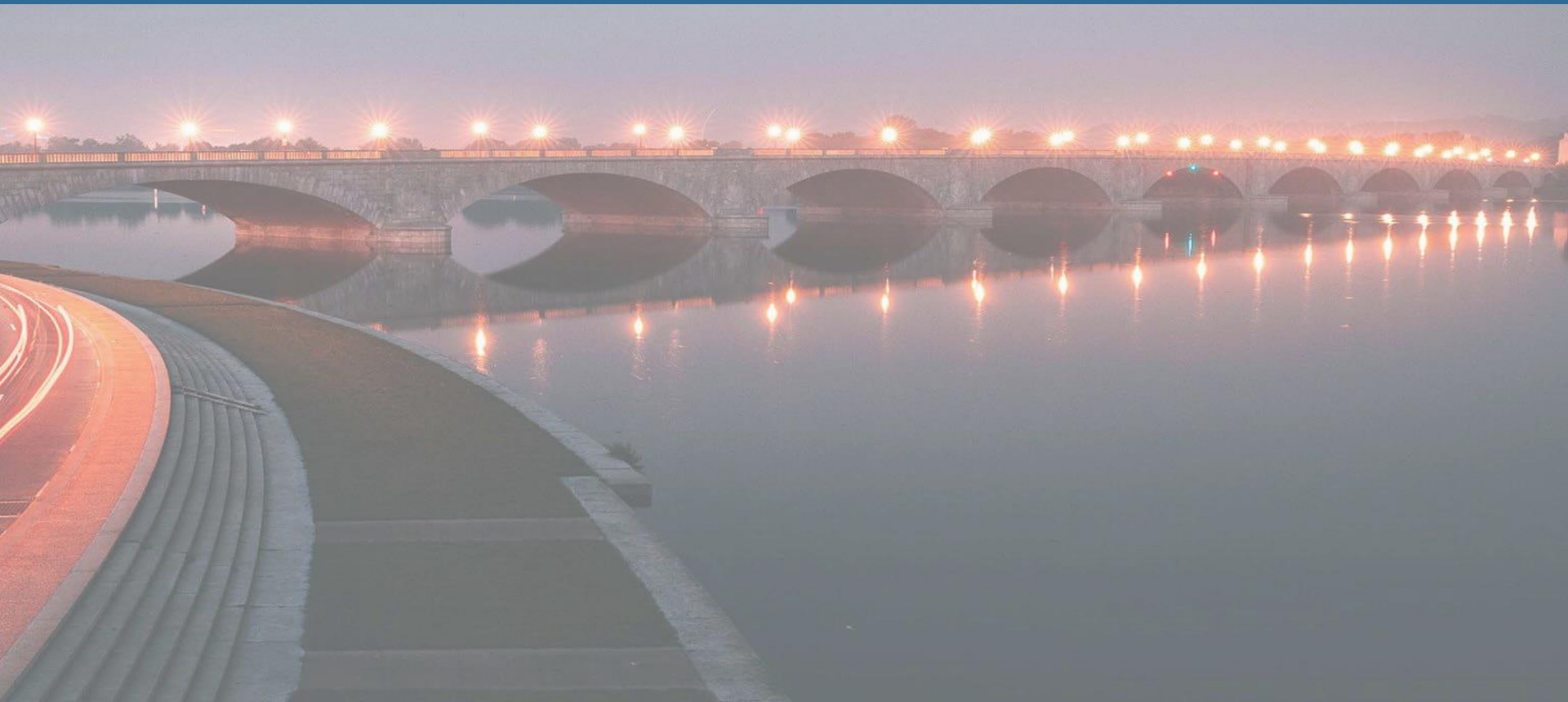


# Strategy for Military and Community Resilience in Metropolitan Washington

Steve Bieber, Water Resources Program Director

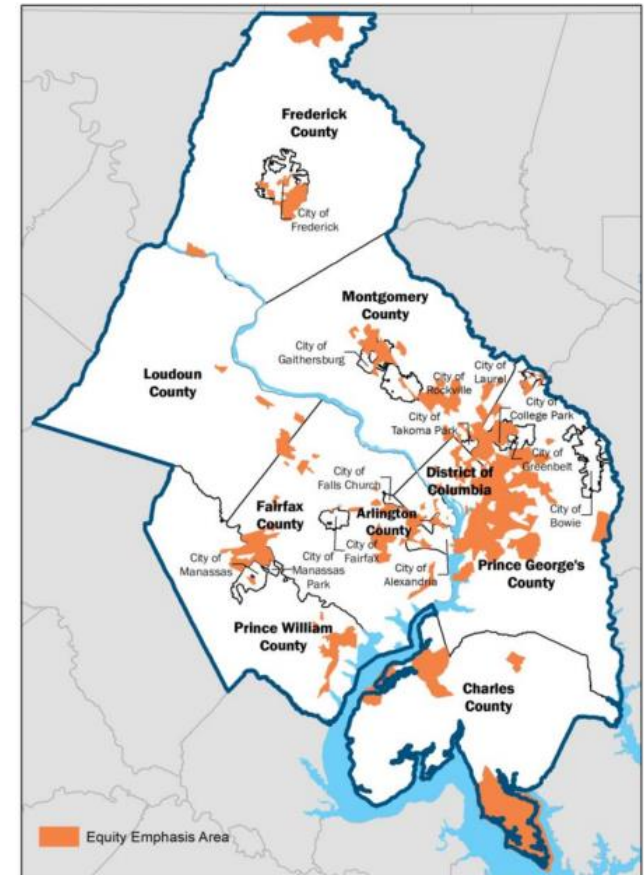


Metropolitan Washington  
Council of Governments

April 9, 2024

# The COG Region

- Metropolitan Washington Council of Governments (COG), is a nonprofit regional planning association, with a membership of 300 elected officials from 24 local governments, the Maryland and Virginia state legislatures, and U.S. Congress.
- The COG region is comprised of 24 jurisdictions that reach urban, suburban, and rural communities that range in size from about 10,000 to more than one million residents. This includes jurisdictions in suburban Maryland, Washington D.C., and Northern Virginia.
- More than 1,500 officials and experts connect monthly through COG to develop solutions and plans for the region's major challenges.



# MIRR Overview



## PURPOSE

- » *Identify key threats to resilience of military installations and outside-the-fence measures to build resilience for both the installations and surrounding communities*



## FOCUS REGION

- » *Geographic area: Washington, D.C.*
- » *Specific installations: Joint Base Anacostia-Bolling, Washington Navy Yard, Fort McNair, Naval Research Laboratory*



## PROJECT PHASE

- » *Establish priority sectors, hazards, and stressors*
- » *Conduct vulnerability assessment*
- » *Develop resilience strategy, including priority measures*

