Engineering & Operations Committee

State Water Project Dependent Area Solutions: Drought Action Planning Update

Item 6a

May 10, 2022

SWP Dependent Area Solutions: Overview

Issue

Some areas face significant challenges in a severe drought on the SWP system

Committed to Resolve this Issue

Identifying and implementing measures to ensure all portions of the service area attain a high level of reliability against multi-year, severe droughts

Current Drought Emergency

Actively manage through current severe conditions

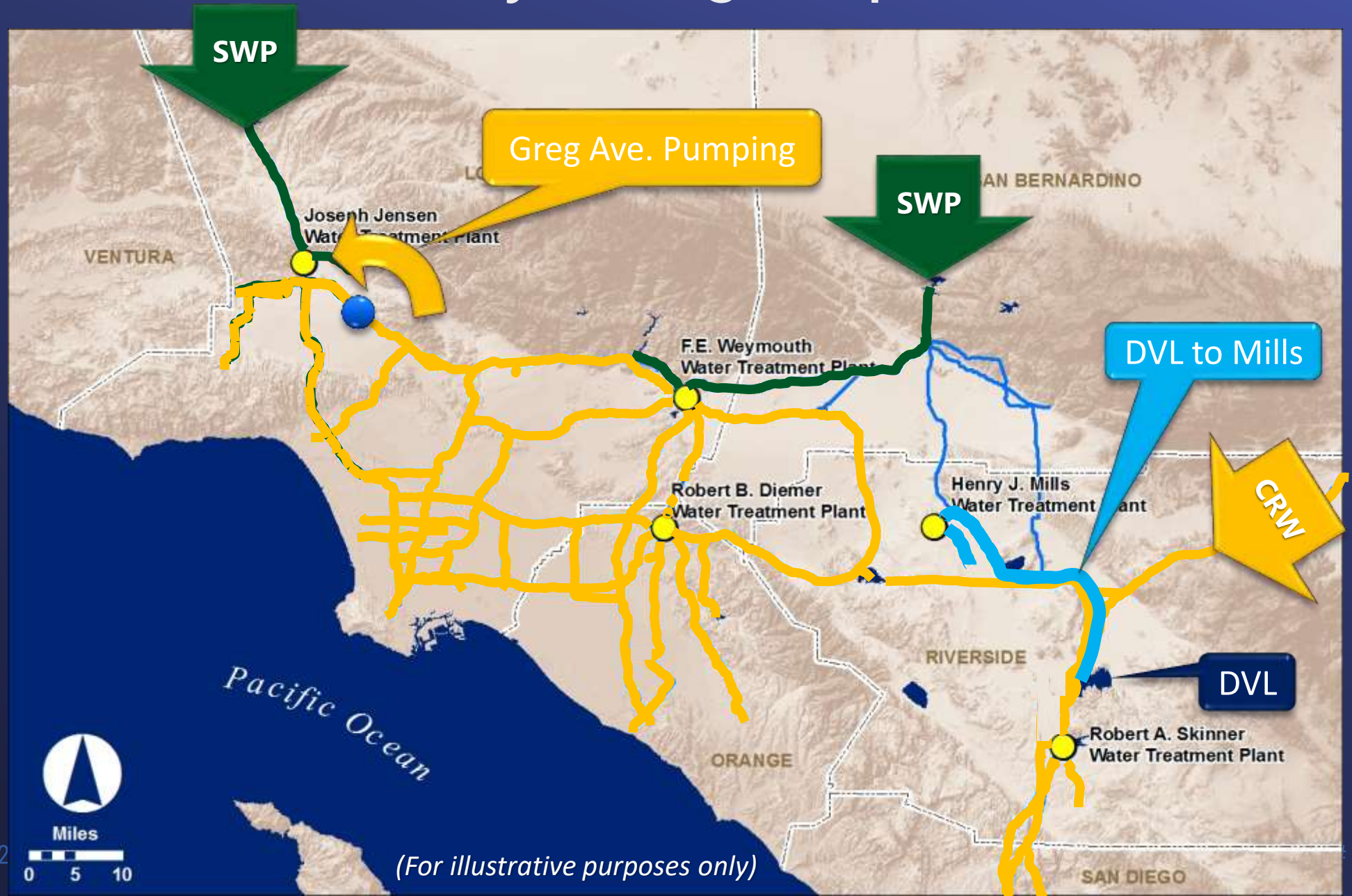
Future Severe Drought

Urgently prepare for the next severe drought

Standard Operation

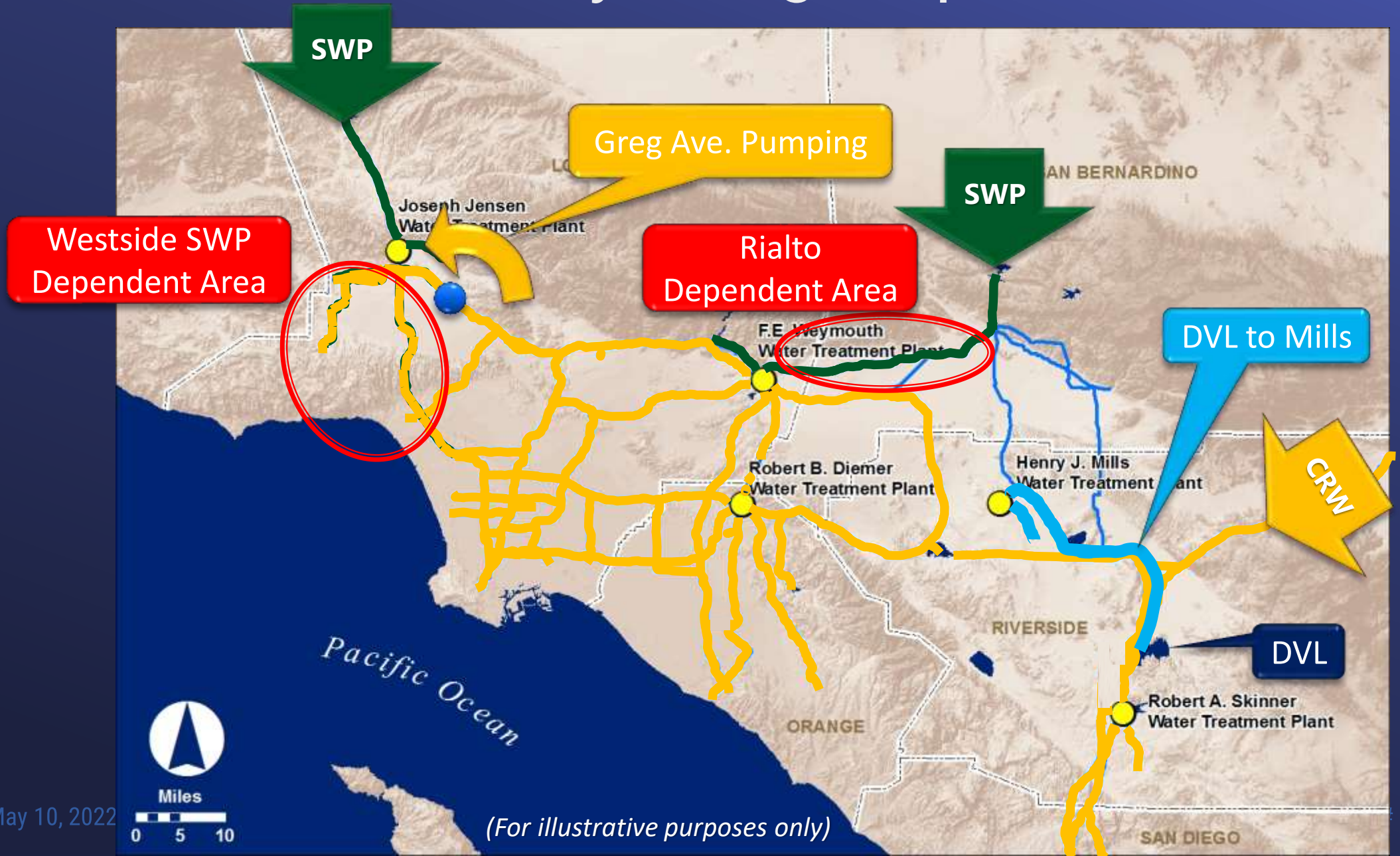
(For illustrative purposes only)

