Engineering, Operations, and Technology Committee

Strategy for Implementation of Drought Mitigation Actions in Response to the August 2022 Board Resolution

Item 9-2

February 12, 2024

Item 9-2
Strategy for Implementation of Drought Mitigation Actions

Subject

Strategy for implementing recommended drought mitigation actions

Purpose

Report development of implementation plan for drought mitigation actions portfolio in response to the August 2022 resolution

Next Steps

Board actions to implement initial steps of the plan:

- Create a new CIP program
  - Include selected drought mitigation projects
- Amend current CIP to include:
  - Sepulveda Feeder Pumping Stage 2
  - Removing network constraints

August 2022 Board Resolution – Call to Action

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD ACTION

- **Board of Directors**
  Water Planning and Stewardship Committee

8/16/2022 Board Meeting

7-13

Subject

Adopt resolution affirming Metropolitan's call to action and commitment to regional reliability for all member agencies; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

The Metropolitan Water District of Southern California endeavors to provide an adequate and reliable supply of high-quality water to meet the region's present and future needs in an environmentally and economically responsible way. As an example from 1930, Metropolitan's first Board Chair, W.P. Whitsett, provided a guiding principle for developing regional water supply reliability: "Whatever is done should be done for the benefit of the whole, and whatever is done for the benefit of the whole should be shared by all the parts."

Nearly a century after those aspirational words, a record-breaking drought has descended on the Southwest, and Southern California's water reliability is in crisis. This year, supply from the State Water Project (SWP) was cut to 5 percent of Metropolitan's total allocation for the second consecutive year—resulting in a 3-year water supply substantially below the California Department of Water Resources' worst-case projection. These conditions starkly highlight an infrastructure and water supply vulnerability that must now be addressed. Simply put, there is not enough pipeline connectivity or operational flexibility for imported supply and existing regional storage to meet the needs of six member agencies with a combined population greater than six million.

Because of this supply shortage and limits to its infrastructure, Metropolitan cannot provide equivalent supply reliability from one corner of the service area to another. In response, Metropolitan's Board declared a water shortage emergency and imposed a water conservation program in April of this year for the six SWP-dependent agencies. The impacted agencies include Calleguas Municipal Water District, Inland Empire Utilities Agency (IEUA), Las Virgenes Municipal Water District, the City of Los Angeles, Three Valleys Municipal Water District, and Upper San Gabriel Valley Municipal Water District.

These six SWP-dependent agencies have limited connection to Metropolitan's existing infrastructure, storage, and supplies. This constraint forced them to take mandatory and painful water supply cuts from their expected SWP use by an average of 35 percent—with some facing reductions up to 73 percent. If these agencies cannot limit their use of Metropolitan's supply from the SWP, then they face stiff volumetric penalties of $2,000 per acre-foot (AF) or the first-ever total ban on outdoor irrigation. Meanwhile, under statewide regulation, the 20 member agencies outside of this area must implement demand-reduction actions under Level 2 of their Water Shortage Contingency Plans. These actions are locally determined to achieve only a 10 to 20 percent water reduction (without volumetric penalties).

