



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

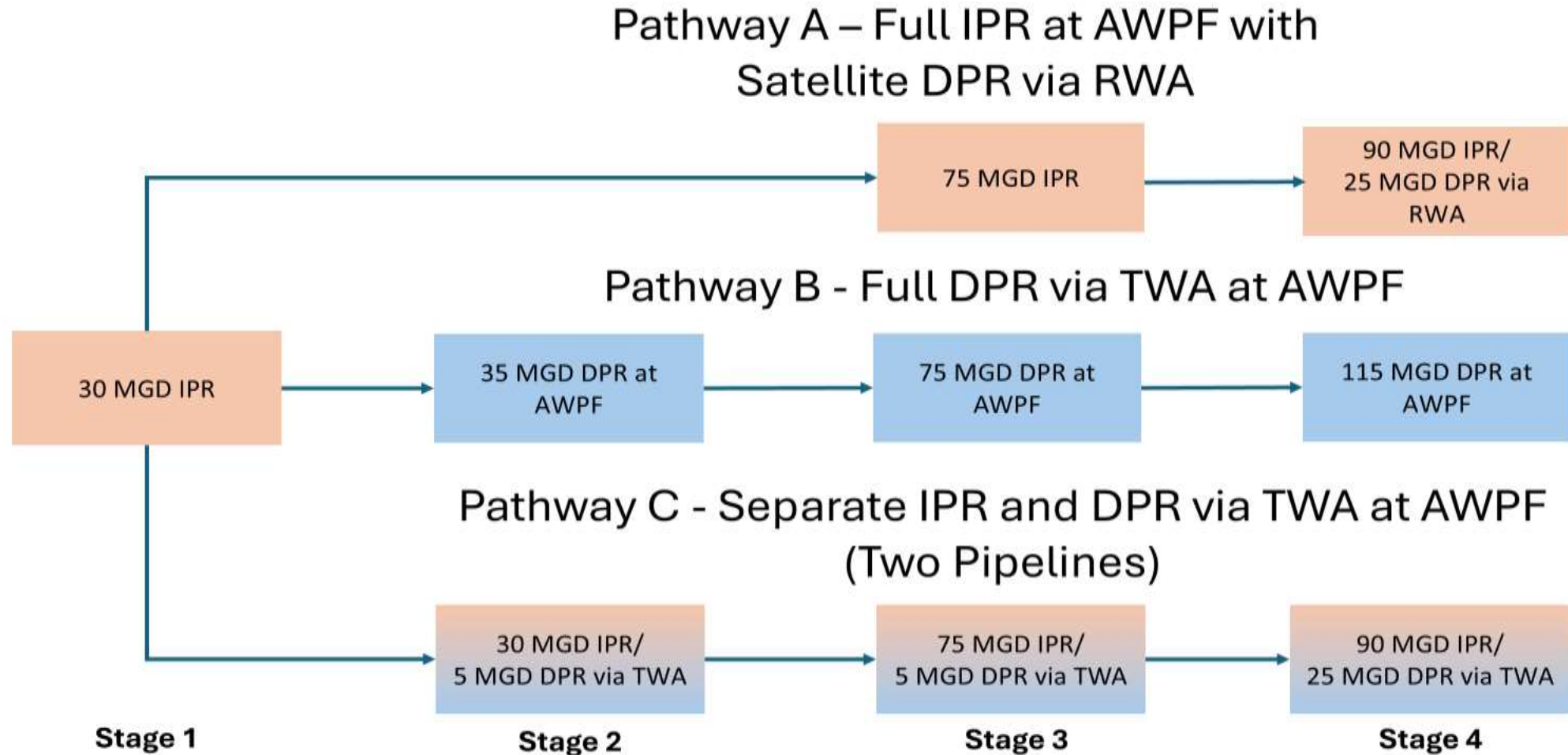
- Provide a new high-quality local water source that cost-effectively meets demands
- Diversify Metropolitan's water supply & increase operational flexibility
- Improve water supply resiliency & groundwater water quality
- Provide purification to maximize beneficial reuse of wastewater
- Reduce reliance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

