

# The Metropolitan Water District of Southern California

# Agenda

The mission of the Metropolitan Water District of Southern California is 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.

## LTRPPBM Committee

M. Petersen, Chair  
K. Seckel, Vice Chair  
D. Alvarez  
J. D. Armstrong  
D. Erdman  
S. Faessel  
L. Fong-Sakai  
J. McMillan  
T. Quinn  
N. Sutley

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

Wednesday, July 24, 2024  
Meeting Schedule

09:30 a.m. LTRPPBM

Meeting with Board of Directors \*

**July 24, 2024**

**9:30 a.m.**

**Agendas, live streaming, meeting schedules, and other board materials are available here:**

**<https://mwdh2o.legistar.com/Calendar.aspx>. Written public comments received by 5:00 p.m. (business days) before the meeting is scheduled will be posted under the Submitted Items and Responses tab available here:**

**<https://mwdh2o.legistar.com/Legislation.aspx>.**

**If you have technical difficulties with the live streaming page, a listen-only phone line is available at 1-877-853-5257; enter meeting ID: 862 4397 5848.**

**Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via in-person or teleconference. To participate via teleconference 1-833-548-0276 and enter meeting ID: 815 2066 4276 or to join by computer [click here](#).**

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**MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012**

**Teleconference Locations:**

**3008 W. 82nd Place • Inglewood, CA 90305**

**525 Via La Selva • Redondo Beach, CA 90277**

**City Hall • 303 W. Commonwealth Avenue • Fullerton, CA 92832**

**3024 Fairview Drive • Vista, CA 92084**

**18700 Ward Street, Conf. Room 102 • Fountain Valley, CA 92708**

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\* The Metropolitan Water District's meeting of this Committee is noticed as a joint committee meeting with the Board of Directors for the purpose of compliance with the Brown Act. Members of the Board who are not assigned to this Committee may participate as members of the Board, whether or not a quorum of the Board is present. In order to preserve the function of the committee as advisory to the Board, members of the Board who are not assigned to this Committee will not vote on matters before this Committee.

**1. Opportunity for members of the public to address the committee on matters within the committee's jurisdiction (As required by Gov. Code Section 54954.3(a))**

**\*\* CONSENT CALENDAR ITEMS -- ACTION \*\***

**2. CONSENT CALENDAR OTHER ITEMS - ACTION**

- A.** Approval of the Minutes of the Subcommittee on Long-Term Regional Planning Processes and Business Modeling Meeting for April 24, 2024 and June 26, 2024 (Copies have been submitted to each Director, Any additions, corrections, or omissions) **21-3581**

**Attachments:** [07242024 LTRPPBM 2A \(04242024\) Minutes](#)  
[07242024 LTRPPBM 2A \(06262024\) Minutes](#)

**\*\* END OF CONSENT CALENDAR ITEMS\*\***

**3. SUBCOMMITTEE ITEMS - CAMP4W TASK FORCE**

- a.** Member Agency Managers Task Force Members **21-3610**

Cesar Barrera, City of Santa Ana  
 Nina Jazmadarian, Foothill Municipal Water District  
 Shivaji Deshmukh, Inland Empire Utilities Agency  
 Dave Pedersen, Las Virgenes Municipal Water District  
 Anatole Falagan, Long Beach Water Department  
 Anselmo Collins, Los Angeles Department of Water and Power  
 Harvey De La Torre, Municipal Water District of Orange County  
 Dan Denham, San Diego County Water Authority  
 Kristine McCaffrey, Calleguas Municipal Water District  
 Tom Love, Upper San Gabriel Valley Municipal Water District  
 Craig Miller, Western Municipal Water District  
 Joe Mouawad, Eastern Municipal Water District  
 Stacie Takeguchi, Pasadena Water and Power

- b.** CAMP4W Task Force- Signposts, Model Inputs, and Annual Reports **21-3611**

**Attachments:** [07242024 LTRPPBM 3b Presentation](#)

- c.** CAMP4W Task Force - Time-bound Targets Refinement **21-3612**

**Attachments:** [07242024 LTRPPBM 3c Presentation](#)

- d. Provide direction to Member Agency Managers regarding the scope of their input for the business model review [21-3700](#)

**Attachments:** [07242024 LTRPPBM 3d Guidance for Ad Hoc Working Group](#)

- e. Status of Water Treatment Cost Recovery Discussions [21-3701](#)

#### 4. FOLLOW-UP ITEMS

NONE

#### 5. FUTURE AGENDA ITEMS

#### 6. ADJOURNMENT

**NOTE:** This committee reviews items and makes a recommendation for final action to the full Board of Directors. Final action will be taken by the Board of Directors. Committee agendas may be obtained on Metropolitan's Web site <https://mwdh2o.legistar.com/Calendar.aspx>. This committee will not take any final action that is binding on the Board, even when a quorum of the Board is present.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site <https://mwdh2o.legistar.com/Calendar.aspx>.

Requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.

**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**MINUTES**

**SUBCOMMITTEE ON LONG-TERM REGIONAL PLANNING PROCESSES AND  
BUSINESS MODELING**

**April 24, 2024**

Chair Petersen called the meeting to order at 9:32 a.m.

Members present: Directors Alvarez, Armstrong, Erdman (teleconference posted location), Fong-Sakai, McMillan (entered after roll call), Petersen, Quinn (entered after roll call), and Seckel.

Members absent: Directors Faessel, Gualtieri, and Sutley.

Other Board Members present: Directors Bryant, Dennstedt, Fellow (teleconference posted location), Goldberg, Gray (teleconference posted location), Jung (teleconference posted location), Kurtz, Lefevre (teleconference posted location), Miller, Morris, Ortega, Pressman (teleconference posted location), Peterson, and Smith.

Committee Staff present: Crosson, Mortada, Quilizapa, and Salgado.

**1. OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE  
COMMITTEE ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION**

Darcy Burke, Elsinore Valley Municipal Water District, commented on item 3b.

Joone Kim-Lopez, Moulton Niguel Water District, commented on item 3b

Justin Breck, Los Angeles Waterkeeper distributed Memoranda March 8, 2024.

This item will be made part of the record.

**CONSENT CALENDAR ITEMS -- ACTION**

**2. CONSENT CALENDAR OTHER ITEMS - ACTION**

- A. Approval of the Minutes of the Subcommittee on Long-Term Regional Planning Processes and Business Modeling for March 27, 2024 (Copies have been submitted to each Director, Any additions, corrections, or omissions)

Director Fong-Sakai made a motion, seconded by Director Seckel, to approve the consent calendar consisting of item 2A.

The vote was:

Ayes: Directors Alvarez, Armstrong, Erdman, Fong-Sakai, McMillan, Petersen, Quinn, and Seckel.

Noes: None

Abstentions: None

Absent: Directors Faessel, Gualtieri, and Sutley.