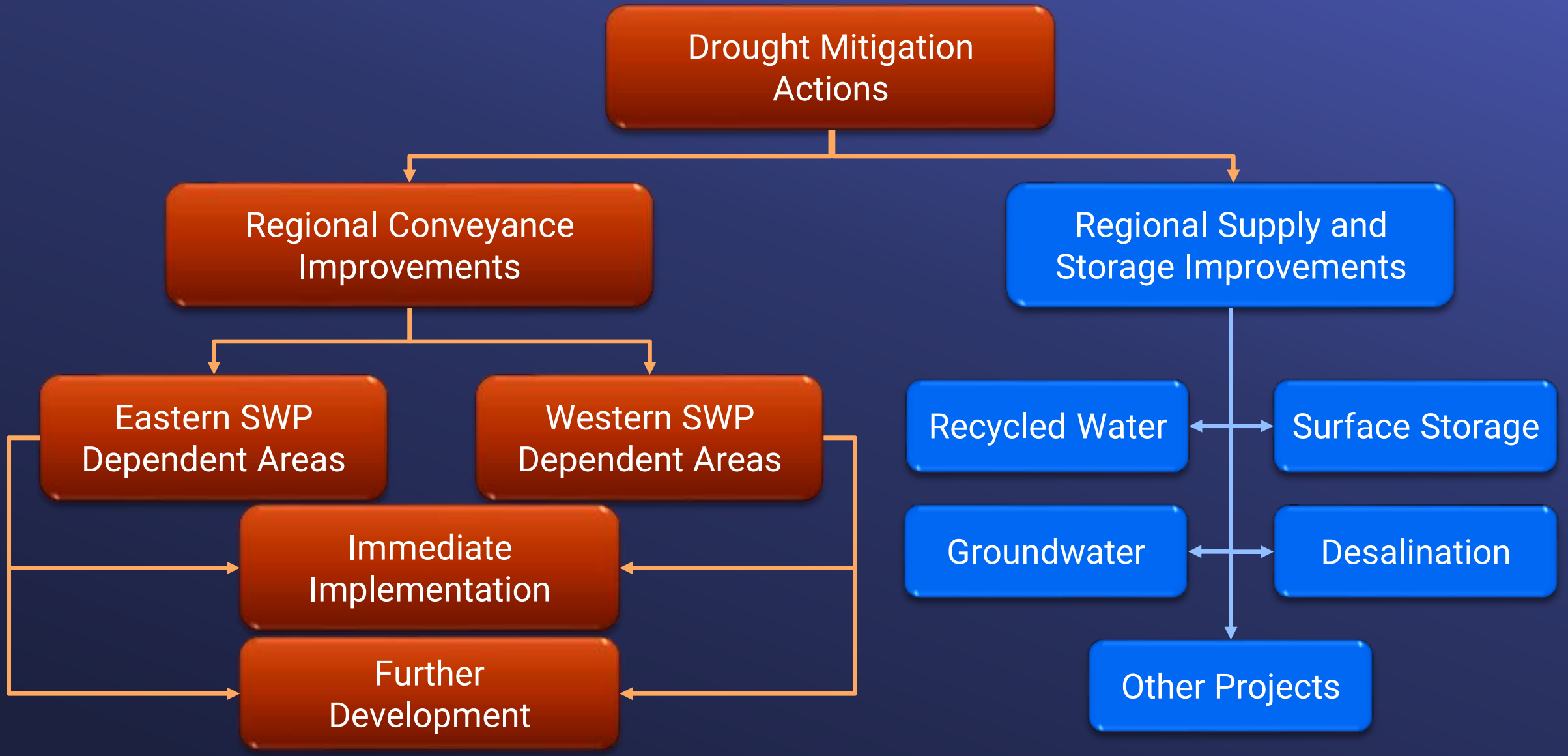
This disparity is unacceptable to Metropolitan and its member agencies. By adopting the proposed Resolution in Attachment 1, the Board would prioritize a policy to provide 100 percent and equitable reliability to all member agencies. Metropolitan would thus commit to taking all necessary actions to give the SWP-dependent member agencies a level of infrastructure and water supply reliability equivalent to that of Metropolitan's other member agencies. Equitable access will be achieved through the expedited and prioritized implementation of a balanced set of projects and programs that improve existing infrastructure, imported and local supplies, and demand management.

Call to Action

Metropolitan commits to ensuring equitable access to supply and storage assets by building infrastructure, increasing local supply availability, expanding partnerships, and advancing water use efficiency.

