



Subcommittee on Long-Term Regional Planning Processes and Business Modeling

1/18/2024 LTRPPBM Subcommittee Meeting

3c

Subject

Climate Decision-Making Framework: Evaluative Criteria and Time-Bound Targets

Executive Summary

In February 2023, the Board directed staff to integrate 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) A 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.

The Climate Decision-Making Framework incorporates the Time-Bound Targets because the Time-Bound Targets are critical to climate decision-making. They will provide important guidance for Metropolitan's planning and development work toward the overall goal of maintaining reliability, resilience, financial sustainability, affordability, and equity in the face of a changing climate. The Time-Bound Targets work in combination with the Evaluative Criteria to facilitate and inform decision-making surrounding investment decisions.

This Committee Item is intended to spur discussion on the categories, metrics, and timelines for potential Time-Bound Targets, as discussed at the Joint Task Force meeting held on December 19, 2023. Draft Time-Bound Targets provided below are "straw person" examples purely for discussion and will require additional development and vetting. Targets will be further refined based on task force discussion and additional input. Following the February Task Force Meeting, revised Time-Bound Targets will be incorporated into Working Memo #6: Time-Bound Targets. Staff anticipates including 5-10 initial Time-Bound Targets in the CAMP4W Year One Report (for Board consideration in April 2024), with the opportunity to add additional targets in the Draft Master Plan by the end of 2024.

Fiscal Impact

Not applicable

Applicable Policy

By Minute Item 52776, dated April 12, 2022, the Board adopted the 2020 Integrated Water Resources Plan Needs Assessment.

By Minute Item 52946, dated August 15, 2022, the Board adopted a resolution affirming Metropolitan's call to action and commitment to regional reliability for all member agencies.

By Minute Item 53381, dated September 12, 2023, the Board approved the use of Representative Concentration Pathway (RCP) 8.5 for planning purposes in the Climate Adaptation Master Plan for Water.

Related Board Action(s)/Future Action(s)

Not applicable

Details and Background

Background**Section 1****Overview**

During the December 19, 2023 Joint Task Force Meeting, task force members and Metropolitan staff discussed the role of Time-Bound Targets within the CAMP4W process and the development of the Climate Decision-Making Framework. Time-Bound Targets are intended to provide specific policy and resource management goals that will serve to advance the work required to achieve reliability and resilience into the future. With specific interim and final deadlines for achieving specific goals, Metropolitan can measure the progress of incremental changes over time to achieve those goals. Targets are intended to address multiple categories of climate adaptation efforts, including core supply, conservation and efficiency, storage, flex supply, water quality, equity and affordability. Task Force members requested that staff develop an initial list of proposed Time-Bound Targets and compile examples of existing relevant policies and targets for review and potential inclusion in the CAMP4W process.

Existing Policies and Targets

Time-Bound Targets have been used in the past to drive programs and planning efforts. A sample of past targets are listed in the table in **Appendix 1**. Many of Metropolitan's resource-based targets are from the 2015 IRP and will be superseded or incorporated into the Master Plan.

Proposed Time-Bound Targets

CAMP4W will provide the Board with tools to assist it in making decisions that improve reliability and resilience under severe climate change. For consistency with the CAMP4W premise, Scenarios C and D of the 2020 IRP Needs Assessment were used as the initial basis for quantifying the region's potential magnitude of resource needs over time and under highly adverse conditions. Scenario C envisions a combination of severe climate change impacts on water supplies with low demands. Scenario D envisions a combination of adverse conditions, including severe climate change impacts on water supplies and persistently high demands on Metropolitan's wholesale water supplies. Both of these scenarios include assumptions consistent with Representative Concentration Pathway (RCP) 8.5 greenhouse gas emissions. The main difference between the two severe change scenarios is whether demands are lower or higher over time.

Reliability under severe climate change impacts is highly sensitive to demands. Under IRP Needs Assessment Scenario C, the need for new Core Supply and Storage by 2045 would be an order of magnitude less than the needs of Scenario D. However, if demands turn out to be higher than Scenario C, then planning for a Scenario C low-demand future would result in more shortages.

