



One Water & Adaptation Committee

Introduction to CAMP4W Assessments and Initial Assessment of Pure Water

July 7, 2025

Item 6e

Item 6e CAMP4W Assessment

Subject

Climate Adaptation Master Plan (CAMP4W)
assessments

Purpose

Introduce the CAMP4W assessment phase
and provide preliminary results for Pure
Water Southern California

Special Note

- Information is current as of June 25, 2025
- Information included in this presentation is subject to change and will change
- Discussing only one project today, but others and their portfolios will be provided in upcoming months
- Each project will be presented to the Board according to the project timelines

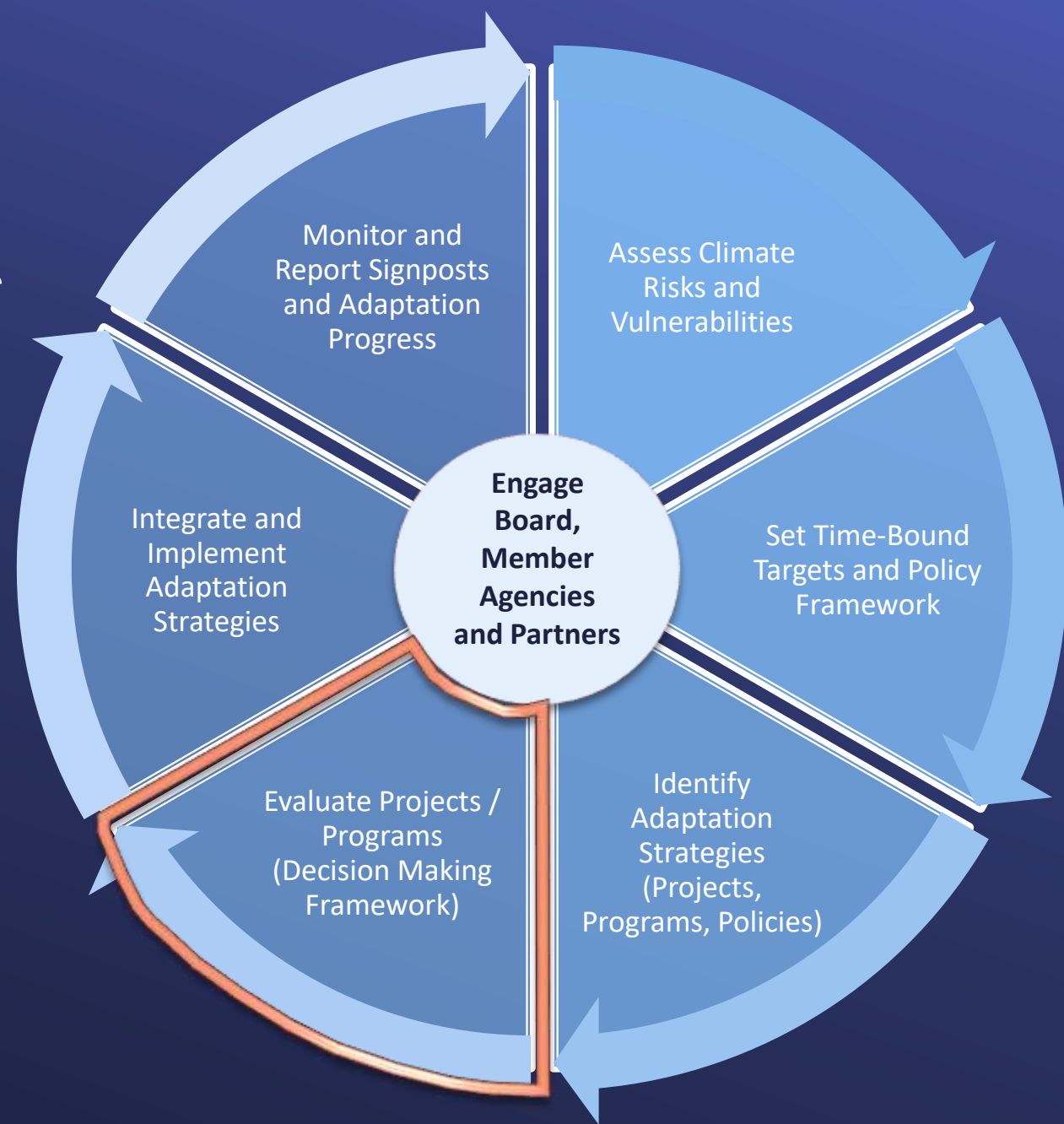
Climate Adaptation Master Plan for Water

An Iterative and Adaptive Process

CAMP4W integrates

- water resources planning
- infrastructure development
- climate adaptation
- finance planning

into one interconnected and iterative process.



