

Climate Adaptation Master Plan for Water (CAMP4W)

WORKING MEMORANDUM #5

DRAFT EVALUATIVE CRITERIA

January 2024

Section 1. Overview

In February 2023, the Board directed staff to integrate its water resources, climate, and financial planning into a Climate Adaptation Master Plan for Water (CAMP4W or Master Plan). Specifically, the Master Plan will include (1) Climate and Growth Scenarios, (2) Time-Bound Targets, (3) Framework for Climate Decision-Making and Reporting, (4) Policies, Initiatives, and Partnerships, and (5) Business Models and Funding Strategies. CAMP4W will increase Metropolitan’s understanding of the climate risks to water supplies, infrastructure, operations, workforce, and financial sustainability. CAMP4W will also develop decision-making tools and long-term planning guidance for adapting to climate change, in order to strengthen Metropolitan’s ability to fulfill its mission.

To facilitate the development of the CAMP4W in a timely and transparent process a Joint Task Force was chartered by the Board in October 2023. The Task Force is made up of Board members, Member Agency managers, and Metropolitan staff. The initial development tasks (discussed in this Working Memorandum and to be documented in the CAMP4W Year 1 Report) will continue through April 2024 and will include the Climate Decision-Making Framework. The development of the remaining Master Plan components will continue throughout 2024.

The Climate Decision-Making Framework will assist the Board with aligning Metropolitan’s investments with (a) the values and priorities of the Board, and (b) the member agencies’ individual plans and investments. Also, the Framework will provide important information to inform Board decision-making but does not replace the Board’s authority to direct Metropolitan’s decisions.

The Framework incorporates Evaluative Criteria and Project Scoring and the Time-Bound Targets to inform investment decisions. The Time-Bound Targets are one of the five foundational components of the Master Plan, as identified above, and are also incorporated into the Framework given the guidance they will provide when evaluating projects and programs. **Figure 1** displays the interplay between the components of the Decision-Making Framework. This memorandum focuses on a component of the Master Plan and Climate Decision-Making Framework: Evaluative Criteria and Project Scoring.