Because of the uncertainty in actual resource needs by 2045 in the face of climate change and other factors, and because many potentially promising projects have yet to be identified, scoped, and/or evaluated, the CAMP4W framework incorporates proactive steps to identify and evaluate options and project opportunities, as well as adaptive management approaches to assist the Board in its decisions to implement or adjust as conditions and supply-demand projections continue to evolve.

Targets listed below are intended to spur discussion and provide examples of the categories, metrics, and dates that could be included in a final set of Time-Bound Targets. Some examples include proposed numbers and dates, while others are left blank for further discussion. Not all categories listed here require an adopted target. As further discussed below, it is anticipated that any initial targets established would be regularly revisited and could be adjusted or augmented with additional targets in the future.

Table 1: Potential Time-Bound Targets (For Discussion Purposes Only)

Resource-Based Targets (numbers reflect additional supplies unless indicated otherwise)				
No.	Category	Near Term	Mid Term	Long Term
1	Core Supply	N/A	Identify 15-300 TAF for potential implementation by 2035. Upper range can be reduced as follows: - 250 TAF of new storage will reduce core supply need to 200 TAF	Identify 50-650 TAF for potential implementation by 2045. Upper range can be reduced as follows: - 250 TAF of new storage will reduce core supply need to 550 TAF - 500 TAF of new storage will reduce core supply need to 500 TAF
2	Storage	N/A	Identify up to 500 TAF for potential implementation by 2035	
3	Maintain Existing and Under Construction Local Agency Supply	2.09 to 2.32 MAF by 2030 (under average year conditions)	2.12 to 2.37 MAF by 2035 (under average year conditions)	2.14 to 2.40 MAF by 2045 (under average year conditions)
4	Flex Supply (Dry Year Equivalent)	Acquire capability for up to 100 TAFY	Acquire capability for up to 100 TAFY by 2035	Acquire capability for up to 100 TAFY by 2045
5	Water Quality	Prepare for future regulations to meet or surpass all drinking water standards.	Identify projects and programs to ensure continued compliance to meet or surpass all drinking water standards.	Update compliance program as required to meet or surpass all drinking water standards.
6	Water Quality	Update Nitrification Control Plan and identify system nitrification solutions.	Implement initial system nitrification solutions.	Prepare Nitrification Control Plan for submission to regulators and implement additional system nitrification solutions as needed.
7	Water Quality	Study solutions for treatment plants to improve performance under low flows and with varying source water quality	Identify projects to improve treatment plant performance	Implement projects to improve treatment plant performance

Table 1: Potential Time-Bound Targets (For Discussion Purposes Only) (cont.)

Policy-Based Targets				
Number	Category	Near Term	Mid Term	Long Term
8	Local Agency New Supply	TBD	TBD	TBD
9	Equitable Supply Reliability	Add 160 CFS capacity to the SWPDA by 2026	Identify additional 130 CFS capacity to SWPDA by 2032	Identify capacity, conveyance, supply, and programs for SWPDA by 2045
10	Water Use Efficiency Regionwide	100% compliance with State Water Board Water Use Efficiency Standards	100% compliance with State Water Board Water Use Efficiency Standards	100% compliance with State Water Board Water Use Efficiency Standards
11	Landscape specific efficiency		Meet MWELO standards regionwide by 2035 (.55 ETAF)	
12	Average Regional Potable Gallons Per Capita Per Day (GPCD)	115 GPCD by 2026	101 GPCD by 2035	TBD
13	Non-Functional Turf (NFT) Replacement		30% reduction in NFT by 2035	
14	Annual Investment in Conservation and Water Use Efficiency Rebates, Incentive and Innovation Programs	\$50 M	TBD	TBD
15	Greenhouse Gas Reduction		40% below 1990 emissions by 2030	Carbon neutral by 2045
16	Imported Water Resilience Investment	Annually invest in levee protection, water quality improvements, and other risk reductions in the Delta to protect through-Delta water supply.		