Purpose

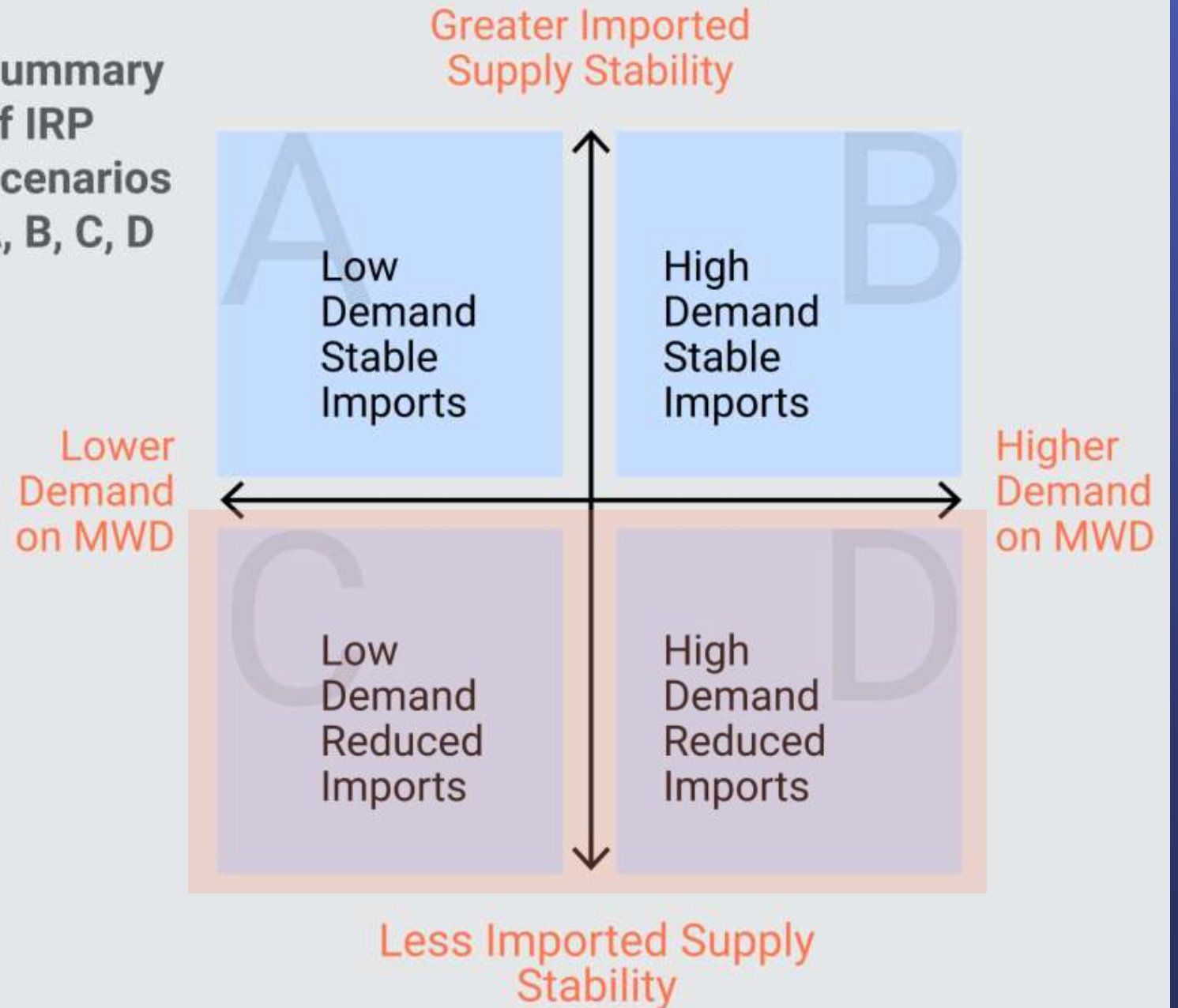
- Orient to new oversight committee
- Prepare the Board for project decision-making
- Provide a consistent assessment of projects through a lens of water resources, financial planning, and climate adaptation
- Receive feedback