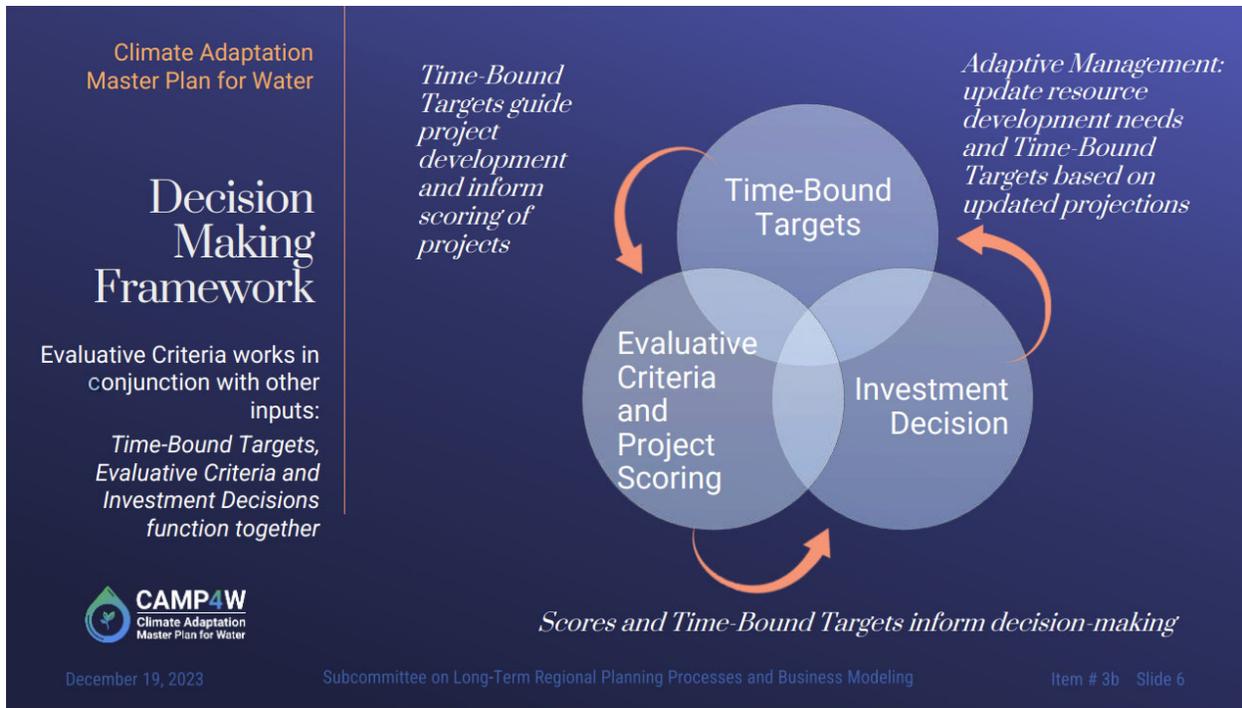


Figure 1. Climate Decision-Making Framework

A complete Master Plan will be presented for Board consideration by the end of 2024. As a living document, it will be adjusted based on changing conditions to support Board decisions and provide the most up to date information available. More comprehensive updates will occur at intervals agreed upon by the Joint Task Force, potentially driven by the frequency of updates to the California Climate Change Assessment and/or the release of the Intergovernmental Panel on Climate Change (IPCC) Assessment Reports, or other frequency similar to past IRP updates. Through this adaptive management process, the Board will have multiple points along each project’s trajectory to make informed decisions on investments as projects move from one phase to the next.

Section 2. Development of Evaluative Criteria

2.1 Development and Use of Themes

In the spring of 2023, Metropolitan staff began working with the Board on the development of a series of Themes to encapsulate the priorities of the Board within the context of the CAMP4W process. A total of 44 individual Themes were raised under the categories of reliability, resiliency, financial sustainability, affordability, and equity. The Themes were further workshopped with the Board and Member Agencies, as well as environmental stakeholders, incorporating comments and resulting in a comprehensive list in Working Memorandum #2.

These Themes are intended to serve as guideposts throughout the CAMP4W process by representing the Board’s preferences (**Figure 2**). The Themes relate to specific outcomes of the CAMP4W process, as presented in **Figure 3**. Section 2.2 provides a discussion on the process involved in translating the Themes into useful and meaningful evaluative criteria.

