



Title: Climate Action Framework: Watershed Questions and Roles

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Purpose:

At the December 2, 2021, Operations and Programs Committee (OPC) meeting, staff initiated a series of discussions with the Board regarding the draft Climate Action Framework to synchronize expectations around the District's response to climate change and further refine the Framework for formal adoption. The January 13, 2022, OPC meeting discussion will be focused on:

- Watershed Questions: Identifying the types of questions MCWD will need to answer in response to the threats and opportunities resulting from climate change
- Roles: Further defining the boundaries around what MCWD's role will be in responding to climate change

Background:

The MCWD recognizes that climate change is already impacting our state and its water resources, and the effects of climate change are expected to accelerate in the coming decades. In order for the District to continue to work toward its vision of a Balanced Urban Ecology, it must develop a strategy to ensure that the watershed remains as resilient as possible. Given the scope, scale, and complexity of this challenge, the Board tasked the Citizens Advisory Committee (CAC) and staff to explore its role and strategy for responding to climate change. The synthesis of this work was assembled into a draft Climate Action Framework that was presented to the [Board in March 2021](#).

The intent of the Climate Action Framework is to delineate MCWD's role, define critical action steps over the next 5 years to grow into the required role, and clearly communicate this information to the District's stakeholders. The Framework defines the three pillars of the District's role as: (1) Understand and Predict; (2) Communicate, Convene, and Plan; and (3) Implement, Measure and Adapt.

At the [December 2, 2021 OPC meeting](#), staff reintroduced the draft Climate Action Framework and facilitated a Board discussion about the purpose and need for the Framework. The Board also explored the organizational strengths/weaknesses and external opportunities/threats anticipated due to climate change (SWOT analysis). The Board's input on the SWOT analysis was closely aligned with feedback received from the CAC and staff, with common themes including:

- Priority on Flood Adaptation: Flooding is the most significant threat, and there is a need for a strong understanding of current and future impacts across the watershed to inform adaptation
- Need for Sound Science: MCWD can build on its reputation as a science-driven organization to expand technical capabilities in order to develop a regional system-scale understanding
- Partnership Approach: In order to respond to this threat, the District will need to forge new partnerships and leverage the power of convening to build consensus and develop a coordinated approach
- Maintain Focus: Climate change is a global crisis and MCWD must work within its sphere of influence, lean into its regional role, and maintain its focus on implementing high-impact projects

- Leverage Credibility: MCWD has built trust across its communities through a data-driven approach and constructive relationship building which is needed to convene partners and implement high-impact projects
- Proactive Communication: MCWD must begin engaging partners and proactively managing expectations about the District's role and action steps in responding to climate change

The Board's feedback reinforced the three pillars of the draft Climate Action Framework as well as the value of further refining and formalizing the Framework as it will:

- Delineate what is our role versus the roles of others
- Clearly communicate MCWD's approach to climate change impacts
- Align Board and staff on priorities
- Inform and provide focus for resource allocation across the organization

January 13, 2022 Meeting:

At the January 13, 2022 OPC meeting, staff will recap the purpose of the climate discussions and reflect back the main takeaways from the December 2, 2021 OPC meeting. To build on the December discussion and continue to stress-test and refine the Climate Action Framework, staff will facilitate a two-part Board discussion focused on:

- Watershed Questions – Identifying the questions MCWD will need to answer to respond to climate change
- Roles – Defining the boundaries of MCWD's role within the three pillars of the Climate Action Framework

Watershed Questions

Understand and Predict is one of the three pillars of the MCWD's Climate Action Framework. Work is already underway to expand the District's capabilities in this area with development of the following tools:

- Real Time Sensor Network (RESNET) – High resolution water level, flow, and water quality data collection to provide real time water level information to partner agencies and the public and support future model development
- Machine Learning – Develop a machine learning model using the remote sensing data to predict future water levels at 25 locations throughout MCWD
- 2-Dimensional (2D) Pilot Model – Develop a pilot 2D model to test and prove the concept of how to automate the collection of municipal storm sewer data, while also evaluating two different modeling software
- 2-Dimensional (2D) Watershed Model – Develop a tool that can characterize and quantify current and future climate change impacts to inform decisions on climate adaptation projects and policies by integrating state topographic, regional land use, and municipal infrastructure data

These tools position the District as a regional water leader able to evaluate future climate scenarios, characterize vulnerabilities, and make informed, data-driven decisions about adaptation options with partners to address climate impacts within the watershed. As these capabilities and supporting tools are being developed, the District needs to thoughtfully consider what questions we need to answer as a regional water agency. No tool or data set will answer every question; therefore, the District is strategically mapping what are the critical questions that must be answered to support the Climate Action Framework.

Roles

The District must continue to delineate its role within the three pillars of the Climate Action Framework in order to proactively manage expectations and build partnerships. This will involve consideration of the mission, authorities, and capabilities of the District relative to its partners at the city, county/regional, state, and federal levels. When the District

begins to convene and engage its partners in climate conversations, it will be critical to develop a shared understanding of roles and responsibilities.

Pre-Meeting Engagement:

Below are discussion questions to consider in preparation for this meeting. District staff will provide a pre-meeting survey for the Board to participate in as preparation for the discussion.

- Watershed Questions:
 - What information is needed to make policy and project decisions?
 - What questions will cities, legislators, residents, and other agencies ask the District?
 - What questions should be answered by the District versus others? Why?
- Roles:
 - How would you describe the District's climate role to a stakeholder?
 - What does it mean to lean into our "regional role"?
 - What is the District's role as compared to a city, county, or state agency?