Table 1: Potential Time-Bound Targets (For Discussion Purposes Only) (cont.)

Policy-Based Targets				
Number	Category	Near Term	Mid Term	Long Term
17	Community Equity	Mitigate project impacts in disadvantaged communities through community investment programs based on initial target percentage of total project cost to support workforce and business development; educational and conservation programs; and/or environmental health investments.	Mitigate project impacts in disadvantaged communities through community investment programs based on adjusted target percentage of total project cost. Target percentage to be determined through evaluation of impact from community investment programs conducted to date supporting workforce and business development; educational and conservation programs; and/or environmental health investments.	Mitigate project impacts in disadvantaged communities through community investment programs based on adjusted target percentage of total project cost. Target percentage to be determined through evaluation of impact from community investment programs conducted to date supporting workforce and business development; educational and conservation programs; and/or environmental health investments.
18	Water Conveyance and Distribution System Resilience Investment	Prioritize resilience investments and resources to rehabilitate and replace aging infrastructure		
19	Water Conveyance and Distribution System Resilience Investments	Prioritize resilience investments for reliability during and after major disruptions		

The Time-Bound Targets are incorporated into the Framework for Climate Decision-Making and Reporting and will work in combination with the Evaluative Criteria and Project Scoring to facilitate and inform decision-making surrounding investment decisions, as shown in **Figure 1**. As the CAMP4W process will rely on an adaptive management approach moving into the future, whereby real-world conditions will be evaluated over time to refine ongoing development needs, the Time-Bound Targets are also intended to evolve over time, as presented in **Figure 2**.