From July 2023 Board presentation

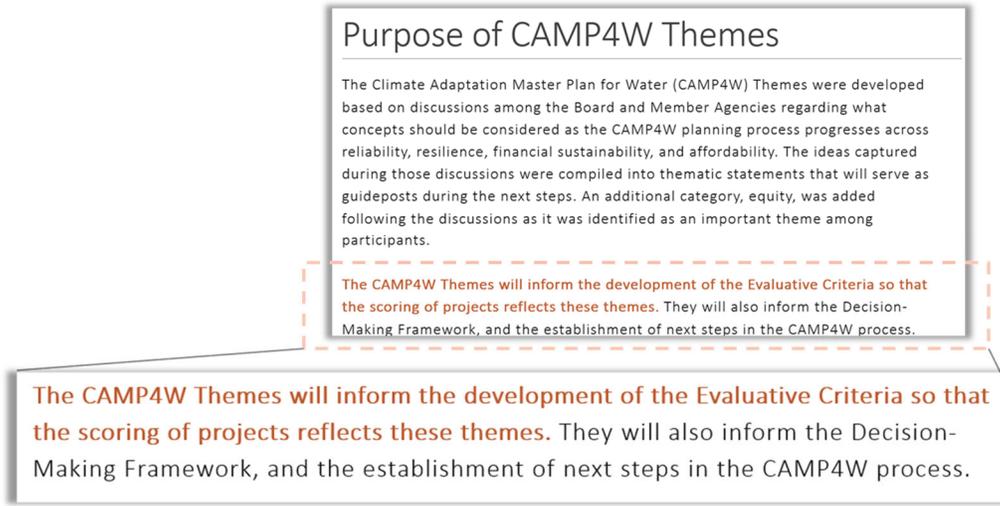


Figure 2. Themes Inform Evaluative Criteria and Decision-Making Framework

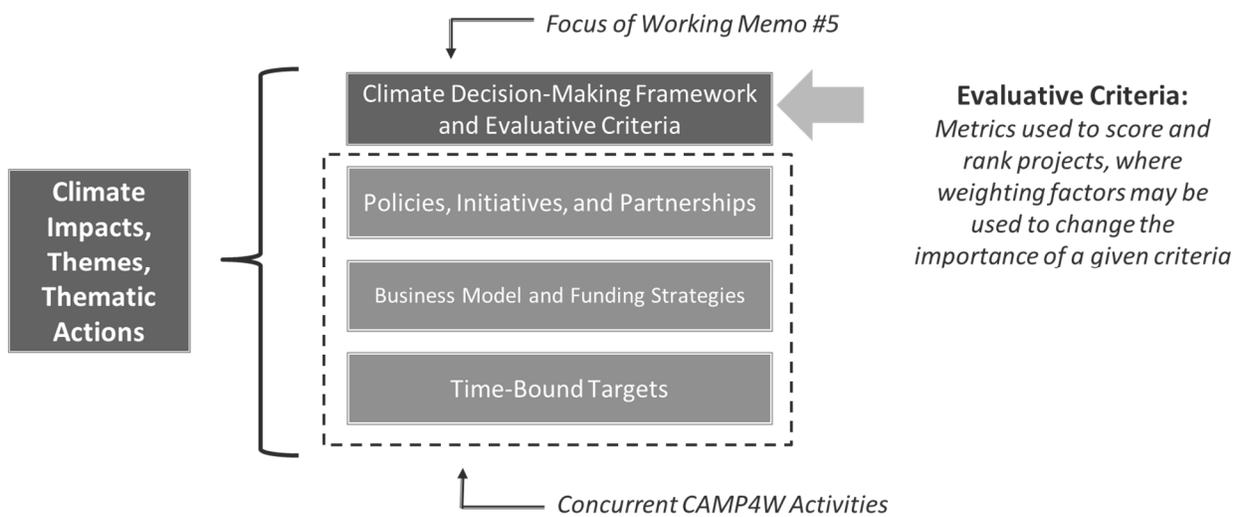


Figure 3. Themes Usage in CAMP4W

2.2 Evaluative Criteria Development and Refinement

Of the 44 Themes raised by the Board, seven relate to either Metropolitan’s financial planning, Business Model, Member Agency partnership facilitation, and/or policy recommendations (which are subjects of concurrent CAMP4W activities, as presented in **Figure 3**). The remaining 37 Themes relate to the Climate Decision-Making Framework and the Evaluative Criteria (**Appendix A and B**). As illustrated in **Figure 4**, by identifying overlapping concepts within the 37 thematic actions, the list was distilled into 10 discrete and independent Evaluative Criteria based on specific attributes (**Figure 5**).

During the November 21, 2023, Joint Task Force meeting, these 10 criteria were workshopped. Staff revised the Evaluative Criteria to incorporate input provided during the meeting, in written form following the meeting, as well as feedback from the General Manager’s December 11th Environmental Listening Session. This process resulted in six draft criteria (**Figure 6**) which were discussed at the December 19, 2023, Joint Task Force meeting and generally positively received.

