

First EPA Region 3 Climate Workshop

Climate & Hazard Mitigation Issues Discussed and

Potential Actions Identified During the

Breakout Discussions on Thursday, November 10, 2022

The following table lists climate adaptation and climate-related hazard mitigation topics identified in advance of the breakout group discussions. Within each topic area are specific issues that were discussed by the groups on November 10th. Where possible potential actions to address that issue have been identified in post-workshop conversations.

The potential actions listed below are being considered as part of an ongoing engagement with our regional partners on climate issues. Some of these actions may be adopted into future updates of the Region 3 Climate Adaptation Implementation Plan; however, follow up on any individual action is contingent upon staff and/or funding availability.

Air	
<i>ozone attainment and heat, extreme heat impacts on air quality monitoring, wildfire impacts on AQ and monitoring, mold and related indoor air quality</i>	
Air Quality Index Outreach	
Summary: Discussion of risk communication, contextualizing data, education/managing community perceptions and understanding, appropriate uses of sensor data. Potential for collaboration to develop best practices or other resources related to sensor monitoring projects.	
Issue Discussed	Potential Action
Sensor technology is evolving and there is an opportunity to bring it to the mainstream	Develop best practices and/or a program to match community partners with academics or other technical resources to deploy and implement sensor projects effectively.
Helping communities understand what an actionable level is	Continue discussion with stakeholders.
Siting locations of air monitors is key	Continue discussion with stakeholders.
Risk and perception	Continue discussion with stakeholders.
Education (explain the Air Quality Index and what it is) and communication.	Assessment of how communities receive Air Quality Index (AQI) information and what action(s) they take, and what opportunities might exist for EPA to build on existing tools.
Ability to determine which complaints need the highest priority	Continue discussion with stakeholders.
Environmental Justice and Adaptation	

Summary: Discussion of need for consistent universal definition of Environmental Justice (EJ), how to identify communities with EJ concerns, and the reality that this may mean something very different for rural versus urban/suburban areas.	
Issue Discussed	Potential Action
Defining what is considered an EJ area is very important.	Continue discussion with stakeholders.
Multiple agencies have their own tool.	Continue discussion with stakeholders.
Indoor Air Engagement	
Issue Discussed	Potential Action
Indoor air quality under state health department authority rather than state environmental agency.	Continue discussion with stakeholders.
Mold and vapors are big topics.	Increase availability of resources to address mold and vapors.
SIPs and Voluntary Projects	
Issue Discussed	Potential Action
PADEP's collaborative deal with major sources/ locomotives/ tugboats; efforts to keep Particulate Matter (PM) 2.5 down.	Engage with stakeholders on Inflation Reduction Act funding, including Ports.
Wildfires	
Issue Discussed	Potential Action
Simpler (exceptional events) would be helpful.	Continue discussion with stakeholders.
Urban Heat Island Mitigation	
Issue Discussed	Potential Action
Locality priority.	Continue discussion with stakeholders.

Water Infrastructure & Hazard Mitigation	
<i>wastewater/drinking water/stormwater infrastructure, green infrastructure, hazard mitigation</i>	
Flooding	
Issue Discussed	Potential Action
Identifying alternatives to capping to prevent migration of chemicals from hazardous sites; federal requirements for considering climate impacts on hazardous sites	Follow up with Superfund to see what resources exist to address the capping alternatives issue; engage with EPA headquarters on rules for considering climate impacts on hazardous sites

DC Interagency Flooding Task Force set up to address flooding after severe floods in 2020.	Highlight the flood task force work in a regional webinar; such a webinar could also highlight efforts by state Silver Jackets teams
Can/should flood vulnerability mapping be standardized? There are several large federal agency groups working to coordinate flood tool development.	Get engaged in interagency flood vulnerability mapping and share out with regional partners; convene a regional workgroup to identify various state and federal flood tools and discuss their similarities and differences
Promote awareness of resources and actions residents can take to reduce flood risk (i.e., resiliency hubs in DC).	Is this also a potential topic for a regional webinar? Are there other efforts that could be paired with the Resilience Hubs to showcase additional best practices? Increase promotion of flooding tools for water utilities with other partners, agencies

