

Alameda County Water District

Water Resources Planning Workshop: Water Resources Master Plan – Phase 2



ACWD Board Workshop
May 29, 2025
Agenda Item 4



Water Resources Master Plan 2050: *Portfolios*

May 29, 2025

Presenters:

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Persephene St. Charles, Woodard & Curran

Phillippe Daniel, Liquisti



Handouts

2050 WRMP Goals

What water resources future does ACWD want to achieve by 2050?



1. Sustainable water supply portfolio that leverages local resources and adapts to climate change



2. Affordable and equitable supply for all direct and indirect customers



3. Resilient and optimized water service infrastructure system and operations



4. Healthy watersheds and aquifers that are managed to provide multiple-benefits



5. Collaborative leadership to facilitate regional water management

2050 WRMP Planning Objectives

*What does ACWD
want to accomplish
through the
planning process?*

1. Examine a **comprehensive list** of all potential supply projects and management strategies to select a **justifiable portfolio** that will best meet Water Resources Goals.
2. Address **future uncertainty and risk** through robust analysis.
3. Facilitate the making of **near-term tough decisions** and document the timing and **drivers for future decisions**.
4. Create an adaptive, dynamic, and feasible **implementation pathway**.
5. Identify and develop strategies that **align with funding opportunities**.
6. Encourage and facilitate **staff and Board involvement**, as well as diverse **public and potential collaborator engagement**.
7. **Educate public and customers** on ACWD's current and planned management of water resources.
8. **Support development of related planning efforts** such as ACWD's Engineering Report, UWMP, SGMA, and rate studies.

UWMP: Urban Water Management Plan

SGMA: Sustainable Groundwater Management Act



Introduction

Acronyms Used in This Presentation

SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SWP	State Water Project
WR	Water Resources
WRMP	Water Resources Master Plan
UWMP	Urban Water Management Plan

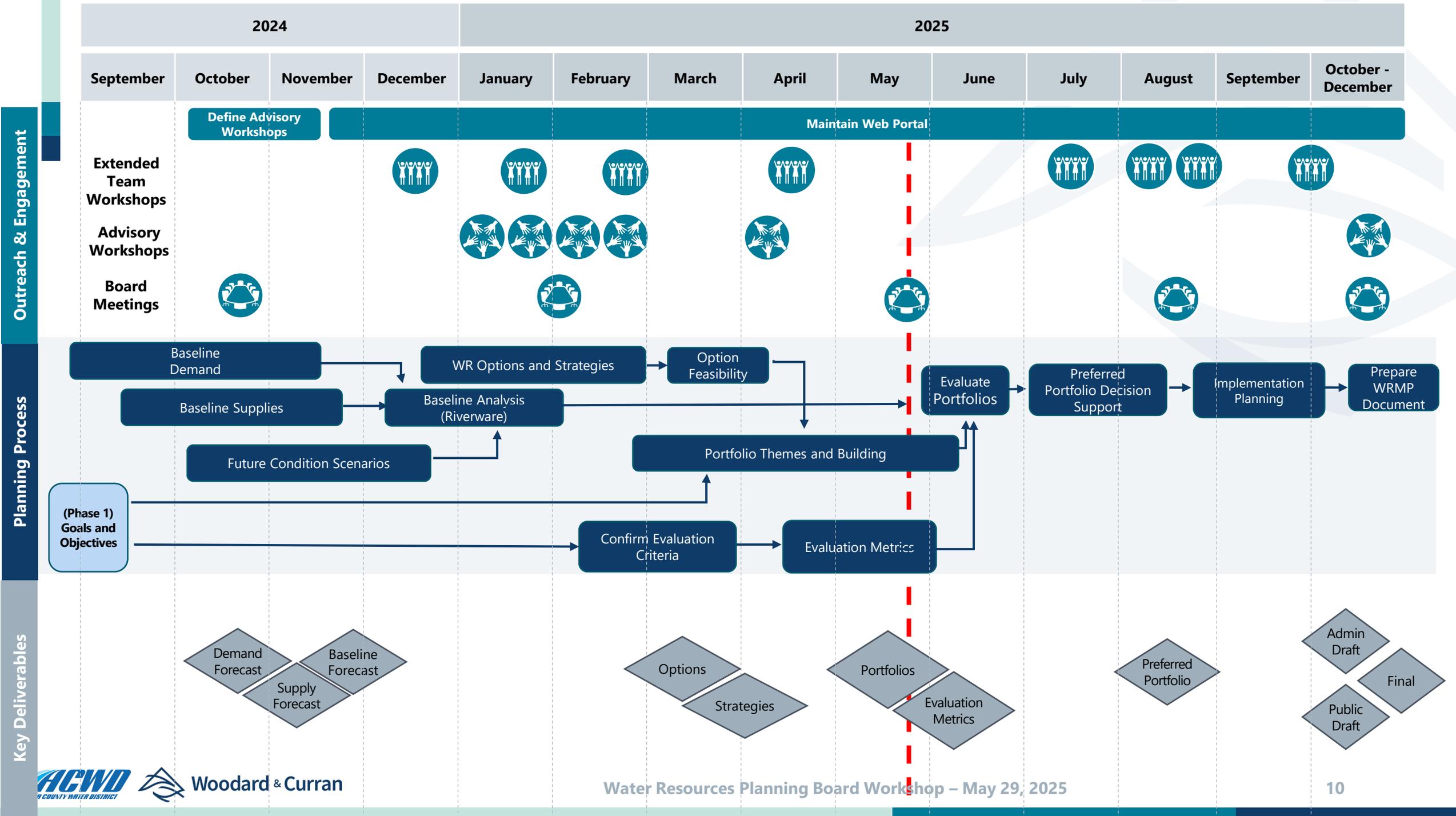
Objectives for Today's Workshop

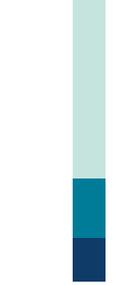
Present Future Condition Analysis and Supply Portfolio Building Process

