



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

11/21/2023 LTRPPBM Subcommittee Meeting

3c

Subject

Discussion of the Development of a Climate Decision-Making Framework and Draft Project-Level Evaluative Criteria

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 business model. CAMP4W will also develop decision-making tools and long-term planning guidance for adapting to climate change.

The Climate Decision-Making Framework includes the development of program- and project-level evaluative criteria to align Metropolitan's investments with the values and priorities of the Board while complementing member agencies' individual plans and investments. The Framework will also inform the Board's development of time-bound targets for the Master Plan.

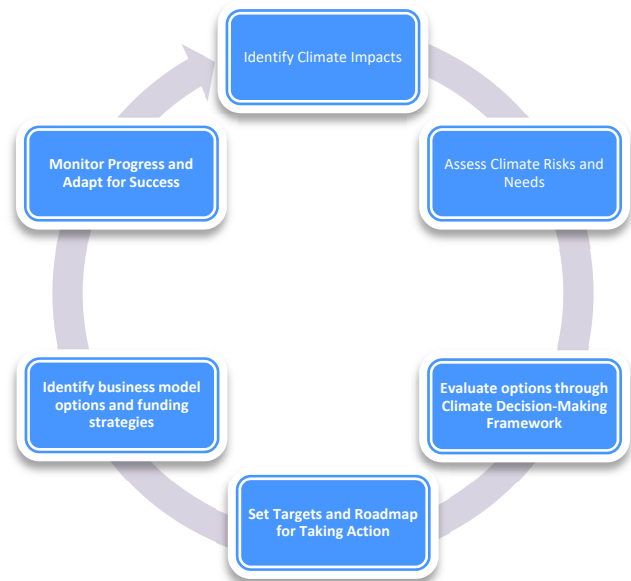
This Committee Item focuses on the development of Draft Evaluative Criteria and provides an overview of how the criteria integrate into the CAMP4W process. This information and board input will be incorporated into Working Memo #5: Draft Evaluative Criteria and Project Integration.

Details

Background

In February 2023, the Board directed staff to incorporate water resources, climate, and financial planning into a CAMP4W. This decision was influenced by a heightened awareness of the climate risks impacting Metropolitan's supplies, infrastructure, operations, workforce, and business model. This comprehensive planning process includes the development of decision-making tools and long-term planning guidance for adapting to climate change. The Board-adopted 2020 Integrated Resources Plan Needs Assessment provides a foundational understanding of climate change risks under several water-demand-growth scenarios¹. CAMP4W builds on that assessment while strategically and adaptively planning towards a future with risks from severe climate change and the associated hazards including drought, flooding, fire, wind, and sea level rise, in addition to the intrinsic risk our region faces from earthquakes.

CAMP4W (**Figure 1**) will establish a methodology for evaluating options through a Climate Decision-Making Framework and will provide a roadmap for identifying solutions to mitigating risk. It will be a living document that will be updated to identify changing conditions and to report those changes to the Board. 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. The Master Plan also aligns with Metropolitan's mission to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.



CAMP4W will integrate water resources planning, infrastructure development, climate adaptation and financing into one interconnected process.

Figure 1. CAMP4W Process

¹ Risks that affect water-demand growth in the region include the economy, water-use behavior, demographics, and local supply production.

A summary of the CAMP4W timeline is presented in **Figure 2**. The initial development tasks will continue through April 2024 and will include the development of a Climate Decision-Making Framework. Evaluative Criteria are key components of the Climate Decision-Making Framework and consist of both qualitative and quantitative metrics that will be used to score and rank projects and programs. These Evaluative Criteria and Climate Decision-Making Framework will support Metropolitan’s decision-making and increase the climate resilience of its water supply, infrastructure, operations, employees, and member agencies.

