



- ***Subcommittee on Long-Term Regional Planning Processes and Business Modeling***

3/28/2023 Committee Meeting

3a

Subject

Discuss Climate Adaptation Master Plan for Water Process

Executive Summary

On February 13 and 14, 2023, The Metropolitan Water District Board of Directors held a retreat to discuss the impacts of climate change on Metropolitan's water resources. The retreat raised the idea of developing a Climate Adaptation Master Plan for Water to better integrate Metropolitan's planning for water resources, climate resilience, and finances.

On February 28, 2023, the Subcommittee on Long-Term Regional Planning Processes and Business Modeling met and discussed broadly the proposed planning process and, more specifically, a document produced by staff at the retreat and updated before the subcommittee meeting as a Draft Goals and Planning document. No action was taken at the subcommittee.

Following the subcommittee meeting, additional comments have been provided by directors (**Attachment 1**), and a meeting of member agency managers was convened to facilitate discussion about the process and draft document (**Attachment 2**). In addition, the retreat facilitators have completed their contractual obligation by transmitting their summary review of the retreat (**Attachment 3**). These documents are provided as background reference material to memorialize board and member agency input to date and to ensure continuity between the retreat and future deliberations toward a Climate Adaptation Master Plan for Water.

Staff proposes further subcommittee discussion to envision a Climate Adaptation Master Plan for Water and a planning process to advance such a plan for board consideration.

Staff also seeks direction from this subcommittee today to schedule and organize a series of board sessions focused on building mutual understanding of each other's needs, interests and values, communication techniques, aligning on key terms and developing evaluative criteria and potential pathways to adapt to climate change.

Details

Background

A Climate Adaptation Master Plan for Water was proposed as a means to better integrate Metropolitan's planning for water resources, climate resilience, and finances, given the significance of rapidly increasing impacts of climate change on water supplies and operations.

This planning work functions as a catalyst to help position Metropolitan for greater climate resilience and to provide reliable water in an economically and environmentally responsible manner in the years and decades ahead.

The Subcommittee on Long-Term Regional Planning and Business Modeling is expected to be the hub for board direction related to the planning process and the alignment of our resource planning, providing recommendations for board actions to board committees and the full Board of Directors.

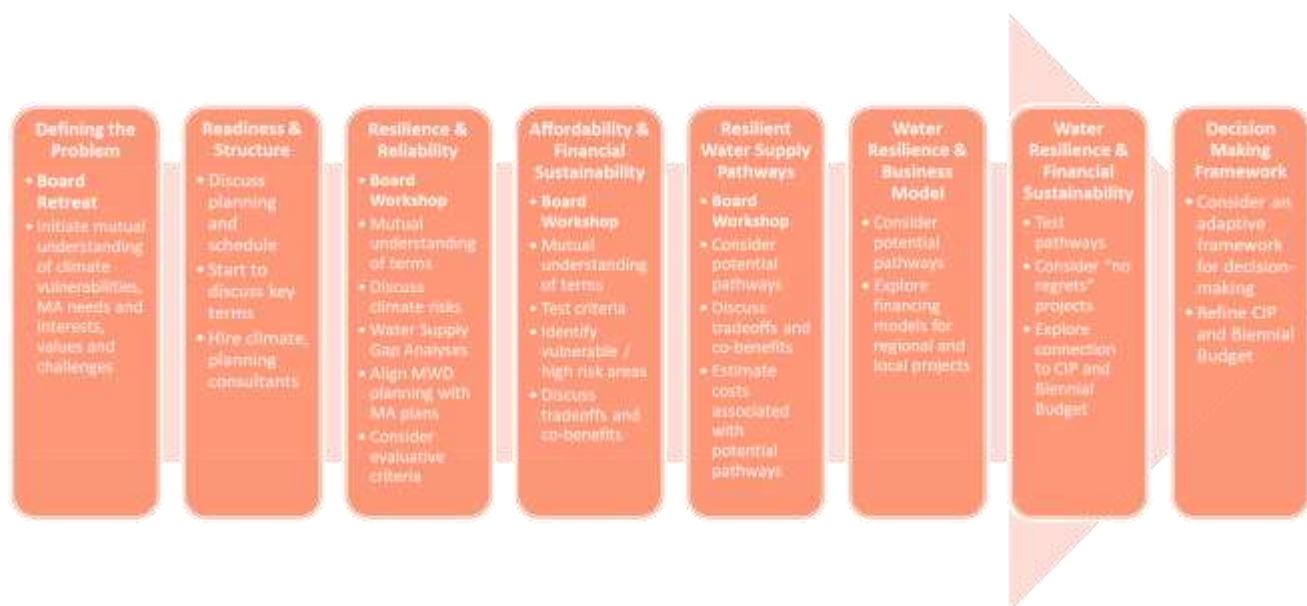
Through the development of the Climate Adaptation Master Plan for Water, staff anticipates the Board will make key policy decisions on the following items:

1. Develop a mutual understanding of key terms and outline goals and potential impacts for Metropolitan and member agencies related to:
 - a. Resilience, Reliability, Financial Sustainability, and Affordability.
2. Develop evaluative criteria to measure climate-resilient strategies for:
 - a. Local and regional water supply and conveyance projects.
 - b. Storage development inside and outside service area.
 - c. Investments in imported water supply.
 - d. Conservation and other demand management programs.
3. Identify potential pathways for future investment to meet resilience, reliability, financial sustainability and affordability goals and objectives and evaluate against criteria.
4. Evaluate organizational needs for meeting goals and objectives including:
 - a. Business model options.
 - b. Financing and rate structures.
 - c. Workforce development.