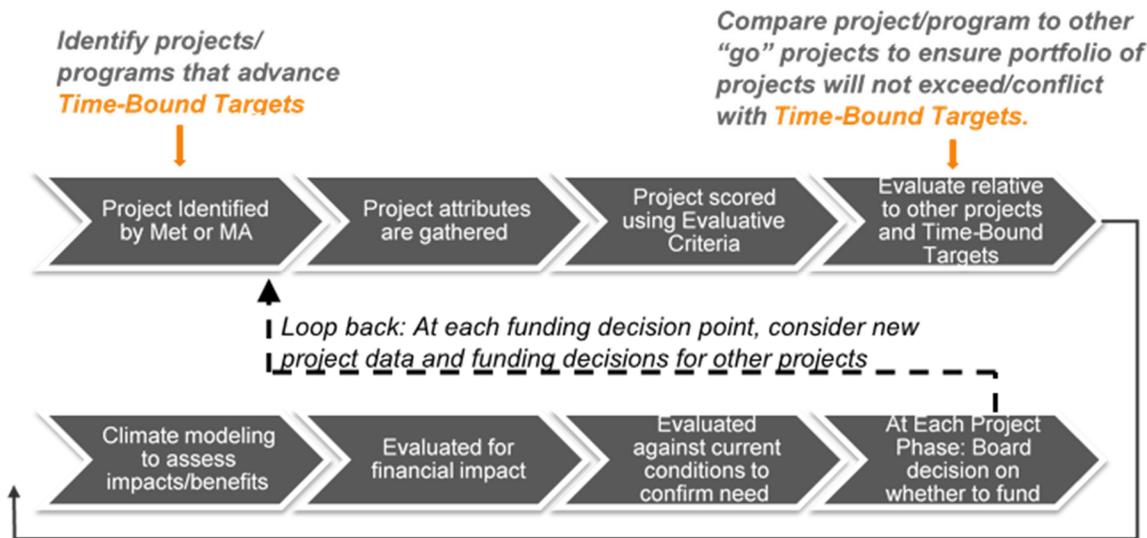


Figure 1: Role of Time-Bound Targets in the decision-making framework

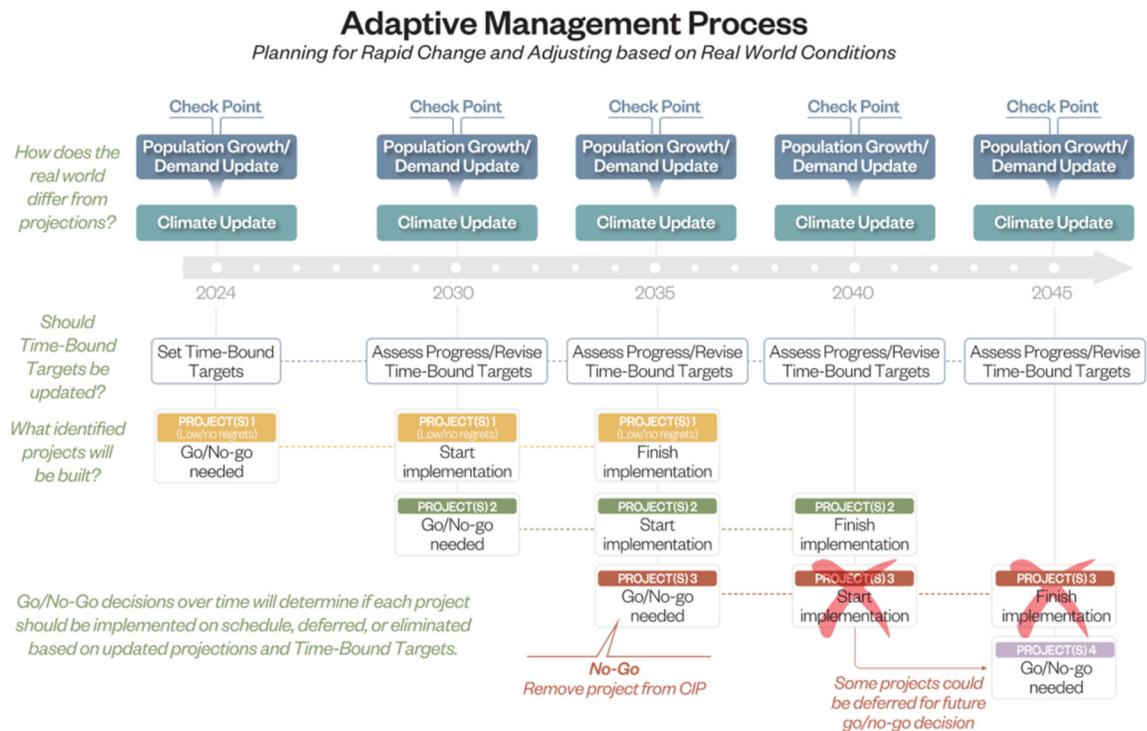


Figure 2: Adaptive Management Process

Timing and Urgency

To be reliable and resilient in the face of a changing climate, the Board has directed staff to complete a Year 1 Report by April 2024. Key decisions must be made at regular intervals to achieve this goal. While the process is iterative and open to modification over time, a working set of Time-Bound Targets is critical to the Climate Decision-Making Framework. As such, time is of the essence.

Project Milestone(s)

Not applicable

	1/12/2024
Elizabeth Crosson Chief Sustainability, Resilience and Innovation Officer	Date
	1/12/2024
Adel Hagekhalil General Manager	Date