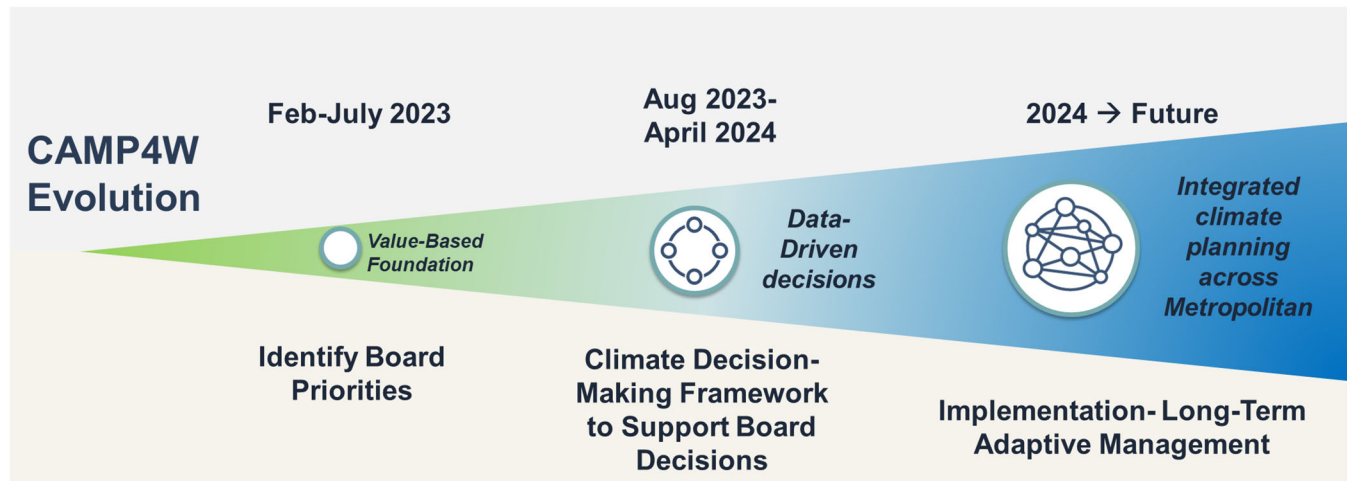


Figure 2. CAMP4W Timeline Summary

Development of Evaluative Criteria

In the spring of 2023, Metropolitan staff began working with the Board on the development of a series of five CAMP4W Themes to encapsulate the values and priorities of the Board within the context of climate change.

- Reliability – Ability to always meet water demands
- Resiliency – Ability to withstand and recover from disruptions
- Financial Sustainability – Revenues sufficient to cover expenses over the short- and long-term
- Affordability – Relative cost burden and elastic ability to access (pay for) service and support member agency efforts to provide affordable supply to their customers
- Equity – Fair, just, and inclusive

These Themes were further workshopped with the Board and member agencies, incorporating comments, and resulting in a comprehensive list in CAMP4W Working Memorandum #2. As a result of board engagement and input, a total of 44 Thematic Actions were developed and aligned under the five Themes above. These Thematic Actions are intended to provide guidance throughout the CAMP4W process by representing the Board’s preferences (**Figure 3**).