Assess climate risks and vulnerabilities



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Summary of IRP Scenarios A, B, C, D



Set Time-Bound Targets and Policy Goals



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CATEGORY	NEAR TERM	MID TERM	LONG TERM
 Core Supply ¹	N/A	Identify 300 TAF for potential implementation	Identify 650 TAF for potential implementation by 2045.
 Storage	Identify up to 500 TAF for potential implementation by 2035		
 Flex Supply (Dry Year Equivalent)	Acquire capability for up to 100 TAFY		

Long-term: 500 TAF of new core supply
500 TAF of new storage
100 TAF of dry-year flexible supply

Set Time-Bound Targets and Policy Goals



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CATEGORY	NEAR TERM	MID TERM	LONG TERM
 Equitable Supply Reliability	Add 160 CFS capacity to the SWPDA by 2027	Implement additional 130 CFS capacity to SWPDA by 2032	Implement capacity, conveyance, supply, and programs for SWPDA by 2045
 Local Agency Supply ¹	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 ²	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 ³		
	GPCD target for 2030 ⁴	GPCD target for 2035	GPCD target for 2045
 Greenhouse Gas Reduction	N/A	40% below 1990 emission levels by 2030	Carbon Neutral by 2045

Identify Adaptation Strategies (Projects & Programs)

Projects	Studies	Programs, Policies, Initiatives
<p>AVEK Phase II</p> <p><u>Delta Conveyance Project</u></p> <p><u>Sites Reservoir</u></p> <p>Webb Tract Restoration</p> <p><u>Pure Water Southern California</u></p> <p>Battery Energy Storage Systems</p> <p>Sepulveda Feeder Stage 2</p> <p>DVL Pumped Storage w/ Existing</p>	<p>Forest Watershed Restoration Pilot</p> <p>Surface Water Storage Study</p> <p>System Overview Study</p> <p>System Flexibility Study</p> <p>Energy Sustainability Plan Update</p> <p>Regional E-W Conveyance Study</p> <p>DVL Pumped Storage Expansion Study</p> <p>Brackish GW Desal Study</p> <p>Seawater Desal Study</p> <p>CRA Transmission Strategic Plan</p>	<p>Resilient Infrastructure Guidelines</p> <p>Local Resources Program Review</p> <p>Member Agency Exchange Program</p> <p>Fire Management Planning</p> <p>Landscape Guidelines</p> <p>Affordability Policy</p> <p>Climate Vulnerability Assessments</p> <p>Community Engagement Standards</p> <p><u>Turf Replacement Programs</u></p> <p>Leak Detection Subsidies Program</p>