Current Extraordinary Drought Operation



(For illustrative purposes only)

Current Extraordinary Drought Operation



(For illustrative purposes only)

Actions to Address Historic Drought

Board Actions

- Operational Shift Cost Offset Program (2021)
- DVL to Rialto Improvements (2021)
- SBVMWD Exchange (2021)
- SDCWA Exchange/Lease (2021)
- West Area Reliability Studies (2022)
- Reverse Cyclic Program (2022)

Member Agency Activities

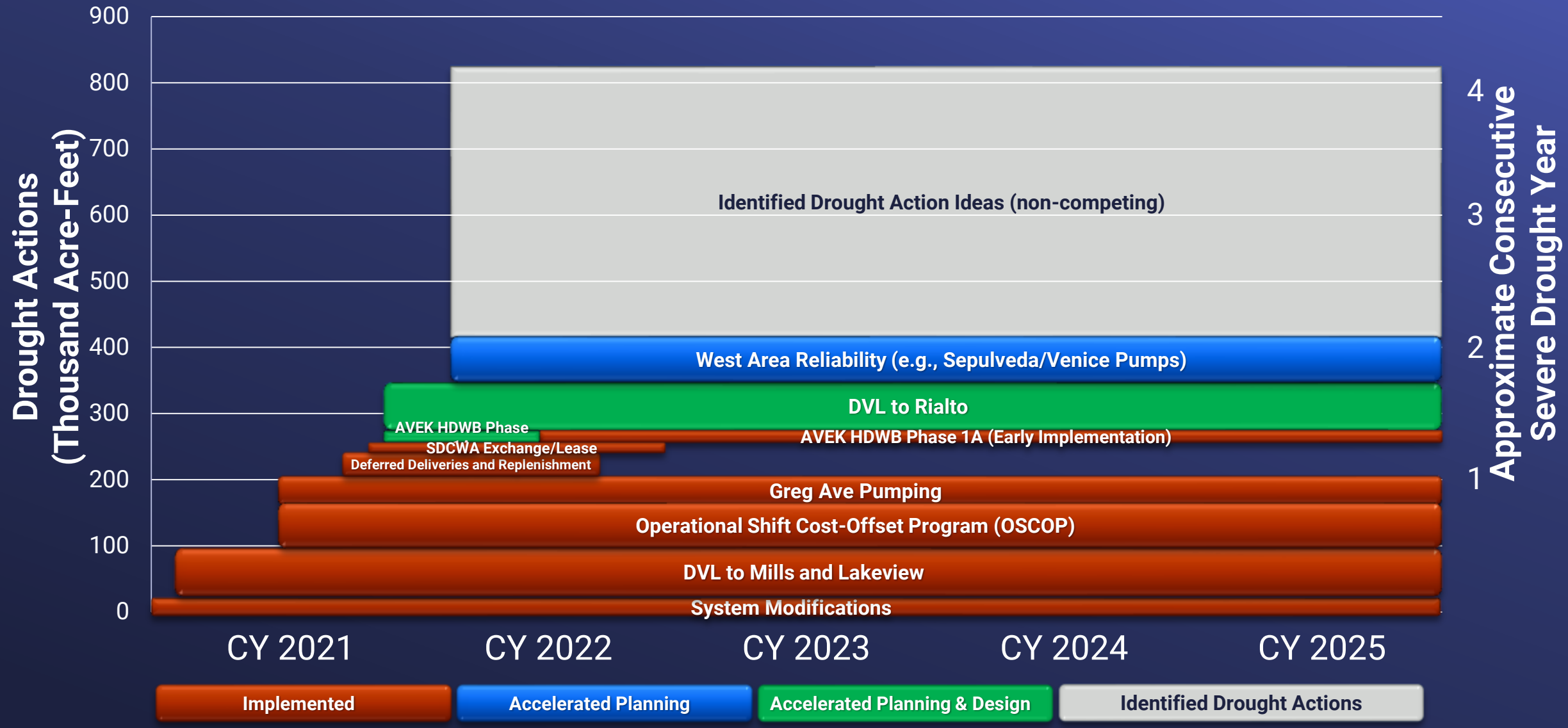
- SWP Dependent Areas Coordination Meetings
  - Brainstormed ideas and solutions
  - Prepared Drought Action Briefing Sheets
- Drought Action Planning and Development Workshops
  - Workshop #1: April 22
  - Workshop #2: June 10
  - Workshop #3: June 17

