



Subcommittee on Pure Water Southern California  
and Regional Conveyance

# Pure Water Southern California – Update on Staging Options

Item 3c

January 22, 2025

Item 3c  
PWSC  
Update on  
Staging  
Options

**Subject**

Pure Water Southern California (PWSC) Staging Options Update

**Purpose**

To provide an update on the PWSC staging opportunities

**Next Steps**

Continue planning & design efforts to determine program staging options

Item 3c  
PWSC Initial  
Phase  
Update

## Agenda

- Program goals and objectives
- Review of previous staging discussions
- Evaluation of staging options
- Comparison of options
- Staging coordination with the Sanitation Districts



## Summary of PWSC Program Goals

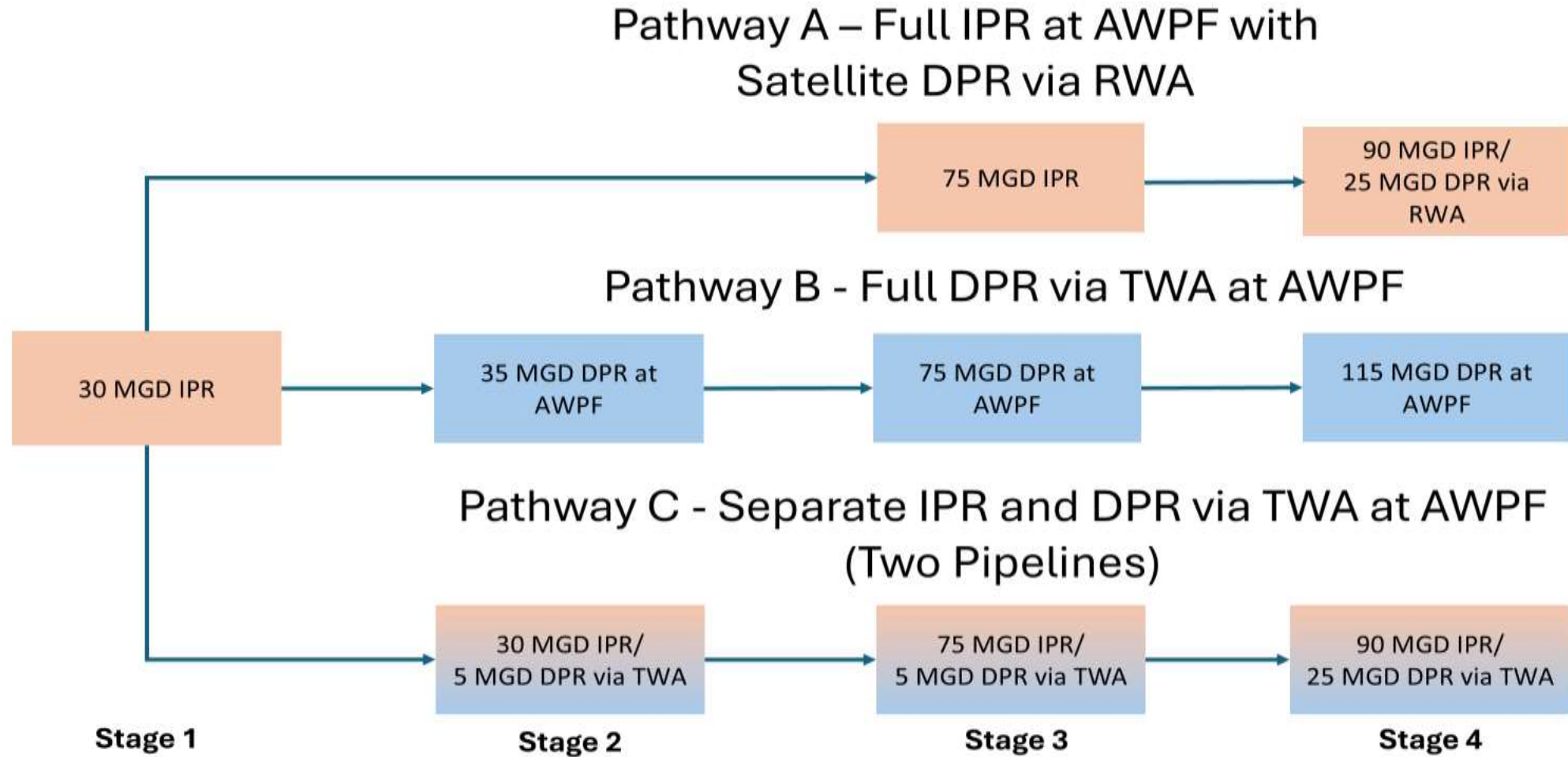
- Provide a new high-quality local water source that cost-effectively meets demands
- Diversify Metropolitan's water supply & increase operational flexibility
- Improve water supply resiliency & groundwater water quality
- Provide purification to maximize beneficial reuse of wastewater
- Reduce reliance on imported water
- Provide greater resilience to local water supplies