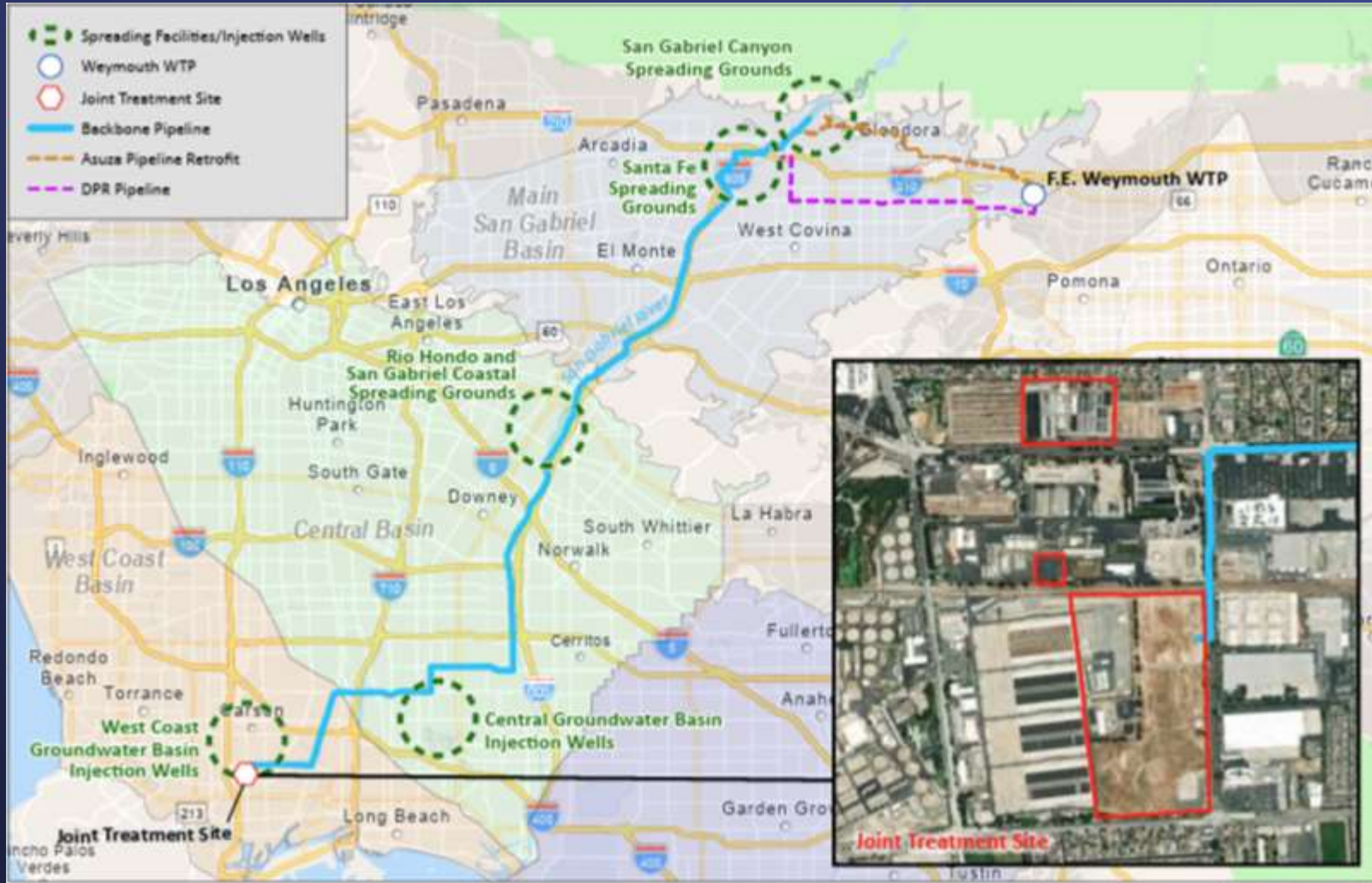


CAMP4W Assessment Team

Assessment Team Formed from Across the Organization

- **Reliability** (Water Resource Management)
- **Resilience** (Engineering Services)
- **Financial Sustainability & Affordability** (Finance & Administration)
- **Adaptability & Flexibility** (Integrated Operations Planning & Support Services)
- **Equity** (Diversity, Equity, & Inclusion; External Affairs)
- **Environmental Co-Benefits** (Sustainability, Resilience, & Innovation)

Pure Water Southern California – Preliminary Assessment



- 150-mgd Program
 - Phase 1: 115 mgd by 2035
 - Phase 2: +35 mgd by 2040
- Facilities:
 - Advanced Water Purification Facility
 - 39-mile Backbone Pipeline
 - Direct Potable Reuse Pipelines
 - Pump Stations
 - Service Connections
 - Recharge Facilities

Final assessment in November will reflect updated program cost & schedule information

Evaluative Criteria

Each **project** or **program** would be considered through a robust narrative description of how project attributes achieve each objective

- Descriptions could include:
- ✓ Quantitative metrics
 - ✓ Qualitative information
 - ✓ Gaps in information available

Evaluative Criteria				
Reliability				
Resilience				
Financial Sustainability & Affordability				
Adaptability & Flexibility				
Equity				
Environmental Co-benefits				
Exceptional				
Significant				
Moderate				
Limited				
Very Limited				

*Preliminary assessment not rated; Ratings will be provided in the final assessment in November



Evaluative Criteria - Reliability

Reliability

- Preliminary modeling indicates that Pure Water improves regional water supply reliability by reducing the probability and magnitude of projected future shortages through 2045 in both Scenarios C and D

Scenario C			Scenario D		
Probability of Shortage			Probability of Shortage		
Forecast Year	Base	Pure	Forecast Year	Base	Pure
2030	1%	1%	2030	4%	4%
2035	3%	0%	2035	10%	8%
2040	5%	0%	2040	38%	31%
2045	8%	2%	2045	69%	54%



Results as of Jun. 25 and subject to change

Evaluative Criteria - Reliability

Reliability (cont.)