Potential outcomes of today's discussion include:

1. Direct staff to schedule and organize a series of board sessions focused on building mutual understandings of each other's needs, interests and values, communication techniques, aligning on key terms and developing evaluative criteria and potential pathways to adapt to climate change.
2. Encourage the Finance, Audit, Insurance, and Real Property Committee and the Board to authorize the General Manager to initiate the development of the Climate Adaptation Master Plan for Water, including staff reports back on:
 - a. Climate risks and vulnerabilities.
 - b. Water Supply Gap Analyses.
 - c. Next steps to align with member agency plans.
3. Encourage the Board to use the Goals and Planning Considerations document, associated comments, and the Facilitators' Retreat Report as background information for the CAMP4W process.

In addition, staff provides the following potential framework for a planning schedule in the development of the Climate Adaptation Master Plan for Water. Staff anticipates direction from the subcommittee to build on this framework and to engage in an iterative process that remains flexible and adaptive. The subcommittee has also emphasized the need to meaningfully include member agency and public input throughout the process.



Staff prepared a Draft Goals and Planning document, “Developing a Climate Adaptation Master Plan for Water,” with the intention of memorializing the February retreat and beginning to chart a planning path for climate change adaptation. Since then, subcommittee and director comments as well as member agency feedback have been collected, and the retreat has been further summarized by its professional facilitators. Staff proposes to use these documents (**Attachment 1**, **Attachment 2**, and **Attachment 3**) as background reference material to memorialize board and member agency input to date and to ensure continuity between the retreat and future deliberations toward a Climate Adaptation Master Plan for Water.

Policy

Metropolitan Water District Act §130.5: Legislative Findings and Declarations Relating to Conservation

By Minute Item 39412, dated January 14, 1992, the Board adopted the revised mission statement of the Metropolitan Water District of Southern California.

By Minute Item 41734, dated January 9, 1996, the Board adopted the Integrated Water Resources Plan.

By Minute Item 44813, dated March 12, 2002, the Board adopted policy principles on global climate change and water resources planning.

By Minute Item 52776, dated April 12, 2022, the Board authorized the General Manager to adopt the 2020 Integrated Water Resources Plan Regional Needs Assessment.

By Minute Item 52823, dated May 10, 2022, the Board adopted the Climate Action Plan.

By Minute Item 53051, dated December 13, 2022, the Board adopted policy principles related to sustainability, resiliency, and innovation; Metropolitan supports policies and funding that encourage sustainable practices that improve water and power system resilience and adapt to a rapidly changing environmental landscape.



Elizabeth Crosson
Chief Sustainability, Resilience and
Innovation Officer

3/23/2023

Date



Adel Hagekhalil
General Manager

3/24/2023

Date

Attachment 1 – Director’s Comments

Attachment 2 – Member Agency Managers Summary

Attachment 3 – Board Retreat Report

Developing a Climate Adaptation Master Plan for Water

The Metropolitan Water District of Southern California finds itself at a historic crossroad. Metropolitan's Board of Directors, having completed a two-day retreat ending February 14, 2023, resolves to continue to build understanding among Board Members and the agencies they represent to advance strategies for an affordable, equitable and resilient water future. Findings shared at the retreat from over 60 interviews of Board Members and member agency managers provide a first step for understanding each other's perspectives and improving and deepening collaboration among the member agencies. At a time when human and ecological systems across California and the West are stressed by a rapidly changing climate, a bold and coordinated approach is required to ensure water supply resilience, affordability and equity while addressing climate impacts, risks, and vulnerabilities facing the region's water system and the communities it serves.

We will do so through an inclusive and iterative process, in close consultation with our member agencies and reaching out to interested parties and affected communities we serve. The Subcommittee on Long-Term Regional Planning & Business Modeling will provide a reporting and organizing structure to ensure progress as described below.

Goals for the coming months include:

- Align Metropolitan's planning efforts with the plans of its member agencies to reflect an integrated approach to water resources, finance, and climate resilience.
- Build a mutual understanding of interests and needs among member agencies and Board Members.
- Focus water planning first on near-term needs such as facilities to serve State Water Project Dependent Area and then on long-term regional objectives, reflecting the responsibility of Metropolitan as a regional entity, consistent with the planning and choices of its 26 member agencies.
- Develop criteria for prioritizing "no regrets" investments for climate resilience, as long-term investments are identified by the board's strategic planning effort.

- Develop business model options to strengthen Metropolitan's ability to perform its core statutory mission and financial sustainability, which will enable necessary investment and operations to support climate resilience in the region's water supply.
- Prepare Metropolitan to complete a biennium budget for Fiscal Years 2024-2026 that reflects the priorities resulting from the Board's alignment of water supply and delivery, climate, and financial planning.

Resilience

The Board will use the following working definition of resilience for climate change planning purposes, consistent with that of the State of California Governor's Office of Planning and Research, and will further define it in the context of the board's strategic planning:

Resilience is the capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience.

Next Steps

The Board chair and vice chairs will work together to coordinate the timing, scope, and development of issues for consideration by the full Board of Directors and/or by the committees and subcommittees under their respective purview. The vice chair for finance and planning recommends that an important next step is another board retreat, to be held as part of the March 28 board meeting, with the objective that all board members have an opportunity to develop empathy and understanding for each other and understanding the varying needs of our respective member agencies to ensure the process is inclusive of their needs from the outset. It is essential to have buy-in from the full board before issues are assigned for further development to working committees.

The Subcommittee on Long-Term Regional Planning & Business Modeling will provide a regular meeting forum and organizing structure to ensure progress and is charged with maintaining a calendar for next steps. While this Subcommittee is a public and transparent process, further public engagement is expected as well, including dialogue with and input from

member agencies, which is essential to the success of the Board process.