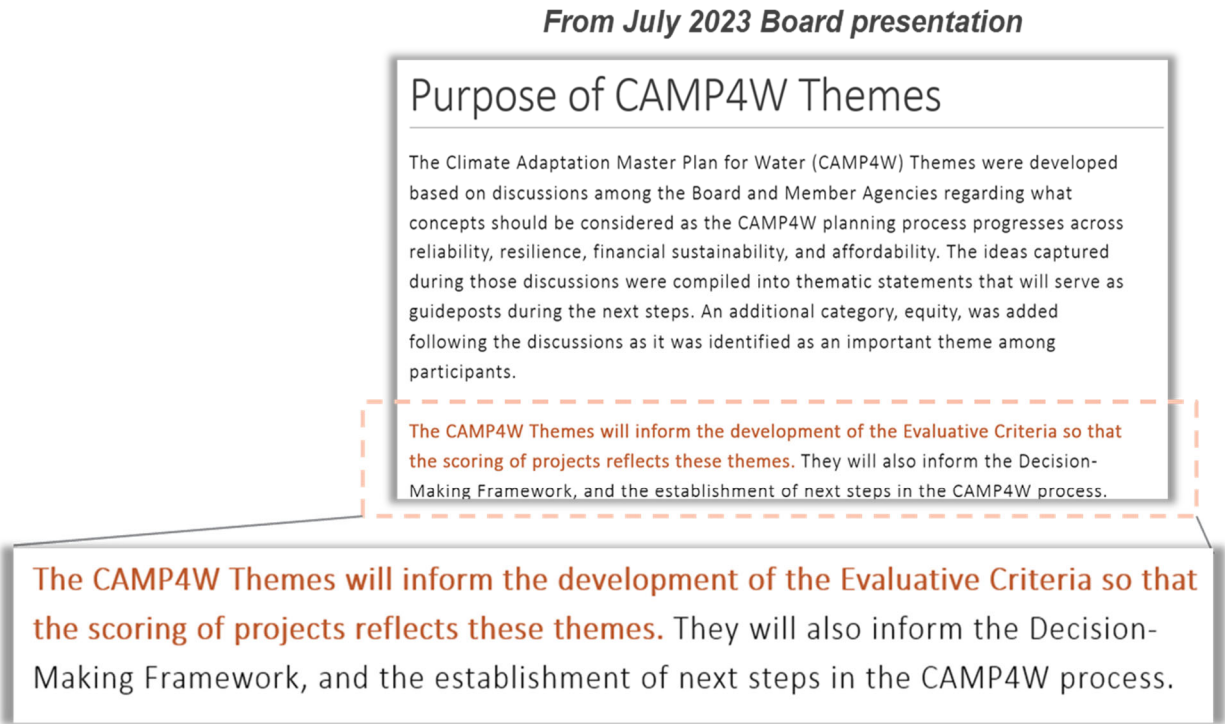


Figure 3. Themes Inform Evaluative Criteria and Other Aspects of the CAMP4W Process

The CAMP4W process identified 37 of the Thematic Actions to be relevant to the Evaluative Criteria. Those 37 Thematic Actions were then distilled into ten proposed Evaluative Criteria that could be used effectively to evaluate projects and programs in the Climate Decision-Making Framework (**Figure 4**). A full listing of the Themes, Thematic Actions and their relevance to Evaluative Criteria can be found in **Attachment 1**.

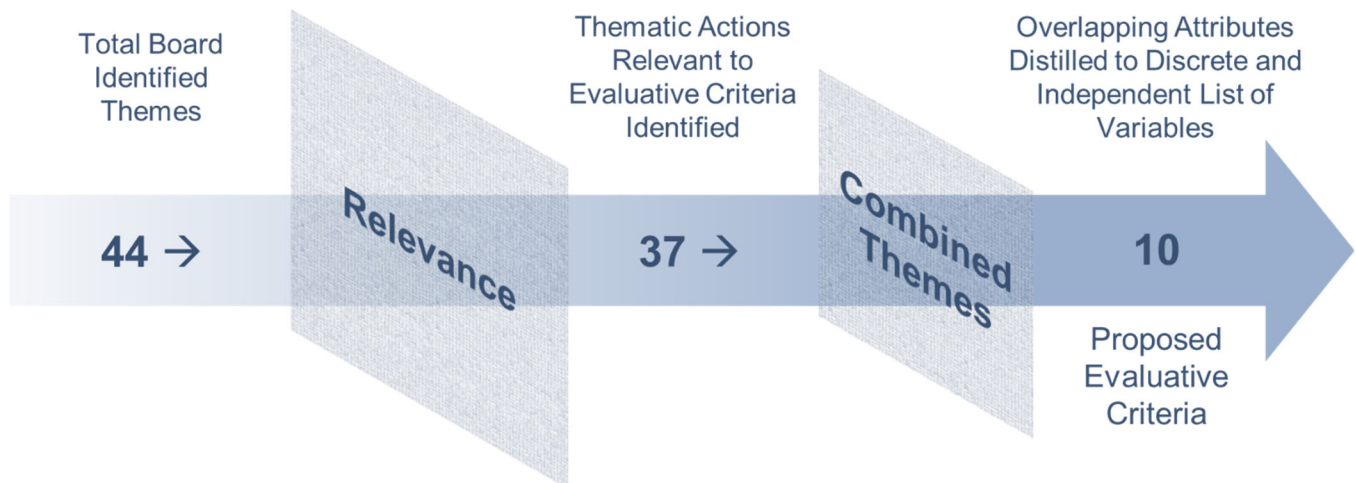
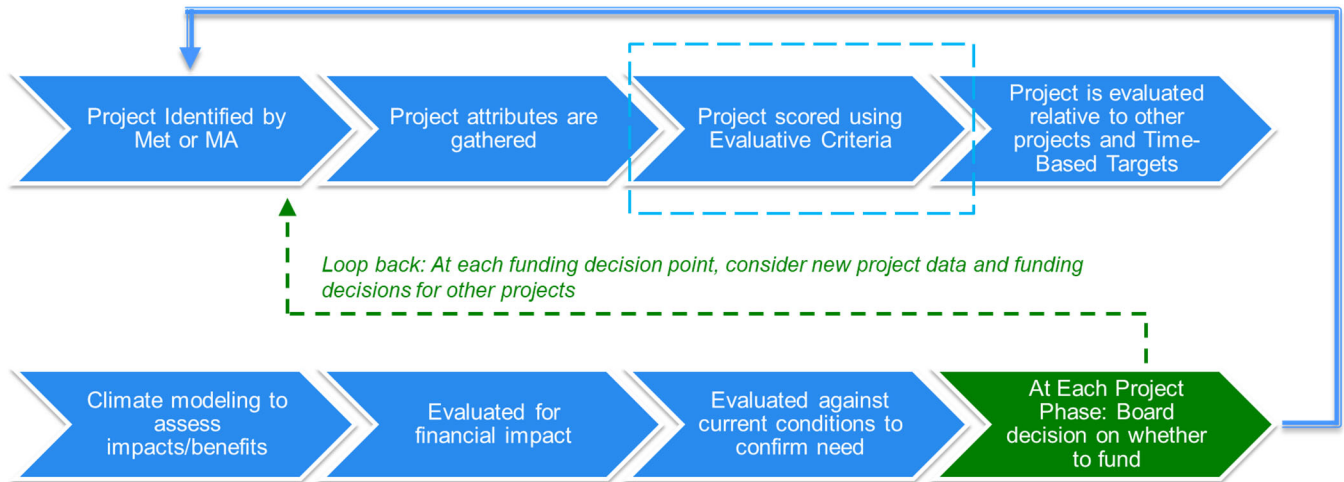


