Recommendations for Interjurisdictional Coordination on Climate Resilience

Climate impacts are not constrained by jurisdictional boundaries, and so resilience measures are sometimes most effective at mitigating those impacts when implemented collaboratively across the region. In addition, one jurisdiction's decisions to enhance resilience could have cascading effects on other priorities or decisions made in the region. **As the climate continues to change and the local and regional climate resilience initiatives in the Baltimore region continue building momentum, it will be important to put in place strategies for ongoing interjurisdictional coordination.**

Findings on Current Structure of Coordination

The below findings reflect discussions with the Steering Committee and workshop participants in the transportation, stormwater, and water service areas on current systems, barriers, and opportunities related to interjurisdictional coordination and climate resilience.

Staffing and information sharing

- Communication across all levels will produce positive results. However, there are currently **silos** (e.g., between flood mitigation, sustainability, transportation, and public works staff) that need to be **overcome by creating a new administrative/ overarching structure or mechanism**.
    - For example, Baltimore City developed a cross-department Climate Working Group. This fostered new communication across departments at the staff level, which led to the Department of Finance sharing information on available City funds that the climate-focused staff had not previously known about. Having this direct line of communication between departments was instrumental in finding opportunities for implementing resilience measures.
- **Broaden who is involved in climate resilience planning and implementation** across agencies and jurisdictions to ensure effective coordination and communication.
    - Currently, staff involved in resilience are often limited to those with clear overlap, such as sustainability or environmental departments.
    - Involving higher-level decision-makers in resilience work, or at least establishing communications between resilience staff and decision-makers, will help ensure that resilience is a priority for jurisdictions—and thus resilience efforts are budgeted for and receive project support and other factors that lead to implementation.

Coordination of efforts

- Another current challenge is that jurisdictions may have **different approaches to project planning and capital budgeting**, making it difficult to combine resources and share costs between jurisdictions—thus creating a barrier to cooperative implementation of resilience measures.
- There is a need for **coordination of data use and collection across jurisdictions** to ensure that everyone shares an understanding of climate impacts across jurisdictional boundaries.
    - Interjurisdictional data coordination also provides an opportunity for making databases more robust by combining resources from multiple jurisdictions and expanding geographic areas covered by the data.

Funding

- Generally, **funding is a concern**, and many climate resilience projects, as well as resilience components within standard projects, are not fully implemented due to funding shortfalls.
- **Applying for Federal funding is a challenge** for local jurisdictions—the process is difficult, as local jurisdictions often need plans in place to qualify for funding and the application process itself is very time-consuming and requires dedicated effort.
    - Individual jurisdictions often do not have the staff capacity to complete grant application, reporting, and timeline requirements.
    - Inter-agency coordination is important for local jurisdictions looking to apply for Federal funding.

Recommendations

The following sections provide recommendations for improving and institutionalizing interjurisdictional coordination on resilience efforts. These recommendations are a result of the discussions in the two Steering Committee meetings and the three project workshops and the ICF team's expertise. **The Baltimore Metropolitan Council (BMC) and member jurisdictions should work together and with the State of Maryland agencies and other partners to implement the recommended actions.**

Icon	Service Area
	Transportation
	Stormwater
	Water
	All

Throughout this document, the icons shown in the table indicate when an action is tailored to a specific service area. The higher-level recommendations are all meant to be applicable across service areas and are represented by the "all" icon. **Within the recommendations, most of the actions are applicable across service areas; the transportation, stormwater, and water icons represent exceptions that are service-area specific.**

Institutionalize regional coordination for ongoing consideration and support of resilience solutions

This solution and the following recommendations help address existing silos across governments and jurisdictions by facilitating cohesion and collaboration on climate resilience-related projects. This coordination can save jurisdictions time and resources, as well as provide opportunities to more easily identify lessons learned and best practices.

1. Develop a resilience strategy to be implemented collaboratively.

Purpose: Resilience is often more effective when implemented at a broader scale, in thoughtful coordination with multiple stakeholders and jurisdictions.