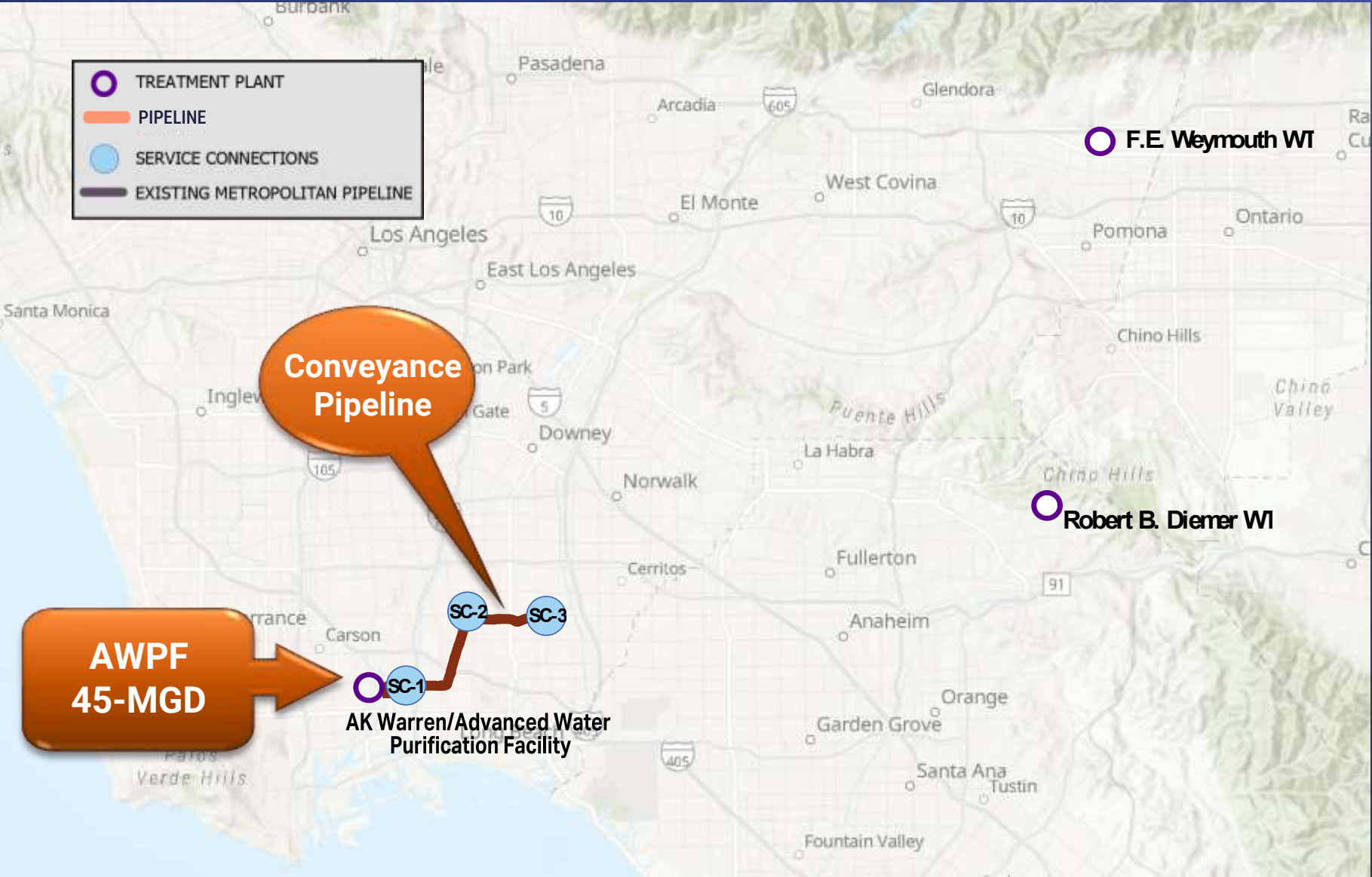
IPR Water Quality

Meets demands to Santa Fe Dam area

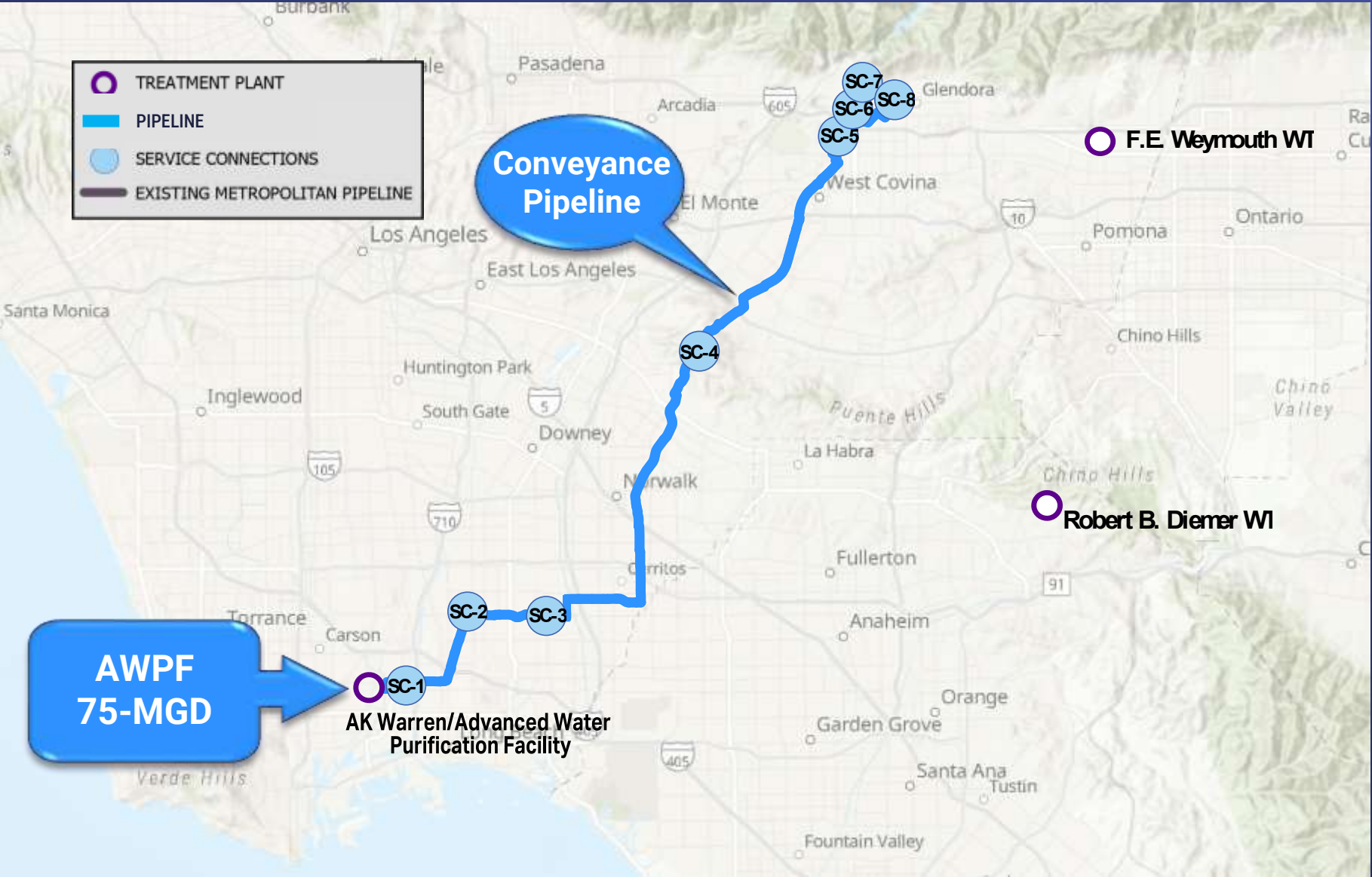
35 miles of pipeline