In preparing future discussions and proposals, staff will work to provide the data and analyses as requested and necessary to support the Board process and will incorporate the following guidance in the master planning process. This is not an exhaustive or exclusive list, but rather one that highlights points raised during the retreat that held widespread interest:

Finance and Planning

- Resource planning must take a holistic approach that involves not only Metropolitan and member agency supply projections, considerations, and choices, but also financial, risk, environmental, and community impact analyses.
- Affordability (for underserved communities and all member agency ratepayers), cost impacts, equitable allocation of costs and benefits, and the return on investments are critical to inform water resource and investment choices.
- The Needs Assessment of the Integrated Resources Plan provides an important tool for supply analyses and the development of resource options. It should be accessible to support member agency planning, be used as a starting point to work with member agencies to develop a baseline against which evaluate existing project commitments and prospective proposals and remain updated with existing and appropriately projected member agency supplies as well as emerging efficiency standards and regulatory mandates.
- Resource planning must value and assume conservation as a core supply that sets a measurable proactive demand management target.

Climate Action

- Climate resilient solutions must protect the entire Metropolitan service area.
- Metropolitan should acknowledge and plan for current and planned member agency local resources and work with member agencies to develop new investment and partnership strategies to expand local resources, especially for smaller member agencies that may need and request Metropolitan participation.
- Groundwater and storage opportunities can be facilitated and optimized through

greater integration, maximizing use of Metropolitan's distribution system, working in collaboration with member agencies and groundwater agencies.

- A comprehensive Climate Vulnerability and Risk Assessment will inform resource planning and investments and provide a tool for Metropolitan's Board, staff, and member agencies to consider the cascading impacts of climate and pursue solutions that advance multiple objectives and benefits.
- The assumptions that create our planning scenarios should be expressly stated and dynamic—updatable and regularly updated—including with the latest climate science. This is part of creating an adaptive framework for decision making.

Strategic Communications and Engagement

- Engagement of member agencies and the broad set of interested parties will improve planning, identify potential partnerships, increase public and financial support, and affirm willingness to pay for Metropolitan programs and projects.
- The collective strength of the region can be fully realized only when Metropolitan aligns member agencies along advocacy goals and targets.
- Joint communications strategies can reduce conflicting messages, promote greater understanding about the value of water and help distinguish the trends of climate from individual weather events, even when member agencies are experiencing different circumstances and conditions.
- Deepen connections and understanding between Board Members and member agencies by focusing on interests and needs and learning new tools for cultivating empathy and improving inter-agency communication.

02/28/2023 Director Erdman's Comments

Item 3b – Discussion of Climate Adaptation Master Plan for Water
and the next steps following the 2023 Retreat

- Prior to embarking on the development of the Climate Adaptation Master Plan for Water, it's important for the Board to have clear consensus on two important questions:
 - What are the specific water supply related climate impacts, risks, and vulnerabilities that we are trying to address?And,
 - What are MWD's goals for the supply reliability, resiliency, financial stability, and affordability in addressing these climate-related issues.
- Based on the IRP Needs Assessment the Board has a very clear picture of the climate related impacts to the region's water supplies. However, the step we have NOT undertaken as a Board is to clearly define the water supply and organizational goals we want to achieve for the region and the criteria for successfully addressing the climate change.
- The steps outlined for development of the Climate Adaptation Master Plan are positive, but to ensure success of the Plan and to set a framework for future policy decisions, **the Board must come to an initial consensus on clear and explicit goals for MWD's reliability, resiliency, financial sustainability, and affordability.**
- To set these goals, the Board also needs to discuss and clearly **define for MWD and its member agencies what reliability, resiliency, financial sustainability, and affordability mean.**
 - Although the Board broadly defined the term "resiliency" at the retreat, the definition was not specific to MWD's resiliency, and the other terms were not defined.

Why it is important to establish clearly defined goals:

- Establishing clearly defined goals as an initial step in the process will also provide the Board and the member agencies the means to measure the Climate Adaptation Master Plan's progress and success.
- Metropolitan's goals for reliability, resiliency, financial sustainability, and affordability will also provide clarity to the member agencies in their own water supply planning processes and establish the basis for Metropolitan/member agency roles and partnerships.
- These goals will also be essential in defining Metropolitan's future role, mission, and future actions in providing water supplies to 19 million southern Californians.

From: Schlageter, Martin D
Sent: Tuesday, March 14, 2023 6:29 PM
To: Glen Peterson
Cc: Crosson, Elizabeth K
Subject: Re: LVMWD Comments on "Developing a Climate Adaptation Master Plan for Water"

Thank you, director Peterson, for these comments.

Martin Schlageter
Office of the General Manager
Cell: 323-807-2505
mschlageter@mwdh2o.com



From: Glen Peterson <glenpsop@icloud.com>
Sent: Tuesday, March 14, 2023 5:38:50 PM
To: crosson@mwdh2o.com <crosson@mwdh2o.com>; Schlageter, Martin D <MSchlageter@mwdh2o.com>
Subject: Fwd: LVMWD Comments on "Developing a Climate Adaptation Master Plan for Water"

I support the principals!
Glen Peterson
Director MWDSC

Sent from my iPad

Begin forwarded message:

From: "Pedersen, David" <DPedersen@lvmwd.com>
Date: March 13, 2023 at 10:40:38 AM PDT
To: "Director Glen Peterson (glenpsop@icloud.com)" <glenpsop@icloud.com>
Subject: LVMWD Comments on "Developing a Climate Adaptation Master Plan for Water"

Hi Glen,

Last week, MWD staff held a discussion among the Member Agency Managers on their work to develop a climate adaptation master plan for water. We were asked to channel our comments/feedback on the guidance document to our respective MWD Board Members and ask that they forward it to Liz Crosson (ecrosson@mwdh2o.com) and Martin Schlageter (mschlageter@mwdh2o.com).