Attachment 1 – Examples of Existing Metropolitan Targets

Attachment 2 – Working Memo No. 5: Draft Evaluative Criteria

Ref# sri12694166

APPENDIX I
Examples of Existing Metropolitan Targets and Current Status

#	Category	Target	Source / Board Action	Status
1	Colorado River	900 TAFY minimum, with ability for 1.2 MAF during dry years	2015 IRP	Target achieved; not known beyond 2026 when agreements that govern management of the Colorado River are scheduled to expire. Rules for post-2026 Colorado River operations are currently under negotiation.
2	State Water Project	Average of 1.213 MAFY by 2040 (assumes a long-term Delta solution in place by 2030)	2015 IRP	No long-term Delta Solution will be in place by 2030. Regulatory constraints have decreased the SWP Table A delivery capabilities over time. The SWP long-term average capabilities under existing conditions is currently estimated at 56% per the CA Department of Water Resources' 2021 Delivery Capability Report.
3	Conservation	Total conservation of 1.519 MAFY by 2040 (1.339 MAFY existing conservation and 180 TAFY new conservation)	2015 IRP	In FY 2022/23, the region conserved 1.08 MAF through device-based savings. As existing households and businesses make efficiency upgrades and as new households and businesses integrate efficient fixtures and landscapes, along with Metropolitan and member agencies' conservation efforts, conservation is expected to reach the 2015 IRP 2040 conservation target. Since 2015, there has been substantial and persistent reduction in overall water usage.
4	Storage	Recognition that storage plays a vital in achieving reliability in conjunction with a strategy for transfers and exchanges	2015 IRP	Metropolitan continues to store water when available for use in dry years. CY 2024 begins with the highest amount in regional storage in history.

5	Local Supply Production	2.406 MAFY of Existing and Under Construction and 20 TAF of New Local Supply by 2040	2015 IRP	Local supply production has been challenged in recent years by extreme variation in precipitation patterns, environmental and water quality regulations, and efforts to mitigate groundwater overdraft for basin sustainability. However, the development of local projects is proceeding with substantial investment and support from Metropolitan and its member agencies. The relatively low levels of local production in recent years is also indicative of low overall water use trends in the wake of water use efficiency and behavioral conservation efforts.
6	Equitable Supply Reliability	All member agencies must receive equivalent water supply reliability through an interconnected and robust system of supplies, storage, and programs.	August 2022 Board Resolution and Call to Action for Regional Reliability (provides several existing policy statements and Board direction)	Target achieved for known historic droughts, such as 2020 through 2022, with the new actions under development with estimated completion in 2026. Other, more severe, potential future droughts will need additional infrastructure, programs, and/or supply to achieve this target.
7	Greenhouse Gas Emissions Reduction	40% below 1990 emissions by 2030; carbon neutral by 2045	2022 Metropolitan Water District Climate Action Plan	First Annual Climate Action Plan Report, April 2023

8	Local Workforce	60% of the total construction craft hours worked on each Covered Project be performed by Local Workers.	2022 Metropolitan Water District Project Labor Agreement	In progress
9	Water Quality – Salinity Management	Achieve, to the extent reasonable and practical, a total dissolved solids (TDS) concentration objective of 500 milligrams per liter (mg/L) in Metropolitan’s distribution system.	1999 Salinity Management Policy	Target is achieved in higher SWP allocation years and not achieved in lower SWP allocation years.

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.

