
Change in Intensity (How strong?)	Increase
Change in Frequency (How often?)	Increase
Timescale (By when?)	Immediately (by 2025)



Extreme Heat

Impacted Sectors, Assets, and Services	Magnitude of Future Impact
Energy	High
Public Health	High
Transport	High
Information & Communications Technology (ICT)	High
Law and Order	High
Environment, Biodiversity, and Forestry	Moderate
Water Supply and Sanitation	Low
Commercial	Low

Vulnerable Groups	
Women and Girls	Persons with Chronic Diseases
Children and Youth	Low-Income Households
Elderly	Unemployed Persons
Indigenous Populations	Persons in Sub-Standard Housing
Marginalized Groups	Other
Persons with Disabilities	Persons with Allergies



Notable COG Resilience Efforts Underway

- **Northern Virginia Resilience Commission (NVRC)**
 - Resilient Critical Infrastructure Roadmap 2018
 - Actively collaborating with capacity-building guidance, partnerships, resilient design guidelines, etc.
- **Resilience Regional Data Collection**
 - Currently updating an inventory of local resilience efforts, developing a workplan to effectively collect data, understand and address gaps in the region.
- **Northern Virginia Coastal Flood Risk Management Study with U.S. Army Corps of Engineers**
 - Investigating coastal flooding issues and identifying solutions for sites in Arlington County, the City of Alexandria, Fairfax County, northern Prince William County, and Reagan National Airport.
- **Local Government Environmental Plans – providing technical support**
 - Including Fairfax County, City of Frederick, and Rockville.

Notable COG Resilience Efforts Underway

- **Local Government Environmental Plans – providing technical support**
 - Including Fairfax County, City of Frederick, and Rockville.
- **AGU Thriving Earth Exchange**
 - Providing technical support to Takoma Park, Frederick, Montgomery County.
- **Resilience in Transportation Planning**
 - Resilience is being integrated into regional transportation planning.
 - COG Transportation Planning Board conducting evaluation of the Visualize 2045 (2018) long-range transportation plan.

Notable COG Resilience Efforts Underway

- **Water System Resilience**
 - Addressing water quality issues in the Potomac River Basin through its Water Resources Technical Committee (WRTC).
 - Risk-based analyses addressing how to respond to disruptions – off-river storage, interconnections, new sources of supply, and other water source protection planning.
- **Regional Agriculture and Food Resilience**
 - Initiatives to support the region’s sustainable agriculture (equity, infrastructure, supply chain, food waste, farming etc.,).
- **Tree Canopy Efforts**
 - Maintaining healthy forest canopy through the region, addressing urban heat island, stormwater, and other efforts in the region.
- **Exploring opportunity to further address resilience**
 - Military Installations Resilience
 - Microgrids

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