Below are my comments for your consideration. If you're supportive of the comments, could you please forward them to Liz and Martin? Thank you.

It would be helpful to the Member Agencies if you could describe plans for the broader process, together with intermediate steps, to develop the Climate Adaptation Master Plan for Water (i.e. a milestone schedule that breaks the effort into the various parts).

Consider highlighting the "goals and objectives" of the master plan at the beginning of the document (the last sentence of the first paragraph appears to contain some of this info).

The definition of "resilience" is good, but it would be helpful to add context to explain what the term means with respect to water and MWD.

LVMWD supports elevating the focus on addressing the challenges of the SWP-dependent areas as a near-term need for bullet point no. 2 on pg. 1.

Since many Member Agencies are preparing climate action and adaptation plans of their own (LVMWD is currently preparing one), it would seem appropriate to mention aligning these efforts to complement each other to the extent possible.

Under "Finance and Planning," we recommend adding mention of securing and leveraging state and federal funds (and the associated partnerships).

Under "Climate Action," we suggest the inclusion of "providing leadership" and "supporting innovation" to achieve climate resilient solutions.

Lastly, there would be merit to consider adding a point regarding "measuring and reporting progress" on accomplishing the goals/objective of the master plan.

David W. Pedersen, P.E.

General Manager

Las Virgenes Municipal Water District

(818) 251-2122 office

(818) 564-5205 cell

(818) 251-2149 fax

www.lvmwd.com

dpedersen@lvmwd.com

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From: Shivaji Deshmukh <sdeshmukh@ieua.org>
Sent: Monday, March 13, 2023 11:32 AM
To: mschlageter@mwdh2o.comm; Crosson,Elizabeth K
Cc: Michael Camacho; Christiana Daisy; Denise Garzaro
Subject: Climate Adaptation Master Plan for Water - IEUA Comments

Good morning, Martin and Liz,

Please see comments below from Director Camacho:

In support of the work undertaken by members of Metropolitan's Subcommittee on Long-Term Regional Planning Processes and Business Modeling, I offer the following comments on the draft Climate Adaptation Master Plan.

- To ensure success and set a framework for future policy decisions, I believe it is essential that the Board first come to consensus on clear and explicit goals for Metropolitan's **reliability (operational vs. supply), resiliency, financial sustainability, and affordability**.
- To establish these goals, I ask the Board to discuss and clearly define what they mean for Metropolitan *and* its member agencies (there might be different definitions for Metropolitan than for the member agencies), including the methods and metrics for measuring them.

In appreciation, Michael

Shivaji Deshmukh , P.E.
General Manager



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ADDED DIR. REPENNING'S COMMENTS ON 3/27/2023**From:** Heather Repenning <dirrepenning@gmail.com>**Sent:** Saturday, March 25, 2023 3:37 PM**To:** Crosson,Elizabeth K <ECrosson@mw2h.com>**Subject:** Fwd: Additional comments for Climate Adaptation Master Plan guidance document**From:** Heather Repenning <dirrepenning@gmail.com>**Sent:** Friday, March 24, 2023 2:50 PM**To:** S. Gail Goldberg <ggoldberg@mw2h.com>; Gail Goldberg <dirgoldberg@gmail.com>**Cc:** NANCY H SUTLEY <Nancy.Sutley@ladwp.com>**Subject:** Additional comments for Climate Adaptation Master Plan guidance document

Dear Vice Chair Goldberg:

Re: draft guidance document

I would like to emphasize the urgent need to fulfill the Board's commitment to fix the SWP Dependent Agencies connectivity problem so that no agency is isolated or left behind. To accomplish this goal, the document should be revised to better describe and highlight the SWP Dependent Area shortage experienced over the past few years. In addition, I suggest the following two bullet points be added to the Climate Adaptation Master Plan in the respective sections mentioned below:

1. An additional third bullet point should be added for "Goals for the coming months include:"
 - Ensure regional connectivity so that all agencies are able to leverage the region's resources and share in the benefits as well as the risks.
2. An additional second bullet point should be added under "Next Steps" "Finance and Planning":
 - Future investments need to prioritize fixing conveyance infrastructure deficiencies to eliminate SWPDA as previously approved by Board.

Furthermore, it would be helpful to clarify the objective and purpose of this document as well as the anticipated process for the Board to deliberate and develop policy and this Climate Adaptation Master Plan.

Thank you so much for your consideration and we look forward to contributing to this process in a collaborative and meaningful way.