- This could take the form of a Resilience Improvement Plan (RIP): the new Federal Highway Administration PROTECT program has funds available for the development of a RIP. This is an effort that could be led by BMC for a regional RIP, or by the state for a statewide RIP.

Actions include:

- Coordinate across jurisdictions to **identify and communicate the priority climate risks** to the region. This can be done via the cohesive group formed per recommendations 2 and 3 below.
  - **Consider the system as a whole** (instead of as individual jurisdictions and assets) and look at critical infrastructure regardless of location and jurisdiction involved. In this case, identify vulnerabilities first and then who is responsible for the vulnerable infrastructure, systems, or populations and who would be responsible for implementing resilience measures.
- Then, **assess whether interjurisdictional resilience measures** would be the best route for addressing these risks, considering effectiveness, lifecycle costs, etc.
  - Consider whether it would be useful to identify technical assistance to support this analysis, such as by issuing a request for proposal (RFP) and/or using a tool such as EPA's Climate Resilience Evaluation and Awareness Tool (CREAT) which supports the assessment of climate risks to water utility assets and operations.
- For resilience projects at the regional scale, **identify contacts** in the relevant jurisdictions who need to coordinate among themselves to implement. As noted previously under current staffing concerns, be sure to consider a broad stakeholder list.
- **MDOT should coordinate with local jurisdictions** to ensure any priority resilience actions are incorporated into the State DOT Resilience Improvement Plan (RIP) as it is developed. Any local and regional RIPs should be coordinated with any state RIPs.
- **Gather tools** to assist jurisdictions in technical efforts, such as cost-benefit analyses for resilience investments and life cycle assessments to help make the case for resilient infrastructure. Examples of such tools are provided in the Climate Resilience Guidance companion document.

2. Consider opportunities to build on ongoing efforts of interjurisdictional collaboration.

Purpose: Utilizing an existing structure allows jurisdictions to save time and resources (e.g., existing partnerships and platforms for coordination such as annual meetings into which a discussion on climate change and resilience can be incorporated). Existing efforts may also have best practices and lessons learned that jurisdictions can pull from.

- Existing collaboration may or may not be climate-focused already, and a jurisdiction should determine whether this recommendation or the following (recommendation #3, creating a new and cohesive group specific to climate efforts) best fits jurisdictional needs, considering the scope, level of effort, and resilience needs. Note that a jurisdiction could both create a new group *and* work with an existing group.
- Combining efforts capitalizes on everyone's tight budgets and looks at climate conditions regionally. Everyone (even smaller municipalities) benefit from the economies of scale and broader approach when there is combined effort to gather data and solve problems. For example, larger projects like the Chesapeake Bay Nontidal Water Quality Monitoring Program distribute costs and benefit from strategic project implementation and data gathering across jurisdictions.

Actions include:

- **Identify existing channels** of interjurisdictional coordination, information sharing, and collaboration and assess whether they are appropriate venues to integrate climate concerns.
  - Some examples of existing collaborative efforts in the region include:
    - The Maryland Resiliency Partnership supports and encourages activities in Maryland that improve water quality and reduce flood risk. This group provides a space for collaboration between public and private partners with the purpose of combining resources (i.e., funding and staff) for projects related to hazard mitigation, floodplain management, and coastal/climate resilience. Events include conferences, trainings, and lunch-and-learns.
    - The Resilience Authorities (e.g., Charles County, Anne Arundel County). The Resilience Authority of Annapolis and Anne Arundel County develops, finances, and supports infrastructure projects.
    - The Baltimore Urban Waters Project created a coordination committee and develops projects devoted to protecting and restoring urban waters, removing urban blight, establishing open spaces, and creating economic development for disadvantaged neighborhoods. This is a federally initiated group with partners in city, county, and state agencies; local non-government organizations and Centers for Disease Control, and community groups.
    - The Greater Baltimore Wilderness Coalition is a coalition of public, private, and nonprofit organizations working to connect people to greenspace through collaborative projects, initiatives, and strategic planning. They act as conveners

and facilitators and issue collaborative grants to progress the work of coalition members.