## Potential Staging Considerations

# Objectives for Staging Option Analysis

- Phasing in the EIR
  - Phase 1 – 115 mgd
  - Phase 2 – 150 mgd
- Investigate approaches to refine program staging
  - Reduce initial scope & cost of Phase 1 (115 MGD)
  - Investigate potential to incorporate Treated Water Augmentation (TWA)
  - Develop & evaluate multiple staging options
  - Prepare conceptual costs & schedules for each of the options

# Potential Pathways with Stages



*\*All pathways have an ultimate capacity of 150-MGD*

## Efforts since September Subcommittee Meeting

- Continued coordination of demands with member agencies
- Evaluated flexibility to meet demand variability
- Continued DPR via TWA investigations
- Revised program schedule
- Refined program costs
- Coordinated with LACSD
- Compared the options with the program goals



# Staging Options to Consider

## Option 1

45 MGD

IPR Water Quality

Meets demands to Long Beach

10 miles of pipeline

Industry/groundwater recharge

## Option 2

75 MGD

IPR Water Quality

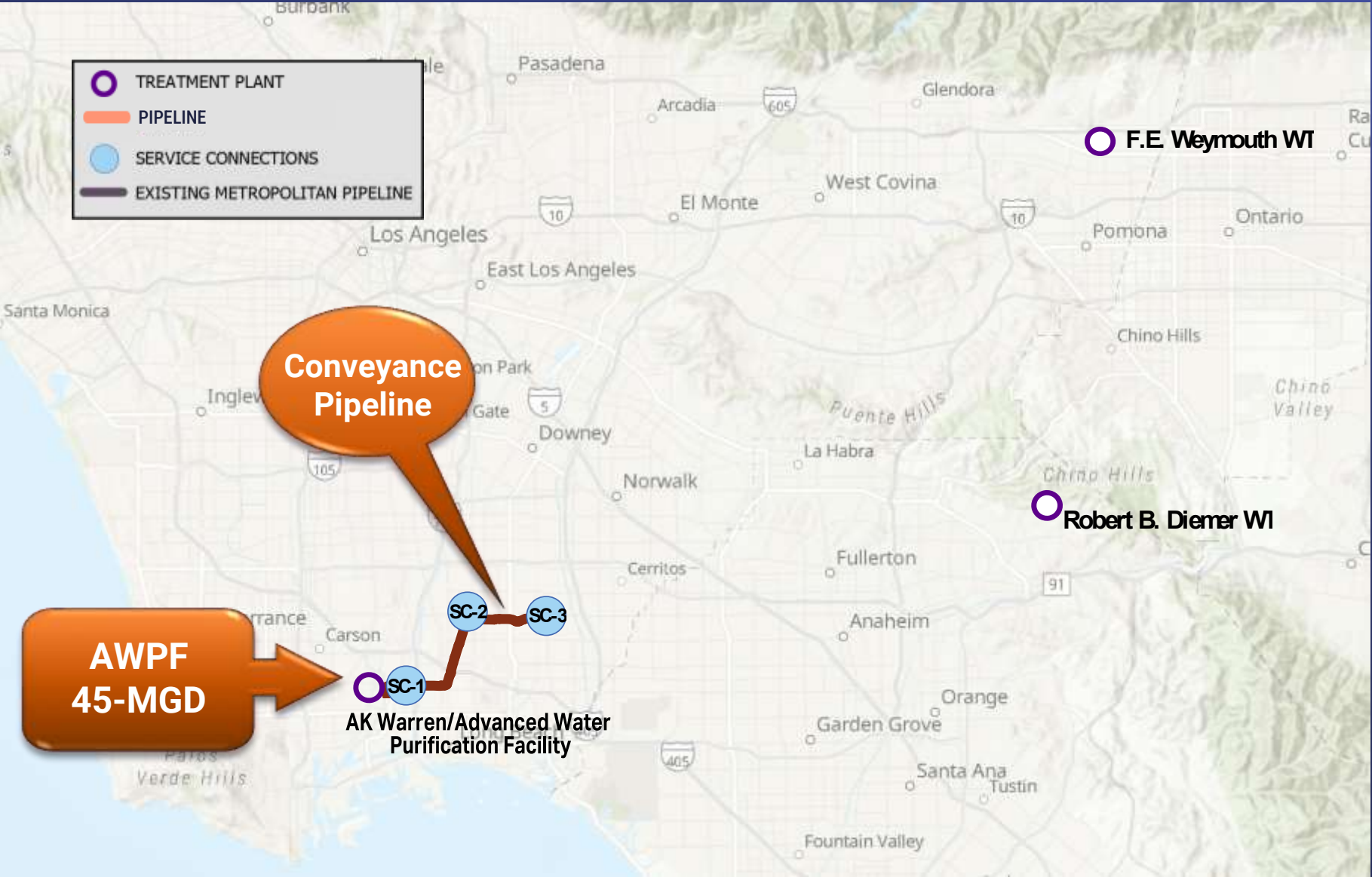
Meets demands to Santa Fe Dam area

35 miles of pipeline

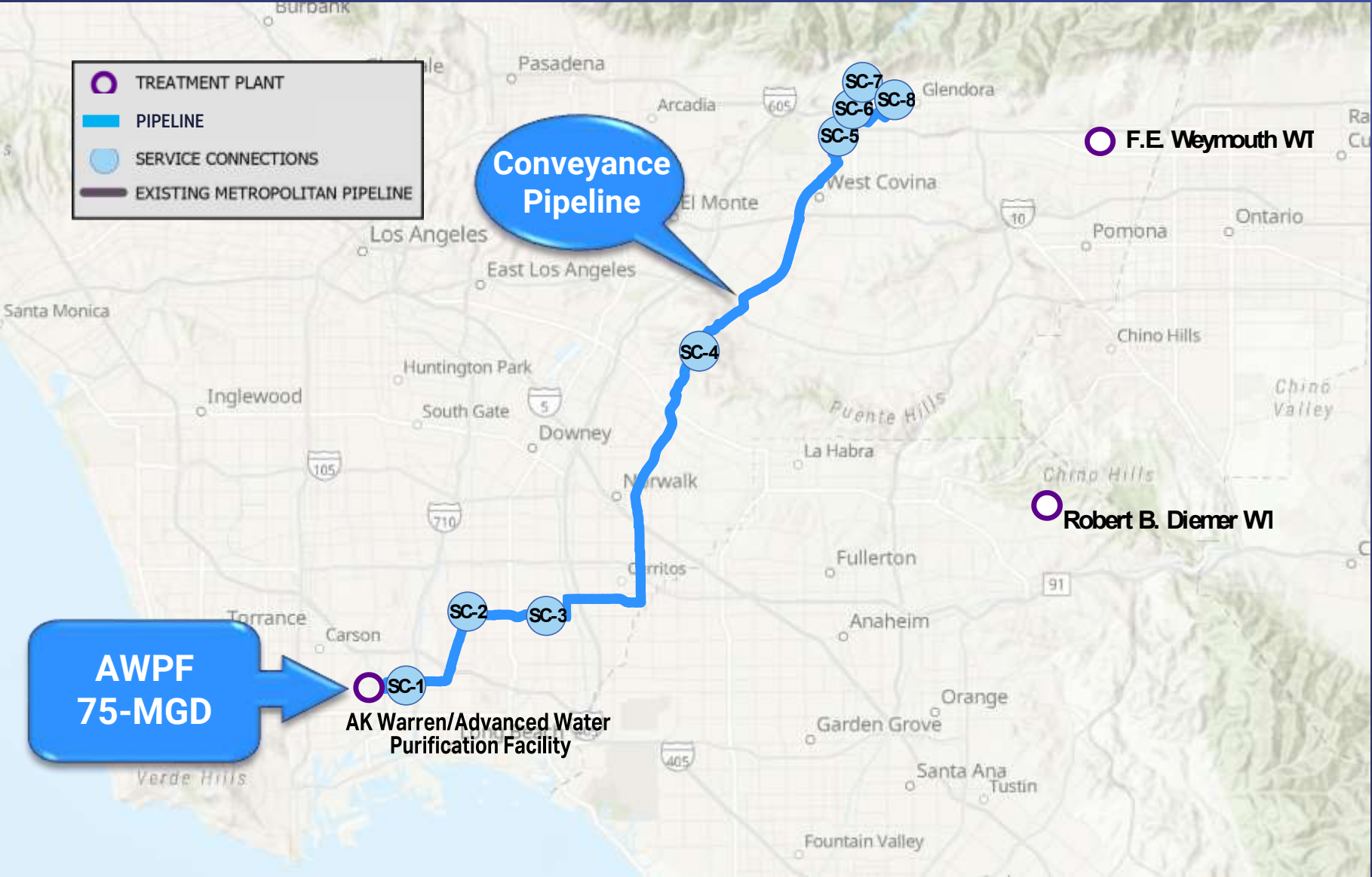
Industry/additional groundwater recharge