- Pure Water would help regularly replenish three major groundwater basins and potentially reduce the risk of loss of groundwater production during dry years
- Pure Water can offset imported water demands and enable storage of those imported supplies for use in dry years
- Pure Water can deliver to Upper San Gabriel's portion of the SWP Dependent Area & blended Central Pool area
- Proposed projects, such as Pure Water Los Angeles, are needed to maximize the water supply reliability benefits of the project at 150 mgd



Results as of Jun. 25 and subject to change

Evaluative Criteria - Resilience

Resilience

Seismic

- A local supply west of the San Andreas Fault substantially increases the region's seismic resilience

Extreme Heat/Flooding/Wildfire:

- A local source to supplement imported supplies when the regional demand is expected to increase under extreme heat
- A local supply to enhance regional reliability when the CRA supply is affected by erosion caused by intensive desert storms
- Storage in various groundwater basins enhances the region's capability to combat multiple wildfires



Results as of Jun. 25 and subject to change

Evaluative Criteria – Financial Sustainability & Affordability

in 2023 dollars

Project Costs and Overall Rate Impacts	Phase 1 + Phase 2
Capital Construction Cost^a	\$5.8B
Annual Capital Financing Costs ^b	\$388M
Annual O&M Cost	\$167M
Annual R&R Cost	\$68M
Production Yield	150 MGD (154,600 AF)
Year of Completion ^c	2040
Overall Melded Cost Increase^d	32%
Average Annual Cost Increase Over Construction Period^e	2.2%/yr

Unit Costs	Phase 1 + Phase 2
Point-in-Time Unit Cost	\$3,200/AF
Lifecycle Unit Cost	\$1,800/AF

Point-in-Time Unit Cost assumes all debt is issued at once in year one and the project is full operation in year one.

Lifecycle Unit Cost estimates the average unit cost over the 100-year project life and includes needed replacements and refurbishments (R&R).

- Capital costs in 2023 dollars are net of Sanitation District scope items, no upsized pipe, secured grant awards. Does not include partner contributions.
- Assuming 100% debt financed for this analysis at 4% rate / 30-year term
- Assumes deliveries start in 2040 (Pure Water buildout), however due to the project phasing, Phase 1 deliveries are anticipated as early as 2033 through 2035. The final financial analysis for the November assessment will incorporate the phased deliveries timing in the analysis.
- Calculation assumes the project is 100% debt financed over the construction period. If the project is partially funded by PAYGO, it will increase the short-term rate impact
- Based on Metropolitan's 2024/25 Revenue Requirement of \$1,550M, over the period from 2025-2040



Results as of Jun. 25 and subject to change

Evaluative Criteria – Adaptability & Flexibility

Adaptability & Flexibility

- Increases systemwide flexibility for storing and conveying water supplies by diversifying the water resource portfolio with a reliable local water supply
- Directly benefits SWP Dependent Areas by offsetting SWP demands through replenishment of the Main San Gabriel Basin
- In limited areas where treated water demand decreases, the potential for nitrification may increase
- Addition of DPR water at Weymouth and Diemer WTPs improves overall system operational flexibility
- Improves the flexibility of existing and future assets (Sepulveda Feeder Pump Station, East-West Conveyance, etc.) and ability to adjust to system-wide changes, including water quality and source water interruptions

Results as of Jun. 25 and subject to change



★ July 7, 2025

Evaluative Criteria - Equity

Equity

- Pure Water directly benefits communities (including disadvantaged communities) through workforce development, small business opportunities, community-focused design, improved water supply reliability & quality, community space and other programs
- Robust community outreach program has resulted in engagement with a diverse stakeholder group (15 program partners including Colorado River partners, tribal organizations, local cities, environmental groups, community-based organizations, business groups, and many others)
- Broad community support (72 letters of support received for Large-Scale Water Recycling grant) due to extensive collaboration with the public; steps being taken to address concerns related to energy demands, cost and public perception of water quality



Results as of Jun. 25 and subject to change

Evaluative Criteria – Environmental Co-Benefits

Environmental Co-Benefits

- Consistent with Metropolitan's climate goals
- Sustains groundwater and ecosystems
- Reduces reliance on imported water
- Improves habitat quality
- Supports water quality improvements



Results as of Jun. 25 and subject to change

Next Steps

- Receive feedback
- Prepare additional assessments prior to the Pure Water decision
 - Sites Reservoir
 - Additional Conservation
 - Delta Conveyance
 - Portfolios of these projects