Get input on initial portfolio concepts

Water Resources Master Plan Project Roadmap







Agenda

- 1. Baseline Reliability Analysis**
- 2. Portfolio Building Process**
- 3. Initial Portfolio Concepts and Themes**
- 4. Next Steps**





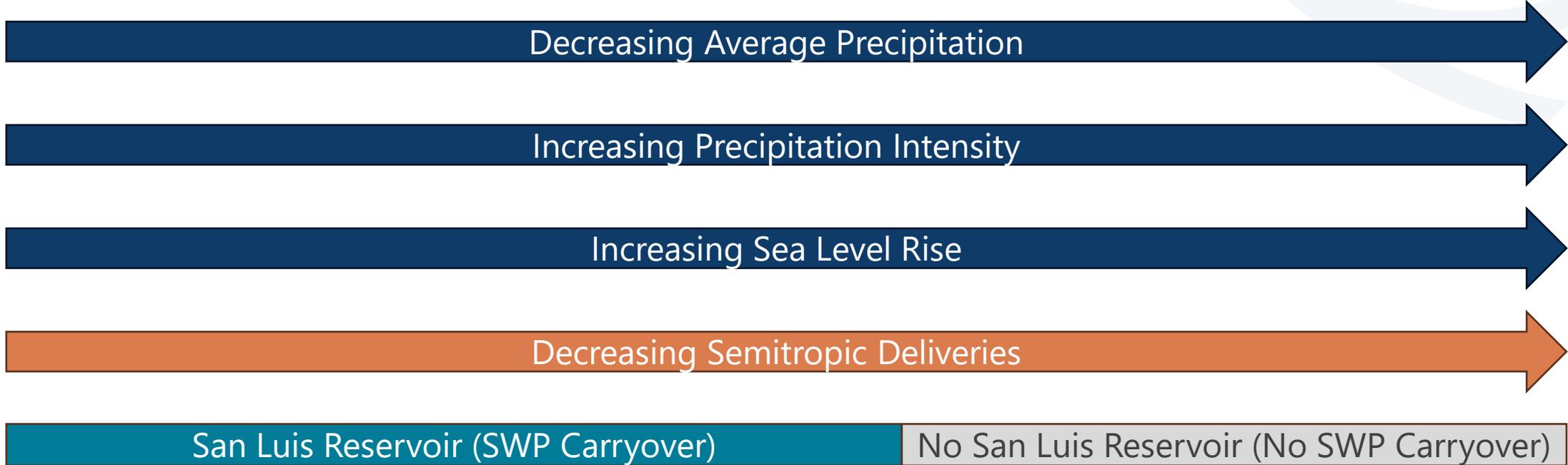
Baseline Reliability Analysis

Three Potential Future Condition Scenarios

Scenario A
("Mild")

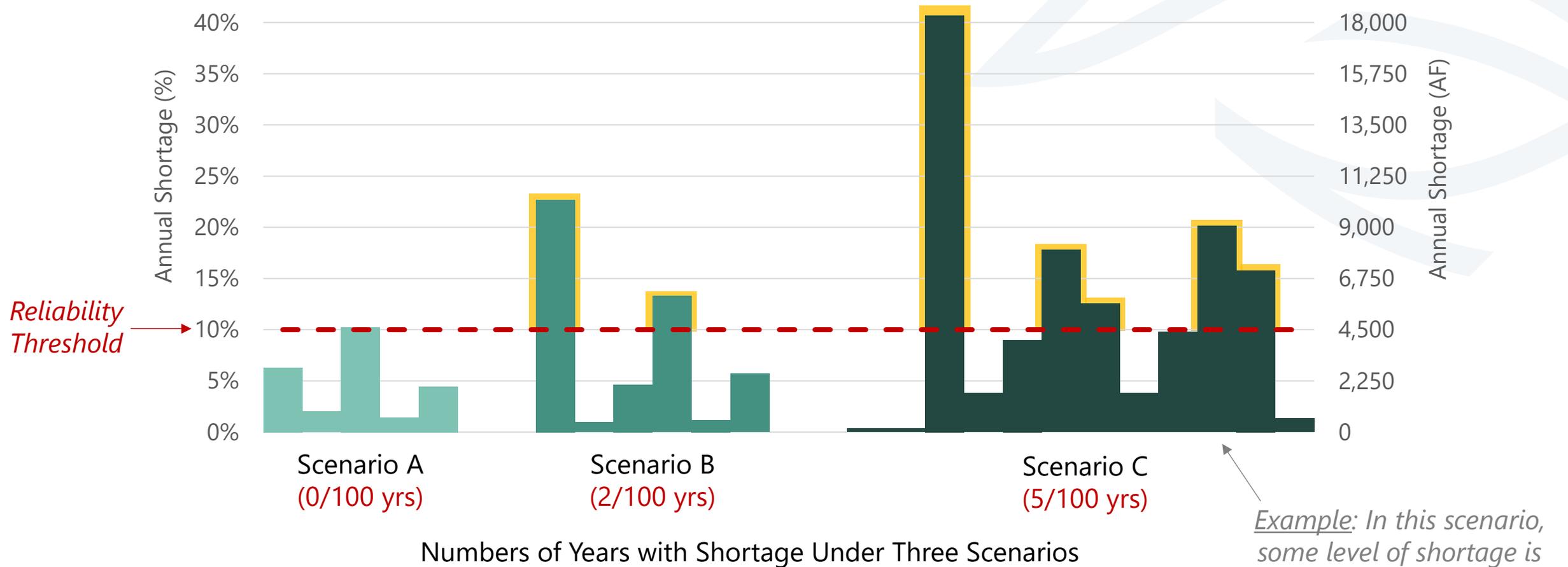
Scenario B
("Moderate")