Emergency Preparedness

Issue Discussed	Potential Action
Link Hazard Mitigation and Emergency Preparedness staff with a broader audience of partners.	Webinar to promote what we're doing in this space already?
Connect EPA State Revolving Loan Fund (SRF) funding with FEMA disaster funding.	Coordinate calls between SRF staff and Federal Emergency Management Agency (FEMA) staff to identify the best ways to make this connection.
Reach out to water facilities about disaster planning.	This is part of the EPA Region 3 Infrastructure Priority Action. Whenever possible, promote planning tools for water and wastewater utilities with other partners to raise their awareness.

Utilities

Issue Discussed	Potential Action
Promote the use of the Bipartisan Infrastructure Law, Inflation Reduction Act, and State Revolving Loan Fund Program to help strengthen water and wastewater facilities.	Could this be paired with the disaster planning outreach idea listed above? Is this already happening?
Salinization impacts on drinking water facilities due to sea-level rise, the impacts this has on rural areas, and what resources are available (funding, support), risk assessment	Create maps that show where drinking water facilities and Underground Sources of Drinking Water are most vulnerable to sea-level rise and target those areas for outreach.
Preparing rural and remote utilities for flooding and resilience in general	Connect with the "20 Communities" effort wherever it overlaps with rural communities and work with the utilities in those areas to address flooding and resilience issues.

Coordination and Planning

Issue Discussed	Potential Action
Connect and integrate hazard mitigation plans with environmental plans and use the synthesis to develop a wish list of ideas that can be matched to resources.	Use existing resources to identify water programs that could be linked to hazard mitigation planning. Educate EPA staff on the links between the two planning processes, so when planning documents are created POs can explicitly look for/recommend those connections to state partners
Ensure Clean Water Act Section 604(b) water quality management plans incorporate climate considerations. There is an opportunity to address climate and environmental justice in the most vulnerable communities	
Support planning efforts so projects are application ready when a funding opportunity arises.	
Better coordination between EPA and Silver Jackets	Engage in regular Silver Jackets meetings and connect the work to disaster support/hazard mitigation efforts occurring in the region.

Green Infrastructure

Issue Discussed	Potential Action
Beneficial reuse of dredge materials, including guidance for reuse and coordination with other entities, like US Army Corps of Engineers, National Estuary Programs, EPA and state agencies).	
Using dredge material to restore islands in the Chesapeake Bay and to restore shorebird nesting habitat.	
Balancing the recreational/water treatment aspects of green infrastructure	Promote EPA resources related to Green Infrastructure (https://www.epa.gov/green-infrastructure/learn-about-green-infrastructure)
Connect the EPA Green Infrastructure Team to the climate-resilient Best Management Practice (BMP) work of the Chesapeake Bay Program.	Connect the EPA Green Infrastructure Team to the climate-resilient BMP work of the Chesapeake Bay Program.
Green Infrastructure to moderate urban heat island effects	Convene large cities, like Philadelphia, Richmond, Baltimore, etc., to discuss best practices, challenges, priorities, resources, etc.