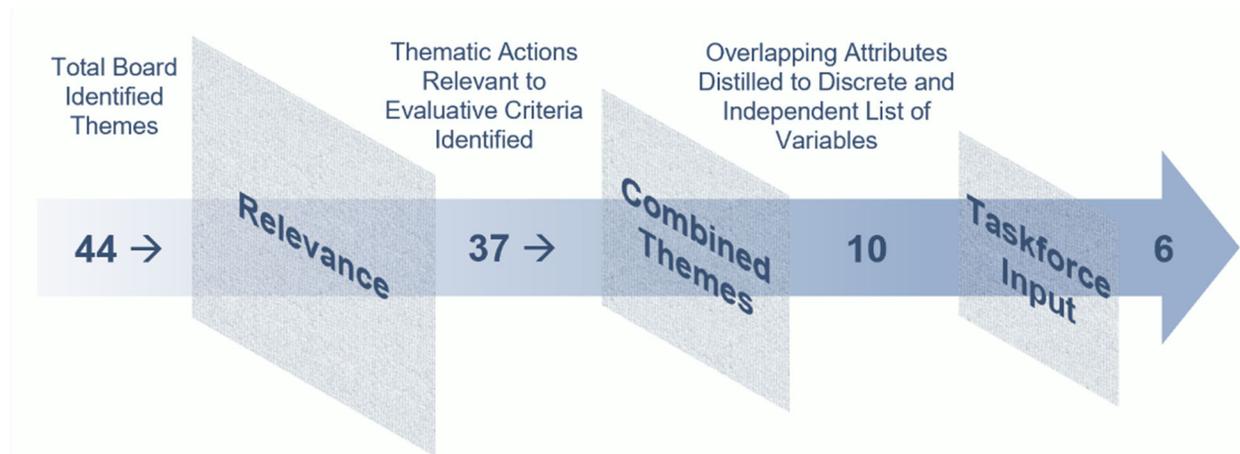


Figure 4. Evaluative Criteria Development: Screening from Comprehensive List of Themes to Discrete and Measurable Evaluative Criteria



Figure 5. Initial Draft Evaluative Criteria (Presented 11/21/2023)

Guided by feedback that the initial criteria could be consolidated and simplified, the following adjustments were made to the Draft Evaluative Criteria:

- Equitable Supply Reliability was revised to **Reliability**, inclusive of equitable supply reliability as well as considerations related to reliability in varying conditions.
- The proposed Evaluative Criteria of **Resilience** incorporates Risk Mitigation to address specific climate and seismic vulnerabilities and evaluates a project’s ability to be resilient in the face of disruptions.
- Bond Feasibility was revised to Financial Leverage, which references the ability to utilize bond financing to extend capital costs and/or attract other financial resources (i.e., grants or funding

partners). Financial Leverage and Unit Cost/TAF were combined into **Financial Sustainability and Affordability**.

- **Adaptability and Flexibility** combines Project Feasibility and Scalability, and also includes the ease of implementation.
- Environmental Impact was clarified as **Environmental Co-Benefits**.
- **Equity** encompasses Disadvantaged Community Benefit and other community equity and engagement considerations. Equitable supply reliability is incorporated in Reliability.
- High Impact was omitted and could be addressed by measuring proposals in the context of Time-Bound Targets.
- Locally Sited Project was eliminated and could be addressed through a Time-Bound Target and/or through associated attributes considered in the other criteria.



Figure 6. Revised Draft Evaluative Criteria (Presented 12/19/2023)

The CAMP4W process is adaptive, and these criteria could be adjusted in the future. These will become a piece of the Decision-Making Framework by providing a uniform and transparent method of evaluating projects and programs by their attributes. Staff anticipates that, as part of the Board’s use of the Framework, and specifically the Evaluative Criteria, the Board will continue to consider consistency with Metropolitan’s mission and performance expectations. Specifically, a project’s ability to make progress on a core supply, water-use efficiency, storage development or other target would continue to be important factors for the Board to consider in its decision-making process.

2.3 Scoring based on Selected Evaluative Criteria

The six evaluative criteria presented in **Figure 6** were presented to the Joint Task Force along with a series of questions that were developed to assist in understanding each of the criteria and what might be considered in scoring. These questions are presented in **Table 1**, with updates based on comments received. In **Table 2**, staff presents several potential metrics for each criterion, how the total points available for scoring of a project or program may be divided among the criteria and uses the Reliability criterion as an example of how scores may be allocated among metrics. The information in Table 2 is presented to foster discussion and input. An objective for the Scoring is to have a standard set of project or program metrics.

Table 1. Revised Questions for Developing Evaluative Criteria

Questions to capture the benefits of a project or program related to each draft Evaluative Criteria could include the following. Questions are proposed to facilitate the identification of which attributes should contribute to a project’s score for each Evaluative Criteria.. The score would reflect the scale of the benefit relative to the criterion.