Scenario C
("Severe")



2050 Demands static across scenarios

Base Case May Not Meet 2050 Reliability Thresholds

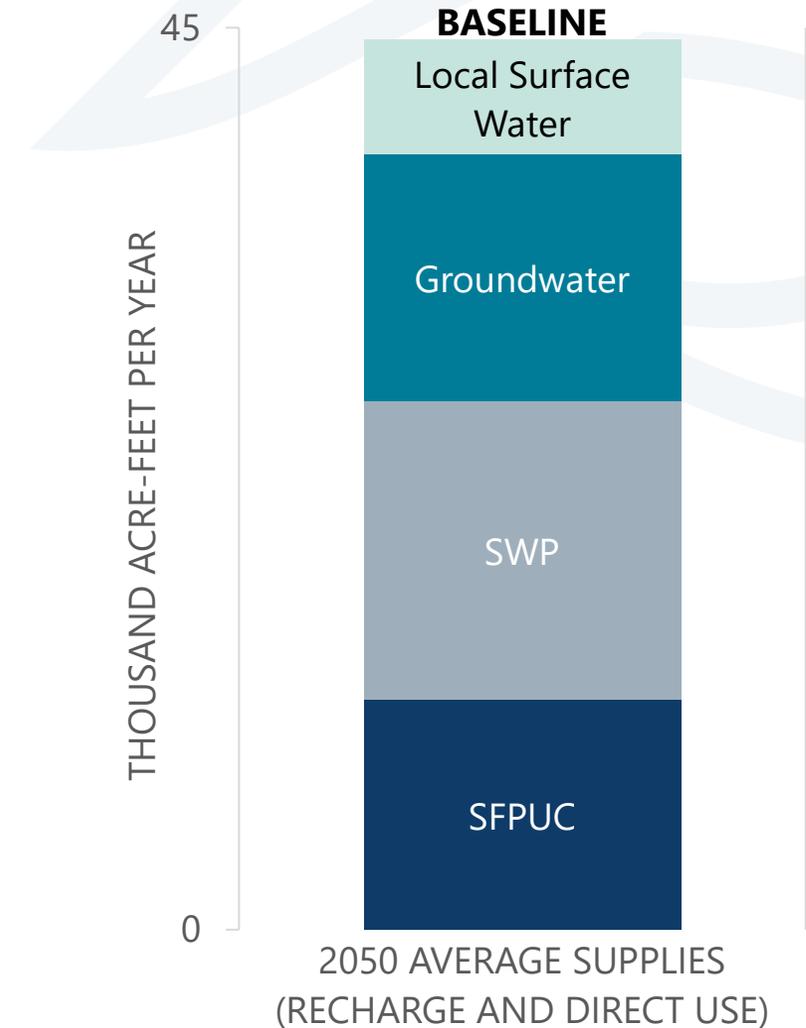


Example: In this scenario, some level of shortage is expected in 12 of 100 years. 5 of those would exceed "Reliability Threshold"

Base Case Portfolio (Status Quo)

This portfolio maintains existing supplies and facilities with no new supply sources or facilities.

The chart at right reflects supply sources, including direct use, recharge for pumping in the same year, and use of stored water.