Industry/additional groundwater recharge

Option 1 – IPR Treatment at AWPFF to Long Beach

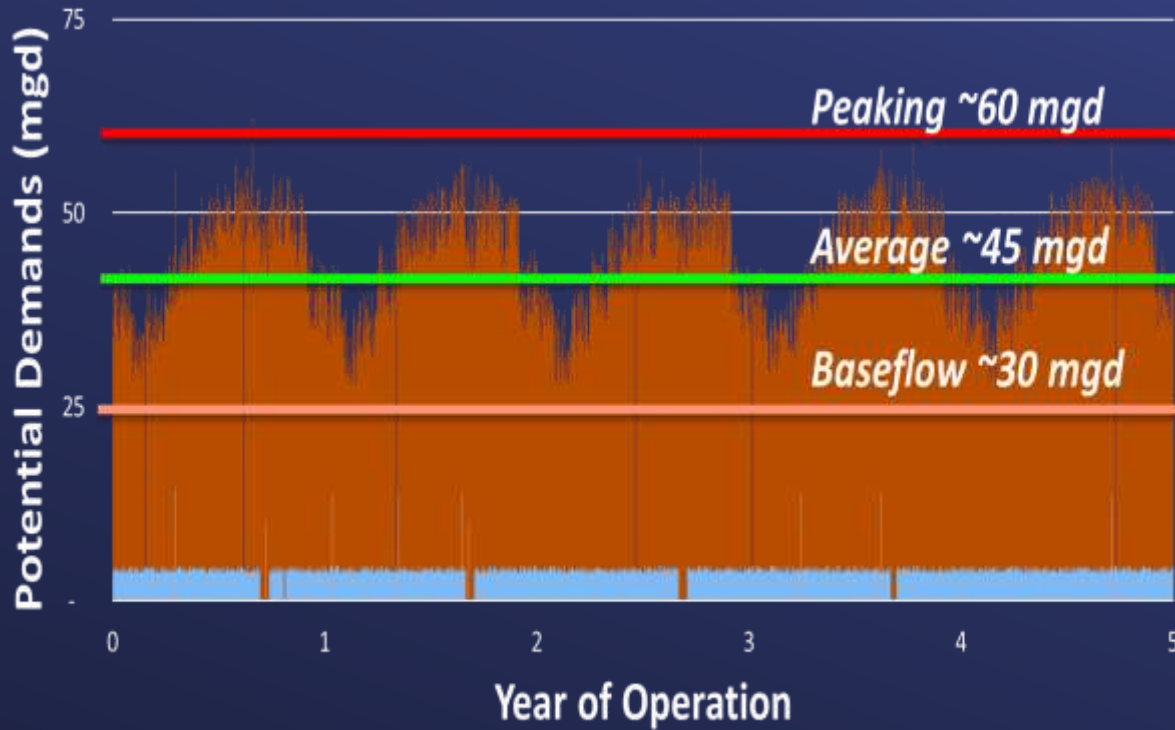