Best, Heather Repenning

**Member Agency Managers Meeting
March 8, 2023**

***Summary of Comments Received on the Goals and Planning Document and process for the
Climate Adaptation Master Plan for Water***

Overall General Comments, in no particular order:

- 1) Agencies want to have direct communication with staff to provide input, ensure regular meetings throughout the process, and to have staff report agency feedback to the Board at upcoming Committee and Board discussions
- 2) Need a schedule for the CAMP4W process
- 3) State clear objectives of the Goals and Planning Document at the beginning and emphasize that this is just the beginning of the process
- 4) Many agencies said that this document should focus on guidance and considerations, but not include policy statements
- 5) Warned against the Board wordsmithing too much as that has not always worked in the past
- 6) Guidance should include the consideration of risks, and the detrimental impacts of no action
- 7) Pursue alignment with Member Agency plans and processes, and consider existing and future needs for reliability
- 8) Develop common understanding of key terms (doesn't necessarily mean complete agreement): resilience, reliability, financial sustainability, affordability
- 9) Highlight leadership and innovation as well as securing / leveraging state and federal funds
- 10) Consider current climate risks including an emphasis on SWP-dependent areas
- 11) Support for creating evaluation criteria and/or prioritization, so as to provide objectivity of analyses
- 12) More retreats and workshops would be good for building camaraderie and addressing policy questions
- 13) Under climate change, we must protect the entire MWD service area
- 14) Assess the costs associated with climate adaptation efforts to help explain the additional costs to customers and stated the need to set priorities—this would be a benefit of pursuing a CAMP4W

Some specific views/comments:

- 1) Question whether the Board must approve this document, especially considering varying views
- 2) Remove the term "resolves"
- 3) Break out this document into 3 sections/phases: (1) Overarching Goals; (2) Definitions; (3) Guidance
- 4) Emphasized the need for a pathway that can lead to workflows; and suggested we set goals and that saying "criteria" might be too detailed
- 5) Want to understand the meaning behind the reference to "statutory definition" in the document

Metropolitan Water District of Southern California February 2023 Board Retreat Report
Prepared by Kit Batten Consulting and the Lupine Collaborative
March 2023

Introduction

On February 13 and 14, 2023, the Metropolitan Water District Board of Directors held a retreat to discuss the impacts of climate change on Metropolitan's future. The Board met amid an ongoing drought emergency followed by a parade of atmospheric rivers that slammed California in January 2023, overtopping some flood control structures. The amplification of weather extremes in real time provided the backdrop of the retreat's agenda which addressed increasing the climate resilience of Metropolitan's water supplies, storage, and conveyance system.

The retreat had three primary purposes:

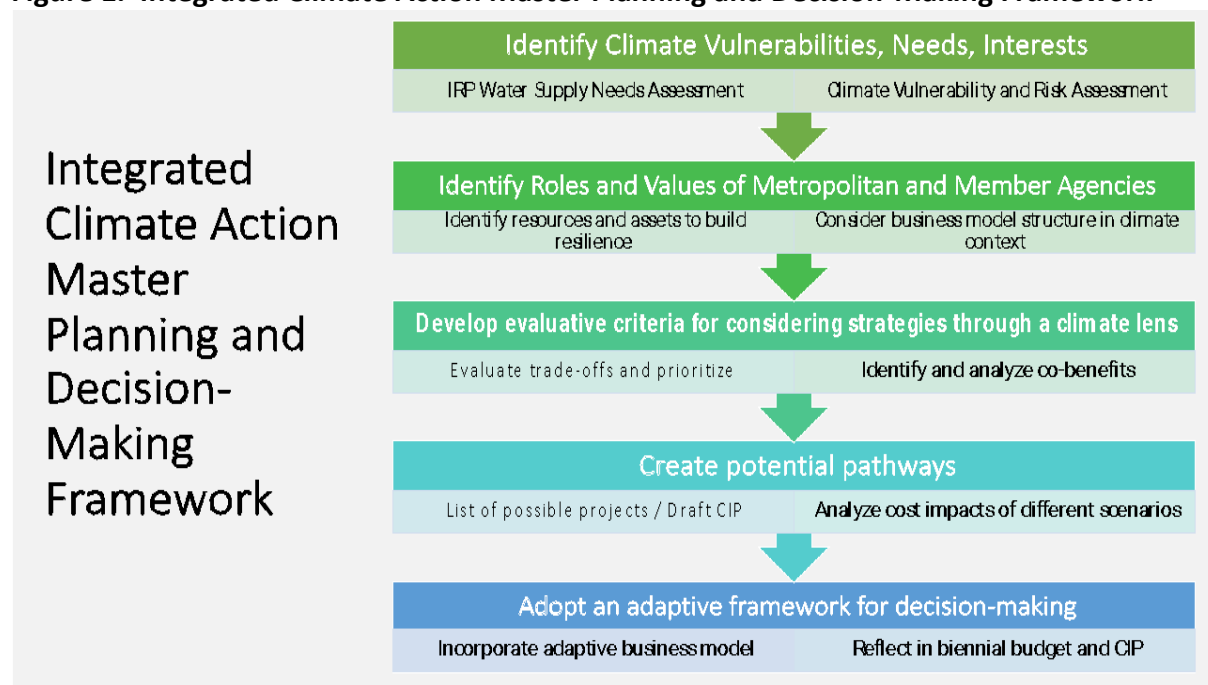
1. Better understand climate impacts on water supply and the interrelated dimensions of our supplies;
2. Discuss responses to climate change and provide guidance to resource planning and to the evaluation of possible actions; and
3. Begin harmonizing Metropolitan's water and financial planning efforts, resulting in fully aligned strategies; and provide targets/ timelines for stages of planning.

The Board received updated reports from staff on how climate change was impacting the Colorado River, the State Water Project, Metropolitan operations, and Metropolitan planning. To maximize Board input, full-Board discussions as well as two separate breakout sessions took place, with Board members and member agency managers in attendance providing feedback on a series of questions. Details on these questions and board member discussions are provided below.

Materials from this Board meeting, including staff presentations and more, can be found <https://mwdh2o.legistar.com/Legislation.aspx>

Proposed Process for the MET Board to Address Climate Resilience

During the retreat, Board members recognized that the February 2023 Board Retreat would be the first step in a multi-step process to increase the climate resilience of Metropolitan and its Member Agencies. Figure 1 describes this master planning and decision-making framework process, and the retreat took Metropolitan's Board through *part* of step two of this five-step process.