Portfolio Building Process

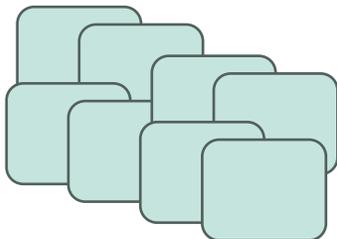
Portfolio Development Process

44
Supply
Options

#	...
1
2
3
...
44



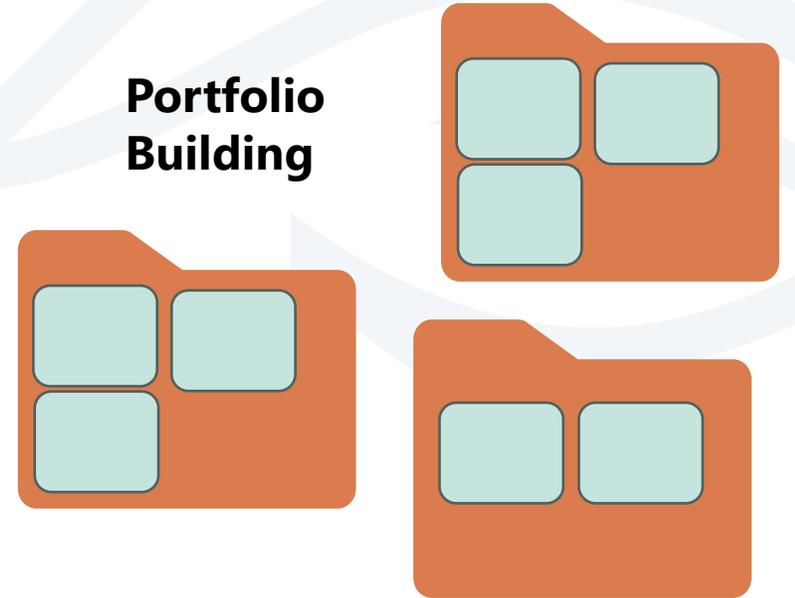
24 Supply
Options



Develop
Portfolio
Themes

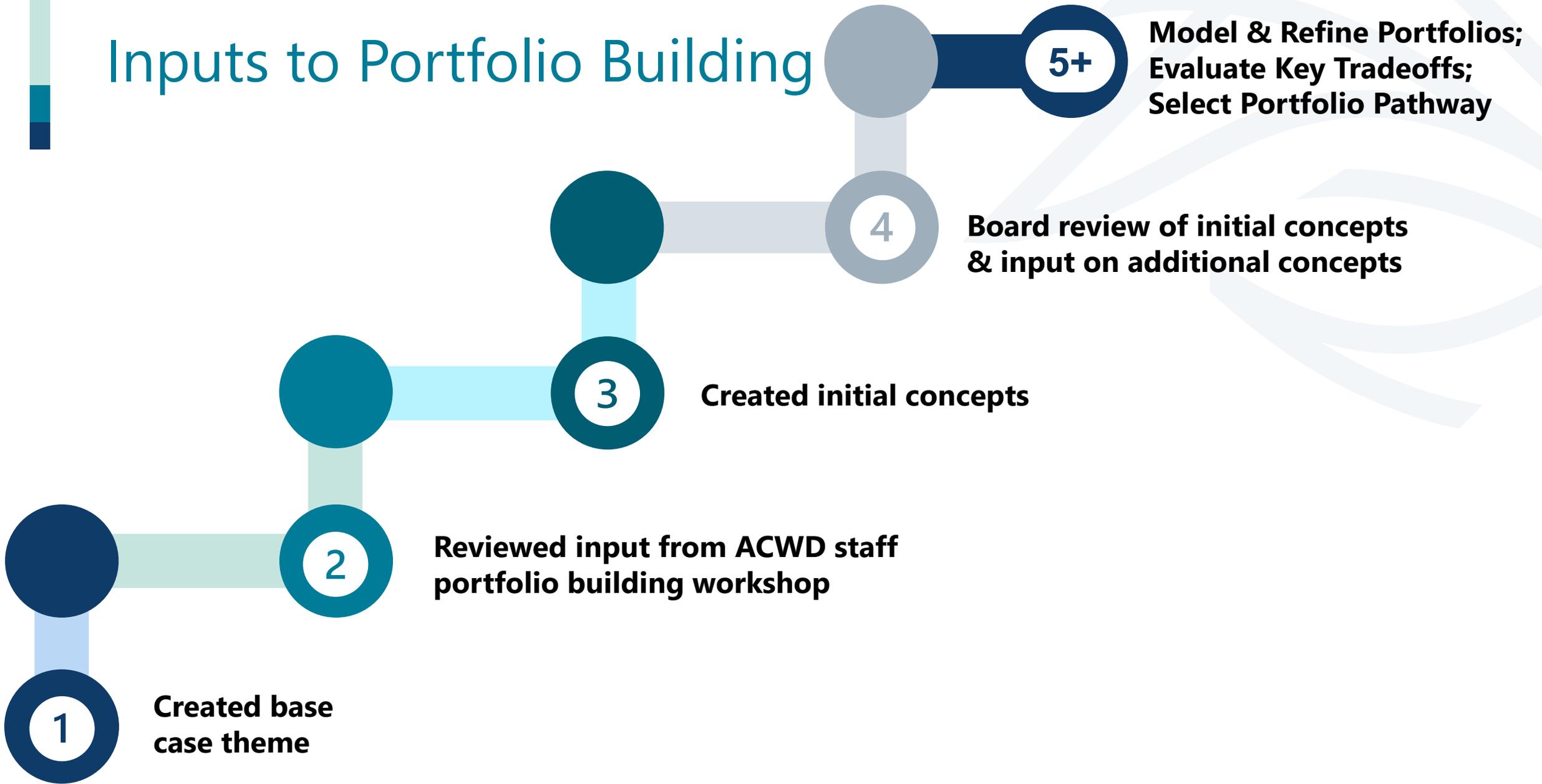


Portfolio
Building



**Analysis &
Refinement**
*using evaluation
criteria*

Inputs to Portfolio Building



Interested Party and Staff Workshops

Topic	Date
Interested Parties: Conservation	February 10
Interested Parties: Watershed Stewardship	February 10
Interested Parties: Community/Equity	February 20
Extended Team: Portfolios	March 12
Additional Meetings with Subject Matter Experts	April/May 2025



Initial Portfolio Concepts and Themes

What Is/Isn't in an Initial Portfolio Concept?