The motion for Item 2A passed by a vote of 8 ayes, 0 noes, 0 abstain, and 3 absent.

**END OF CONSENT CALENDAR ITEMS**

**3. SUBCOMMITTEE ITEMS - CAMP4W TASK FORCE**

a. Subject: Member Agency Managers Task Force Members

Cesar Barrera, City of Santa Ana  
Nina Jazmadarian, Foothill Municipal Water District  
Shivaji Deshmukh, Inland Empire Utilities Agency  
Dave Pedersen, Las Virgenes Municipal Water District  
Anatole Falagan, Long Beach Water Department  
Anselmo Collins, Los Angeles Department of Water and Power  
Harvey De La Torre, Municipal Water District of Orange County  
Dan Denham, San Diego County Water Authority  
Kristine McCaffrey, Calleguas Municipal Water District  
Tom Love, Upper San Gabriel Valley Municipal Water District  
Craig Miller, Western Municipal Water District  
Joe Mouawad, Eastern Municipal Water District  
Stacie Takeguchi, Pasadena Water and Power

Presented by: No presentation was given.

Task Force Members present: Member Agency Manager Members Barrera, Collins, De La Torre, Deshmukh, Falagan, Jazmadarian, Love, McCaffrey, Miller, and Mouawad.

b. Subject: Climate Adaptation Master Plan for Water – Draft Year One  
Progress Report

Presented by: Elizabeth Crosson, Chief Sustainability, Resilience, and Innovation  
Officer

Ms. Crosson presented the committee with an overview of the Climate Adaptation Master Plan for Water Draft Year One Progress Report documents progress since February 2023 and sets up the next steps for 2024. Her presentation included the focus on next steps for 2024 laid out in Sections 4 through 6 of the Report. This is preparation for a potential concurrence action at the May Finance and Asset Management Board Committee meeting.

Ms. Crosson introduced Mr. Mohsen Mortada to present an overview of the business model refinement. His presentation included why Metropolitan’s business model should be refined, which included overall uncertainty of supply and demand, changing social landscape and regulations, technological advancements, the evolution of consumers and the utility sector, and

climate change. A list of three questions regarding the business model was presented to the Task Force by use of the Mentimeter, and Committee members and the Task Force voted.

The following Directors and Member Agency Managers asked questions and provided comments:

1. Falagan
2. De La Torre
3. Love
4. Petersen
5. Deshmukh
6. Alvarez
7. Ortega
8. Peterson
9. Seckel
10. Erdman
11. Goldberg
12. Fong-Sakai
13. Mouawad
14. Armstrong
15. Dennstedt
16. Miller
17. Jazmadarian
18. Collins
19. McCaffrey
20. Bryant

Staff responded to Directors' and Member Agency Managers comments and questions.

**4. FOLLOW-UP ITEMS**

Ms. Crosson requested comments for the Climate Adaptation Master Plan for Water – Draft Year One Progress Report be due by May 3, 2024.

**5. FUTURE AGENDA ITEMS**

None

**6. ADJOURNMENT**

The next meeting will be held on May 30, 2024.

The meeting adjourned at 11:35 a.m.

Matt Petersen

Chair

**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**MINUTES**

**SUBCOMMITTEE ON LONG-TERM REGIONAL PLANNING PROCESSES AND  
BUSINESS MODELING**

**June 26, 2024**

Chair Petersen called the meeting to order at 12:32 p.m.

Members present: Directors Alvarez, Armstrong, Erdman (entered after roll call), Faessel, McMillan, Petersen, Seckel, and Sutley (entered after roll call).

Members absent: Directors Fong-Sakai, and Quinn.

Other Board Members present: Directors Bryant, Cordero (teleconference) Dennstedt, Fellow, Goldberg, Gray (teleconference posted location) Kurtz, Lefevre, Miller (teleconference posted location), Morris, Ortega, and Smith.

Committee Staff present: Crosson, Dunbar, Mortada, Quilizapa.

- 1. OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE COMMITTEE ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION**  
Darcy Burke of Elsinore Valley Municipal Water District provided an oral statement.

**CONSENT CALENDAR ITEMS – ACTION**

- 2. CONSENT CALENDAR OTHER ITEMS – ACTION**

- A. Approval of the Minutes of the Subcommittee on Long-Term Regional Planning Processes and Business Modeling for May 30, 2024 (Copies have been submitted to each Director, Any additions, corrections, or omissions)

Director Seckel made a motion to approve item 2A, seconded by Director Faessel.

The vote was:

Ayes: Directors Alvarez, Armstrong, Faessel, McMillan, Petersen, and Seckel  
Noes: None  
Abstentions: None  
Absent: Erdman, Fong-Sakai, Quinn, and Sutley

The motion for Item 2A passed by a vote of 6 ayes, 0 noes, 0 abstentions, and 4 absent.

### **END OF CONSENT CALENDAR ITEMS**

#### **3. SUBCOMMITTEE ITEMS - CAMP4W TASK FORCE**

a. Subject: Member Agency Managers Task Force Members

Cesar Barrera, City of Santa Ana  
Nina Jazmadarian, Foothill Municipal Water District  
Shivaji Deshmukh, Inland Empire Utilities Agency  
Dave Pedersen, Las Virgenes Municipal Water District  
Anatole Falagan, Long Beach Water Department  
Anselmo Collins, Los Angeles Department of Water and Power  
Harvey De La Torre, Municipal Water District of Orange County  
Dan Denham, San Diego County Water Authority  
Kristine McCaffrey, Calleguas Municipal Water District  
Tom Love, Upper San Gabriel Valley Municipal Water District  
Craig Miller, Western Municipal Water District  
Joe Mouawad, Eastern Municipal Water District  
Stacie Takeguchi, Pasadena Water and Power

Presented by: No presentation was given.

Task Force Members present: Member Agency Manager Members Barrera, Collins, De La Torre, Denham, Deshmukh, Falagan, Jazmadarian, Love, McCaffrey, Miller, Mouawad, and Pedersen.

b. Subject: Integrating a Changing Climate into Metropolitan's Planning Processes

Presented by: John Shamma, Engineering Services Section Manager



Mr. Shamma led the discussion regarding item 3b, Integrating a Changing Climate into Metropolitan's Planning Processes.

The following Directors and Member Agency Managers asked questions and provided comments:

1. Chair Petersen
2. Vice Chair Seckel
3. Director Smith
4. Member Agency Manager Mouawad
5. Member Agency Manager De La Torre
6. Member Agency Manager Collins
7. Member Agency Manager Falagan
8. Member Agency Manager Takeguchi
9. Member Agency Manager Jazmadarian

Staff responded to Directors' and Member Agency Manager's comments and questions.

c. Subject: Climate Vulnerability Assessment

Presented by: Adrian Hightower, Special Project Manager

Mr. Hightower led the discussion regarding item 3c, Climate Vulnerability Assessment.