Figure 1. Integrated Climate Action Master Planning and Decision-Making Framework

Moving forward into steps three to five in Figure 1, a proposed master planning process would include a detailed itemization of both goals and next steps. These goals include aligning Metropolitan’s financial and water planning and developing criteria for prioritizing investments for climate resilience. Among the immediate next steps was to start the alignment process through the Subcommittee on Long-Term Regional Planning and Business Modeling. Mirroring feedback from the retreat, next steps will include attention to issues including affordability, demand management, the role of storage, climate vulnerabilities, strategic communications, and inclusive community engagement.

Metropolitan Board Member Feedback on Key Topics

During the February 2023 Board Retreat, Board Members were asked to engage on the following topics:

- *Visioning and Planning*: Connect and kick off multi-step process for visioning and planning for Metropolitan’s climate resilient future.
- *Defining the Problem*: Explore the dimensions of climate-related vulnerabilities (environmental, economic, social) for Metropolitan and its Member Agencies.
- *Articulating Interests and Needs*: Explore the shared and unique interests, issues, and concerns among Member Agencies and Metropolitan as a whole.
- *Articulating Values and Assets*: Explore the assets and resources that Metropolitan and Member Agencies can mobilize in service of climate resilience.
- *Identifying Next Steps*

The following sections capture Board Member feedback on specific topics discussed during the Board Retreat.

Climate Change Impacts on Water Supply, Storage, Conveyance, and Demand

On February 13, 2023, Metropolitan staff presented on how climate change is impacting the Colorado River, the State Water Project, Metropolitan operations, and Metropolitan planning. The staff presentation also included a definition of resilience for Board Member consideration; this definition comes from Governor Newsom's Office of Planning and Research (OPR):

"Resilience is the capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience."

Full Board Discussion

In a full-Board discussion following the staff presentation, several themes were addressed, including:

- *Metropolitan Cohesiveness:* There was a recognition that all Member Agencies have varying dependencies on Metropolitan but that they must work together to address resilience and focus on the things that unite the Member Agencies rather than divide them.
- *System Flexibility:* Board members discussed that water systems need to be flexible - not just for Metropolitan, but for all Member Agencies.
- *Water Storage:* The staff presented evidence that solely adding more storage to Metropolitan's system will not be enough to build resilience; that new storage may or may not have much effect on core water supplies for Metropolitan. There was great interest in discussing storage options, including opportunities to connect storage across Southern California, groundwater storage, and related opportunities and challenges.
- *Water Supply:* Board members expressed concern over reliable water supply in the face of a changing climate and a desire for clarity about local supplies and imports.
- *Integrated Resources Plan (IRP):* Board members recognized that the IRP is not yet complete and discussed the Needs Assessment tool that has been developed to support analyzing different climate and demand scenarios for water supply planning purposes. Members expressed a desire for resource planning to integrate costs and funding strategies more broadly. A desire to ensure the Needs Assessment tool is accessible to Member Agencies and accurately includes local plans and projects was expressed.
- *Decision-Making Criteria:* Board members expressed the need to develop criteria to evaluate alternatives and improvements.
- *Funding for Resilience Action:* Concerns were expressed about where to get the funding for increasing the resilience of the Metropolitan system and that Metropolitan's financial model may need to change in order to finance necessary actions while managing cost impacts to Member Agencies.
- *Risk:* There was a discussion about whether Metropolitan can ensure 100% water supply reliability 100% of the time, the costs associated with reliability and resilience,

and the need for a conversation about Metropolitan's resilience priorities to make the best use of available resources and to benefit overall supply reliability.

- *Climate Science:* The staff presentation summarized current and future climate change impacts on Metropolitan's water system. Board Member questions included how to calculate evaporative loss from surface water sources and how this frames future investments in storage; requesting more information about how Metropolitan is handling climate impacts such as wildfires and flooding and how Metropolitan is protecting source water.

Break Out Group Discussion

After the full-Board discussion, Board Members grouped into small breakout groups to discuss the following questions:

Questions:

- What has come up during the presentations that is particularly relevant for your agency? For example:
 - Water supply;
 - Resource planning and the need for integration with financial, climate and social lenses;
 - Regulatory pressures; and
 - Related economic, environmental, and social vulnerabilities.
- What challenges are you facing that you haven't heard much about today?
- Does the definition of resilience offered sound right to you, and what concepts would you like to add?
- What do you see as the greatest opportunities for your agency and for the district as a whole under the new normal of a changing climate?

Breakout Group Overarching Themes

- Need for a regional approach, with Metropolitan Board and Member Agency cooperation and collaboration.
- Consensus that the OPR resilience definition is good, but perhaps should be accompanied by some additional principles around equity/equality and building back better.
- Financial issues of great concern: customer affordability; Metropolitan rate structure; and balancing resilience with reliability/sustainability.
- Stated need to focus on disadvantaged communities and their vulnerabilities.
- Stated need to plan for/resolve supply chain issues.

Widely-Held Challenges or Vulnerabilities

- *Financial:* Retail customer affordability; financial planning; and optimizing use of existing collective investments.
- *Water System:* Supply; storage; reliability; and resource planning.
- *Promoting Metropolitan's Programs:* following/conservation/water quality programs.

- *Metropolitan Cohesiveness*: Board and Member Agency alignment; and recognizing differing dependencies on Metropolitan.
- Climate change means looking ahead, not at the past.