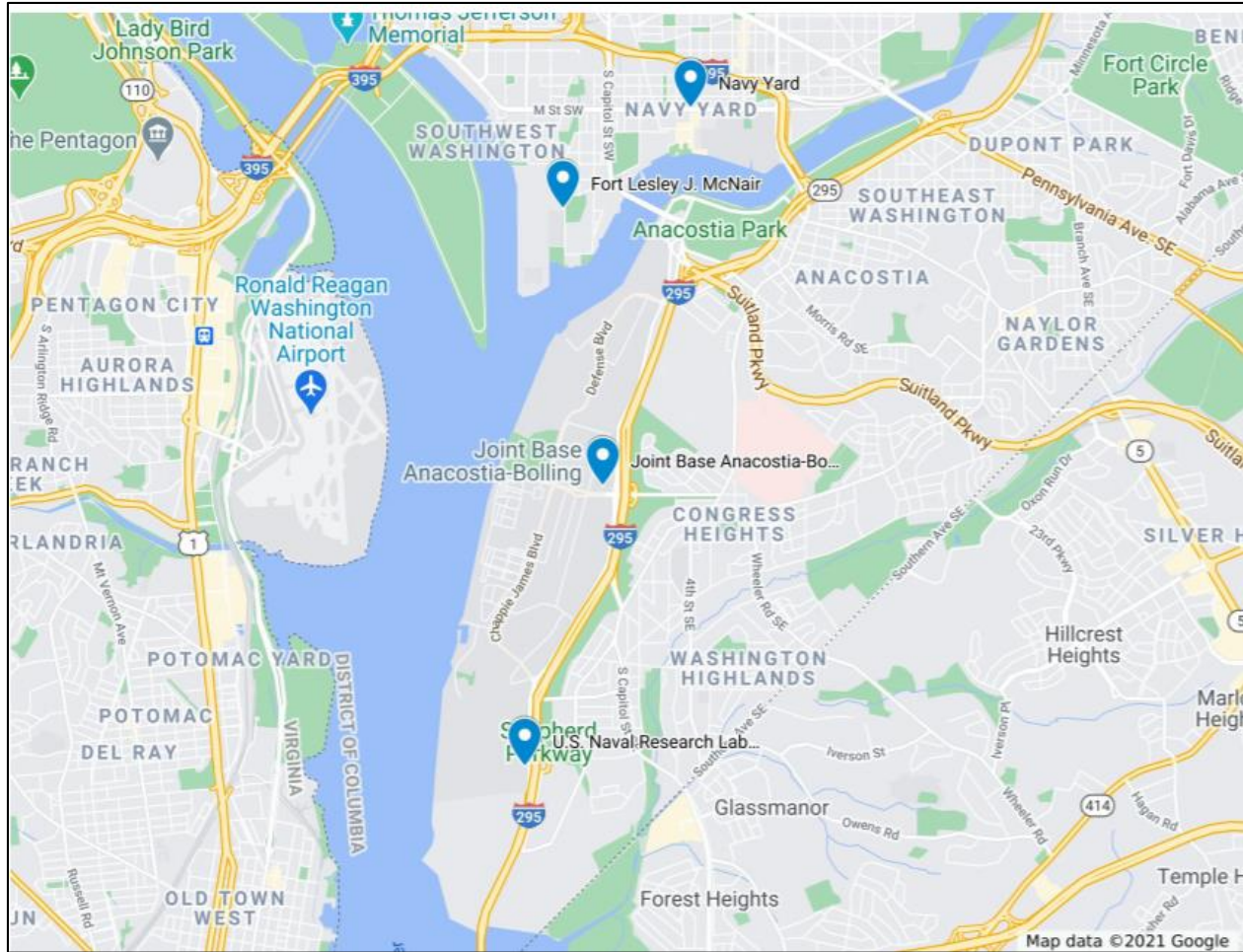


## CORE TENETS

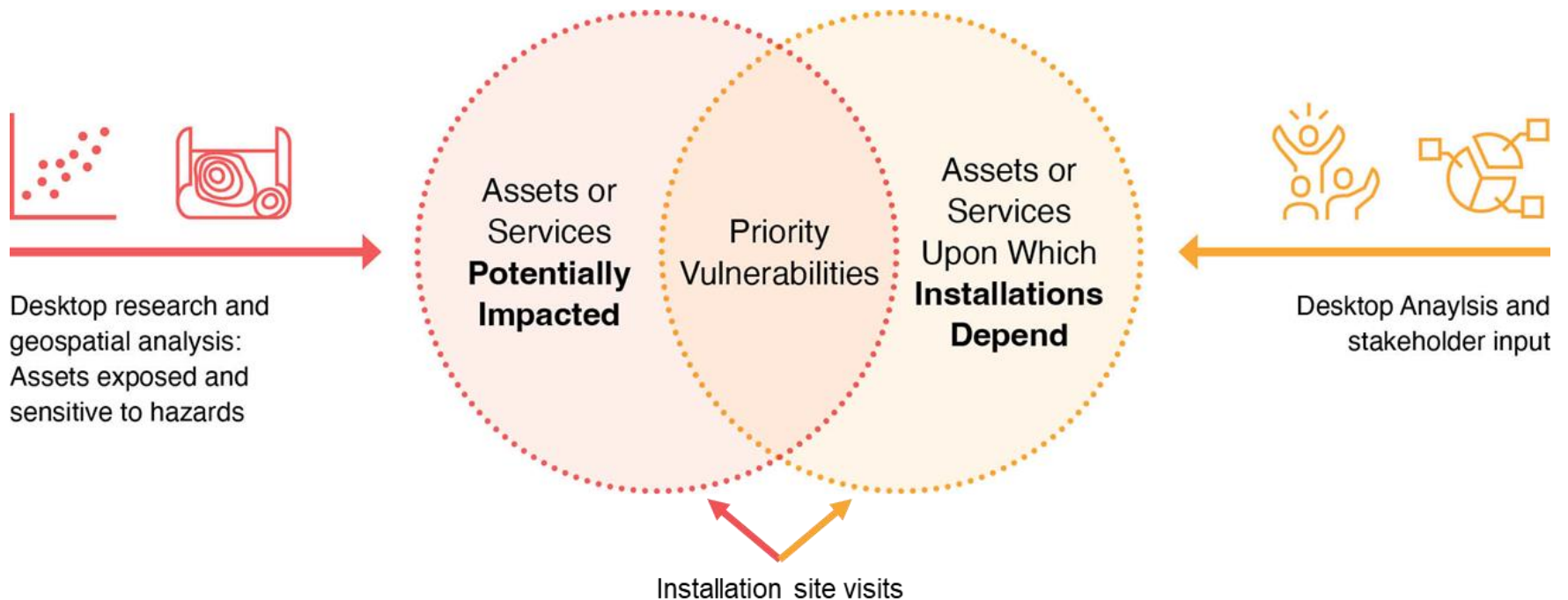
- » *Advance communication and coordination among stakeholders*
- » *Enable implementation of recommendations post-project*
- » *Integrate equity as a priority*