Reliability	<p>Does it advance equitable supply reliability?</p> <p>Does it help meet supply reliability objectives based upon Average and Dry Year conditions?</p> <p>Does it provide a regional benefit?</p> <p>How reliable is the source of the supply in projected climate conditions?</p>
Resilience	<p>Does it address an identified climate vulnerability (e.g., extended drought, extreme heat, wildfire, sea level rise, atmospheric rivers, runoff shifts)?</p> <p>Will it continue to operate and perform under various climate change conditions, including potential compounding impacts?</p> <p>Does it improve resilience to hazards, such as earthquakes?</p> <p>Does it address water quality considerations?</p> <p>Does it provide supplies during shortages and/or provide storage recovery?</p>
Financial Sustainability and Affordability	<p>What is the average annual rate impact?</p> <p>Is the project eligible for federal and/or state grants or other funding sources or partners? If so, what are the estimated target amount(s)? Is there a local match requirement? If so, how much?</p> <p>If applicable, what is the unit cost/AF (gross and net)? For storage projects, what is the cost/capacity and cost/net yield?</p> <p>Does the life cycle cost of the project impact the overall financial impact?</p> <p>Can the project be funded by bonds? If so, any unique constraints or considerations with debt financing?</p>
Equity	<p>To what scale does it directly or indirectly benefit underserved communities while enhancing Metropolitan’s services?</p> <p>What level of community engagement is included in the project or program?</p> <p>Is there broad community support or potential for support?</p> <p>Are specific community benefits such as workforce opportunities, localized resilience, public health and quality of life measures incorporated?</p>
Adaptability and Flexibility	<p>Does it work with and/or improve the flexibility of existing assets?</p> <p>Can it be scaled up or down based on future conditions?</p> <p>How complex are the steps required for implementation?</p> <p>Is there a fatal flaw that prevents implementation?</p>
Environmental Co-Benefits	<p>Does it reduce greenhouse gas emissions or enhance carbon sequestration?</p> <p>Does it provide additional ecosystem services benefits, such as water quality, soil health, biodiversity, urban heat island reduction, etc.?</p> <p>Does it protect, improve or expand wildlife and fish habitat, especially for species of concern?</p>

Table 2. Potential Evaluative Criteria Metrics

<i>Evaluative Criteria</i>	Scoring Metric 1	Scoring Metric 2	Scoring Metric 3	Scoring Metric 4
<i>Reliability (20 points)</i>	Advances Equitable Supply Reliability	Consistency of Water Source in various hydrological conditions		
<i>EXAMPLE OF POTENTIAL MAX. POINT BREAKDOWN FOR RELIABILITY</i>	12	8		
<i>Resilience (20 points)</i>	Increases Existing Infrastructure / Water Source Resilience	Project’s Ability to Withstand Climate Impacts	Addresses an Identified Climate Vulnerability	
<i>Financial Sustainability and Affordability (15 points)</i>	Financial Leverage	Unit Cost	Average Annual Rate Impact	
<i>Adaptability and Flexibility (15 points)</i>	Increases flexibility of existing assets	Operational ease and complexity of implementation	Scalability	
<i>Equity (15 points)</i>	Benefit Programs for Underserved Communities	Scale of Community Engagement	Public Health Benefits	Workforce Development
<i>Environmental Co-Benefits (15 points)</i>	Greenhouse Gas Emissions Benefits	Ecosystem Services	Habitat/Wildlife Benefits	
<i>TOTAL: 100 POINTS</i>				

A total project score will combine each of the individual criteria scores. Adjusting the points possible can reflect a Board preference for certain metrics or criteria, as illustrated in the above example of potential maximum points. Alternatively, weighting factors can be applied in later steps to provide higher emphasis to certain criteria.

Staff will continue to develop and refine the metrics based on further input. Metrics are designed to reduce subjectivity and provide transparency in how the score for each criterion is derived.