- Maryland Coalition of Counties and Cities for Climate Action (MC4A) is an informal group of local resilience/sustainability staff and other state and non-profit staff that meets regularly to discuss ongoing work, track related legislation and projects, and share ideas.
- All counties in Maryland are part of the Maryland Association of Counties (MACo). The winter and spring MACo conferences provide an excellent forum for elected officials and staff to discuss climate resilience and ensure important climate information reaches decision-makers.
- Metropolitan Washington Council of Governments (MWCOG) provides coordinating services for counties and municipalities with phase I large and medium Municipal Separate Storm Sewer Systems (MS4s). These counties and municipalities are also members of the Maryland Municipal Stormwater Association (MAMSA). The MS4 Monitoring workgroups meet regularly to collaborate on coordination strategies with the Maryland Department of the Environment (MDE).
- The BMC Reservoir Watershed Protection Committee aims to develop and adopt policies that achieve the goals of the Reservoir Watershed Management Program, addressing the three Baltimore region drinking water reservoirs and their watersheds. Members include representatives from Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Harford County, Howard County, Baltimore County Soil Conservation District, Carroll County Soil Conservation District, Maryland Department of the Environment, Maryland Department of Planning (MDP), and Maryland Department of Agriculture.
- Patuxent Reservoir Watershed Protection Group Technical Advisory Committee (the TAC)'s recently formed Mapping Workgroup has made great strides in building consistent mapping products across the Patuxent Reservoirs Watershed. These maps can be used to help direct work within the watershed. Other ongoing activities include reservoir water quality monitoring, agricultural best management practice implementation, tree plantings, forest management, salt monitoring, and public outreach. The TAC is also analyzing stream buffers throughout the watershed. The broad membership of this group from across jurisdictions and agencies assures that needed programs and actions are known, shared and implemented.
- BMC is host to several environmentally focused sub-groups: Interagency Consultation Group and the Reservoir Watershed Protection Committee and its Reservoir Technical Group. BMC also hosts committees across the themes of Transportation Planning, Cooperative Purchasing, and Community Planning.

- **Identify existing policies** that could benefit from better interagency and interjurisdictional coordination.

- For example, 'Complete Streets' goals and policies, which often include resilience benefits such as increased shade and natural infrastructure, could be amplified by coordination between neighboring jurisdictions to identify opportunities to create an expansive complete street network across boundaries.
- Each jurisdiction and the state prepare Hazard Mitigation Plans which could provide opportunities to enhance coordination between climate resilience planning and hazard mitigation planning. The Baltimore City Disaster Preparedness and Planning Project (DP3) is an example of an integrated hazard mitigation plan and climate adaptation plan.

3. Create a new and cohesive group specific to climate efforts, such as an internal technical group or regional compact.

Purpose: A cohesive group creates a space for formalized coordination and information sharing as well as helps to break down existing silos.

- This group can act as a collaborative space (e.g., monthly or quarterly meetings) for jurisdictions to align goals and create agreement on technical aspects across the region (e.g., ensure alignment of priority climate hazards and resilience design guidance).
- Groups could include a variety of stakeholders in order to cover the range of input and knowledge, including project managers, planners, engineers, maintenance workers, finance department staff, and elected officials. Subgroups likely will be needed to focus on specific service areas or specific tasks.
- Jurisdictions may find that existing collaboration efforts (as described under recommendation #2 above) are not the best opportunity for incorporating and promoting climate resilience and should determine whether this recommendation better fits jurisdictional needs, considering the scope, level of effort, and resilience needs.