- ***All member agencies must receive equivalent water supply reliability through an interconnected and robust system of supplies, storage, and programs.***
- ***Metropolitan will reconfigure and expand its existing portfolio and infrastructure to provide sufficient access to the integrated system of water sources, conveyance and distribution, storage, and programs to achieve equivalent levels of reliability to all member agencies.***
- ***Metropolitan will eliminate disparate water supply reliability through a One Water integrated planning and implementation approach to manage finite water resources for long-term resilience and reliability, meeting both community and ecosystem needs.***[23]

Proposed Drought Mitigation Actions Portfolio



Strategy for Implementing Proposed Portfolio

- Near-Term: Provide timely relief to State Water Project Dependent Area (SWPDA) agencies against future droughts – applying actions w/o upgrading existing infrastructure
- Mid-Term: Enhance SWPDA drought resilience – applying actions after removal of system constraints
  - Proceed with planning and early design efforts but pending on CAMP4W evaluation to determine final implementation
- Long-Term: Achieve supply reliability with a mix of conveyance, supply, and storage projects and programs
  - Some actions focus on enhancing supply reliability for SWPDA
  - Some actions also enhance supply reliability and resilience for the region
  - Integration into CAMP4W process to adapt to future changes in supply/demand conditions

Drought Mitigation Portfolio Implementation Plan

Drought Mitigation Actions Portfolio

Operational Optimization

Cost-Effective Projects Providing Timely Relief

Projects Under Implementation

- **Utilizes existing infrastructure**
- **Timely implementation**

Projects Prepared for Implementation

- **Requires removal of key system constraints**
- **Requires hardening of the system**

Projects for Further Consideration in CAMP4W

Projects for Targeted Improvements

- **Focused on SWPDA**

Projects with Regional Benefits

- **Providing regional benefits beyond SWPDA**

2024 **2026** **2032** **2040** **2045**

Drought Mitigation Actions Portfolio
Cost-Effective Projects Providing Timely Relief (for Implementation)

Projects Under Implementation

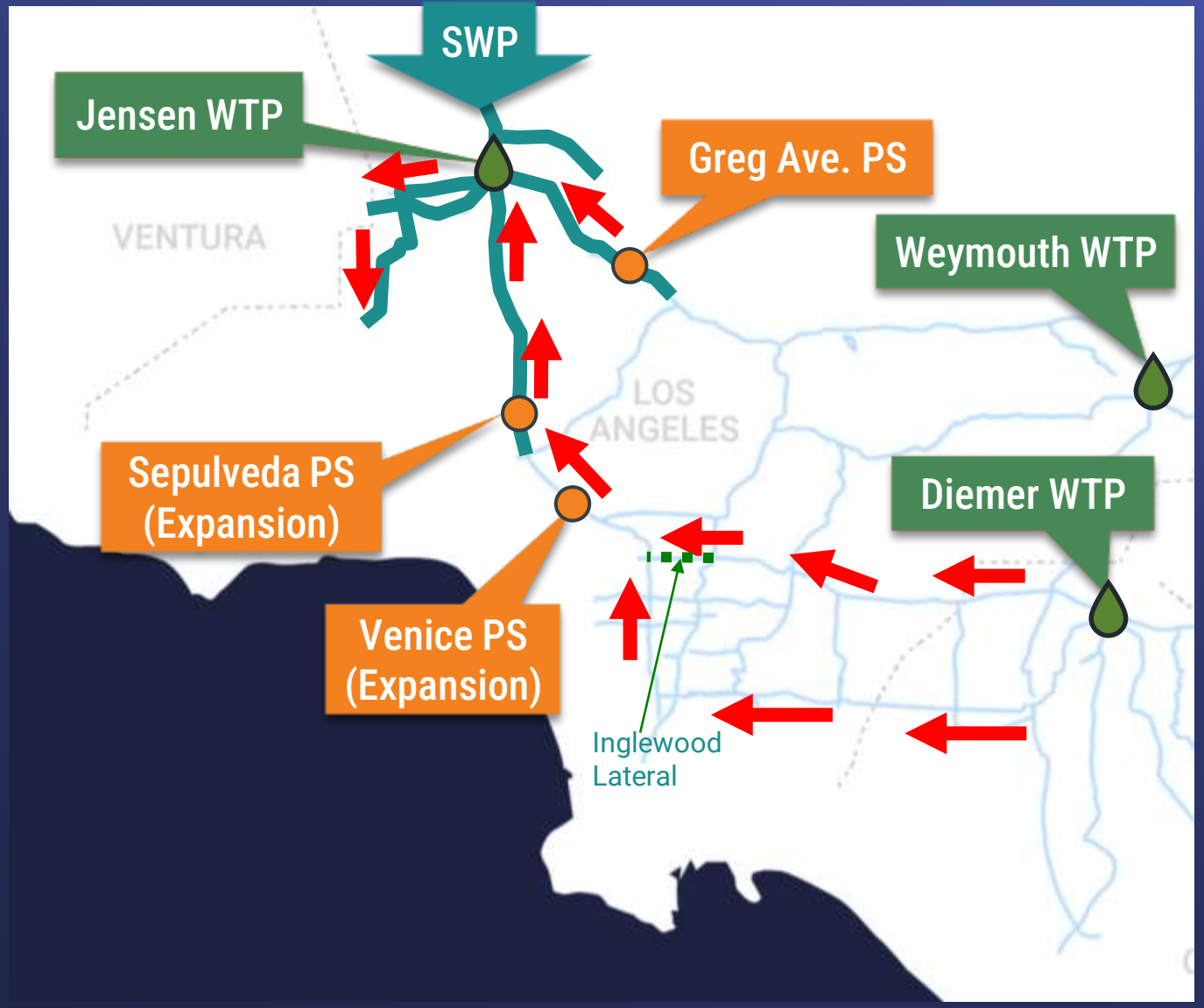
Project Title	Completion
DVL to Rialto Delivery (4 projects)	2026/2027
Sepulveda Feeder Pumping Stage 1	2026