Figure 5 presents the high-level steps involved in the Climate Decision-Making Framework. Step three involves scoring projects using the evaluative criteria. As indicated by the process presented in **Figure 5**, the Evaluative Criteria will be used to generate a CAMP4W score for each project being considered. Projects will be evaluated through multiple lenses, including financial as well as from an engineering perspective, and projects will be reevaluated over time as more refined information is gained. Through this adaptive management process, the Board will have multiple points along each project’s trajectory to evaluate moving from one phase to the next.



Proposed Evaluative Criteria

Presented in **Figure 6** is the list of the ten proposed Evaluative Criteria, followed by a description of each. As discussed above and illustrated in **Attachment 1** the Evaluative Criteria align with the 37 Thematic Actions enabling the Board’s preferences to be represented in the evaluation of projects. The remaining Thematic Actions that do not inform evaluative criteria directly will instead inform other outcomes of CAMP4W, including Policies, Initiatives, and Partnerships as well as Business Models and Funding Strategies.

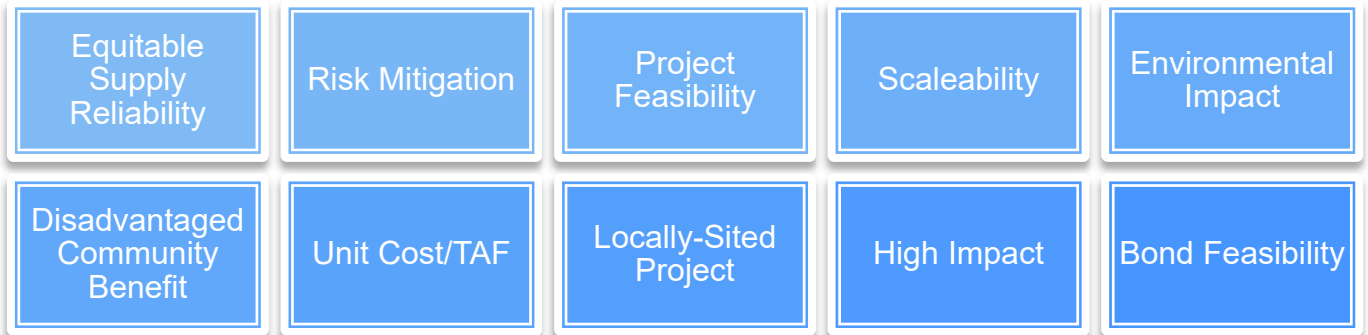


Figure 6. Proposed Evaluative Criteria

- ***Evaluative Criterion 1: Equitable Supply Reliability***

This criterion is designed to account for whether projects address areas that lack equity in supply reliability (e.g., State Water Project Dependent Areas) and meet Metropolitan’s objective of providing a regional service throughout its entire service area.