Developing SWP Dependent Area Solutions

* Possible use of CRW through Wadsworth Pumping Plant if DVL storage is depleted

For Illustration Purposes Only
Approximate Scale

Developing SWP Dependent Area Solutions

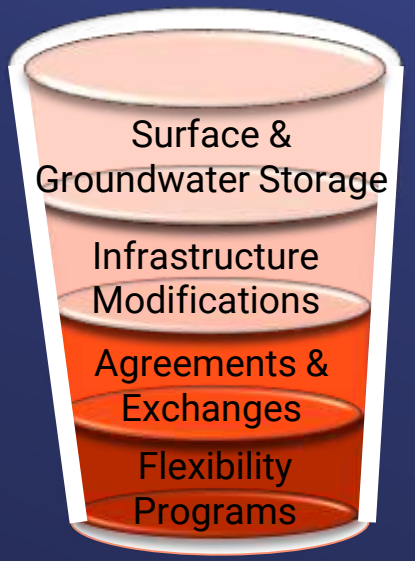


For Illustration Purposes Only

SWP Dependent Area Solution – Ideas and Moving Forward

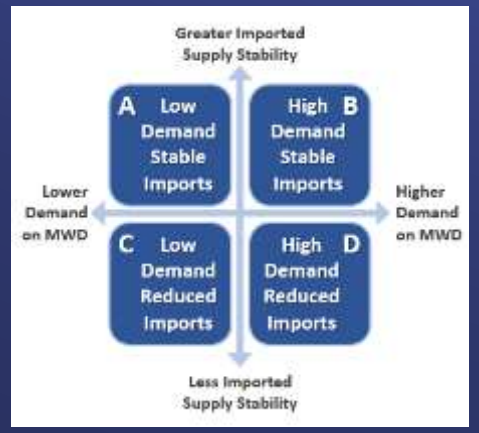
Region Wide Idea Generation and Alternative Identification

Drought Action Briefing Sheets



Portfolios of Drought Actions

Late Summer 2022



Evaluate the benefits of each option or portfolio, and test benefits

Develop an action plan

Implement Action Plan

SWP Dependent Area Solutions (workshops)

SWP Dependent Area Solutions – Decision Process

Developing Assessment/ Planning Tools

	Future Action	Potential Yield TAF/Year	Cost	Criteria A	Criteria B
☑	New Interconnections Project	80-100			
☑	Increased Banking Takes	5			
☑	Additional Exchange	5			
☑	New Pump Stations in Area A	~~70~~			
☑	Expanded Banking Program	70			
☑	Expanded Pump Station in Area A	70			
☑	New Pump Station in Area B				
☐	New Pump Station in Area B				
☐	CRW to Area B				
☐	Expanded Banking Program				
☐	New Reservoir				
☐	More Options				
	Total	230-250			

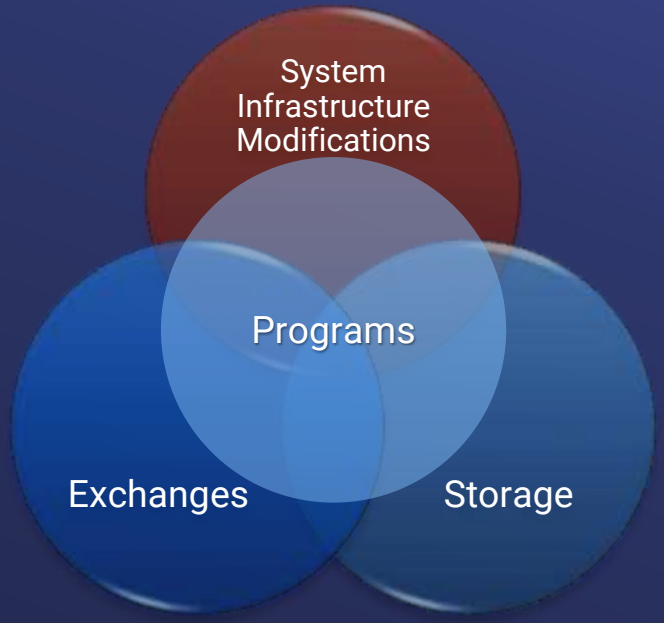
Smart tools assist in more comprehensive understanding of various mixes of projects/programs