The following Directors and Member Agency Managers asked questions and provided comments:

1. Chair Petersen
2. Director Sutley
3. Member Agency Manager Takeguchi

Staff responded to Directors' and Member Agency Manager's comments and questions.

d. Subject: Business Model Refinement

Presented by: Mohsen Mortada, Chief of Staff

Mr. Mortada led the discussion regarding item 3d, Business Model Refinement.

The following Directors and Member Agency Managers asked questions and provided comments:

1. Member Agency Manager Miller
2. Board Chair Ortega
3. Director Smith
4. Chair Petersen

5. Member Agency Manager De La Torre
6. Member Agency Manager Collins
7. Vice Chair Seckel
8. Member Agency Manager Love
9. Director Armstrong
10. Director Sutley
11. Member Agency Manager Takeguchi
12. Member Agency Manager Mouawad
13. Director Kurtz
14. Member Agency Manager Falagan
15. Member Agency Manager Pedersen

Staff responded to Directors' and Member Agency Manager's comments and questions.

**4. FOLLOW-UP ITEMS**

None

**5. FUTURE AGENDA ITEMS**

None

The next meeting will be held on July 24, 2024.

The meeting adjourned at 3:33 p.m.

Matt Petersen

Chair



Subcommittee on Long-Term Regional Planning  
and Business Modeling

# CAMP4W Task Force- Signposts, Model Inputs, and Annual Reports

Item 3b  
July 24, 2024

# July 24 CAMP4W Task Force

## Agenda

- 1) Adaptive Management Process and Component
  - CAMP4W Annual Report Components
  - Signposts
  - Time-Bound Targets
- 2) Provide direction to Member Agency Managers regarding the scope of their input for the business model review
- 3) Status of Water Treatment cost recovery discussions

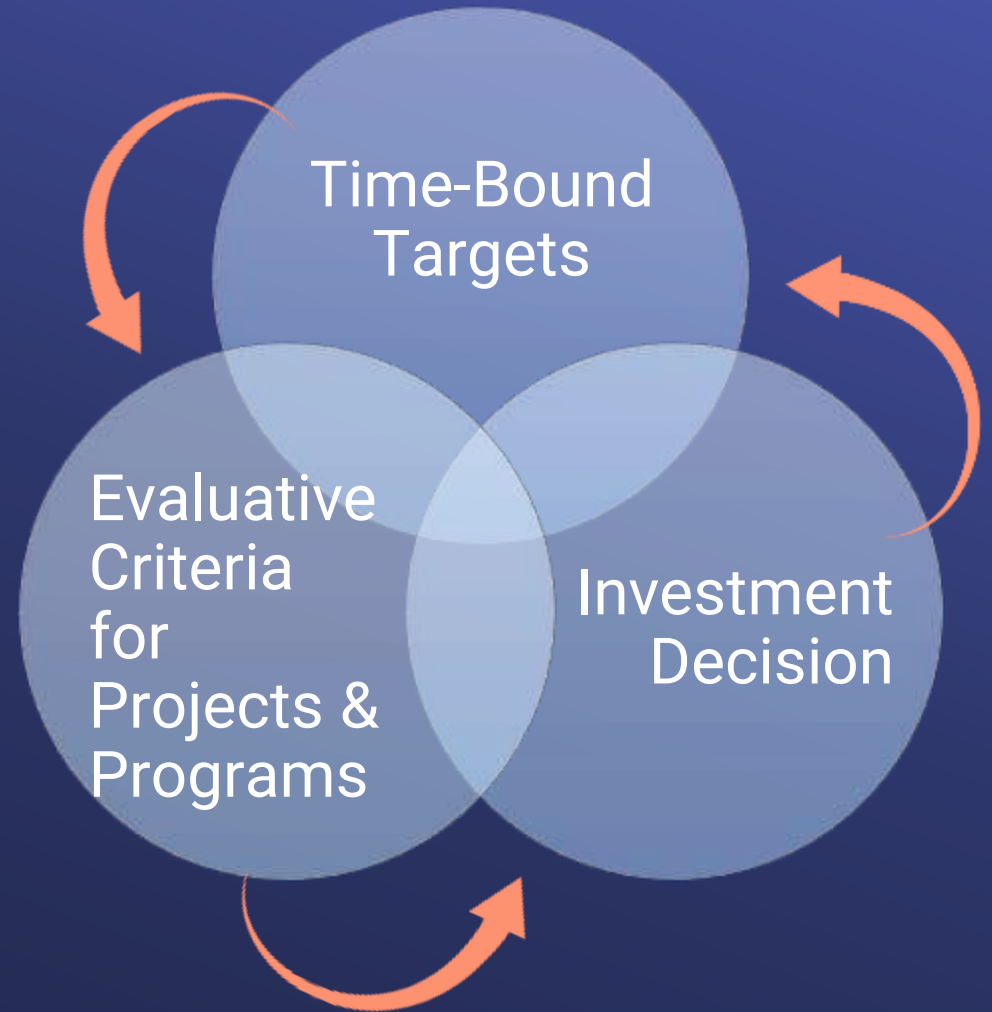


# 2024 Schedule of CAMP4W and Business Model Discussions



Adaptive management is a structured and ongoing process that:

- 1) Promotes flexible decision-making
- 2) Tracks real-world climate impacts and trends that impact water supplies and demands
- 3) Ensures inclusion of up-to-date information
- 4) Facilitates adjustments to planning assumptions and targets
- 5) Enables an iterative and informed climate adaptation plan



Climate Adaptation  
Master Plan for Water

# Climate Decision- Making Framework

Annual Report Outline

Metropolitan staff will prepare a CAMP4W Annual Report and hold a CAMP4W Annual Workshop to provide the Board with the tools it needs to understand the impacts of past decisions and to make informed decisions going forward.