# Installation Locations



# Vulnerability Assessment Approach



# Key Findings

- Flooding and extreme heat are the climate hazards of most concern to assets, sectors, and the installations
- The MIRR identified 14 priority measures to enhance regional resilience.
- Continued collaboration and communication on resilience measures is critical for implementation of MIRR recommendations.



# For Each Measure:

## Implementation profile:

- Measure description
- Vulnerabilities addressed
- Benefits
- Social and equity considerations
- Costs and funding opportunities
- Key actors
- Next steps
- Additional details

### Assess and Address Key Climate Risks to Telecommunications Systems

#### Measure Description icon

Government actors, nongovernmental organizations, and telecommunications providers operating in the area will work together to 1) identify key specific risks that climate hazards may pose to critical telecommunications assets and 2) ensure service providers and relevant government stakeholders have the resources needed to manage risks and build resilience to climate change.

First, HSEMA and DOEЕ will share results from recent and ongoing asset vulnerability and climate risk studies (see Additional Details section below) with telecommunications providers in a format that telecommunications providers can use for risk management (e.g., geospatial hazard layers). Then, they may undertake additional analyses as needed, and synthesize findings to identify key risks. Roles of specific actors are described below in the Next Steps section.

If telecommunications providers are equipped with information about key climate hazards, they can make better-informed decisions about how to upgrade, design, or relocate existing facilities and where to site future infrastructure, which will ultimately result in more resilient communications systems.

#### Vulnerabilities Addressed icon

- Critical telecommunications assets (e.g., transmission towers; aboveground fiber optic and coaxial cables and associated facilities) vulnerabilities to hazards including ice storms and high winds

Other telecommunications assets may also be at future risk of flooding and/or power grid instability.

#### Benefits icon

- Installations: Installations use the civilian telecommunications system, with alternate, contingency, and emergency options to ensure service continuity. Addressing vulnerabilities to this system will increase the likelihood that installations can continue to communicate with their normal methods in emergencies.
- Community: Increased ability of support systems (e.g., first responders, service providers, community-based organizations, nonprofits) to continue communicating and coordinating to serve the community during events.
- Economy: Increased capacity of the local economy to continue operating during events.
- Environment: Potential for environmental benefits if nature-based resilience measures are applied (e.g., to manage flooding).

#### Social and Equity Considerations icon

Increasing communications resilience may particularly benefit populations that face higher risk or have less capacity to cope if communications systems go down.

Telecommunications service providers should also work with ANCs and BIDs to understand how outages and construction could impact different populations, and reflect community needs in resilience implementation plans and outage restoration plans.

Additionally, the quality of communications services and assets' resilience should be studied alongside wealth indicators to assess if the system is stronger in wealthier areas, and if it is, resilience investments should be prioritized to mitigate this inequity.