WORKING MEMORANDUM 5 - APPENDIX A

COMPREHENSIVE LIST OF CAMP4W THEMES

Theme Category	Theme	Relates to Evaluative Criteria and Decision Framework (Y/N)	Applies to Financial Plan (Y/N)	Applies to Business Model and or Facilitation of Member Agency Partnerships (Y/N)	Applies to Internal and External Policy Recommendations (Y/N)
Reliability	Identify projects that reduce our regional dependence on imported water and that address areas in our system that rely on a single source of supply.	Yes	No	No	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Providing multi-benefits across member agencies	Yes	No	Yes	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Increasing our water reserves	Yes	No	No	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Serving both current and future customers	Yes	No	No	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Maintaining water quality	Yes	No	No	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Considering system and environmental improvements for imported water assets	Yes	No	No	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Diversifying our portfolio	Yes	No	No	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Establishing system interconnectivity	Yes	No	No	Yes
Reliability	Improve the reliability of the State Water Project Dependent Areas by upgrading infrastructure connectivity and access to water supply and storage assets.	Yes	No	No	No

Theme Category	Theme	Relates to Evaluative Criteria and Decision Framework (Y/N)	Applies to Financial Plan (Y/N)	Applies to Business Model and or Facilitation of Member Agency Partnerships (Y/N)	Applies to Internal and External Policy Recommendations (Y/N)
Reliability	Recognize increased water use efficiency as a critical aspect of reliability regardless of varying climate scenarios and identify implementation methodologies.	Yes	No	No	No
Reliability	Ensure regional connectivity so that all agencies are able to directly access the region's resources and share equally in the regional benefits as well as the regional risks.	Yes	No	Yes	Yes
Resilience	Identify infrastructure at risk of failure or vulnerable to climate impacts and other hazards and establish a methodology to continuously re-evaluate gaps to manage risks and proactively identify risks.	Yes	No	No	No
Resilience	Identify investments and partnership opportunities that facilitate collaboration among Metropolitan and Member Agencies.	No	No	Yes	Yes
Resilience	Improve the resiliency of the State Water Project Dependent Areas, and those areas with little or no redundancy for access to Metropolitan supplies, by upgrading infrastructure connectivity and access to water supply and storage assets.	Yes	No	No	Yes
Resilience	Develop opportunities for integration across water supply, infrastructure, workforce, ecosystems, power supply, and other areas.	No	No	Yes	Yes
Resilience	Create a cooperative approach to ensure system flexibility during disaster response and recovery	No	No	Yes	Yes
Financial Sustainability	Consider business models that enable Metropolitan to fulfill its regional role and maintain a sufficient income stream to fund necessary projects and programs in partnership with its member agencies.	No	No	Yes	Yes
Financial Sustainability	Develop a financial plan that assesses rate impacts of various adaptation pathways and maintain sufficient reserves for liquidity and resilience to various climate scenarios impacting declining revenues, increasing costs, emergency conditions, and member agency demand patterns.	No	Yes	No	Yes

Theme Category	Theme	Relates to Evaluative Criteria and Decision Framework (Y/N)	Applies to Financial Plan (Y/N)	Applies to Business Model and or Facilitation of Member Agency Partnerships (Y/N)	Applies to Internal and External Policy Recommendations (Y/N)
Financial Sustainability	Develop a financial plan that assesses rate impacts of various adaptation pathways and develop a plan that includes managing risk exposure due to climate change to maintain credit worthiness for access to capital markets and debt financing.	No	Yes	No	Yes
Financial Sustainability	Develop a financial plan that assesses rate impacts of various adaptation pathways and explore opportunities to increase non-rate revenues and credit worthiness across climate scenarios.	No	Yes	No	Yes
Financial Sustainability	Recognize the need to fund ongoing or increasing rehabilitation and repair project costs to maintain resiliency and reliability.	Yes	Yes	No	Yes
Financial Sustainability	Evaluate mechanisms that facilitate shared resources among member agencies, reduce individual agency exposure, and support member agencies in completing projects.	No	No	Yes	Yes
Affordability	Evaluate revenue and rate alternatives that align with an updated business model.	No	No	Yes	Yes
Affordability	Consider each Member Agency's distinct financial profile based on their size, level of establishment (growing vs. established), rate capacity, reliance on Metropolitan's supplies, and their retail customer's capacity to pay.	No	Yes	Yes	Yes
Affordability	Explore options in program funding to address access and affordability for the most vulnerable customer segments in alignment with Metropolitan's policies and state law.	No	Yes	Yes	Yes
Affordability	Conduct regular evaluation on affordability factors to understand the discrepancy in affordability across member agencies.	No	Yes	Yes	Yes
Affordability	Evaluate mechanisms to streamline processes and increase efficiencies with innovative ideas for cost-savings.	Yes	No	Yes	Yes
Affordability	Identify opportunities for Metropolitan to actively participate in programs that would support affordability (e.g., programs at the State or Federal level).	Yes	No	Yes	Yes
Affordability	Practice fiscal care and responsibility to ensure MWD's component of the member agencies' water costs are as economical as possible.	No	Yes	No	Yes