*-CAMP4W Year One Progress Report*



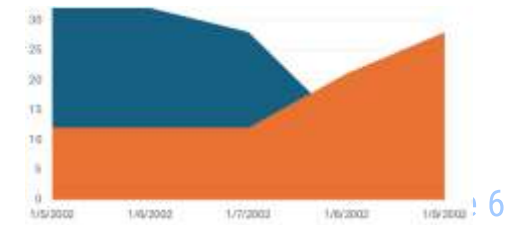
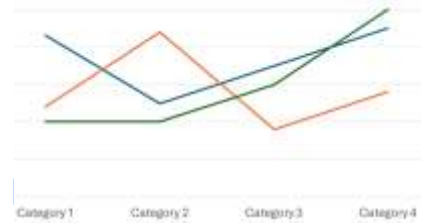
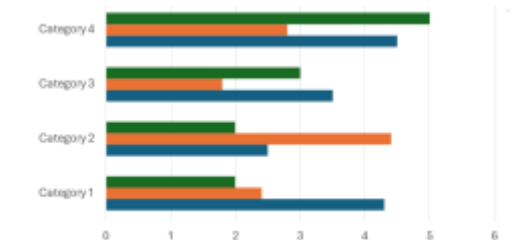
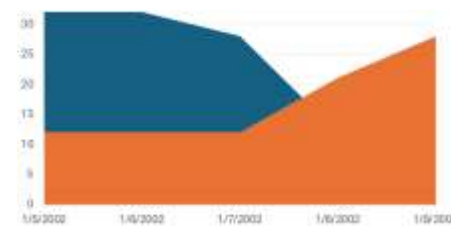
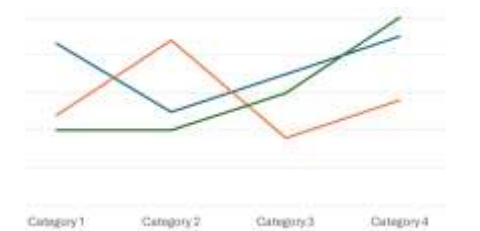
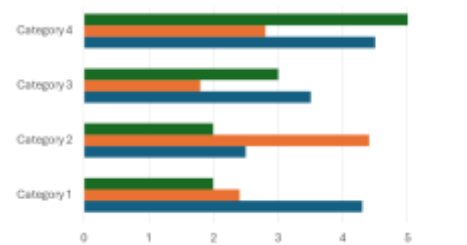
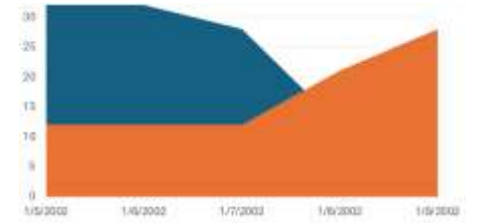
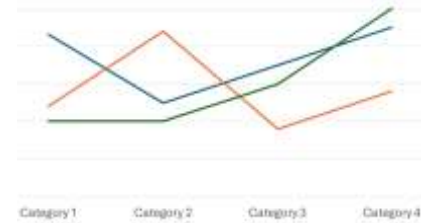


# CAMP4W Annual Report

## Status Update: Signposts

<i>Demand Signposts</i>	Metric 1	Metric 2	Metric 3
Signpost A	XX	XX	XX
Signpost B	XX	XX	XX
Signpost C	XX	XX	XX
<i>Supply Signposts</i>			
Signpost A	XX	XX	XX
Signpost B	XX	XX	XX
Signpost C	XX	XX	XX
<i>Infrastructure Signposts</i>			
Signpost A	XX	XX	XX
Signpost B	XX	XX	XX
Signpost C	XX	XX	XX
<i>Financial Signposts</i>			
Signpost A	XX	XX	XX
Signpost B	XX	XX	XX
Signpost C	XX	XX	XX

## Tracking of Trends Over Long-Term

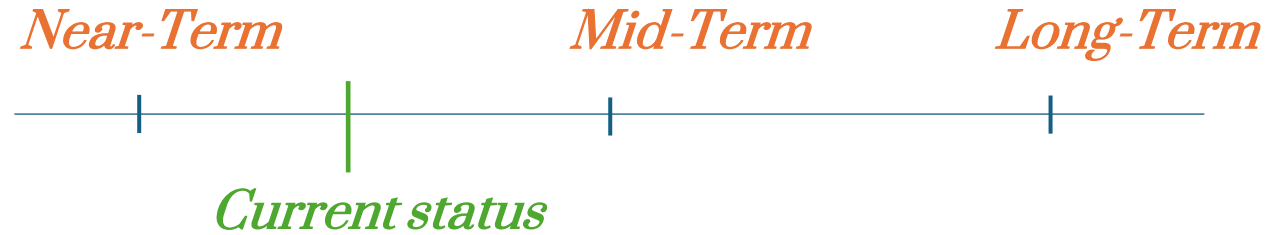




## Status Update: Time-Bound Targets

### *Resource-Based Time-Bound Targets*

Progress Toward Targets



Observations based on Signposts

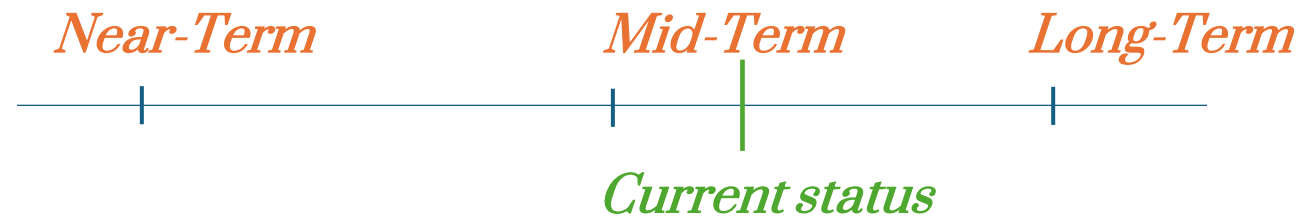
**Narrative** detailing how trends may later impact current Time-Bound Target.

Recommendations

**Narrative** How far from the next IRP update are we? What we should be watching for?

### *Policy-Based Time-Bound Targets*

Progress Toward Targets



Observations based on Signposts

**Narrative** detailing how trends may later impact current Time-Bound Target.

Recommendations

**Narrative** What we should be watching for? Any Updates?

## Status Update: Projects and Programs

### *Projects and Programs In progress*

Project/Program 1, 2, 3 etc.

- **CAMP4W Eval for current phase**
- **Implementation Stage:** (concept, planning, design, implementation)
- **Progress:** 1-2 sentence update
- **Major modification:** Major changes since funded

### *Potential Projects and Programs being Considered During Next CIP/Budget Deliberations*

Project/Program 1, 2, 3 etc.

- **Potential CAMP4W Eval**
- **Implementation Stage:** (concept, planning, design, implementation)
- **Progress:** 1-2 sentence update
- **Major modification:** Major changes since funded