Actions include:

- **Assess whether a new group needs to be formed** or if there are existing channels/groups that would be appropriate.
  - For forming a new group, jurisdictions can look to the Louisiana Watershed Initiative for inspiration, which coordinates funding, data, and resources across five Louisiana state agencies to reduce flood risk.
  - A sampling of existing channels and groups are listed under recommendation #2 above.
  - Determine where the new group "lives" (i.e., is it administered by a state agency, BMC, or as an independent entity; where would the needs of the group best be facilitated); determine who is responsible for supporting the group.
- **Articulate the format and goals of the group.**
  - Review example groups for lessons learned and best practices (e.g., Southeast Florida Compact, which is a partnership of several counties with the purpose of

collaboratively working to reduce emissions and broaden climate resilience and adaptation strategies).
    - Participants could share similar climate vulnerabilities and resilience goals.
    - This group could provide centralized resources for all members, such as data analysis services, to decrease level of effort for individual jurisdictions and align efforts at the regional scale.
    - Participants could identify projects to be collaboratively implemented by multiple jurisdictions, which may entail first determining shared climate risk and resilience priorities.
    - Determine how the group's recommendations get incorporated into local processes, programs, and decision making.
- **Meet regularly** to help ensure progress on resilience efforts.
    - Based on the format and goals of the group, determine the most useful and feasible structure (e.g., meeting frequency, virtual vs. in-person, group size).
        - Consider the schedules of related groups/plans/work to best facilitate coordination
    - Consistency is key to establishing resilience efforts and making resilience a priority goal for the region.

4. Create information-sharing databases on climate impacts and resilience efforts at the state, regional, and local levels.

Purpose: Shared databases can create agreement/cohesion on technical information and guidance to ensure that everyone shares an understanding of the climate impacts, jurisdictional needs, and best practices. A database created through interjurisdictional data coordination is more robust because it capitalizes on resources from multiple jurisdictions and expands geographic data boundaries. Having this information in one location also can save time and resources for other jurisdictions.

Actions include:

- Create a **database of contacts with expertise** who can help counties and municipalities at various stages of resilience efforts (e.g., points of contact to provide input during vulnerability assessments or design of resilience solutions).
- **Compile resources** related to climate science and resilience.
    - Include climate science projections for impacts to the region.
    - Include planned infrastructure improvements—both in the context of future infrastructure that may be exposed to climate as well as planned resilience upgrades.
    - BMC has started compiling resources for the Climate Change Resource Guide and in this Recommendations document and its companion Climate Resilience Guidance document.
- Develop a library of **common GIS data**.

  - This may entail information that is relevant for conducting climate risk analyses, such as asset and population data as well as projected climate hazards.
  - Using common data can help align findings and efforts across jurisdictions.
- Create a regional climate resilience dashboard with different performance measurements to **track resilience progress** (e.g., added tree cover; how many essential facilities within floodplains are flood-proofed).
  - Similarly, jurisdictions or BMC could work to compile state and local resources in one combined repository.
- **Communicate experiences with planning for and implementing resilience** to share best practices and lessons learned.
  - As departments and agencies implement their resilience efforts, they can share their lessons learned to help advance the resilience practice overall.
  - These lessons can be shared in a shared online platform as well as any climate groups that are formed (such as those related to recommendations 2 and 3 above).
  - Additionally, Maryland and BMC could publish case studies of local resilience efforts.
    - For example, Maryland's Water Resources Element online training resources include presentations on resilience from Anne Arundel and Baltimore counties. In the presentations, representatives shared how they incorporate climate resilience into local land use plans and their Water Resource Element (WRE assessments). Recordings of virtual webinars along with pdfs of presentations make these examples accessible to peers in the rest of the region, even if they could not attend the original event.
- Jurisdictions should work together to identify who/where would be the natural host for this type of shared database, responsibilities for managing data and keeping the information up-to-date, and how to fund such updates.

Funding

This solution and the recommendations below can help jurisdictions overcome the gap in funding needed to successfully implement climate resilience projects. Collaboration on funding can pool resources to better access Federal funding, thus saving jurisdictions time and effort.

1. **Identify opportunities for sharing state/Federal grants and funding.**

Purpose: Identifying these opportunities can make it easier for jurisdictions to qualify for state/Federal grants and funding, and sharing resources can support multiple projects to provide co-benefits to more than one jurisdiction or group.