- ***Evaluative Criterion 2: Risk Mitigation***

This criterion allows a weighting to be given to projects that would mitigate an imminent risk related to climate change (e.g., risk to water quality posed by sea level rise and increased temperature, risk to transmission lines from wildfire, etc.) or other factors (e.g., seismic risk, water supply connectivity risk, stranded assets risk, etc.).

- ***Evaluative Criterion 3: Project Feasibility***

This criterion considers whether a project is considered more or less feasible and/or how much risk may be involved in pursuing a project that may not be implementable. Factors that impact feasibility include

CEQA requirements, likelihood of public or political opposition, amount of inter-agency coordination required, land ownership, etc.

- ***Evaluative Criterion 4: Scalability***

This criterion addresses the need to be flexible over time as conditions change and the impacts of climate change, economic growth, and other factors impact the supply gap. It is not intended to refer to system operational flexibility but rather the scalability of a project. For example, modular projects (projects that can be built in phases) and smaller projects (that would only provide limited core supply or storage but collectively could be implemented to add up to the benefits of a large project), would score well because of a reduced risk of stranded assets.

- ***Evaluative Criterion 5: Environmental Impacts***

This criterion considers the environmental impacts of the project (e.g., greenhouse gas emissions, ecosystem services, and habitat impacts).

- ***Evaluative Criterion 6: Disadvantaged Community Benefits***

This criterion considers the project's water service benefits to disadvantaged communities. This may be calculated by the population benefiting or the number of communities impacted. A project's attributes would include metrics on the disadvantaged population benefiting from the project. Projects with more benefits would score higher.

- ***Evaluative Criterion 7: Unit Cost (dollars per acre-foot)***

This criterion considers the cost-effectiveness of a project. It will allow projects that are otherwise comparable to score better if the long-term unit cost is low when cost is weighted as a priority.

- ***Evaluative Criterion 8: Locally-Sited Project***

This criterion addresses the Thematic Actions related to focusing on local projects. Where a higher weighting is placed on local projects, the decision-making framework would prioritize those projects ahead of others.

- ***Evaluative Criterion 9: High Impact***

This criterion considers projects that advance towards a CAMP4W target. (e.g., volumetric water supply, conservation, or storage goal).

- ***Evaluative Criterion 10: Bond Feasibility***

This criterion considers the ability of a project to be funded through bonds.

Weighting Evaluative Criteria

Weightings allow more emphasis to be placed on a criterion that carries more relative importance than another. Each individual Evaluative Criterion's weighting will vary based on relative importance, but the total weighting of all Evaluative Criteria will total to 100 percent. As real-world conditions and forecasts change, the weighting of the Evaluative Criteria can be adjusted through an adaptive management approach. **Figure 7** demonstrates how weighting can impact the scoring of individual project. For example, Project No. 1 is characterized by high flexibility and bonding feasibility but low supply equity. Project No. 2 is characterized by high supply equity and high impact but low risk mitigation and disadvantaged community benefits. Without a relative weighting of the evaluative criteria, Project No. 1 may be preferred. However, with a variable rating of the criteria, Project No. 2 may be preferred.

Criteria	Supply Equity	Risk Mitigation	Feasibility	Flexibility	Env. Impacts	Disadv. Comm.	Unit Cost \$/TAF	Local Project	High Impact	Bond Feas.	Un-Weighted Total Score	Weighted Total Score
Weighting	20%	10%	15%	5%	10%	5%	10%	0%	20%	5%		
Project No. 1	1	2	2	5	2	4	3	5	2	5	31	23
Project No. 2	4	1	4	3	3	1	3	1	5	2	27	34
Project No. 3	3	2	3	3	2	1	5	3	3	1	26	28

Figure 7. Example of Evaluative Criteria Ranking and Weighting

Project Milestone(s)

As mentioned, the CAMP4W process is working to develop five components of the Master Plan with the guidance of this Task Force including (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.


Staff expects to propose the adoption of the Climate Decision-Making Framework, including evaluative criteria, by April 2024. The Board, member agencies, and staff will continue developing the other components throughout 2024.

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.