## Map of Project Location(s)

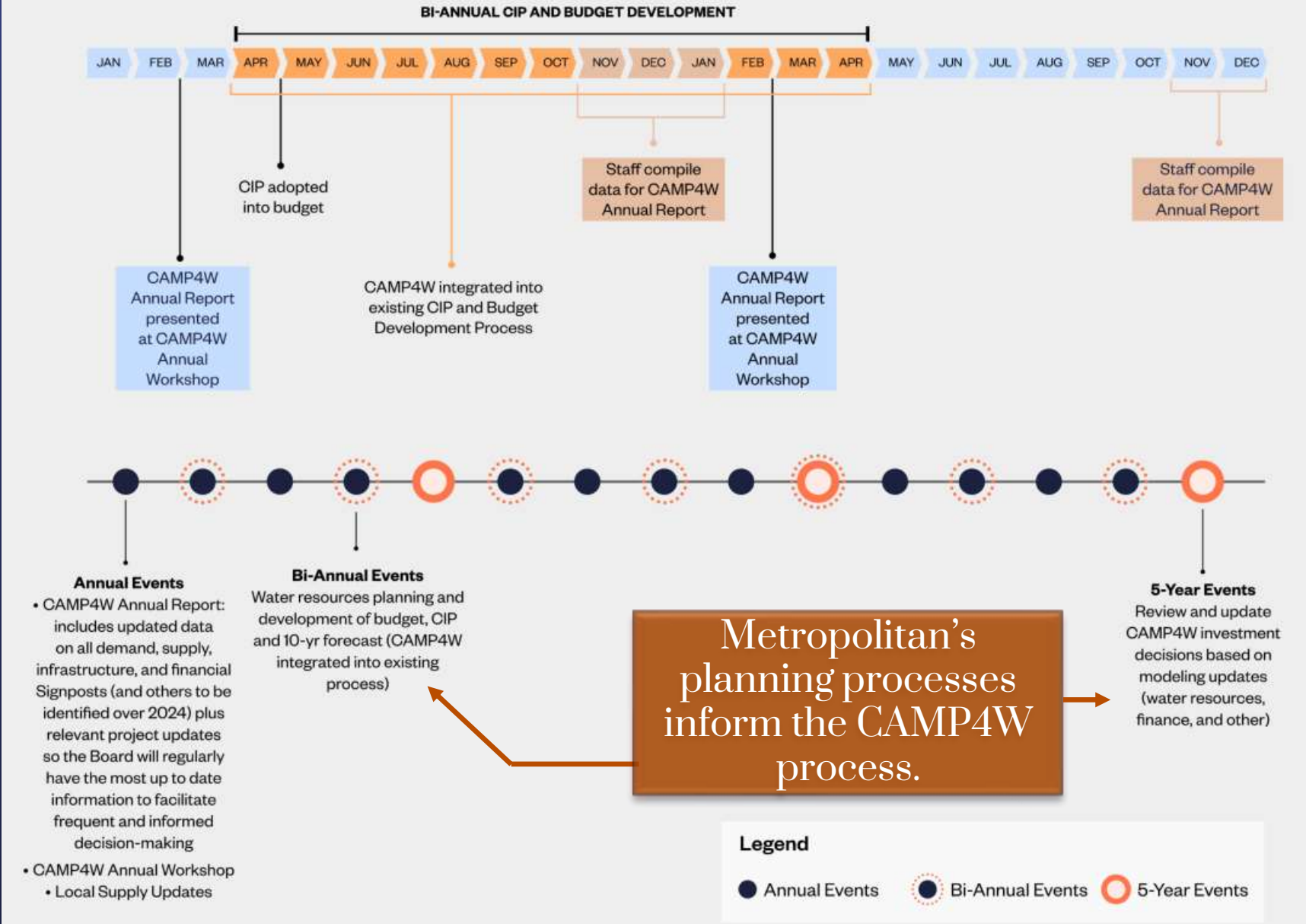


# CAMP4W Reporting Schedule

Institutionalizing Adaptive Management



## Integrating CAMP4W into Metropolitan's Existing Processes



Climate Adaptation  
Master Plan for Water

# Climate Decision- Making Framework

*Signposts Discussion*

# Signposts



Climate Adaptation  
Master Plan for Water

Climate  
Decision-  
Making  
Framework

Signposts  
Discussion

Source: CAMP4W Year  
One Progress Report

# Signposts

A key part of the Adaptive Management process involves reading the Signposts to understand the real-world conditions and determine if the Time-Bound Targets need to be revised, which would in turn impact investments. The complete CAMP4W will include a comprehensive and detailed list of Signposts that Metropolitan will be tracking. Below is a summary of the initial categories, which will be expanded upon over the coming year.

## Proposed Signposts Metrics Examples

*Signposts should be measurable, updatable, and readily available*

DEMAND	SUPPLY	INFRASTRUCTURE	FINANCIAL
Population	Climate Change Indicators	Unexpected Shutdowns	O&M Trends
Economy	Regulations	Infrastructure Loss	Capital Cost Trends
Local Agency Supply	Storage	Emergency Response	Emergency Response Costs
Demand Management	Water Quality	Power Interruptions	
Regulations		Connectivity and Robustness	
		Infrastructure Capability	



# Climate Decision- Making Framework

*The Value of Scenario  
Planning is to  
Increase Awareness  
of and Preparedness  
for Climate Change*

## 2020 IRP Needs Assessment accomplished the following:

- Identified major drivers or sources of uncertainty
- Quantified the impacts of these uncertainties

## The IRP Scenarios are not intended to:

- Control, select, or predict the likelihood of the uncertainties
- Predict the future

# Climate Decision- Making Framework

## Glossary

- **Drivers of Change** - Specific factors whose future values and outcomes are uncertain but significantly impact future water supply reliability
- **Scenario** - A singular view of the future under specified assumptions and outcomes
- **Supply/Demand Gap** - An analysis performed for each scenario to determine the frequency and timing of net shortage conditions
- **Time-Bound Targets** - Development goals to address future reliability needs as identified by the scenario supply/demand gaps
- **Signposts** - Measurable indicators of the direction and trends of identified Drivers of Change through time

## In the context of long-term planning:

- **Factual:** Signposts are based on objective and verifiable data, not subjective opinions
- **Measurable:** Signposts are quantifiable ensuring they can be tracked over time
- **Available:** The data required to monitor must be accessible and can be regularly updated
- **Non-Discretionary:** Signposts are chosen based on predetermined criteria and are not subject to change based on individual preferences or ad hoc decisions



# Climate Decision- Making Framework

*A Disciplined  
Approach for  
Identifying &  
Interpreting  
Reliability  
Signposts*

1. Metropolitan staff developed criteria to test the appropriateness of using proposed signposts
2. Acknowledgement that signposts may not eliminate uncertainty, but using them allows for more structured and evidence-based decision-making
3. Trends take time to observe, they require statistical analysis, contextual understanding, and iterative review

# A Disciplined Approach for Identifying and Interpreting Reliability Signposts (Cont'd)



What can we infer from this chart?