Some projects may be mutually exclusive

EXAMPLE ONLY

Drought Action Planning & Development

Idea Sharing



General categories of drought actions

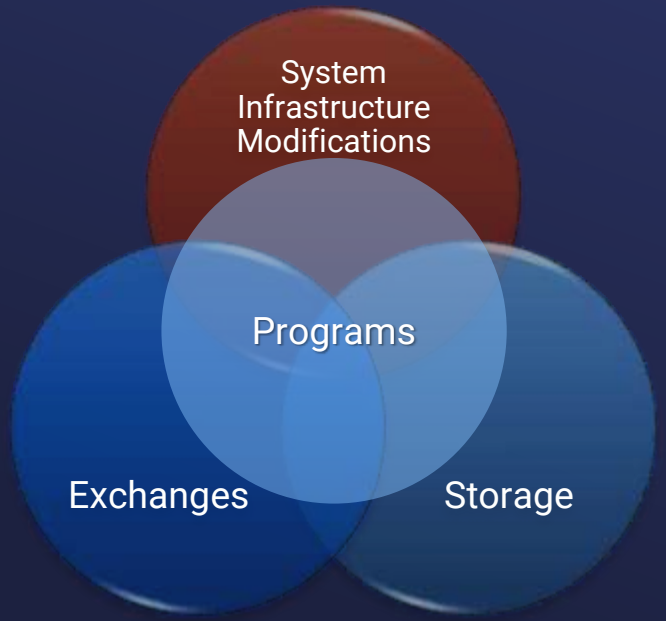
- Examples of drought action ideas generated by both Metropolitan and member agencies

Examples of drought action ideas generated by both Metropolitan and member agencies

- Operational Shift Cost-Offset Program
- Reverse Cyclic Program
- Antelope Valley – East Kern Banking Program
- DVL to Rialto Delivery
- Sepulveda Feeder Reverse Flow (Venice/Sepulveda Pump Stations)
- Exchanges
- Three Valley Municipal Water District Enhanced (TVMWD) JWL Pumpback
- Burbank Water and Power shift
- Las Virgenes Municipal Water District (LVMWD) Interconnection