 Elizabeth Crosson
 Chief Sustainability, Resilience and
 Innovation Officer
 11/16/2023
 Date



 Adel Hagekhalil
 General Manager
 11/16/2023
 Date

Attachment 1 – CAMP4W Glossary of Terms

Ref# sri12695512

CAMP4W GLOSSARY OF TERMS

Term	DEFINITION
Adaptive Management	A process that promotes flexible decision-making that can be adjusted in the face of uncertainties as outcomes from actions and real-world climate impacts and water demands become better understood.
Affordability	Relative cost burden and elastic ability to access (pay for) service and support member agency efforts to provide affordable supply to their customers
Baseline Condition	Defined as the starting point for planning purposes. Includes, but is not limited to, current condition of storage assets and levels, distribution system constraints, demand and supply, member agency local supplies and demographic data
Business Model	Metropolitan's financial authorities, revenue streams, and cost allocation framework
CAMP4W	Climate Adaptation Master Plan for Water
Climate Adaptation	Taking action to prepare for and adjust to the current and projected impacts of climate change.
Climate Decision-Making Framework	The process by which Metropolitan assesses investment decisions through a methodical, data driven manner while accounting for climate risks and vulnerabilities, Board preferences and financial implications. Builds in the process for using evaluative criteria and adaptively making decisions over time based on evolving conditions
Climate Mitigation	Taking action to reduce greenhouse gas emissions (GHGs) in accordance with Metropolitan's Climate Action Plan (CAP).
Climate Scenario Planning	Reflects water resource development requirements and regional water supply reliability under a range of uncertainties related to future climate conditions, population growth, regulatory requirements, and the economy
Climate Vulnerability Assessments	Assessments developed to identify elements of Metropolitan's operations, infrastructure and resources most vulnerable to climate impacts as well as their sensitivity or adaptability to handle those impacts.
Core Supply	Resource management actions that augment supply or reduce Metropolitan demand and remain available each year.
Drought Mitigation Projects	Projects identified to improve Metropolitan's response to the vulnerability experienced in the State Water Project Dependent Areas during the most recent drought.
Emergency Response	The ability to quickly respond to unplanned outages and restore services as quickly as practical
Equity	Fair, just, and inclusive. Equity refers to both equity of access to water supplies for member agencies as well as the pursuit of equity in the communities we collectively serve, including a specific focus on providing benefits to disadvantaged and underserved communities.
Evaluative Criteria	Metrics used to score and rank projects, where weighting factors change the importance of a given criterion
Financial Plan	Metropolitan's current financial circumstances and its long-term and short-term goals

Term	DEFINITION
Financial Sustainability	Revenues sufficient to cover expenses over the short- and long-term.
Flexible Supply	Resource management actions implemented as needed, including savings from deliberate efforts to change water use behavior (e.g. water transfers, fallowing programs).
"Go Projects"	Projects identified for implementation in the first phase of CAMP4W
Infrastructure Resilience	Capital projects that increase the ability of existing infrastructure to withstand and recover from disruption beyond what would be included in a typical R&R project
Integrated Digital Master Plan	Facilitates the CAMP4W as being a "living" document with regular updates. Involves creating a digital tool that integrates multiple parallel modeling and analysis efforts (water resources modeling, financial modeling, etc.) to facilitate linking updates across platforms to provide guidance for future decision-making
IRP	Integrated Water Resources Plan
LRFP	Long-Range Financial Plan
Member Agency Projects Portfolio	Capital improvement projects led by Member Agencies
Portfolio Emphasis Category	A collection of projects that would be implemented together, including those that collectively advance the goals of a given portfolio emphasis category (see "portfolio emphasis category" definition)
Project Lists	A specific weighting of Evaluative Criteria in order to create a portfolio that aligns with a particular Board policy preference. For example, a portfolio emphasizing the development of local supplies may have a different weighting schema than a portfolio emphasizing conservation.
R & R	A compilation of projects that will be analyzed through the CAMP4W process
Reliability	Repair and replacement. Refers to projects that are necessary to maintain or improve Metropolitan's existing infrastructure, but does not refer to additional capital projects needed to address a specific vulnerability (climate or earthquake) beyond typical system maintenance
Representative Concentration Pathway (RCP)	Ability to always meet water demands by Metropolitan member agencies
Resilience Roadmap	RCPs quantify future greenhouse gas concentrations due to increases in greenhouse gas emissions. The two most used pathways are RCP 4.5 and RCP 8.5. By 2100, RCP 4.5 (slowly declining emissions) will result in a global temperature rise of ~2.4° C and RCP 8.5 (rising emissions) will result in a global temperature rise of 4.3° C. RCPs illustrate potential future climate conditions (such as changes to snowpack levels, temperature, and precipitation) based on the levels of future greenhouse gas emissions throughout the current century. RCP 8.5 is used in Metropolitan's Needs Assessment Scenarios C and D and is considered a high emissions pathway consistent with continued dependence on fossil fuels, with significant declines in emission growth rates over the second half of this century. RCP 4.5 is used in Metropolitan's Needs Assessment Scenarios A and B and is an emissions reduction policy-based pathway and can only be achieved by deliberate actions to reduce global emissions growth
	Ability to withstand and recover from disruptions
	A document that outlines future actions