# A Disciplined Approach for Identifying and Interpreting Reliability Signposts (Cont'd)



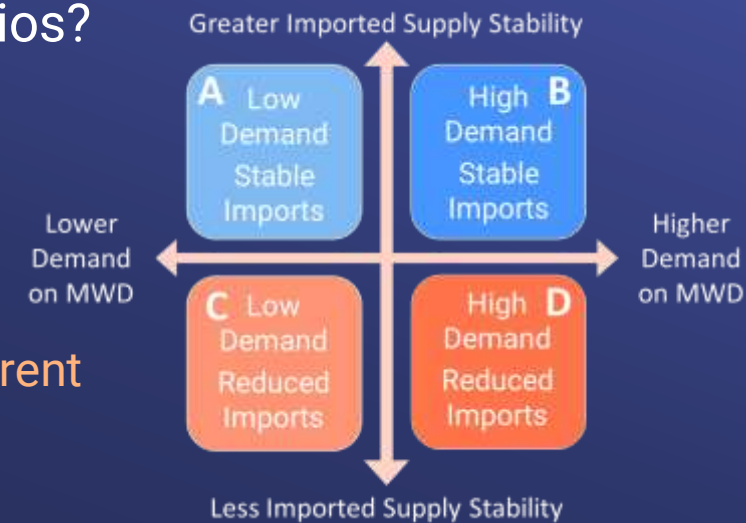
Source: <https://www.macrotrends.net/1319/dow-jones-100-year-historical-chart>

# Climate Decision- Making Framework

*A Disciplined  
Approach for  
Identifying &  
Interpreting  
Reliability Signposts  
(cont'd)*

4. Signposts should not trigger actions. Actions are triggered by Board policy decisions based on relevant information
5. Recognition that, although signposts are based on facts and observed data, data can still be subject to revision
6. Avoid falling into the trap of Recency Bias that can lead to distorted decision-making as we might believe current events will persist indefinitely, neglecting the possibility of change or long-term patterns

- Planning provides the necessary foresight and strategic framework, while implementation puts those strategies into action
  - Planning informs development and implementation
  - Implementation should not limit foresight and strategic thinking
  - IRP scenarios and signposts offer a disciplined approach to planning
- What prompts an update to the IRP Scenarios?
  - A structural or systemic change in the underlying uncertainties
  - New data or insights indicating that the cause-and-effect relationships made for underlying drivers of change are different than originally assumed
  - When things become more certain
- During Implementation, continuous signpost tracking adds to overall awareness
- IRP updates are expected roughly every 5 years



# Climate Decision- Making Framework

*Key Questions  
When Selecting  
Water Supply  
Reliability  
Signposts*

1. Is it measurable?
2. Does it matter to supply/demand?
3. Is the impact of the signpost persistent and not transitory (i.e., systemic)?
4. How does it help us with information and support for implementation decisions?



# Water Supply Reliability Signpost Evolution

## Year 1 Report

Population

Climate Change

Local Supply

Storage

Regulations

Water Quality

Demand Management

Economy

## Track as Signposts

Demographics

- Population, Housing, Jobs

Climate Change

Local Supply

- Water Quality

Storage (MWD)

- Water Quality

Regulations

- Water Quality

## Not Signposts

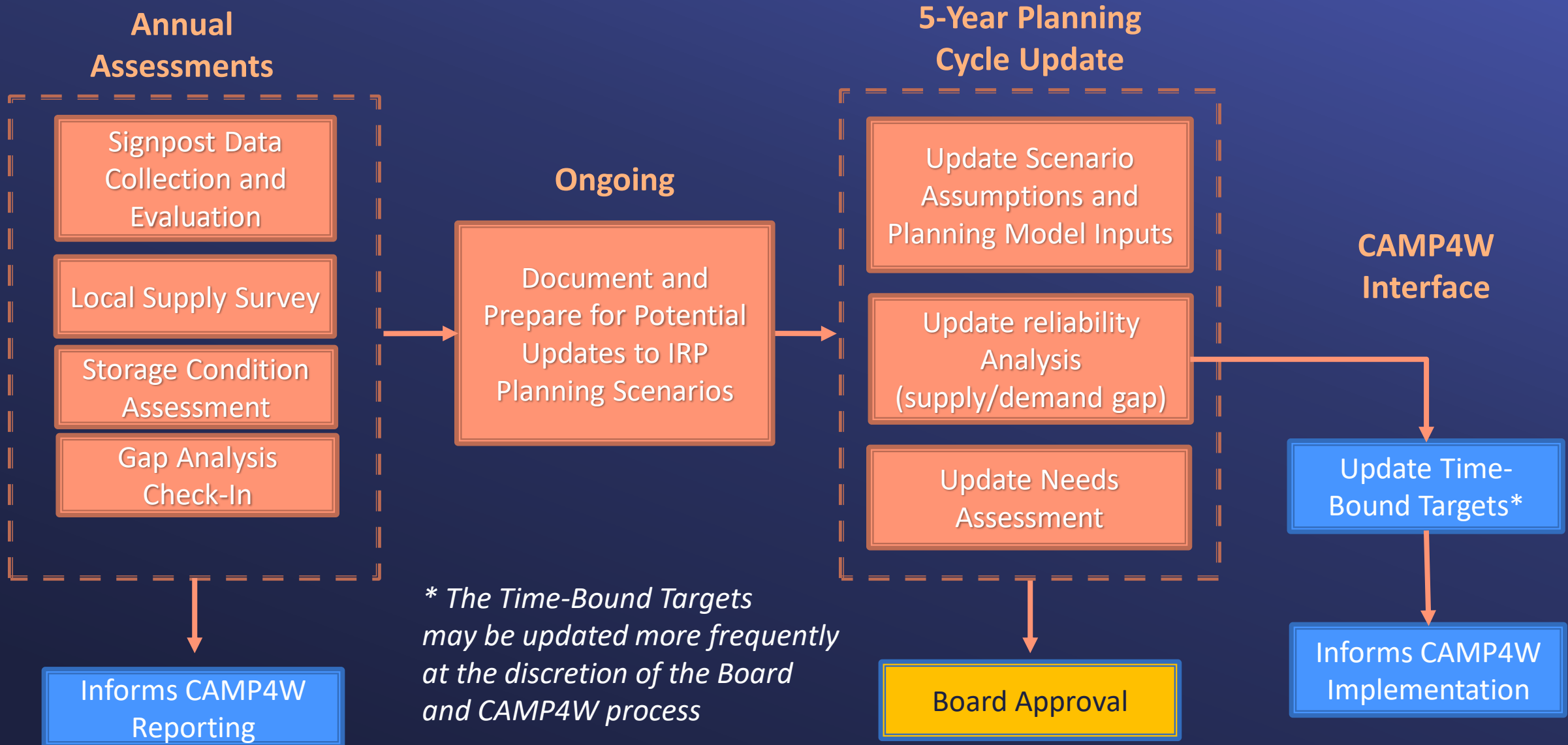
Demand Management

- Discretionary actions taken by the Board
- Effectiveness of implementation is uncertain
- Reported monthly at OWS Committee Meetings

Economy

- Cyclical in nature
- Influenced by signposts being tracked under Demographics

# Metropolitan's Long-Term Strategic Planning Cycle





Climate Adaptation  
Master Plan for Water

# Climate Decision- Making Framework

*Reliability Signposts  
Discussion*

## Reliability Signpost Details



# Demographic Signpost

## Data and Sources

- Population and Household
  - Department of Finance, Census
- Employment
  - CA Employment Development Department