What co-benefits do cities consider when installing GI? How are co-benefits quantified?	Promote EPA resources related to Green Infrastructure (https://www.epa.gov/green-infrastructure/learn-about-green-infrastructure)
Formalize communication and collaboration on Green Infrastructure across the region.	Connect the EPA Green Infrastructure Team to the climate-resilient BMP work of the Chesapeake Bay Program.
Data	
Issue Discussed	Potential Action
Interest in tools that consider future flooding projections not just current flood extents when making capital developments and in development	
Synthesizing separate datasets to make them more useful in accessing real-world flooding and climate issues.	
Which models, scenarios, projections is each state using for their planning purposes?	
Standardizing data collection and developing best practices to increase usefulness across projects/states/agencies, recycling existing data to fill new needs, and identifying data gaps.	Topic for discussion in a quarterly meeting with states organized in coordination with the Mid-Atlantic Federal Climate Partners (MAFCP)
Use common data sharing platforms for flood data	Get engaged in interagency flood vulnerability mapping and share out with regional partners; convene a regional workgroup to identify various state and federal flood tools and discuss their similarities and differences
What need is there for new tools and data, and how can we adapt existing resources, tools and data to fit new and current needs.	Use the Mid-Atlantic Federal Climate Partners (MAFCP) to convene state by state and bring together federal and state agencies to showcase major data and tools available.
Explore the role of local/specialized data versus national-level datasets and evaluate the usefulness of different scopes for different planning/work. What place do the different resources have? What different needs do they fill?	
Improve topography data, lidar data regularly collected to track land-use changes.	

Ecosystems

Landscape to local-level adaptation/resiliency planning and policy; nature-based implementation programs and solutions

Focus Area 1: Monitoring and Assessment Needs

Summary: Monitor, assess, and develop information on ecosystem vulnerability and the benefits of implementation options.

Issue Discussed	Potential Action
<p>More funds needed for monitoring:</p> <ol style="list-style-type: none"> 1. To support adaptive management approach to siting, design, implementation of projects; 2. To enable entry into Blue Carbon markets, as natural infrastructure needs to be in place for 100 years; 3. Given SLR, subsidence, and increased erosion rates, need stable, long-term monitoring of coastal wetland condition, and effectiveness of projects implemented; and 4. Need additional information on Natural Infrastructure/Nature-Based Solutions project effectiveness over time (i.e., for building resilience of communities and ecosystems, and other management objectives) 	<p>Investigate what kind and level of monitoring is needed to meet multiple needs (baseline condition, project effectiveness, ecosystem service/Blue Carbon markets, etc.). Explore sources of funding for long-term monitoring.</p>
<p>Lack of ability to track occurrence and predict likely occurrence of Harmful Algal Blooms.</p>	<p>Identify needs and potential technical and financial support for Harmful Algal Bloom prediction and occurrences.</p>
<p>Fundamental questions exist about quantifying vulnerability of ecosystems and ability to provide ecosystem services under stress (e.g., imposed by climate change). How can this information be developed and scaled? Need help filling data gaps and communicating with stakeholders in terms meaningful to them.</p>	<p>Explore opportunities for government agencies and Non-governmental Organizations to collaborate on Ecosystem Service valuation, climate change effects, and the use and communication of information.</p>

Focus Area 2: Prioritization

Summary: Strategically prioritize ecosystems and their components for implementation (conservation, restoration, management), utilizing information such as vulnerability.

Issue Discussed	Potential Action
<p>We need to prioritize based on particular ecosystem services we are trying to support and that jurisdictions, communities, and landowners are interested in (e.g., community</p>	<p>Investigate: 1) How a strategic prioritization approach to large and small scale planning and implementation, based on ecosystem service outcomes, could support decision-</p>