# Option 1 – IPR Treatment at AWPWF to Long Beach

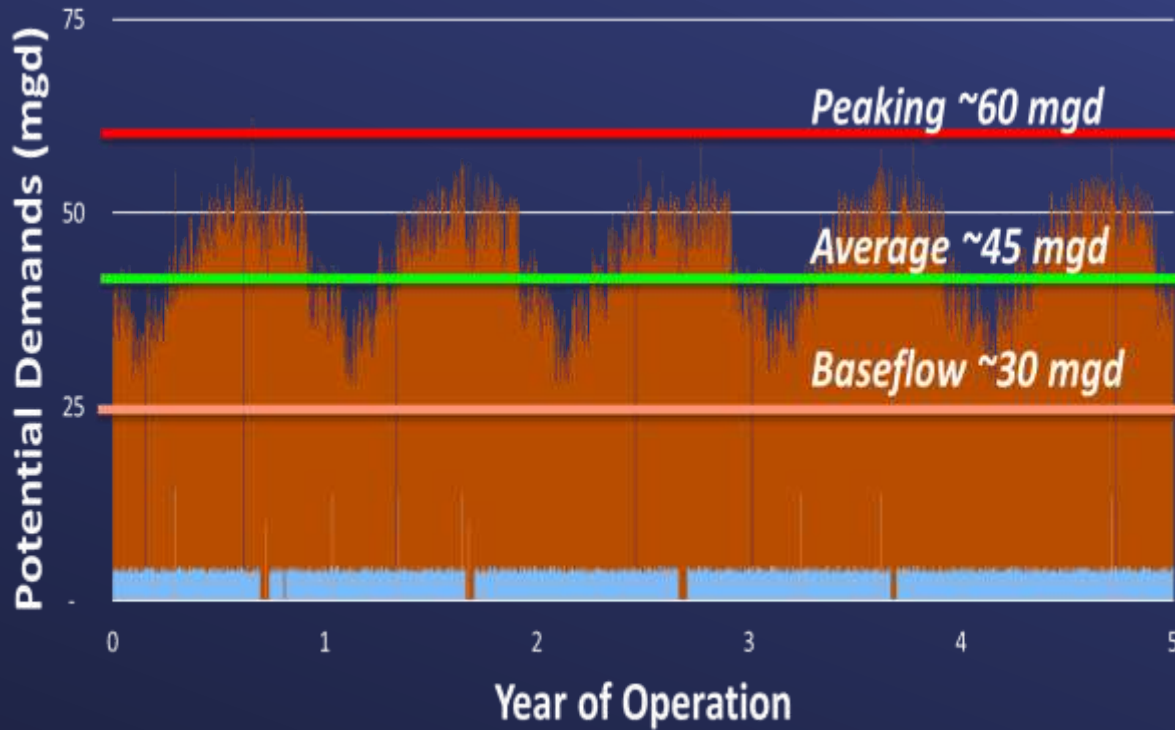


# Option 2 – IPR Treatment at