Theme Category	Theme	Relates to Evaluative Criteria and Decision Framework (Y/N)	Applies to Financial Plan (Y/N)	Applies to Business Model and or Facilitation of Member Agency Partnerships (Y/N)	Applies to Internal and External Policy Recommendations (Y/N)
Affordability	Evaluate projects based on the whole life-cycle costs (capital plus operation and maintenance) to assess long-term economic feasibility and cumulative impacts on affordability.	Yes	Yes	No	Yes
Equity	Metropolitan will promote regional equity among all member agencies by understanding varying individual member agency needs related to: Access to a reliable water supply that achieves an equivalent level of reliability and resiliency experienced across the region.	Yes	No	No	Yes
Equity	Metropolitan will promote regional equity among all member agencies by understanding varying individual member agency needs related to: Access to funding options for projects necessary to achieve the standard of reliability and resiliency afforded to the rest of the region.	No	No	Yes	Yes
Equity	Metropolitan will promote regional equity among all member agencies by understanding varying individual member agency needs related to: Access to an inventory of assets sufficient to store and convey water to achieve the same level of reliability and resiliency experienced across the region.	Yes	No	No	Yes
Equity	Metropolitan will support member agencies' equity goals by: Supporting member agencies in pursuing the Human Right to Water through affordability and access to water supplies.	Yes	No	No	Yes
Equity	Metropolitan will support member agencies' equity goals by: Evaluating conservation and use efficiency programs for disadvantaged communities (such as access to rebates, direct install, and other programs).	Yes	No	No	Yes
Equity	Metropolitan will support member agencies' equity goals by: Exploring legislative options to prioritize state and federal investments in disadvantaged communities.	Yes	Yes	No	Yes
Equity	Metropolitan will support member agencies' equity goals by: Supporting member agencies conservation and water use efficiency programs including communication, funding, and program execution.	Yes	No	No	Yes

Theme Category	Theme	Relates to Evaluative Criteria and Decision Framework (Y/N)	Applies to Financial Plan (Y/N)	Applies to Business Model and or Facilitation of Member Agency Partnerships (Y/N)	Applies to Internal and External Policy Recommendations (Y/N)
Overarching	Develop a path forward that prepares our region to mitigate, adapt and thrive in a changing climate.	Yes	No	No	Yes
Overarching	Recognize that reliability and resiliency, as well as affordability and equity, varies across member agencies and we must work as a single region to create equity.	Yes	No	No	Yes
Overarching	Develop a coordinated engagement strategy across Member Agencies and Metropolitan that builds relationships and trust in the communities we serve, provides meaningful information and solicits input throughout the process.	No	No	Yes	Yes
Overarching	Comprehensively evaluate alternatives utilizing available data, an understanding of Metropolitan and member agencies facilities, and opportunities for collaboration to make informed decisions on investments.	Yes	No	No	Yes
Overarching	Develop a Decision-Making Framework that is flexible and adaptable to varying climate scenarios and human behaviors and achieves multiple benefits.	Yes	No	No	Yes
Overarching	Create reliability and resilience by determining: "Will-build" projects benefiting multiple planning scenarios (i.e., Low/No Regrets projects), "Can-build" projects to be built depending upon further investigation, and "May-build" projects to be built on the conditional occurrence of "trigger" conditions .	Yes	No	No	Yes
Overarching	Develop portfolios of alternatives and an adaptive management framework designed to support the identified needs of Metropolitan's system considering benefits, costs, prior Board actions, and implementability in achieving resiliency and reliability.	Yes	Yes	Yes	Yes