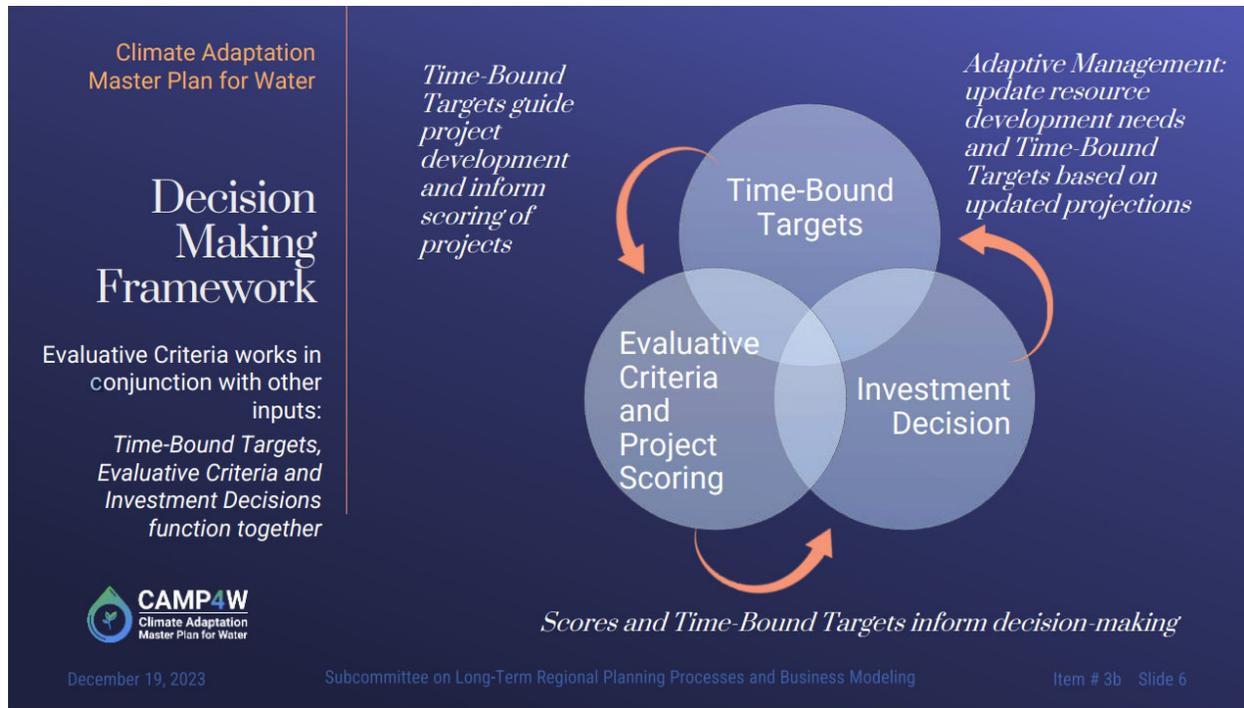


Figure 1. Climate Decision-Making Framework

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.