## Importance

- Key inputs in modeling retail demand
- Systemic changes can affect demand/supply gaps (e.g. low birthrate and migration)

## Limitations

- Annual data are estimates by governmental agencies and are subject to revision
- Signs of systemic change can take a long time (Census)

# Local Agency Supply Signpost

## Data and Sources

- Member agency coordination/ Local Supply Survey
- Groundwater basin reports

## Importance

- Key inputs in modeling Metropolitan's demand
- Systemic changes can affect demand/supply gaps (e.g. impaired groundwater basins)

## Limitations

- Local Supply is also dependent on weather variation
- Data is not available in real-time (year plus delay)
- Data is provisional and subject to reconciliation and revisions

# Regulation Signpost

## Data and Sources

- DWR's Delivery Capability Report (CALSIM III)
- SWP BiOps
- USBR 24-Month Study Reporting (CRSS)
- CRA Post-2026 Operating Guidelines
- CRA Constituents of Concerns

## Importance

- Regulations may have significant impacts on Metropolitan's core supplies and demands
- Regulatory parameters are reflected in Metropolitan's modeling

## Limitations

- Implementation and effectiveness of regulations may be uncertain
- May be subject to legal challenges and negotiations

# Metropolitan Storage Signpost

## Data and Sources

- Metropolitan's storage accounting
  - Put/take capacity
  - Accessible storage by region
  - End-of-year storage balances

## Importance

- Stored water is a core supply needed to balance demand and supply.

## Limitations

- Storage balances can fluctuate from year-to-year

# Climate Change Signpost

## Data and Sources

- GHG emission
  - Annual California Hydroclimate Report
  - Intergovernmental Panel on Climate Change National Oceanic and Atmospheric Administration
- CALSIM III (DWR's modeling tool)
- CRSS (USBR's modeling tool)

## Importance

- Emission trends are an indicator of how climate change risk is developing
- RCPs are reflected in MWDs modeling
  - CALSIM III includes RCP modeling
  - Estimated climate impacts associated with RCPs are applied to the CRSS inputs

## Limitations

- Difficulty in downscaling impacts to local areas
- The impacts of climate change take years to be established
- Climate models incorporate the latest thinking, but climate science continues to evolve

## Next Steps

- Refine the identified Water Supply Reliability Signposts
- Identify potential additional Water Supply Reliability Signposts
- Come back with an update on the Infrastructure and Financial Signposts in a future CAMP4W Task Force meeting









Subcommittee on Long-Term Regional Planning  
and Business Modeling

# CAMP4W Task Force – Time-Bound Targets Refinement

Item 3c  
July 24, 2024

*Time-Bound Targets are policy and resource management goals to **guide project and program development** and **inform the scoring/evaluation of proposed investments.***



*Time-Bound Targets will be reference points in **measuring progress towards climate adaptation** and the **CAMP4W objectives.***

## Climate Adaptation Master Plan for Water

# Climate Decision- Making Framework

## Time-Bound Targets in CAMP4W Year One Report



 <b>Resource-Based Targets</b> Numbers reflect additional supplies unless indicated otherwise	CATEGORY	NEAR TERM	MID TERM	LONG TERM
	Core Supply <sup>1</sup>	N/A	Identify 300 TAF for potential implementation by 2035.  Alternatively, 250 TAF of new storage will reduce core supply need to 200 TAF	Identify 650 TAF for potential implementation by 2045. Alternatively, 250 TAF of new storage will reduce core supply need to 550 TAF or, 500 TAF of new storage will reduce core supply need to 500 TAF
	Storage	Identify up to 500 TAF for potential implementation by 2035		
	Flex Supply (Dry Year Equivalent)	Acquire capability for up to 100 TAFY		
 <b>Policy-Based Targets</b>	CATEGORY	NEAR TERM	MID TERM	LONG TERM
	Equitable Supply Reliability	Add 160 CFS capacity to the SWPDA by 2026	Implement additional 130 CFS capacity to SWPDA by 2032	Implement capacity, conveyance, supply, and programs for SWPDA by 2045
	Local Agency Supply <sup>2</sup>	Maintain 2.09 to 2.32 MAF (under average year conditions)	2.12 to 2.37 MAF (under average year conditions)	2.14 to 2.40 MAF (under average year conditions)
	Demand Management <sup>3</sup>	Implement structural conservation programs to achieve 300 TAF by 2045		
	Regional Water Use Efficiency	Assist Retail Agencies to achieve, or exceed, compliance with SWRCB Water Use Efficiency Standards <sup>4</sup>		
		GPCD target for 2030 <sup>5</sup>	GPCD target for 2035	GPCD target for 2045
	Greenhouse Gas Reduction	N/A	40% below 1990 emission levels by 2030	Carbon Neutral by 2045
Surplus Water Management	Develop capability to manage up to 500 TAFY of additional wet year surplus above Metropolitan's Storage Portfolio and WSDM action			

Climate Adaptation  
Master Plan for Water

# Climate Decision- Making Framework

*Time-Bound Targets in  
CAMP4W Year One Report*



**Additional Time-Bound Targets will be considered throughout 2024 and will include categories such as the following:**

**Community Equity:** Focus on investing in underserved communities, affordability measures and providing meaningful community engagement.

**Water Quality:** Ensuring research, innovation, and progress in addressing emerging contaminants of concern and new regulatory requirements.

**Imported Water Source Resilience:** Investment in protecting source watersheds and existing infrastructure to reduce risks presented by accelerated climate change.

**New Local Supply:** Targets around local and Member Agency supply and/or program development.

**Infrastructure Resilience:** Investments necessary to meet growing climate-driven vulnerabilities during and after disruptions.

**Ecosystem Health:** Measurable improvements to natural systems that provide value, resilience and regulatory benefits to water supplies.

## Draft Time-Bound Targets for three additional categories are presented for discussion today.

Climate Adaptation  
Master Plan for Water

# Climate Decision- Making Framework

*Time-Bound Targets in  
CAMP4W Year One Report*



**Additional Time-Bound Targets will be considered throughout 2024 and will include categories such as the following:**

**Community Equity:** Focus on investing in underserved communities, affordability measures and providing meaningful community engagement.

**Water Quality:** Ensuring research, innovation, and progress in addressing emerging contaminants of concern and new regulatory requirements.

**Imported Water Source Resilience:** Investment in protecting source watersheds and existing infrastructure to reduce risks presented by accelerated climate change.

**New Local Supply:** Targets around local and Member Agency supply and/or program development.

**Infrastructure Resilience:** Investments necessary to meet growing climate-driven vulnerabilities during and after disruptions.


**Ecosystem Health:** Measurable improvements to natural systems that provide value, resilience and regulatory benefits to water supplies.

**Three other potential targets require further development and future discussion.**



## New Local Supply

Targets around local and Member Agency supply and/or program development.