AWPWF to Santa Fe Dam



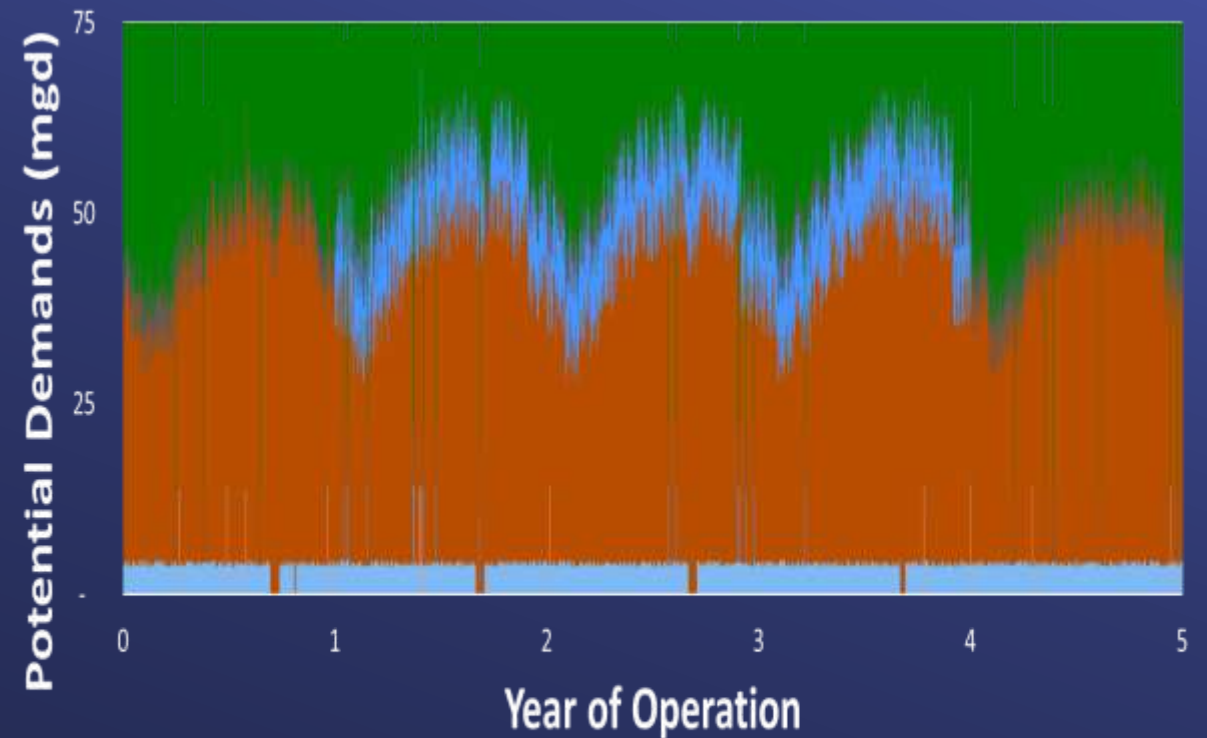
# Provide Operational Flexibility & Meet Demand Variability