Unique Perspectives from Member Agencies

- *Too much or too little water*: Some jurisdictions are growing/facing potential water shortages; and atmospheric rivers.
- *Water quality issues differ among agencies*: Different water contaminants; brackish water; and water quality issues.
- Some Member Agencies are entirely dependent on Metropolitan while others are not. Where access to Metropolitan supplies are limited, Member Agencies have different ability to offset localized shortages.
- One Member Agency was able to lower rates.

Challenges that Require More Discussion

- *Financial*: Metropolitan's rate structure; affordability; funding growth in areas with increasing population; outdoor water use impact on rates; and Props 218 & 26 limit flexibility.
- *Metropolitan Cohesiveness*: Need to increase trust to decrease legal issues and find regional solutions.
- *Water System*: Groundwater; storm water; water quality; and leaking pipes.
- *Communication*: The need for common messaging from all Member Agencies during drought conditions and in support of conservation.
- *Partnerships*: Metropolitan-Member Agency Partnerships; and Agriculture-Urban Partnerships.
- *Improve Legislative Outcomes*: The need to educate and build relationships with legislative members.
- *Local Resources Program*: Need more discussion to understand realized benefits of what has already been committed and how an updated program might expand participation and production.

Opportunities

- *Water system*: Delivering blended water to everyone; developing regional storage/delivery solutions; trading water within/between agencies/water districts; increasing storage above and below ground; water recycling; developing new water sources; and building back better.
- *Financial*: Pricing control through tiered structures; leveraging co-funding of projects; and establishing a credit system for trading/selling saved water.
- *Government/Funding*: Convening legislative roundtables; and collaborating to pursue state/federal funding.
- *Metrics*: Conducting benefit checks for all Member Agencies for new Metropolitan investments.
- *Partnerships*: Carbon transfer relationships; conservation and innovation partnerships.

- *Storage*: Individual storage proposals need to be considered in a systemwide context, including groundwater considerations as well as pros and cons of in-region and out-of-region storage.

Member Agency Interests

On February 14, 2023, the Board Members grouped into small breakout groups to discuss the following questions:

Questions:

- What does your agency need from an integrated climate adaptation planning process? What would make it effective, impactful, and worth your time?
- Which needs are currently being met, and which need to be addressed through future work?

Widely Expressed Interests

- *Metropolitan Cohesiveness*: Member Agencies recognize the collective benefit and impact of Metropolitan (one water, one people). However, there is a desire that Metropolitan better understand/contextualize existing investments of big and small Member Agencies.
- *Equitable Access to Water Among Member Agencies*: Desire for equitable access to supplies, storage and groundwater basins for all Member Agencies; importance of connectivity for State Water Project Dependent and other exclusive areas; and an interest in Metropolitan facilitating the transfer of water between Member Agencies in order to solve reliability issues.
- *Improved Communication*: Desire to improve Metropolitan and Member Agency methods of communication and communication overall. Developing empathy among Member Agencies and Metropolitan Board and staff will require new methods of communication, for example: information sharing across Member Agencies, clarifying interests as opposed to positions, improving Board Member/Member Agency communication with Metropolitan staff. There is a desire to address multicultural challenges in communication and the need for Metropolitan messaging to be tailored and unique to meet small Member Agency needs, including addressing language and cultural barriers.
- *Financial Interests*: Reliable, affordable water; predictable water rates; cost burden sharing among Member Agencies; and a fair financial model for all Member Agencies.
- *Science*: Desire for increased knowledge about how climate change affects water supplies (reliability and sustainability) and for using the latest science in planning/decision making.
- *Planning Interests*: Desire for a regional approach to climate change planning to increase certainty; desire for decisions to be based on impacts, alternatives and return on investment; desire to integrate planning and finance for long-term reliability; and desire for updated Metropolitan policies and procedures to build buy-in from Member Agencies.
- An interest in speaking more about water at Board Meetings was also expressed.

Unique Interests

- *Financial:* Member Agencies expressed desire for Metropolitan to acknowledge historical investments by Member Agencies; the need for flexibility of access to water (e.g., for State Water Project-dependent areas) and not to have to pay for this water twice; and consideration of affordability for disadvantaged communities.
- *Role of Metropolitan:* Suggestion that Metropolitan help coordinate smaller Member Agencies with common needs; desire for Metropolitan to support smaller projects/agencies; and to maximize the benefits of operational flexibility.
- *Specific Member Agency Interests:* Pasadena has available storage, would like to see water supplies filling this available storage; and San Diego had to find its own supply and invest in diversity of supply -- this was very costly, but that initial pain is leading to payoffs.
- *Communication:* Given different voting weights as well as director tenure and staff capacity, Member Agencies feel different levels of access to Metropolitan information and varying abilities to have their interests heard.

Interests Currently Being Met by Metropolitan

- *Water Infrastructure:* Metropolitan is the only organization with the power to secure big water supplies such as the Colorado River and State Water Project. Metropolitan is also increasing storage programs, including groundwater; providing basic reliability; and providing clean water for customers.
- *Emergency Support:* Recognition that Metropolitan is there for Member Agencies when Agencies' backs are against the wall.
- *Voice with State and Federal Governments:* Metropolitan can wield influence, provides lobbying services, and helps with accessing federal funds.
- *Technical Expertise:* Metropolitan has world-class staff working on operations, engineering, planning, cooperation and more.