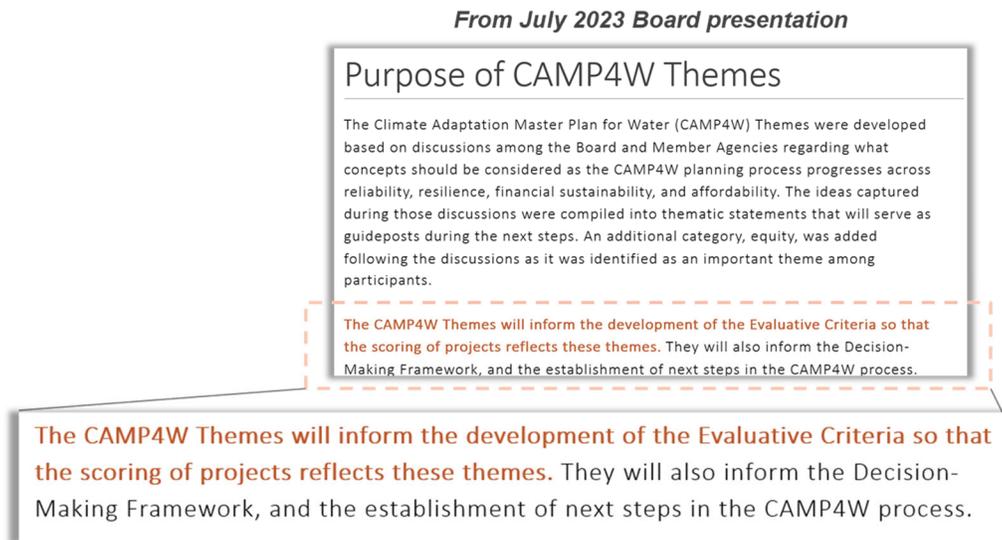


Figure 2. Themes Inform Evaluative Criteria and Decision-Making Framework

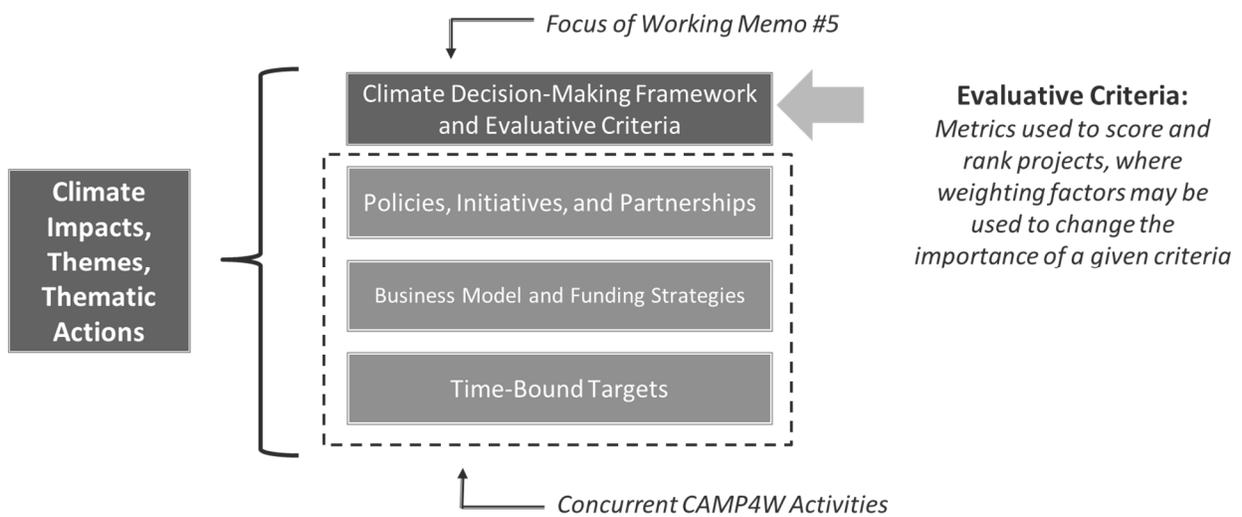


Figure 3. Themes Usage in CAMP4W

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.

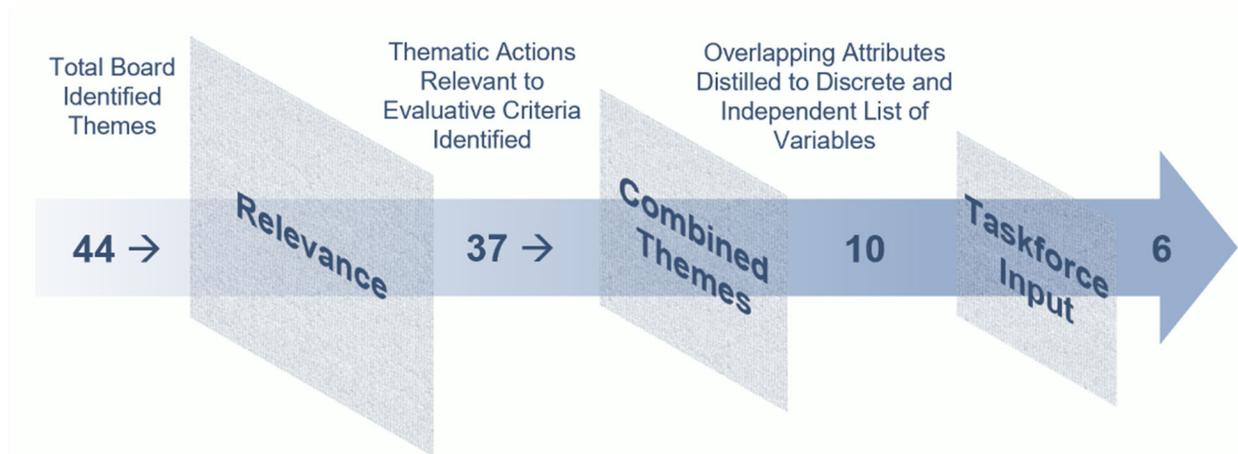


Figure 4. Evaluative Criteria Development: Screening from Comprehensive List of Themes to Discrete and Measurable Evaluative Criteria



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.