#### Costs and funding Opportunities icon

Potential costs associated with implementing this measure, and potential funding sources to support implementation, include:

**Costs:**

- Risk assessments to identify and inform the design or protection of critical equipment, buildings, and infrastructure may have a range of costs (\$25,000 – \$250,000+) depending on the level of detail needed and the scope of the study.
- Undergrounding wires may cost ~\$25,000 to \$1,500,000 per mile, recognizing the need to ensure against flooding risks for buried lines
- Additional equipment may be used to increase reliability and capacity

**Funding:**

- Department of Defense Office of Local Defense Community Cooperation (OLDCC) grants to fund additional risk assessments as needed
- FEMA Building Resilient Infrastructure and Communities (BRIC) Program grants
- Homeland Security Grant Program (HSGP) grants
- National Telecommunications and Information Administration grants

#### Key Actors icon

- Leaders: HSEMA and telecommunications service providers
- Partners: Other government actors (MWCOG, National Labs, CISA, FEMA), electric service providers, Communications Sector Coordinating Council first responders, and other major users

#### Next Steps icon

##### Short-term (within 2 years)

- Public sector actors (e.g., governmental and NGOs) conduct R&D to develop climate risk data for telecommunications service providers
- HSEMA continues to investigate critical assets and vulnerabilities in local telecommunications system

##### Mid-term (2-6 years)

- Public sector actors make climate hazard data available to and easily accessible by telecommunications service providers
- Telecommunications providers integrate climate risk data into planning and decision-making processes

##### Long-term (7+ years)

- Telecommunications service providers coordinate as needed to build resilience and manage key climate risks
- Public sector continues to support service providers by providing updated high-quality climate data for risk management purposes
- Telecommunications service providers and public sector actors work together to target climate risks to telecommunications sector outside the scope of providers' capacity (e.g., improve flood resilience, harden the electric grid to increase its reliability)

# Priority Physical and Policy Measures



## Retrofit stormwater pump stations

Key Actors  
DC Water

Partners: Electric utility (Pepco)

Immediate Next Steps:  
Request additional funding  
(potentially from OLDCC, FEMA  
BRIC)



## Assess and address key climate risks to telecommunications systems

Key Actors  
HSEMA and telecommunications service providers

Partners: Local and federal government actors, electric service providers, Communications Sector Coordinating Council first responders, and other major users

Immediate Next Steps:

- Public sector actors conduct R&D to develop climate risk data for telecommunications service providers
- HSEMA continues to investigate critical assets and vulnerabilities in local telecommunications systems



## Support Blue Plains floodwall construction

Key Actors  
DC Water

Partners: HSEMA, Ward 8 representatives

Immediate Next Steps:

- Funding BRIC and OLDCC
- Community outreach
- Design & Engineering studies
- Consultation with agencies





# Lessons Learned

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- Communicating protection surrounding data collection and usage is essential, be mindful of sensitivities of stakeholders
- Integrated approach to resilience planning is key
- Relationship building is essential
  - COG met regularly with an internal project team that included installation liaisons, this assisted in deepening relations with the military installations
  - Build connections with multiple installation SME's
- The study highlighted two challenges for resilience implementation
  - Cross-jurisdictional boundaries and constraints
  - Funding

# Next Steps

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- COG completed the MIRR in December 2022
- Received FY-24 Implementation Grant from OLDCC
  - Climate assessment for telecommunications
  - Develop plan for increased coordination with the District government and installations
  - Conduct two scenario-based workshops
    - Extended power outage affecting electric utilities and water supply
    - Extended outage of telecommunications
  - Roadmap for Solutions and Financing

# COG Staff Contact Information

## Steve Bieber

Water Resources Program Director

[sbieber@mwkog.org](mailto:sbieber@mwkog.org)

## Katie Dyer

Environmental Planner, Water Resources Planning Program

[Kdyer@mwkog.org](mailto:Kdyer@mwkog.org)



A digital business card for Steve Bieber, Water Resources Program Director at the Metropolitan Washington Council of Governments. The card features a profile picture of Steve Bieber, his name, title, and department. It includes contact information: email (sbieber@mwkog.org), phone (+1 202 962 3219), and address (777 North Capitol Street NE, Suite 300, Washington, DC 20002). There is a QR code, a 'SAVE CONTACT' button, and social media icons for X, Facebook, and LinkedIn. The Metropolitan Washington Council of Governments logo is in the top right corner.

**Steve Bieber**  
Water Resources Program Director  
*Department of Environmental Programs  
Metropolitan Washington Council of Governments*

[sbieber@mwkog.org](mailto:sbieber@mwkog.org) work  
+1 202 962 3219 direct  
777 North Capitol Street NE, Suite 300 work  
Washington, DC 20002  
Visit our website

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SAVE CONTACT