Term	DEFINITION
System Assessment	Documentation of Metropolitan's current system and policies
System Flexibility	The ability to respond to short-term changes in water supply, water quality, treatment requirements and demands; and the ability to use the system to meet member agency needs during disruptions.
System Capacity	The ability to convey, treat, and distribute supplies to meet firm demands under peak conditions.
Task Force for CAMP4W	A workgroup made up of specific Metropolitan Board Members and Member Agency Managers, tasked with guiding the CAMP4W process and advising the Board on related decisions.
Time Bound Target	A defined and measurable goal for a specific category of actions and investments over a specified period of time (e.g. 300 TAF of regional stormwater capture by 2045).
Thematic Actions	Collected from Board and member agency input and sorted in accordance with relevance to identified Themes, they outline specific actions Metropolitan can pursue to advance the intentions of the Themes.
Themes	A set of preferences developed during the early phases of CAMP4W to represent the values of the Board. The Themes will inform the development of the Evaluative Criteria so that the scoring of projects reflects these Themes and therefore Board preferences.
Vulnerability Assessment Recommendations	Recommendations for investments needed to harden and increase the resilience of the existing system in the face of climate change and other hazards
Weighting Factors	Factors utilized in a resource portfolio that allow for an allocation of relative value for each of the adopted project Evaluative Criteria. Higher weightings place increased emphasis of certain criteria and conversely lower weightings de-emphasize certain criteria
Working Memoranda	Documentation of the CAMP4W process that will form the basis for the Year 1 Report.

COMPREHENSIVE LIST OF CAMP4W THEMATIC ACTIONS

Theme	Thematic Action	Relates to Evaluative Criteria, Climate Decision-Making Framework, and Reporting	Relates to Business Models and Funding Strategies	Relates to Policies, Initiatives, and Partnerships
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	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Providing multi-benefits across Member Agencies.	Yes	Yes	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Increasing our water reserves.	Yes	Yes	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Serving both current and future customers.	Yes	Yes	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Maintaining water quality.	Yes	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	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Diversifying our portfolio.	Yes	No	Yes
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Establishing system interconnectivity.	Yes	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	Yes
Reliability	Recognize increased water use efficiency as a critical aspect of reliability regardless of varying climate scenarios and identify implementation methodologies.	Yes	No	Yes
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

Theme	Thematic Action	Relates to Evaluative Criteria, Climate Decision-Making Framework, and Reporting	Relates to Business Models and Funding Strategies	Relates to Policies, Initiatives, and Partnerships
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	Yes
Resilience	Identify investments and partnership opportunities that facilitate collaboration among Metropolitan and Member Agencies.	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	Yes
Resilience	Develop opportunities for integration across water supply, infrastructure, workforce, ecosystems, power supply, and other areas.	Yes	Yes	Yes
Resilience	Create a cooperative approach to ensure system flexibility during disaster response and recovery.	No	Yes	Yes
Affordability	Evaluate revenue and rate alternatives that align with an updated business model.	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
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.	Yes	Yes	Yes
Affordability	Conduct regular evaluation on affordability factors to understand the discrepancy in affordability across Member Agencies.	No	Yes	Yes
Affordability	Evaluate mechanisms to streamline processes and increase efficiencies with innovative ideas for cost-savings.	Yes	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).	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.	Yes	Yes	Yes

Theme	Thematic Action	Relates to Evaluative Criteria, Climate Decision-Making Framework, and Reporting	Relates to Business Models and Funding Strategies	Relates to Policies, Initiatives, and Partnerships
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	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.	Yes	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.	Yes	Yes	Yes
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.	Yes	Yes	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.	Yes	Yes	Yes
Financial Sustainability	Recognize the need to fund ongoing or increasing rehabilitation and repair project costs to maintain resiliency and reliability.	Yes	Yes	Yes
Financial Sustainability	Evaluate mechanisms that facilitate shared resources among Member Agencies, reduce individual agency exposure, and support Member Agencies in completing projects.	Yes	Yes	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	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.	Yes	Yes	Yes