Projects Prepared for Implementation

Project Title	Completion
Burbank B-5 to B-5A Shift	2026
TVMWD Miramar Pumpback Upgrades	2027/2028
Sepulveda Feeder Pumping Stage 2	2032

Sepulveda Feeder Pumping Stage 2

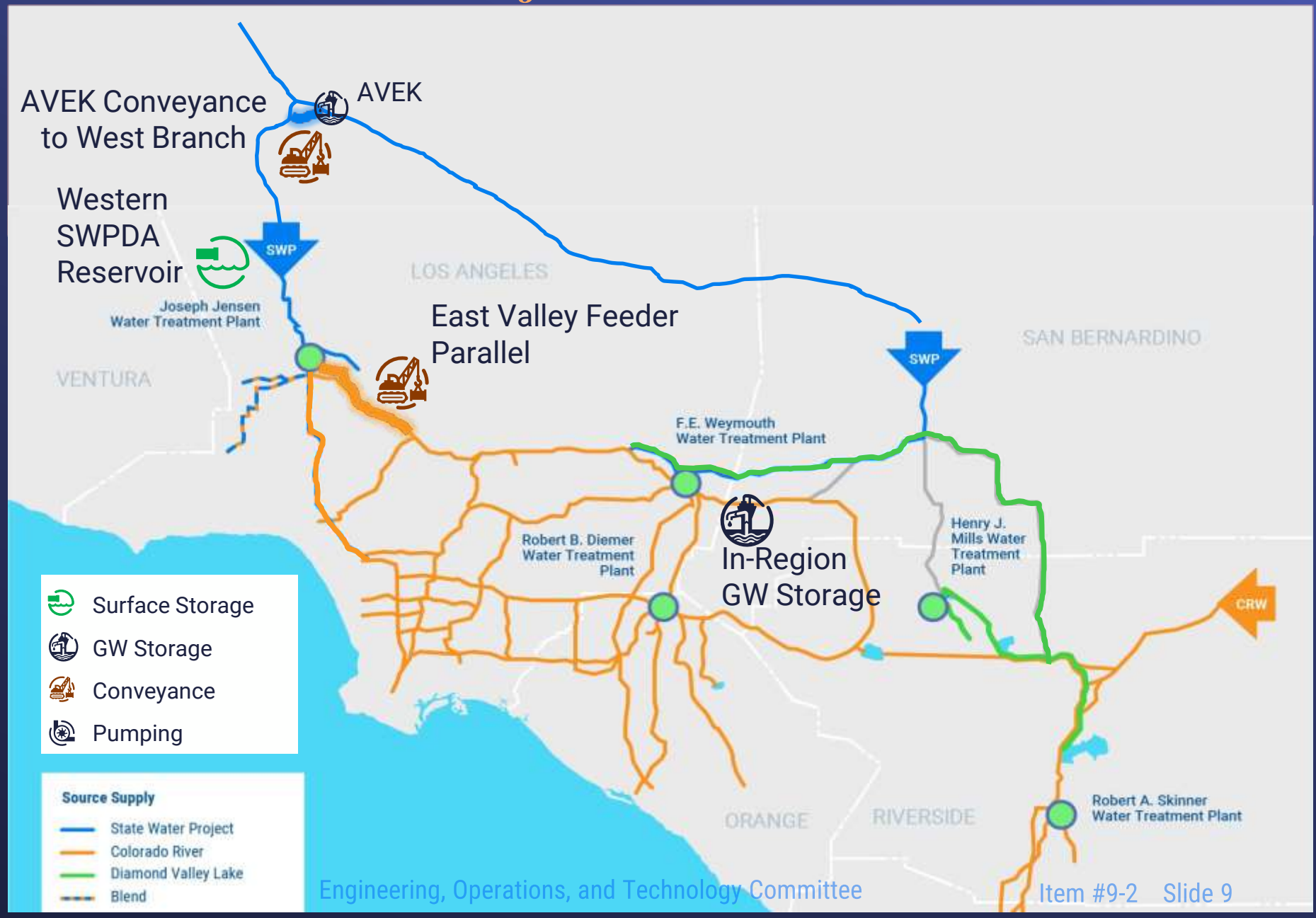
- Enhance SWPDA drought resilience
- Prerequisites
  - Complete Stage 1 (30 cfs)
  - Complete PCCP relining of North Sepulveda Feeder
  - Upgrade Inglewood Lateral
- Urgency to start conceptual design to sync with Stage 1 final design process
  - Future implementation pending on CAMP4W evaluation