Option 1 - 45 mgd



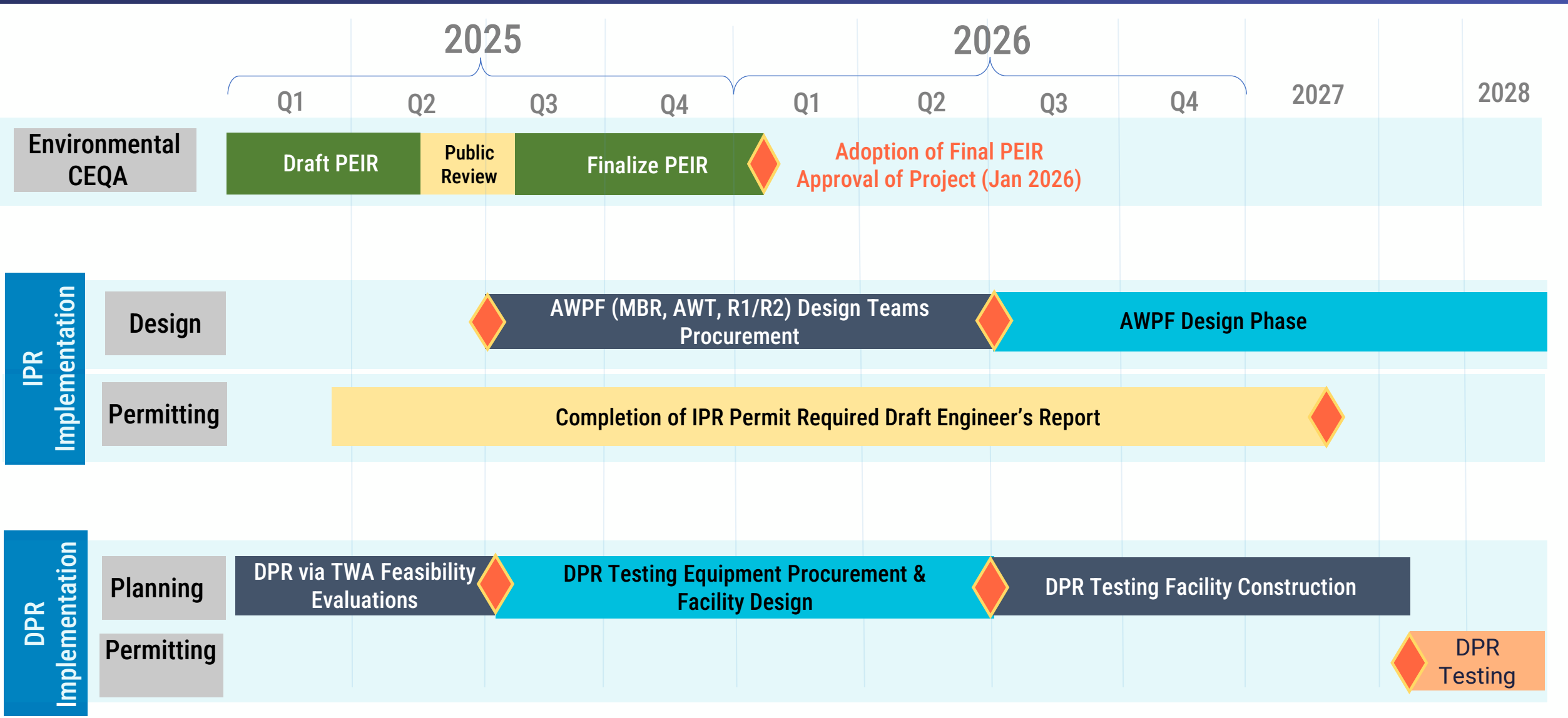
■ LADWP ■ Long Beach ■ West Basin

Option 2 - 75 mgd



■ LADWP ■ Long Beach ■ West Basin  
■ Central Basin ■ Three Valleys ■ Upper District