Theme	Thematic Action	Relates to Evaluative Criteria, Climate Decision-Making Framework, and Reporting	Relates to Business Models and Funding Strategies	Relates to Policies, Initiatives, and Partnerships
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	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	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	Yes	Yes
Equity	Metropolitan will support Member Agencies' equity goals by: Exploring legislative options to prioritize state and federal investments in disadvantaged communities.	Yes	Yes	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	Yes	Yes
Overarching	Develop a path forward that prepares our region to mitigate, adapt and thrive in a changing climate.	Yes	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	Yes	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	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	Yes
Overarching	Develop a Climate Decision-Making Framework that is flexible and adaptable to varying climate scenarios and human behaviors and achieves multiple benefits.	Yes	No	Yes

Theme	Thematic Action	Relates to Evaluative Criteria, Climate Decision-Making Framework, and Reporting	Relates to Business Models and Funding Strategies	Relates to Policies, Initiatives, and Partnerships
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	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

CAMP4W THEMATIC ACTIONS MAPPED TO DRAFT EVALUATIVE CRITERIA

1. Equitable Supply Reliability

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 funding options for projects necessary to achieve the standard of reliability and resiliency afforded to the rest of 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. [Also listed under Risk Mitigation]
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.

2. Risk Mitigation

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: Increasing our water reserves.
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Serving both current and future customers. [Also listed under Environmental Impacts]
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Maintaining water quality. [Also listed under Environmental Impacts]
Reliability	Recognize increased water use efficiency as a critical aspect of reliability regardless of varying climate scenarios and identify implementation methodologies.
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	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.
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.
Financial Sustainability	Evaluate mechanisms that facilitate shared resources among Member Agencies, reduce individual agency exposure, and support Member Agencies in completing projects.
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). [Also listed under Equitable Supply Reliability]

3. Project Feasibility

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.
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.

4. Scalability

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: Diversifying our portfolio.
Overarching	Develop a Climate Decision-Making Framework that is flexible and adaptable to varying climate scenarios and human behaviors and achieves multiple benefits. [Also listed under Environmental Impacts]
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.

5. Environmental Impacts

Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Maintaining water quality. [Also listed under Risk Mitigation]
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Considering system and environmental improvements for imported water assets. [Also listed under Risk Mitigation]
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Providing multi-benefits across Member Agencies. [Also listed under Scalability]
Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Considering system and environmental improvements for imported water assets. [Also listed under Locally-Sited Project]
Equity	Metropolitan will support Member Agencies' equity goals by: Supporting Member Agencies conservation and water use efficiency programs including communication, funding, and program execution. [Also listed under Unit Cost/TAF]
Overarching	Develop a path forward that prepares our region to mitigate, adapt and thrive in a changing climate. [Also listed under High Impact]
Overarching	Develop a Climate Decision-Making Framework that is flexible and adaptable to varying climate scenarios and human behaviors and achieves multiple benefits. [Also listed under Scalability]

6. Disadvantaged Community Benefits

Resilience	Develop opportunities for integration across water supply, infrastructure, workforce, ecosystems, power supply, and other areas.
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.
Affordability	Evaluate mechanisms to streamline processes and increase efficiencies with innovative ideas for cost-savings.
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.
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).
Equity	Metropolitan will support Member Agencies’ equity goals by: Exploring legislative options to prioritize state and federal investments in disadvantaged communities.

7. Unit Cost/TAF

Affordability	Practice fiscal care and responsibility to ensure MWD’s component of the Member Agencies’ water costs are as economical as possible. [Also listed under Environmental Impacts]
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.

8. Locally Sited Project

Reliability	Develop regional and collaborative solutions that address various climate scenarios and consider: Considering system and environmental improvements for imported water assets. [Also listed under Environmental Impacts]
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9. High Impact

Overarching	Develop a path forward that prepares our region to mitigate, adapt and thrive in a changing climate. [Also listed under Environmental Impacts]
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10. Rate Impacts and Bond Financing Feasibility

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.
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.
Financial Sustainability	Recognize the need to fund ongoing or increasing rehabilitation and repair project costs to maintain resiliency and reliability.