Option 2 – IPR Treatment at AWPWF to Santa Fe Dam



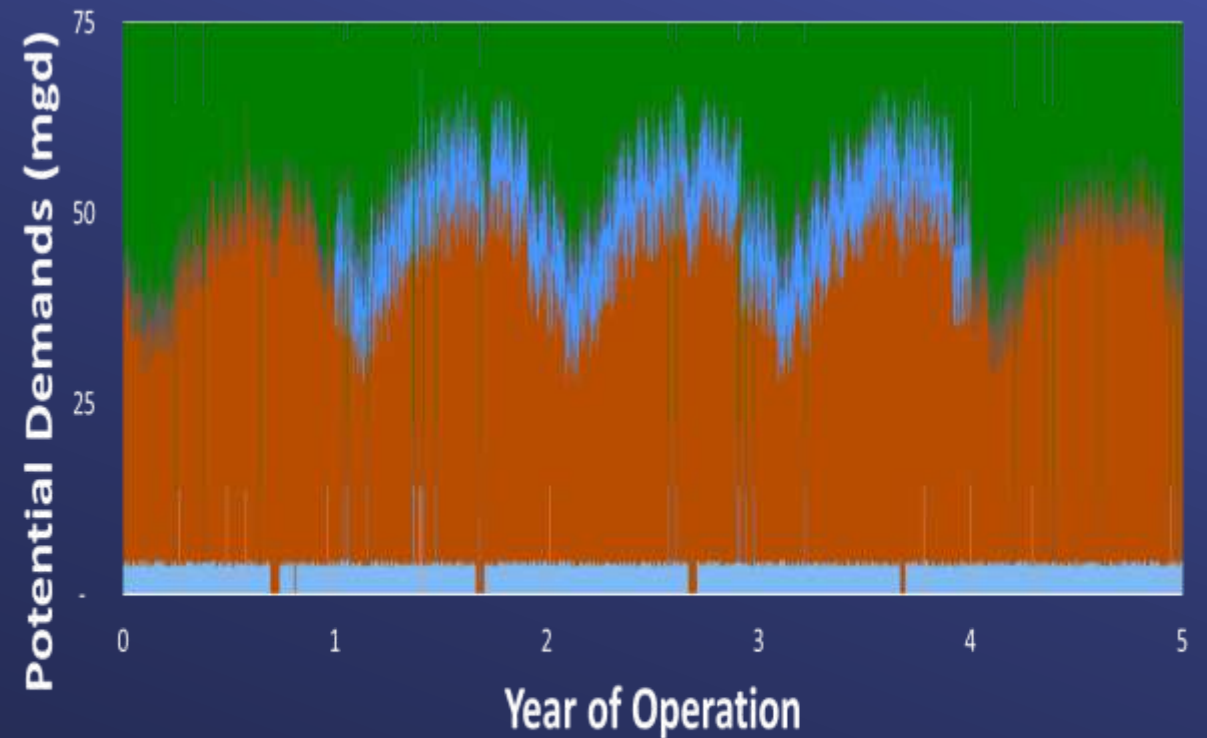
Provide Operational Flexibility & Meet Demand Variability