A lens to use for researching and characterizing



Tool for diagnosing and prescribing – not the prescription itself



Examples to be built upon



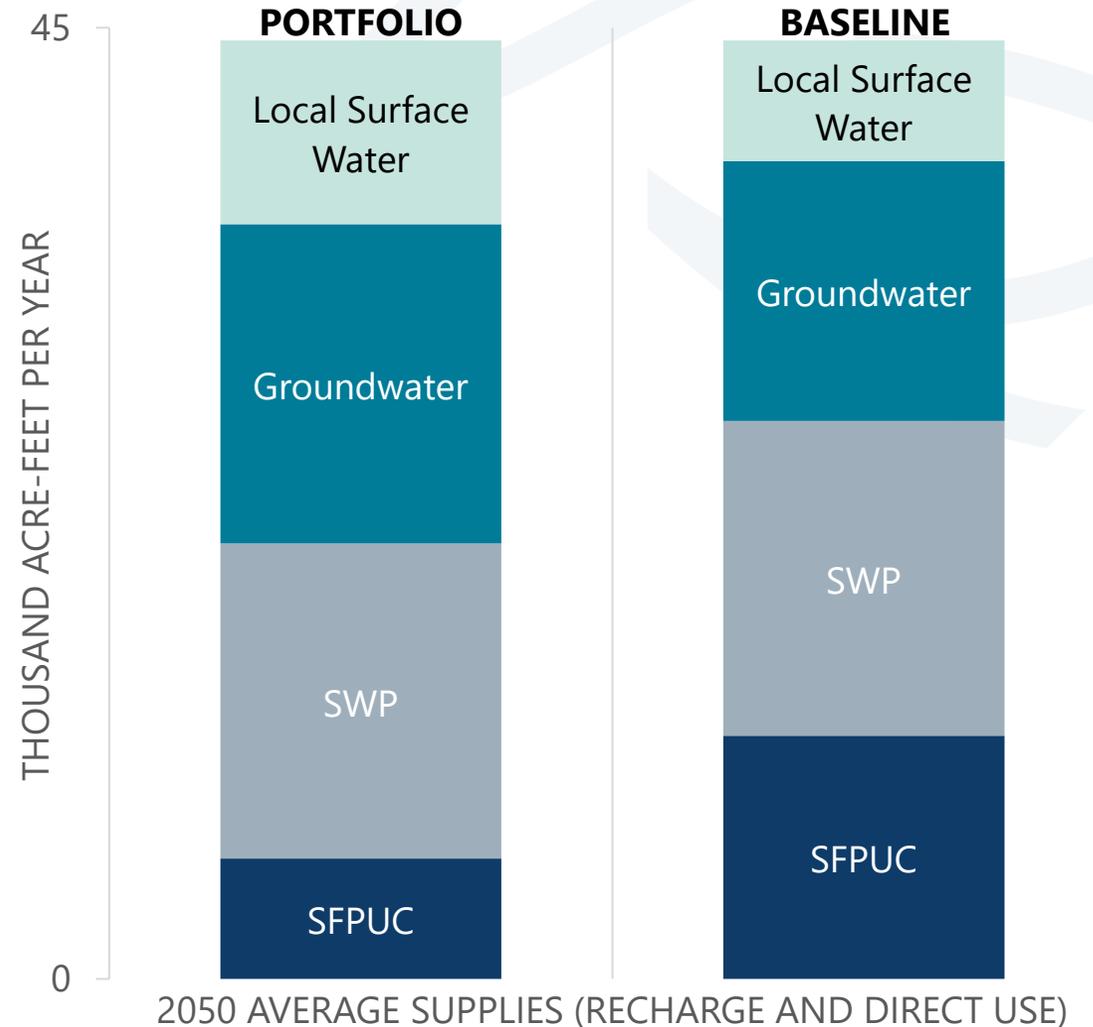
A fully baked portfolio that will be evaluated

Additional portfolios will be developed based on Board feedback received tonight.

Theme:

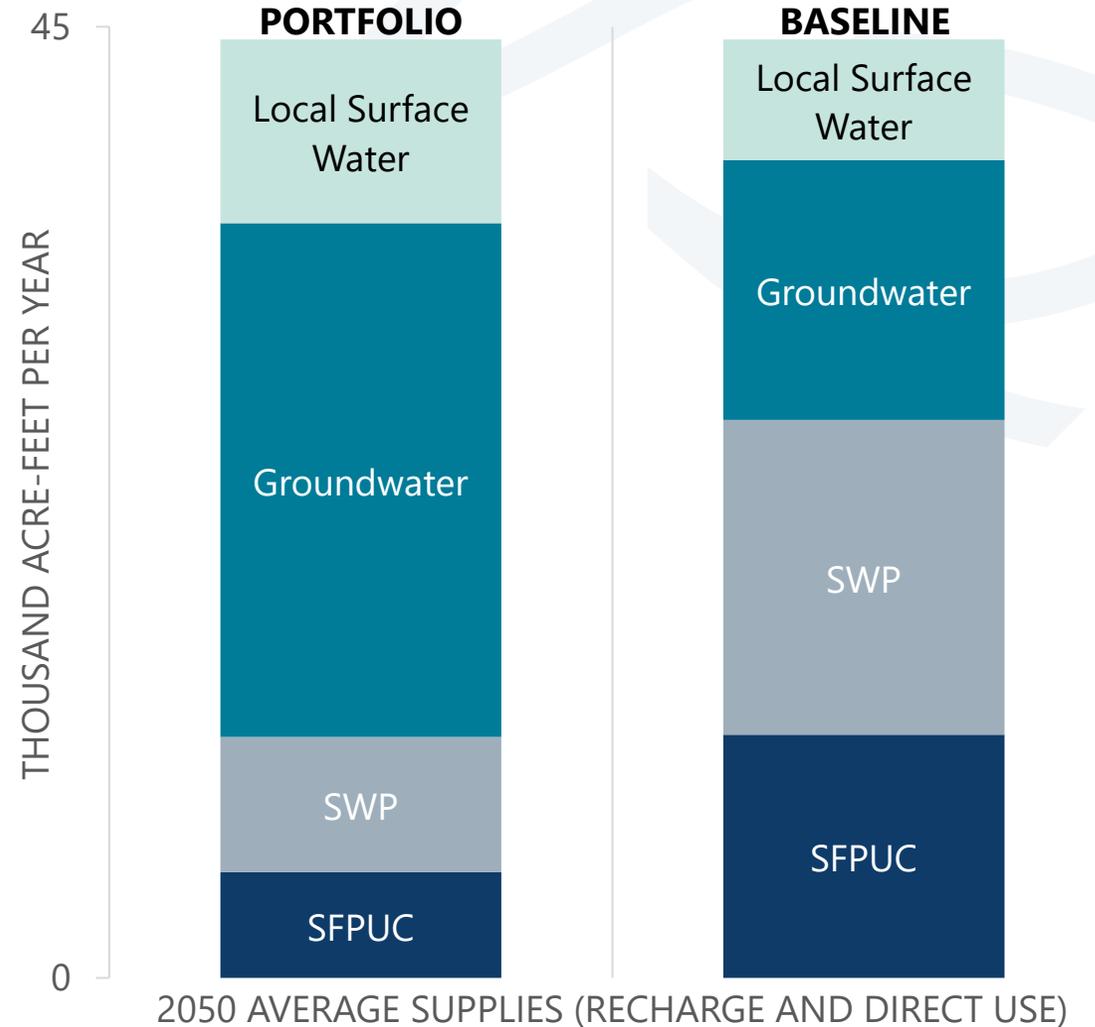
Extended Team Input: Expand Local Groundwater