Drought Mitigation Actions Portfolio Projects for Further Consideration

Projects for Targeted Improvements

Project Title	Category
AVEK to West Branch	Conveyance
East Valley Feeder Parallel Pipeline	Conveyance
Western SWPDA Reservoir	Surface Storage
In-Region Groundwater Storage	Groundwater Storage

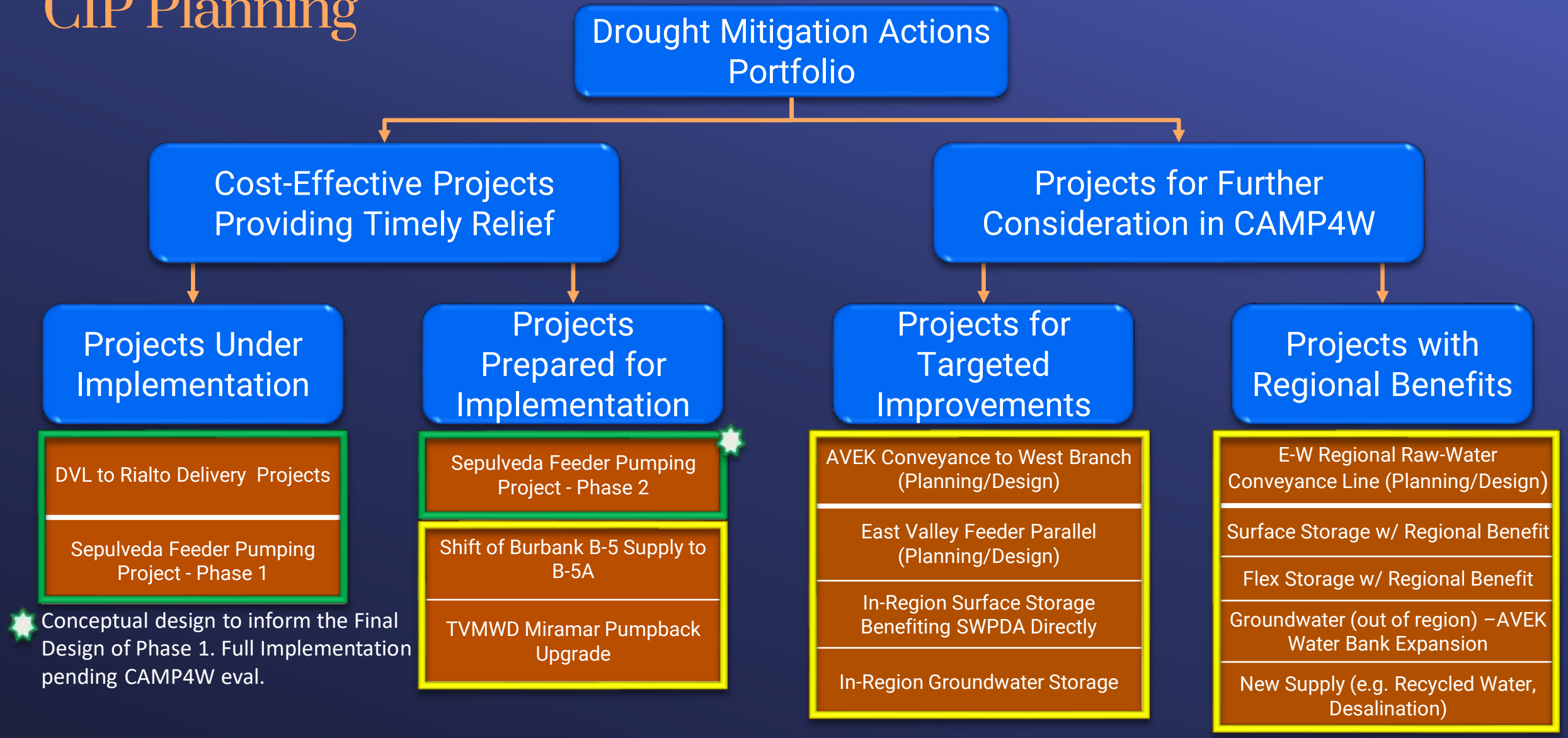


Drought Mitigation Actions Portfolio Projects for Further Consideration

Projects with Regional Benefits

Project Title	Category
E-W Regional Raw-Water Conveyance Line	Conveyance
SWP Storage - East San Joaquin Valley	Surface Storage
Flexible Storage (State & Federal Programs)	Surface Storage
AVEK Water Bank Expansion	Groundwater Storage
Recycled Water, Desalination	Local Supply

CIP Planning



Conceptual design to inform the Final Design of Phase 1. Full Implementation pending CAMP4W eval.