System Infrastructure Modifications

Example: TVMWD



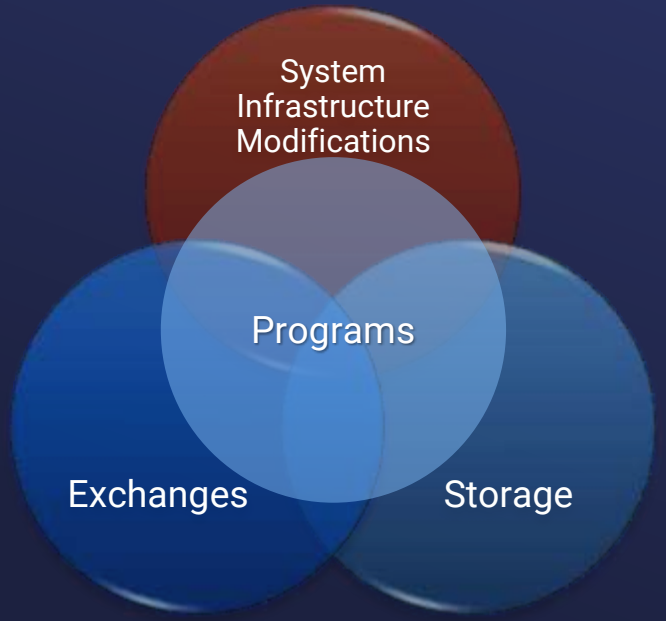
TVMWD Enhanced JWL Pumpback

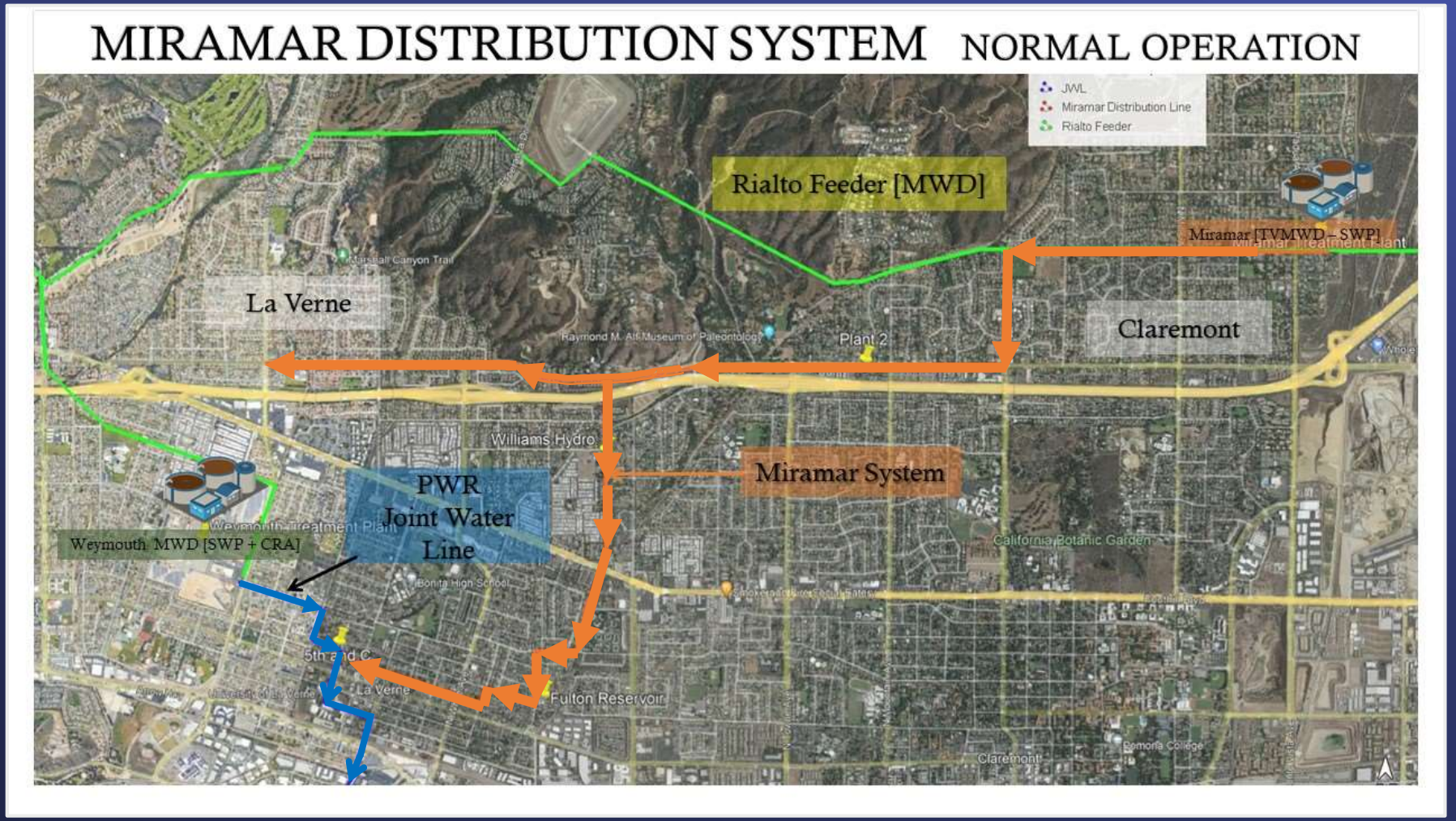
- Upgrade/expand existing TVMWD pumpback system
- Deliver additional treated Colorado River water via existing service connection
  - Up to 30 cfs
- Potentially shift 100% of TVMWD SWP use to Colorado River water
  - Potential near-term project (~Fall 2023)