- Relatively implementable options that increase recharge and increases local groundwater pumping
- **Affordability** is a benefit as local groundwater development is generally cost effective
- **Maintains** heavy dependence on imported water



Theme: Maximize Local Groundwater

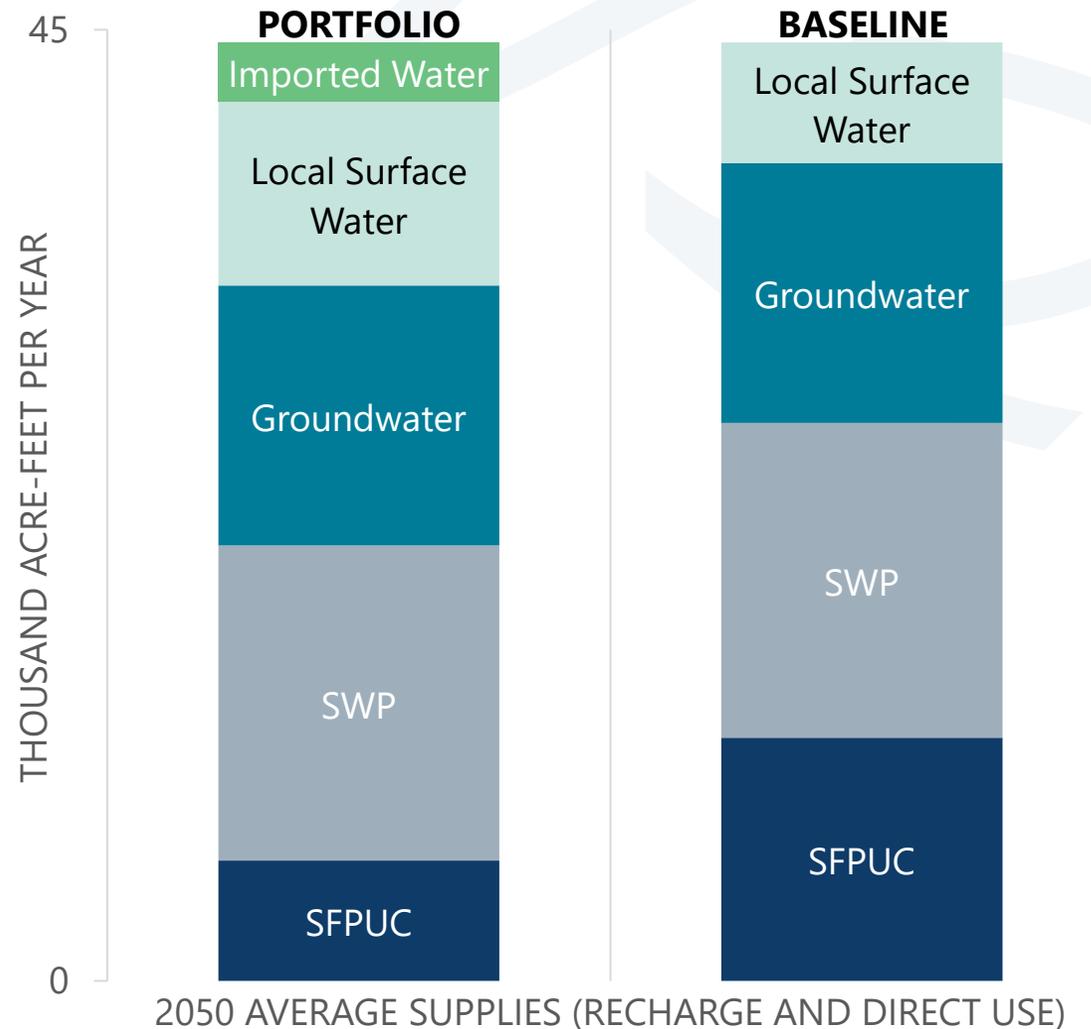
- Goes beyond “Expanding Local Groundwater” by maximizing groundwater desalination
- **Local control** is increased since groundwater is the supply most within ACWD control
- **Maintains** some dependence on imported supplies



Theme:

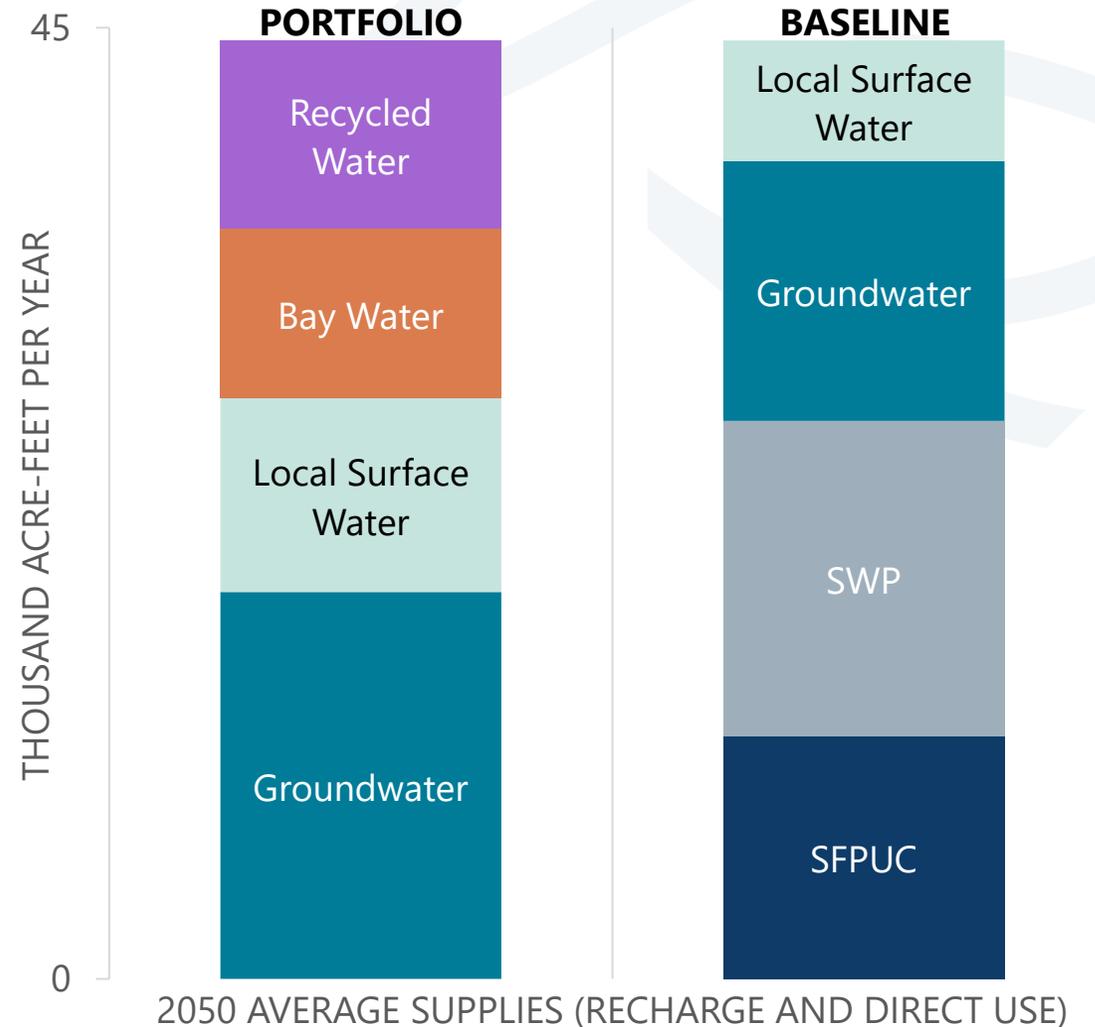
Minimize Operational Complexity: Shore Up Existing System

- Leverages the existing system to increase local surface water storage at existing ACWD facilities and implement external facilities to shore up declining SWP reliability.
- **Optimizes water service** by maintaining current operations to minimize operational complexity and keep benefits from external agency operations.
- **Increases reliance** on external facilities and supplies for storage.