Interests That Need Attention

- *Member Agency Perspectives:* desire for greater recognition of and integration of individual Member Agency needs; recognition that small Member Agencies could do more to share their unique experiences to ensure their interests are being accounted for; need to consider reliability and resilience with an equity lens; desire for certainty in an uncertain time; needing a new mindset – local projects cannot guarantee 100% of water to one Member Agency; and the need to recognize agencies with historic investments.
- *Water Infrastructure:* Need new water supplies; need long term reliability and affordability; need for short-term fixes (e.g., lead pipes) and longer-term fixes (e.g., lack of access to Colorado River water for some Member Agencies); need to stabilize imports; and support for additional storage opportunities.
- *Improved Communication:* Metropolitan communications should explain collective investments to the public; improve community/customer education in multiple languages towards building community trust of water supply safety (including to

counter public over-reliance upon bottled water) and influencing customer perspectives on water sources (e.g., customer preference for desalination plants vs wastewater treatment plants); and engage a broad spectrum of public interests in solving our water challenges.

- *Science/Modeling*: Long-term climate projections with annual check ins; and a desire to better understand vulnerabilities of local supplies as well as imports.
- *Financial*: Desire for additional help from Metropolitan in getting federal grants and decreasing the price of brackish and ocean desalination facilities.

Metropolitan and Member Agency Values, Roles and Resources

A full-Board discussion on the values, roles and resources that Metropolitan and Member Agencies bring to the table for collective action on climate resilience highlighted the following themes:

Board Member Comments on Metropolitan's Value, Role and Resources

- *Representational and Scale Power*: At state and federal levels, Metropolitan can represent the interests of member agencies and the 19 million customers served.
- *Regional Planning*: Metropolitan has the ability to plan and move forward together at a regional scale; to access resources and to water that would be unavailable to some individual Member Agencies; and develops programs from which all Member Agencies can learn.
- *Willingness to Adapt and Evolve*: As an organization, Metropolitan can learn from failures and come back stronger.
- *Capacity*: Metropolitan brings together cooperation and partnerships and provides technical expertise and commitment to engineering excellence.
- *Metropolitan-Member Agency Relationships*: Member Agencies support each other and Metropolitan; and Member Agencies help each other in periods of localized crisis.

Individual Member Agency Values, Roles and Resources to Contribute to Building Resilience Metropolitan-Wide

- *Member Agency Investment in Programs and Projects*: Local investments support the entire system and can serve as models for other agencies and for Metropolitan as a whole; experimenting with innovative strategies on a smaller scale can identify opportunities for broader implementation; and there is potential to utilize storage capacity at the Member Agency level in ways that benefit the entire system.
- *Mutual Cooperation and Support*: Member Agencies can help each other and Metropolitan in times of localized crises. Agencies are willing to do what needs to be done so the entire system is stronger and more resilient. "The whole is greater than the sum of its parts." Member Agencies share successes, challenges and lessons learned so that all Agencies can benefit from each other's experiences.
- *Member Agencies are the Conscience of Metropolitan*: Member Agencies are most directly connected to communities - especially marginalized communities - and have an in-depth understanding of community needs. It is important for Metropolitan to work in conjunction with Member Agencies in order to reach the customer.

Document for Board Consideration

Metropolitan staff and its facilitation team reviewed the feedback from both the breakout sessions and full board discussion sessions and distributed a draft document (available at <https://mwdh2o.legistar.com/Legislation.aspx>) near the end of the retreat.

Metropolitan staff brought this document for Board discussion with the intention of it being a catalyst to build off the momentum of the February 2023 Retreat and to help chart a planning path for climate change adaptation in order to position Metropolitan to provide reliable water in an economically and environmentally responsible manner in the years ahead.

The document and this Retreat Report are intended to help memorialize Board input from the retreat as well as to frame future planning. No action was taken by Board Members on the document during the retreat; however, the [Board's Subcommittee on Long Term Regional Planning Processes and Business Modeling](#) will be able to consider and use it as background and guidance to staff to ensure continuity with the Retreat.

Conclusion

The February 2023 Board Retreat discussed the impacts of climate change on Metropolitan's future, including increasing the climate resilience of Metropolitan's water supplies, storage, and conveyance system. Given the increasing risks of climate change, improved climate resilience is critical to furthering the supply reliability upon which Member Agencies depend. A major theme from the Board full-group and break out discussions was the need to build Metropolitan and Member Agency cohesion and empathy. Board Members were supportive of building knowledge and understanding about the challenges and opportunities each Member Agency is encountering towards the goal of building trust in order to comprehensively address climate change and build the resilience of Metropolitan's water system. Additionally, Board Members recognized that Metropolitan and the Member Agencies each have unique values, roles and resources which can contribute to building resilience, and that this collaboration is essential to success. A quote from the retreat that captures this sentiment is: "The whole is greater than the sum of its parts."

The Board agreed that building climate resilience will require a complex multi-step process and that Figure 1 captures a high-level approach to this process. In addition to the upcoming Board subcommittee and full committee meetings mentioned above, next steps to move Metropolitan forward in the process outlined in Figure 1 could include the following. Many of these ideas were touched on during retreat discussions and are summarized here to help support future action to address the challenges and needs posed by a changing climate.

Potential Next Steps

- Develop criteria to evaluate potential Metropolitan strategies through a climate lens;
- Create potential climate resilience pathways;
- Evaluate potential climate resilience pathways according to agreed-upon criteria. For example,

- Generate a list of possible projects, programs and investments;
 - Discuss how each project and investment might impact each Member Agency individually as well as the collective whole of Metropolitan (co-benefits); and
 - Map potential consequences of choosing and prioritizing different resilience strategies; and
- Integrate prioritized projects and investments into a strategic master plan and budget process. For example,
 - Develop adaptive business models and financing plans to support resilience activities;
 - Determine how to integrate climate resilience across all Metropolitan planning processes;
 - Agree upon roles (for Metropolitan and Member Agencies) for implementation;
 - Agree upon a timeline for implementation; and
 - Develop an adaptive framework for decision-making.