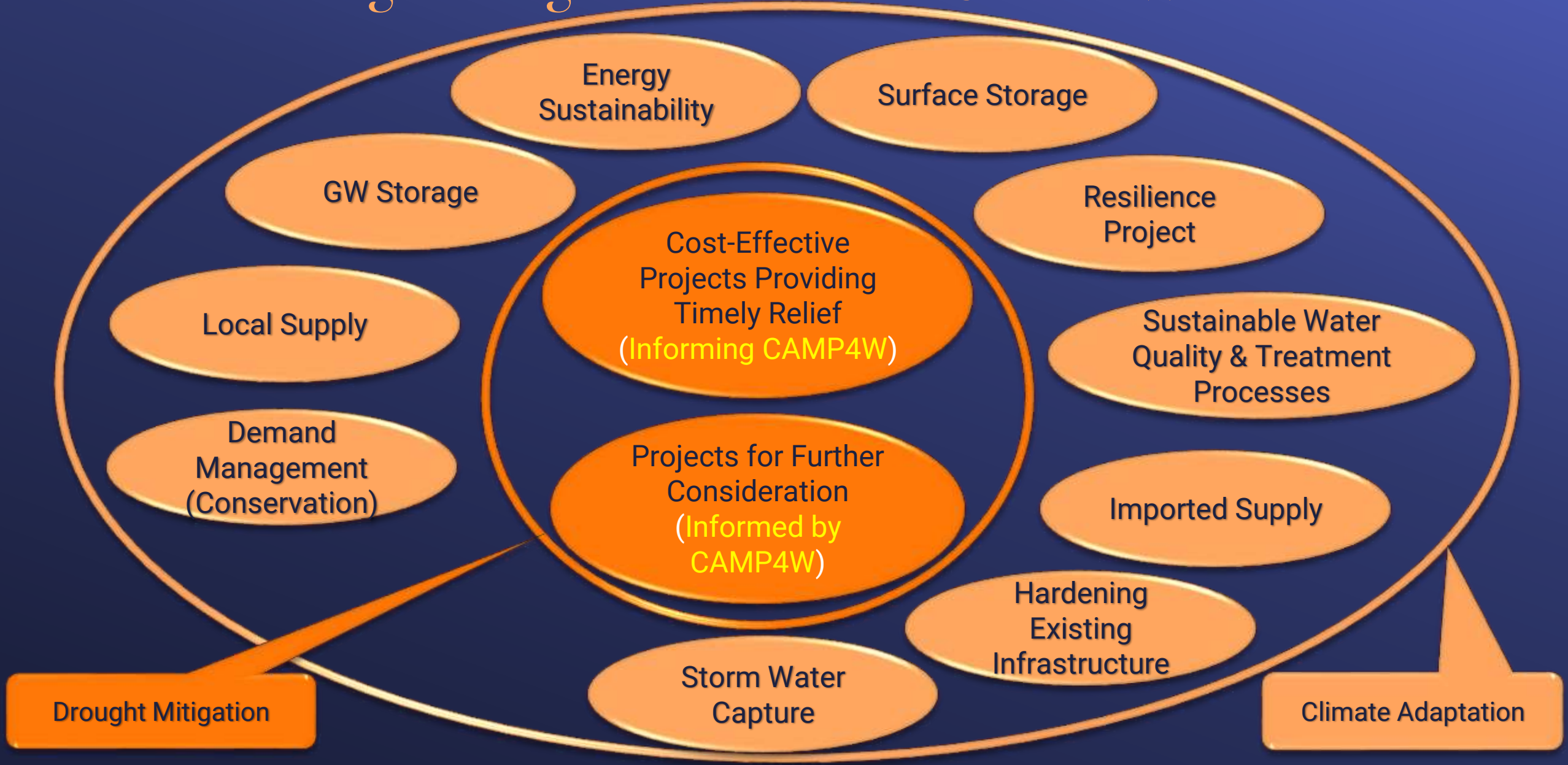
Proposed for current CIP as these projects are well defined

Proposed for Future CIPs as projects become more defined and geographical locations identified. Alternative analyses are not capitalized.

Integration with CAMP4W Process

- Time-bound targets from CAMP4W will guide future implementation of proposed actions
  - Equitable Supply Reliability (Near-, Mid- and Long-Term)
- Adaptive management strategy of CAMP4W allows for adjustments to the implementation plan
- Projects for further consideration will apply CAMP4W criteria to compare with other investments to meet resource-based targets
  - Need for core supplies
  - Need for flexible supplies
  - Need for storage capacity
  - Conveyance improvements to deliver new supplies & storage

Drought Mitigation Actions in CAMP4W Portfolios



Next Steps

- Action Item to the Engineering, Operations, and Technology Committee (March 2024)
  - Create a new CIP program for selected drought mitigation projects
  - Amend current CIP to include:
    - Sepulveda Feeder Pumping Stage 2 (planning for 160 cfs ultimate capacity build-out)
    - Removing network hydraulic constraints (e.g., Inglewood Lateral upgrade)
- New CIP Program: Drought Mitigation – SWP Dependent Areas
  - Move projects under implementation to the program for better tracking of efforts and progress
  - Allocate funding in future CIP expenditure plans for continued development of regional conveyance and storage projects
    - Pending CAM4W evaluation and recommendation for implementation
- Continue developing projects within the portfolio to provide information for CAMP4W evaluation and potential inclusion in future CIP


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928