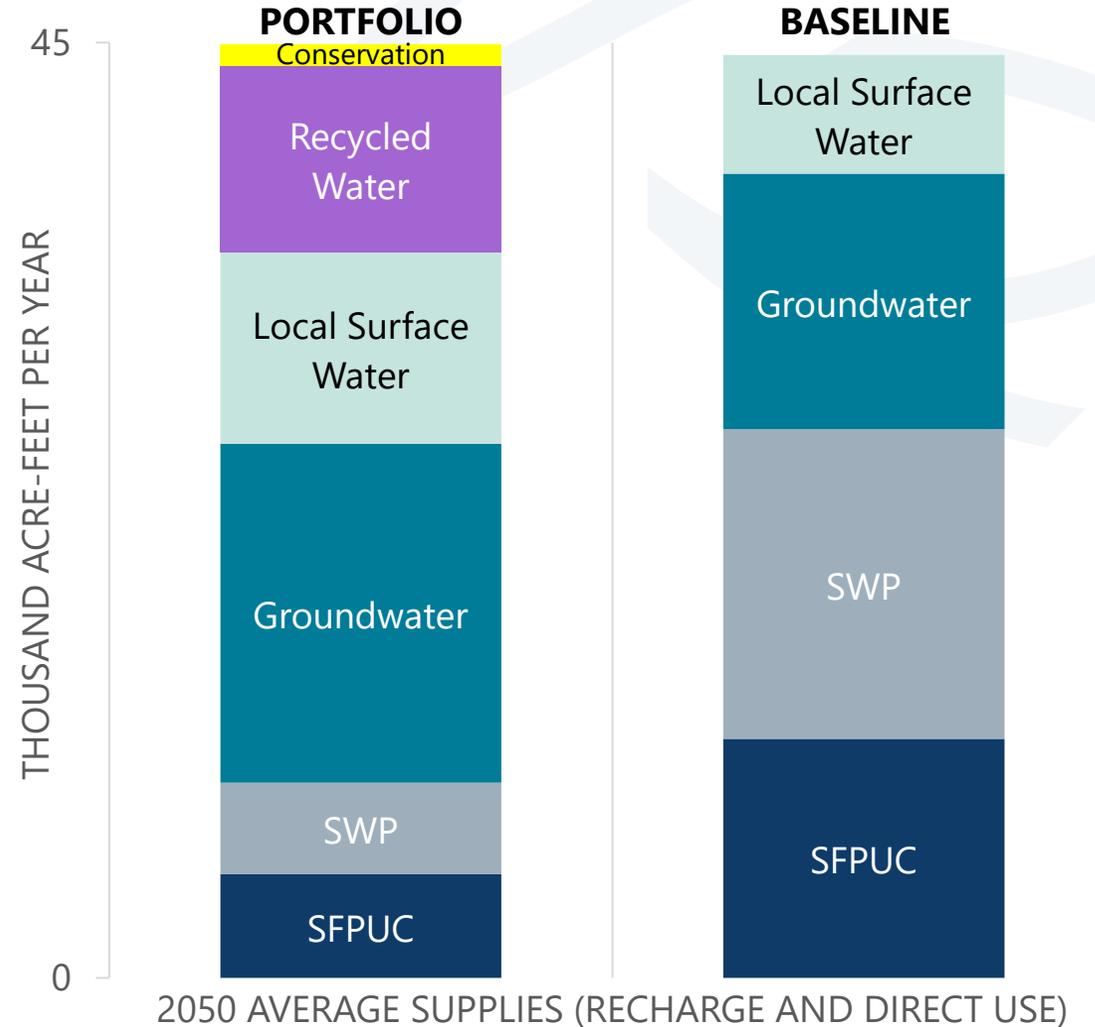
Theme: Regional Focus

- Includes large scale regional supplies like bay water desalination and recycled water.
- **Regional leadership** is enhanced by developing regional supplies in collaboration with other agencies to decrease dependence on imported water and increase regional reliability.
- **Limits** institutional independence.



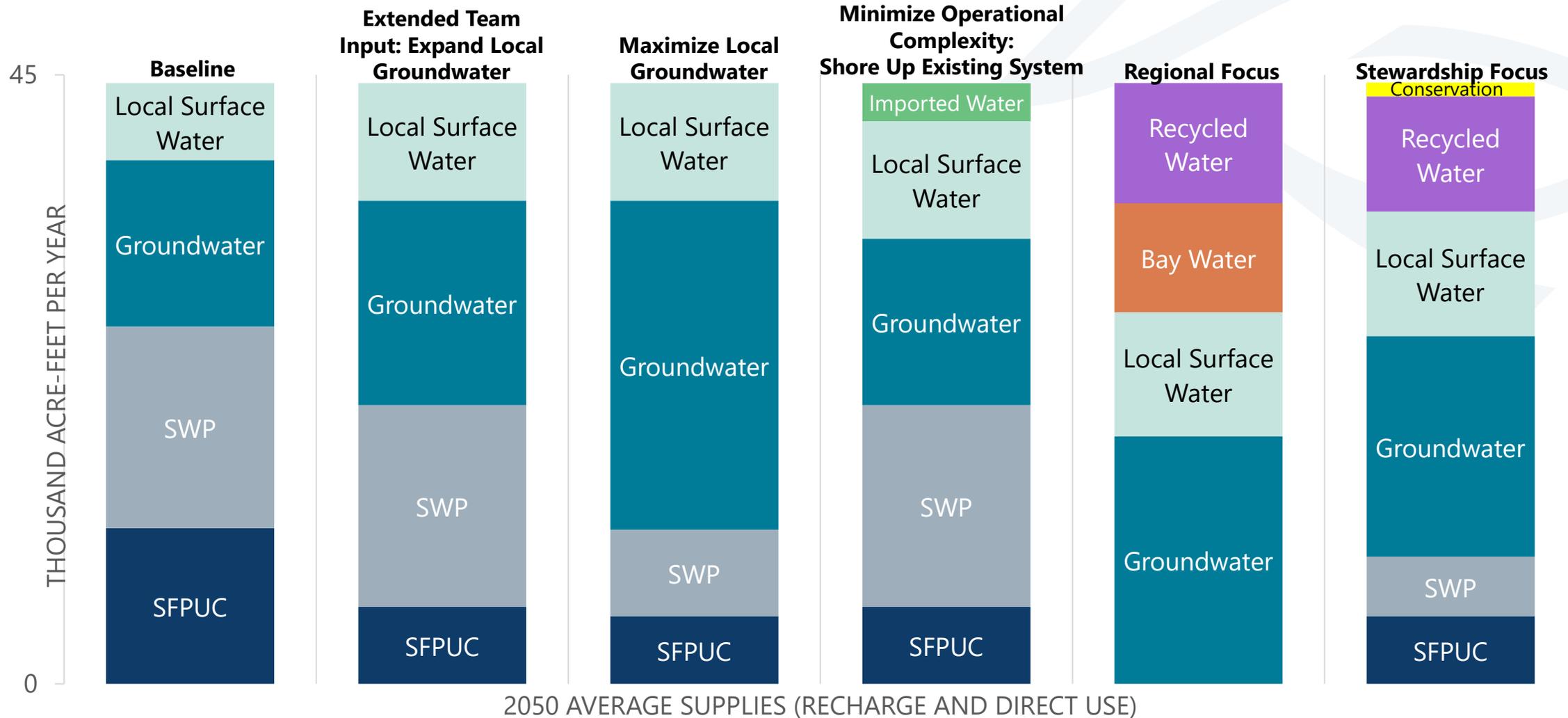
Theme: Stewardship Focus

- Incorporates local stormwater recharge, enhanced conservation (beyond Urban Water Use Objective demands), in addition to local groundwater enhancement and recycled water.
- **Watershed stewardship** is improved as options will improve environmental water and groundwater quality, reduce wastewater effluent, and minimize water waste and energy consumption.



Discussion

- ▶ Are there any other themes or concepts to add?
- ▶ What do you want to test?





Next Steps

WRMP Board Workshops & Topics



Topic	Anticipated Timing
Options & Strategies	February 6, 2025
Portfolio Themes & Groupings	May 29, 2025
Portfolio Evaluation & Selection	August 28, 2025
Draft Water Resources Master Plan	Nov 6, 2025



THANK YOU!

May 29, 2025