WORKING MEMORANDUM 5 - APPENDIX B

CAMP4W THEMES MAPPED TO EVALUATIVE CRITERIA

Criteria 1: Reliability	
Reliability	Identify projects that reduce our regional dependence on imported water and that address areas in our system that rely on a single source of supply.
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Establishing system interconnectivity
Reliability	Improve the reliability of the State Water Project Dependent Areas by upgrading infrastructure connectivity and access to water supply and storage assets.
Reliability	Ensure regional connectivity so that all agencies are able to directly access the region's resources and share equally in the regional benefits as well as the regional risks.
Resilience	Improve the resiliency of the State Water Project Dependent Areas, and those areas with little or no redundancy for access to Metropolitan supplies, by upgrading infrastructure connectivity and access to water supply and storage assets.
Equity	Metropolitan will promote regional equity among all member agencies by understanding varying individual member agency needs related to: Access to a reliable water supply that achieves an equivalent level of reliability and resiliency experienced across the region.
Equity	Metropolitan will promote regional equity among all member agencies by understanding varying individual member agency needs related to: Access to an inventory of assets sufficient to store and convey water to achieve the same level of reliability and resiliency experienced across the region.
Equity	Metropolitan will support member agencies' equity goals by: Supporting member agencies conservation and water use efficiency programs including communication, funding, and program execution.
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Increasing our water reserves
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Serving both current and future customers
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Diversifying our portfolio
Reliability	Recognize increased water use efficiency as a critical aspect of reliability regardless of varying climate scenarios and identify implementation methodologies.

Criteria 2: Resilience	
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Providing multi-benefits across member agencies
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Maintaining water quality
Resilience	Identify infrastructure at risk of failure or vulnerable to climate impacts and other hazards and establish a methodology to continuously re-evaluate gaps to manage risks and proactively identify risks.
Financial Sustainability	Recognize the need to fund ongoing or increasing rehabilitation and repair project costs to maintain resiliency and reliability.

Criteria 3: Financial Sustainability and Affordability	
Affordability	Evaluate mechanisms to streamline processes and increase efficiencies with innovative ideas for cost-savings.
Affordability	Identify opportunities for Metropolitan to actively participate in programs that would support affordability (e.g., programs at the State or Federal level).
Affordability	Evaluate projects based on the whole life-cycle costs (capital plus operation and maintenance) to assess long-term economic feasibility and cumulative impacts on affordability.
Equity	Metropolitan will support member agencies' equity goals by: Supporting member agencies in pursuing the Human Right to Water through affordability and access to water supplies.
Overarching	Comprehensively evaluate alternatives utilizing available data, an understanding of Metropolitan and member agencies facilities, and opportunities for collaboration to make informed decisions on investments.

Criteria 4: Increased Adaptability and Flexibility	
Overarching	Develop a Decision-Making Framework that is flexible and adaptable to varying climate scenarios and human behaviors and achieves multiple benefits.
Overarching	Develop a path forward that prepares our region to mitigate, adapt and thrive in a changing climate.

Criteria 5: Environmental Co-Benefits	
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Considering system and environmental improvements for imported water assets

Criteria 6: Equity	
Equity	Metropolitan will support member agencies' equity goals by: Exploring legislative options to prioritize state and federal investments in disadvantaged communities.
Equity	Metropolitan will support member agencies' equity goals by: Evaluating conservation and use efficiency programs for disadvantaged communities (such as access to rebates, direct install, and other programs).
Overarching	Recognize that reliability and resiliency, as well as affordability and equity, varies across member agencies and we must work as a single region to create equity.

OTHER: Decision-Making Framework	
Overarching	Develop a path forward that prepares our region to mitigate, adapt and thrive in a changing climate.
Overarching	Develop a Decision-Making Framework that is flexible and adaptable to varying climate scenarios and human behaviors and achieves multiple benefits.
Overarching	Create reliability and resilience by determining: "Will-build" projects benefiting multiple planning scenarios (i.e., Low/No Regrets projects), "Can-build" projects to be built depending upon further investigation, and "May-build" projects to be built on the conditional occurrence of "trigger" conditions.
Overarching	Develop portfolios of alternatives and an adaptive management framework designed to support the identified needs of Metropolitan's system considering benefits, costs, prior Board actions, and implementability in achieving resiliency and reliability.