 <b>Policy-Based Targets</b>	CATEGORY	NEAR TERM	MID TERM	LONG TERM
	Equitable Supply Reliability	Add 160 CFS capacity to the SWPDA by 2026	Implement additional 130 CFS capacity to SWPDA by 2032	Implement capacity, conveyance, supply, and programs for SWPDA by 2045
	Local Agency Supply <sup>2</sup>	Maintain 2.09 to 2.32 MAF (under average year conditions)	2.12 to 2.37 MAF (under average year conditions)	2.14 to 2.40 MAF (under average year conditions)
	Demand Management <sup>3</sup>	Implement structural conservation programs to achieve 300 TAF by 2045		
	Regional Water Use Efficiency	Assist Retail Agencies to achieve, or exceed, compliance with SWRCB Water Use Efficiency Standards <sup>4</sup>		
		GPCD target for 2030 <sup>5</sup>	GPCD target for 2035	GPCD target for 2045
	Greenhouse Gas Reduction	N/A	40% below 1990 emission levels by 2030	Carbon Neutral by 2045
	Surplus Water Management	Develop capability to manage up to 500 TAFY of additional wet year surplus above Metropolitan's Storage Portfolio and WSDM action		

## Local Agency Supply

- Maintain Existing Levels of Local Agency Supply
- Create Additional Local Agency Supply

Climate Adaptation  
Master Plan for Water

# Climate Decision- Making Framework

*Time-Bound Targets:  
Community Equity*



## Community Equity

Focus on investing in underserved communities, affordability measures and providing meaningful community engagement to address the impacts of climate change.

NEAR TERM	MID TERM	LONG TERM
Develop and promote water conservation programs, rebates, and incentives for low-income and disadvantaged communities (DAC), to increase program participation and regional water conservation.		
Work with legislative sponsors for continuous state and federal funding for low-income rate assistance programs (LIRA).	Develop equity metrics and conduct community equity analyses on Metropolitan infrastructure investments, operations, and programs.	
	Develop a Water Affordability & Environmental Justice Policy to inform community investment associated with Metropolitan projects and programs.	

Climate Adaptation  
Master Plan for Water

# Climate Decision- Making Framework

*Time-Bound Targets:  
Community Equity*



## Community Equity

Focus on investing in underserved communities, affordability measures, and providing meaningful impact

NEAR TERM	MID TERM
Develop and promote water conservation, low-income and disadvantaged participation and regional water	
Work with legislative sponsors for continuous state and federal funding for low-income rate assistance programs (LIRA).	Develop analysis and operational
	Develop Policy to inform community investment associated with Metropolitan projects and programs.

- Tracking community equity supports program evaluation, performance improvements, and state and federal grant opportunities.
- Supporting retail customer affordability ensures financial sustainability for all water agencies to make necessary water project and program investments.
- Measuring equity will help us improve access to public water systems, and broaden public support for our water investments.



# Water Quality

Ensuring research, innovation, and progress in addressing emerging contaminants of concern and new regulatory requirements.

NEAR TERM	MID TERM	LONG TERM
Develop research, mitigation, response plans and management tools to address highest priority climate-induced water quality impacts such as: <ul style="list-style-type: none"><li>• Increased Salinity</li><li>• Elevated Turbidity and Pollutant Concentrations</li><li>• Increased Nutrient Pollution</li><li>• More Frequent Reservoir Anoxia</li><li>• Increased Chlorine Demand and Microbial Activity</li></ul>		
Update nitrification action plan and response indicators by end of 2025	Implement new tools and infrastructure modifications to minimize climate impacts on water quality	

Climate Adaptation  
Master Plan for Water

## Climate Decision- Making Framework

*Time-Bound Targets: Water  
Quality*



# Climate Decision- Making Framework

*Time-Bound Targets:  
Imported Water Source  
Resilience*

## Imported Water Source Resilience

Investment in protecting source watersheds and existing infrastructure to reduce risks presented by accelerated climate change.

NEAR TERM	MID TERM	LONG TERM
Participate in pilot projects to assess watershed resilience strategies and their benefits to protecting water supply	Develop and implement a program for supporting the protection of source watersheds from climate change-driven risks to water supply.	



GUIDANCE FOR BUSINESS MODEL REVIEW AND REFINEMENT  
AD HOC WORKING GROUP

TO: GENERAL MANAGERS, Metropolitan Member Agencies

FR: ADAN ORTEGA, Board Chair  
GAIL GOLDBERG, Board Vice Chair for Finance and Planning  
MATT PETERSEN, CAMP4W Task Force Chair

DA: July 22, 2024

**Background and Composition**

As part of the Climate Adaptation Master Plan for Water (CAMP4W) Task Force, a business model review and refinement process has begun. The Task Force is working to create a Master Plan for consideration by the MWD Board that considers the impacts of climate change upon water supply and the operations of MWD. As stated in the CAMP4W charter, this necessitates a review and refinement of the MWD Business Model. Therefore, the Task Force is commissioning an ad hoc working group comprised of the general managers of Metropolitan's 26 Member Agencies that will be managed and supported by MWD staff as well as include the MWD Board Chair, Board Vice Chair, Task Force Chair, Task Force Vice Chair and MWD General Manager as ex officio members to participate as needed and available.

**Outcomes, Purpose, and Process**

Given the expertise of Metropolitan's Member Agency Managers and their direct experience running the day-to-day operations and finances of their respective agencies, their input into the Business Model review process is essential. While the Task Force is asking for proposals related to specific issues now, there will be opportunities for discussing additional topics later in the process.

Specifically, the Task Force requests a series of "straw person" proposals—at least two and no more than five—for Task Force consideration. Each of these proposals should be grounded in the need to (1) stabilize Metropolitan revenues and (2) embed flexibility and capacity to adapt to climate change and to address the factors noted below of opportunity for Business Model refinement. The final proposals shall be reached by consensus of the working group. If consensus for at least two proposals cannot be reached, the ex officio members will determine which proposals will be presented to the Task Force.

A short progress report will be provided on the work of the ad hoc working group at each monthly Task Force meeting. By November 13, 2024, the final two to five proposals shall be finalized and transmitted to the Task Force for discussion.

To inform the first Business Model Review ad hoc working group meeting in August 2024, MWD staff will produce Business Model Working Memo #1 for review and discussion. The memo will include a description of Metropolitan's current business model along with a draft problem statement. Staff will continue to track progress and memorialize discussions as needed.

**Factors for Consideration in Final Proposals**

In the final two to five "straw person" proposals, the working group shall ensure the following factors and opportunities are considered and reflected:

- 1) Treated Water Cost Recovery (workshops already underway)
- 2) Metropolitan's role in Member Agency local supply development
- 3) Potential Member Agency supply exchange program
- 4) Proportion and components of fixed and volumetric charges
- 5) Conservation program and funding source(s)