



MWDOC Joint Board Workshop

IRP Phase I Needs Assessment: An Analytical Foundation for the Climate Adaptation Master Plan for Water

August 2, 2023

CAMP4W Key Planning Questions

What's the Problem?

Needs Assessment –
Identify the range of development
“Gaps”

How do you solve it?

Identify Options/
Portfolios that
can fill the
“Gaps”

What does it cost?

Analyze the cost
of the Options/
Portfolios

How do you Pay for it?

Analyze the rate
impacts under
different
business models

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What is the IRP Needs Assessment?

- Phase I of the 2020 Integrated Water Resource Plan (IRP)
- Initiated in 2020 and adopted by the Board in April 2022
- Developed in collaboration with member agencies utilizing area experts in climate change and water demand and public stakeholder involvement
- Guided by the Integrated Resources Plan Special Committee of the Board
- Supported by a comprehensive scenario planning approach

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The 2020 IRP Scenario Planning Process

Why Did We
Choose a Scenario
Planning
Approach?

- Recognition that we can not predict the future
- A method for analyzing outcomes of plausible futures and expanding beyond hydrologic variability to reveal different challenges to reliability
- Scenarios broaden our view of the impacts of uncertain conditions, allowing us to identify and develop a flexible long-term plan
- A framework to assess policy options and water resource development under future conditions and identify tradeoffs

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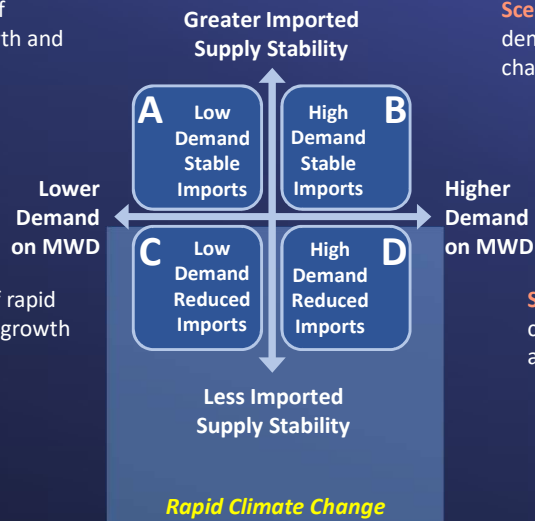
Four Planning Scenarios – Defining Potential Problems

Scenario A shows conditions of continued lower demand growth and stable climate change impacts.

Scenario B shows implications of higher demand growth, with stable climate change impacts.

Scenario C shows the impacts of rapid climate change even with lower growth pressures on demands.

Scenario D shows the reliability challenges with higher demand growth and rapid climate change impacts.



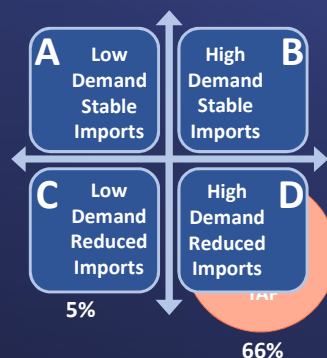
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Four Planning Scenarios – Defining Potential Problems

Maximum
Magnitude (TAF)
and Frequency (%)
of a
Net Shortage
in (Forecast Year 2045)



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The 2020 IRP Needs Assessment Findings

Preparing for a
Rapidly Changing
Climate
(Scenarios C and D)

100-600 TAF of New Core Supply Development

- This range of core supply development basically increases reliability and manages those uncertainties
- The upper end of this core supply development eliminates the frequency and magnitude of shortages in Scenario D, which is under conditions of strong demographic and economic growth and rapid climate change (and in a future of increasing regulatory constraints on water supply)
- New storage development can reduce the core supply development requirement needed to maintain reliability

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CAMP4W Key Planning Questions – Next Steps

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Analyze the cost of the Options/Portfolios

How do you Pay for it?

Analyze the rate impacts under different business models

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