5th and C Pumpback Station

System Infrastructure Modifications

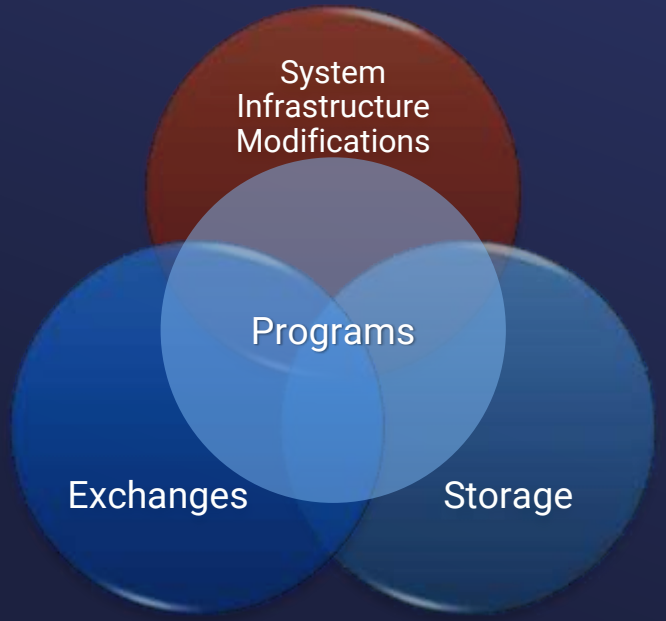
Example: TVMWD





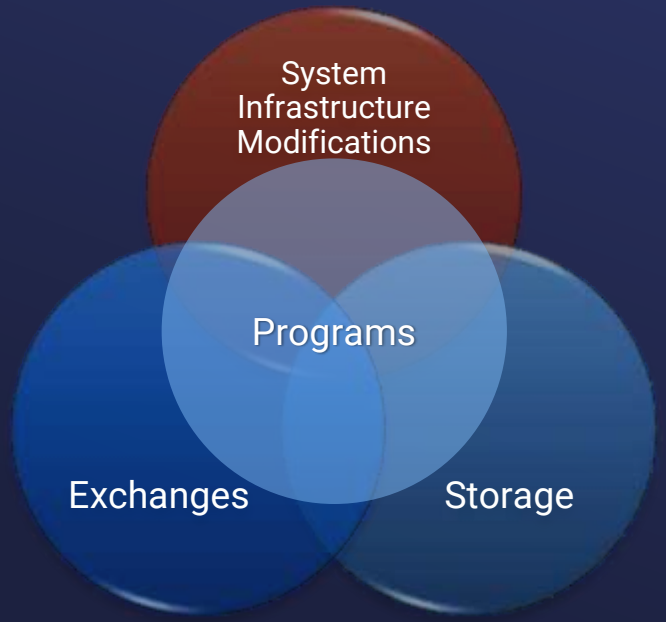
System Infrastructure Modifications

Example: TVMWD



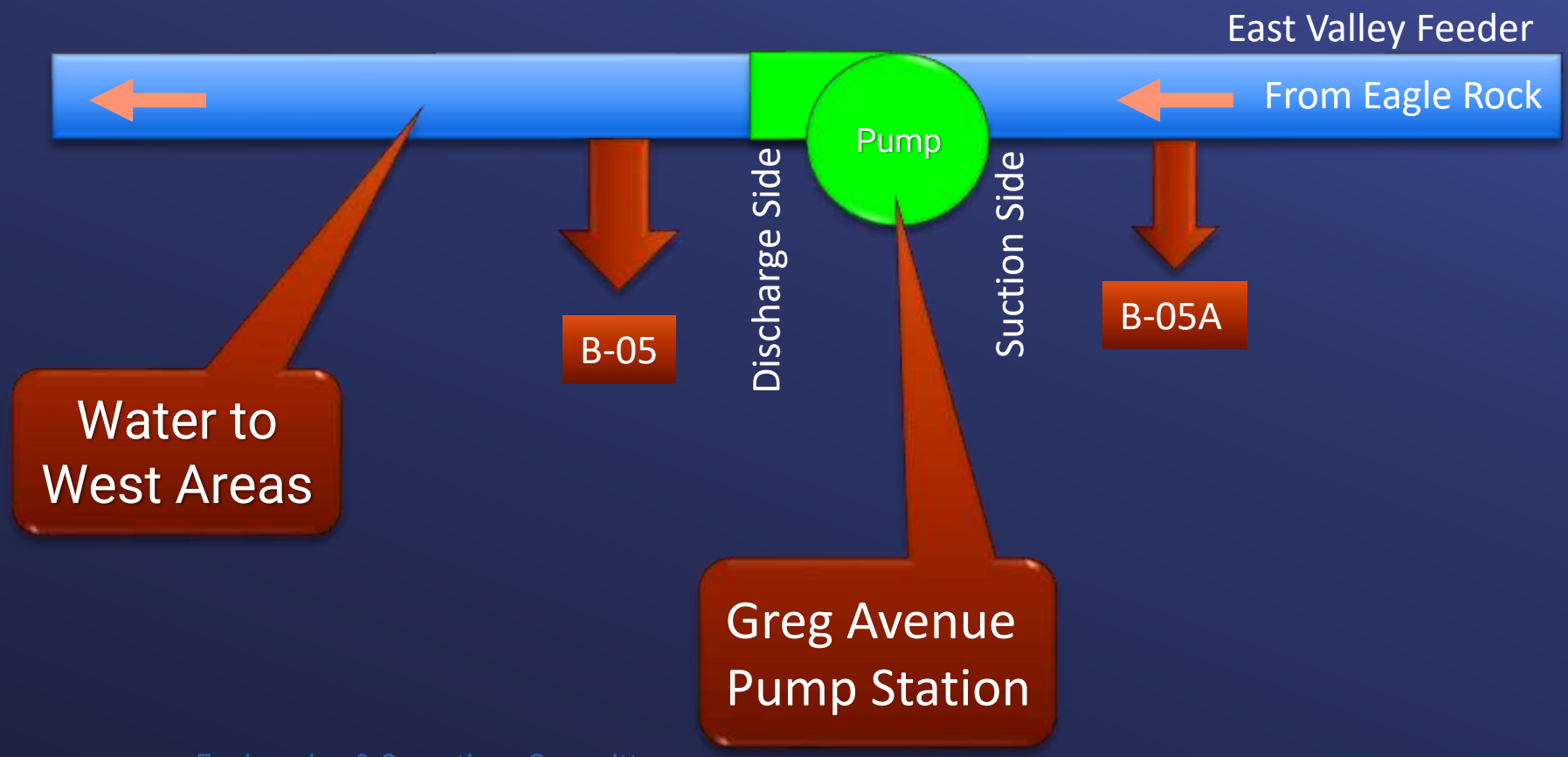
System Infrastructure Modifications

New Interconnection



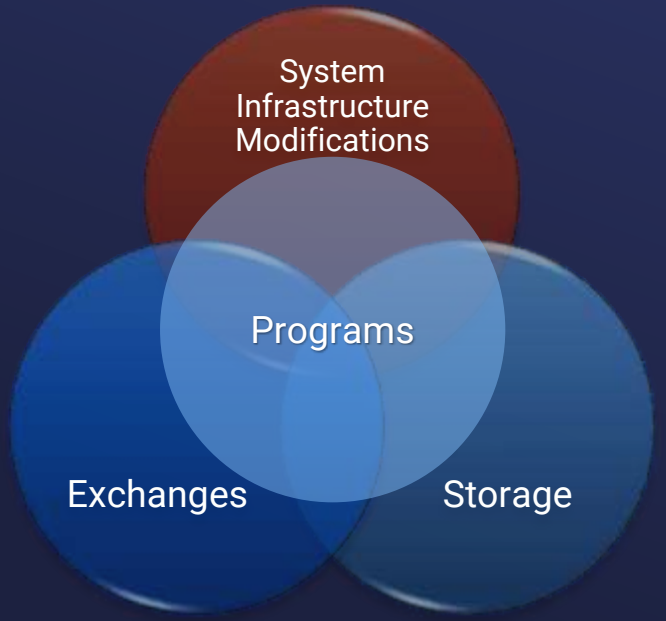
Burbank Water and Power

- Burbank B-05 to Burbank B-05A



System Infrastructure Modifications

Member Agency Interconnection



LVMWD/LA County Waterworks District 29 New Interconnection

- Utilize and upgrade existing facilities to convey CRW to LVMWD and Calleguas service areas
  - Enables LVMWD shift to CRW (9-30 TAF/year)
  - Can also provide CRW to Calleguas through upcoming interconnection
  - Potential online 2024-25


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928