Actions include:

- **Create a coalition** to work together to pursue grant funding.

  - For example, Anne Arundel County and City of Annapolis joined to create The Resilience Authority of Annapolis and Anne Arundel County with the purpose of identifying projects to address climate change and pursuing funding.
- Coalitions and coordination can be **scaled to what is most appropriate for implementation of resilience measures**.
  - For example, multiple jurisdictions can coordinate on watershed-based efforts that would affect water quality and flood risk for all jurisdictions in the watershed. In this case, two jurisdictions divided by a river could extend investment in MS4 by showing that they are pursuing activities in the same watershed.
  - The Louisiana Watershed Initiative coordinates funding, data, and resources among five state agencies to reduce flood risk across the watershed. The initiative is led by five state agencies: Office of Community Development, Coastal Protection and Restoration Agency, Department of Transportation, Homeland Security and Emergency Preparedness, and Department of Wildlife and Fisheries. These five agencies work collaboratively to implement watershed-based strategies and share best practices and lessons learned.
- Leverage programs that encourage partnership development such as the FEMA Building Resilient Infrastructure and Communities (BRIC) program. BRIC offers financial assistance to support capability- and capacity-building activities in the pursuit of new or stronger partnerships.
  - Staffing capacity or financial stipends can come from local jurisdictions to support this collaborative effort.
- Project managers or agency/department leads can **coordinate with the Maryland Silver Jackets** to move flood and other hazard risk reduction projects from local to Federal level for funding. The Maryland Silver Jackets convenes Federal, state, regional, and local agencies to protect life, property, and the environment from hazard events with a focus on flooding.
  - A meeting participant noted that the Maryland Silver Jackets look for projects to be brought to them with identified details (stakeholders, locations, etc.).
- Even if jurisdictions apply for resilience-related funding separately, they can still **coordinate on the technical side**—both in preparing the application and in implementing the work if funded—by sharing information and ideas.

Role for the State and BMC

- **State/regional actions can affect jurisdictions**. These actions can improve interjurisdictional coordination and resilience.
  - The State of Maryland and BMC could provide guidance and templates to encourage interest in resilience and draw people to the table. Often, jurisdictions follow state leadership on design methods and goals.
    - For example, participants suggested that Maryland could provide sample resilience design manuals and/or guidelines that local jurisdictions can use as a template or example (e.g., for policy language, proposals, and internal design

guidance to consider). BMC could provide relevant examples from other areas as applicable.

- MDP's *2022 Proposed Water Resources Element Guidance Update* has a section on "Integrating Water-related Climate Change Adaptation into Local Comprehensive Plans," which provides local jurisdictions suggested WRE strategy approaches and language, data and analysis tools, and best practices.

  - To create a sense of likeness and unity throughout Maryland, it is important to establish a general understanding that everyone will be impacted by climate change, highlighting the responsibilities for and benefits of increasing resilience.

- Interjurisdictional coordination as it relates to flooding is recommended on a regional watershed basis (larger than a single eight-digit watershed).

Next Steps

This effort is a strong first step towards starting the discussions needed to prepare our local jurisdictions for climate change and building regional resilience. It is recommended that the project Steering Committee meet again after the project concludes to discuss next steps, state-wide priorities and action item to continue the discussion of how to answer the questions posed in this document and address our regional resilience coordination needs. Initial questions include:

- Should the region develop a proposal to the PROTECT Program for a Regional Resilience Improvement Plan?
- How can the region coordinate with/support state resilience efforts, such as A-StoRM?
- In evaluating existing committees, where should this discussion continue? Is a new group needed?
  - How should regional coordination be integrated with state coordination (currently MDEM, DNR, MDOT, MDP, and MDE are discussing collaboration)?

Ideas for coordination/requests to participate should be sent to Eileen Singleton at the Baltimore Metropolitan Council (esingleton@baltometro.org).