# Implementation Schedule with DPR Planning and Testing





## DPR/TWA Evaluation

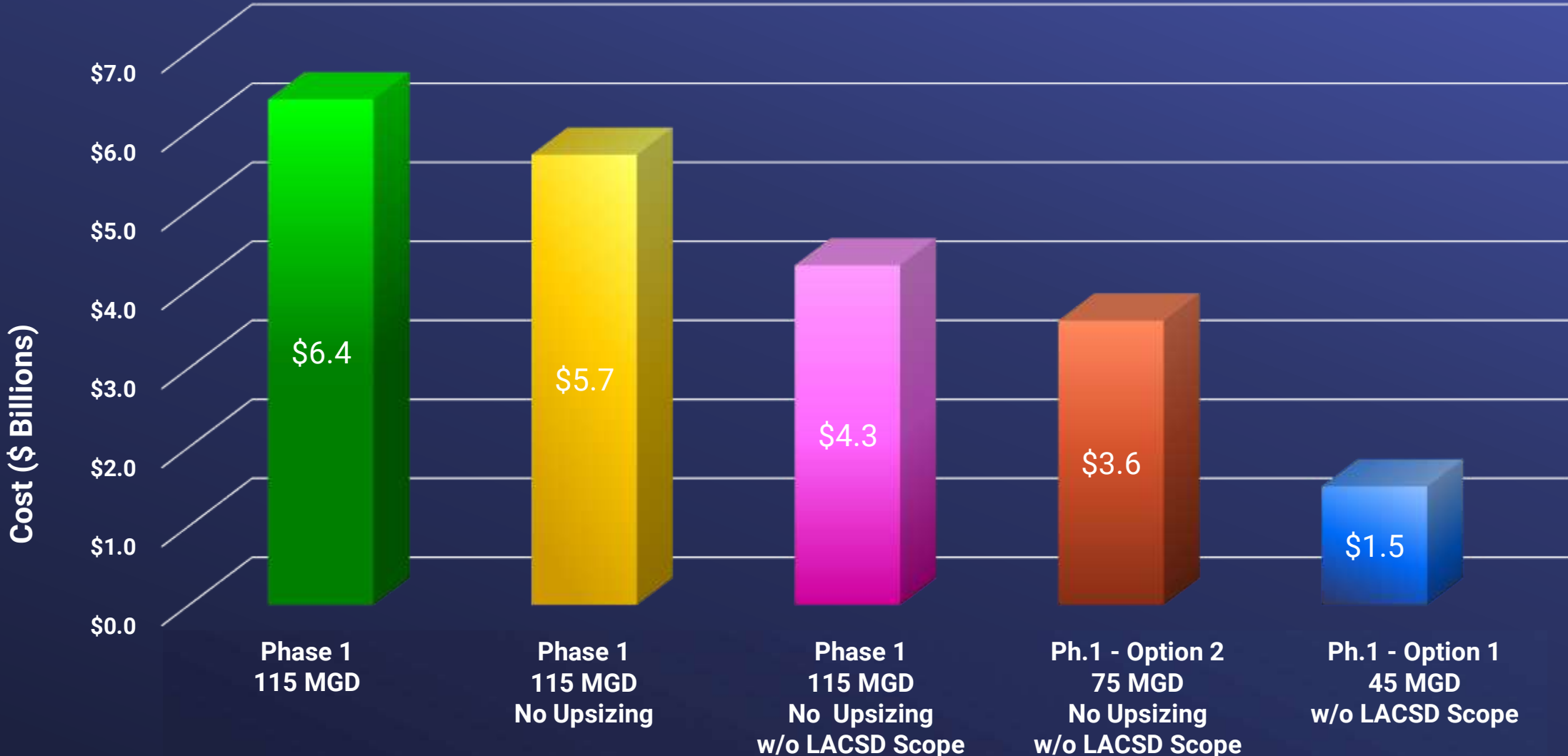
### Summary of DPR Considerations

- DPR (RWA and TWA) will take longer to permit and implement than IPR
  - TWA studies are still being evaluated
  - Pilot and demo testing must be completed prior to design of the DPR Facilities
- IPR only implementation for both options is recommended for the initial construction
- Flexibility to implement DPR into the PWSC after evaluations and demo testing is completed

# Overview of Updated Program Costs

- Based on program costs presented in November 2023
  - Phase 1 – 115 MGD
  - Upsized pipeline for LADWP PWLA Program
  - All treatment facilities – MBR, RO, UV-AOP, etc.
- Modifications since 2023
  - Agreement with LACSD assigns construction costs of pre-treatment facilities (MBR etc.) to LACSD

# Metropolitan Staging Cost Comparisons





# Comparison of Staging Options

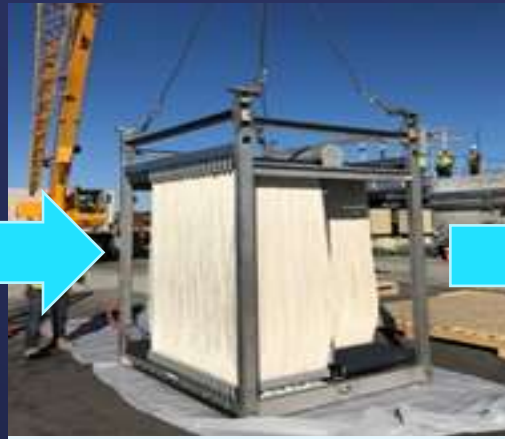
Parameter	Option 1	Option 2
<b>AWPF Capacity (mgd)</b>	45	75
<b>Water Quality</b>	IPR	IPR
<b>Ability to Meet Production Goals w/o New Storage or Stranded Assets</b>	No	Yes
<b>Maximizes Beneficial Reuse of Recycled Water</b>	Low	High
<b>Agencies Served</b>	WBMWD, Long Beach	WBMWD, Long Beach, CBMWD, Upper District, 3 Valleys MWD
<b>Requires Dedicated Recharge Basin</b>	No	Yes
<b>Year of Operation</b>	2033	2034
<b>Metropolitan Estimated Cost</b>	\$1.5 billion	\$3.6 billion

# Update from the Sanitation Districts

- Preparing procurement documents for MBR Progressive Design-Build
- Supporting Metropolitan on CEQA
- Research studies and supporting operations and testing at Grace F. Napolitano Innovation Center
- General Manager briefing Board today on PWSC Program efforts
- Considering the Program's rate impacts



*A.K. Warren Water Resource Facility*



*MBR Pre-treatment*



*Advanced Water Treatment*

# Staging Coordination with the Sanitation Districts

The Sanitation Districts supports staging options that:

- Maximize the beneficial reuse of recycled water
- Fully meet the PWSC Program Goals
- Are cost effective today and reduce future implementation costs
- Are 75 MGD (or larger) with a pipeline to Irwindale to recharge the Main San Gabriel Valley Groundwater Basin



*Recharge Facilities*