<p>resiliency, wildlife habitat, carbon sequestration).</p> <p>Need large scale coastal master plan(s) to help us focus on what kind of intervention, if any, is suitable for certain sections of the coastline. Need to decide where to work, where not to work – are there ecological or resilience function-based “tipping points”? What are the unintended consequences of interventions? How do you weigh and balance decision-making about where to go and what to do acknowledging there is going to be a ripple effect?</p>	<p>making, including identifying geographic areas to focus on; 2) What research/data collection and assessments (e.g. vulnerability) are necessary to support strategic prioritization, and weigh cost/benefits (e.g. unintended consequences) of implementation practices; 3) How to define and measure “resilience”, as defined by multiple endpoints or criteria? and 4) How best to communicate information and results to decision-makers, communities, and landowners.</p>
<p>Need to focus multi-sector and partner efforts in specific, right-sized geographies, so as to concentrate and leverage funding, address multiple aspects/areas of an issue (science, policy), and therefore accelerate progress, which can then be replicated.</p>	<p>See above.</p>
<p>We need a multi-scale approach to assessing ecological condition and vulnerability to climate related impacts that incorporates both local/site and landscape-level data, metrics and analyses.</p>	<p>See above.</p>
<p>For climate resiliency, there is a lack of understanding of what needs to be “fixed” and what success looks like. How do we know we’re resilient? Common understanding of goal would help prioritize actions/projects.</p>	<p>See above.</p>
<p>Focus Area 3: Coordination and Collaboration</p>	
<p>Summary: Increase across all levels of government, Tribes and NGOS to leverage resources and enhance effectiveness.</p>	
<p>Issue Discussed</p>	<p>Potential Action</p>
<p>We need to improve coordination and collaboration among the many different players potentially working in a particular place. This will help to address the “need to build capacity” issue, but also need to recognize that coordination/collaboration takes human capital.</p>	<p>Identify existing place-based collaborative networks and evaluate the extent to which these networks are coordinating (e.g., resources, assistance, projects, policies, research) around ecosystem and community resilience; identify opportunities to build these networks and their capacity and develop additional networks that would improve collaboration/coordination around resilience.</p>
<p>Not all the science is settled on the best approaches for increasing resilience/adaptation, but we can’t wait until all the science is settled because the problem</p>	<p>Explore opportunities to build upon existing research partnerships (e.g., Chesapeake Bay Program Strategic Science and Research Framework) or to develop new frameworks</p>

<p>is ongoing. This may be a barrier because scientists do not typically operate this way.</p>	<p>that help focus existing science resources, leverage the research enterprise, and more effectively provide science to advance resilience initiatives.</p>
<p>Issue with pipeline of Green Infrastructure and Natural Infrastructure/Nature-based Solutions (NI/NBS) projects. Funding for design of projects is limited and cost share is barrier. Issue with equitable distribution of projects (i.e., the same communities are receiving funding and lower-income – urban and rural - are not).</p>	<p>Investigate how Bipartisan Infrastructure Law funds can be used to increase implementation of NI/NBS, while helping advance EPA’s environmental justice, green job development, and equitable funding goals.</p>
<p>Focus Area 4: Increasing Adaptation and Building Resiliency</p>	
<p>Summary: Develop, plan and implement strategic, science-based adaptation and resiliency-building programs, policies, initiatives, and conservation, restoration and management actions.</p>	
<p>Issue Discussed</p>	<p>Potential Action</p>
<p>It can be challenging to permit natural infrastructure/nature-based solutions (NI/NBS). Clean Water Act statute focuses on minimizing the footprint of the solution, but the NI/NBS often takes up more space, has more wetland impacts, etc., even though these projects would be a more resilient solution than other solutions (e.g., creating a sea wall).</p>	<p>Investigate opportunities to explore challenges with permitting and implementing natural infrastructure/nature-based solutions for increased resilience with state and federal partners and associations (e.g., Association of Clean Water Administrators, National Association of Wetland Managers). Based on discussions, develop recommendations on steps for increasing cooperation and communication on addressing barriers at the federal to local levels.</p>
<p>Lots of work done in the space of planning and policy, but there is not enough technical support for implementation. How do we connect a partner (underserved, small community, etc) with someone (or an organization) who can customize and build a tailored climate resilient project in a particular place?</p>	<p>Identify existing grant and technical assistance programs and resources available to support planning, design, and implementation of resilience projects; working with partners, explore opportunities for expanding and/or refining reach/effectiveness of these programs, where capacity exists for implementation support, and where additional resources/support are needed; identify actions that would increase awareness and delivery of technical assistance for resilience projects.</p>



EPA MID-ATLANTIC REGION 2022 SUMMIT

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