Option 1 - 45 mgd



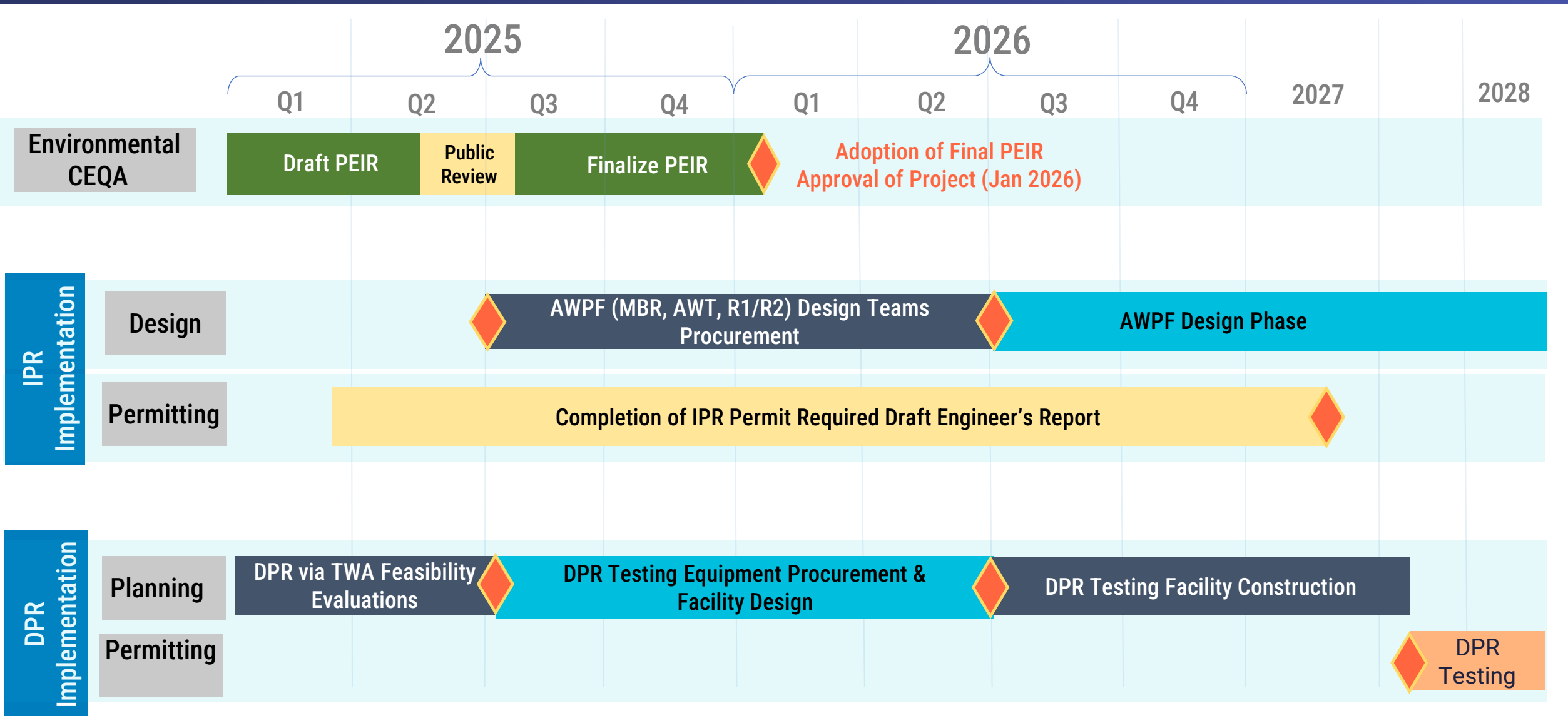
■ LADWP ■ Long Beach ■ West Basin

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

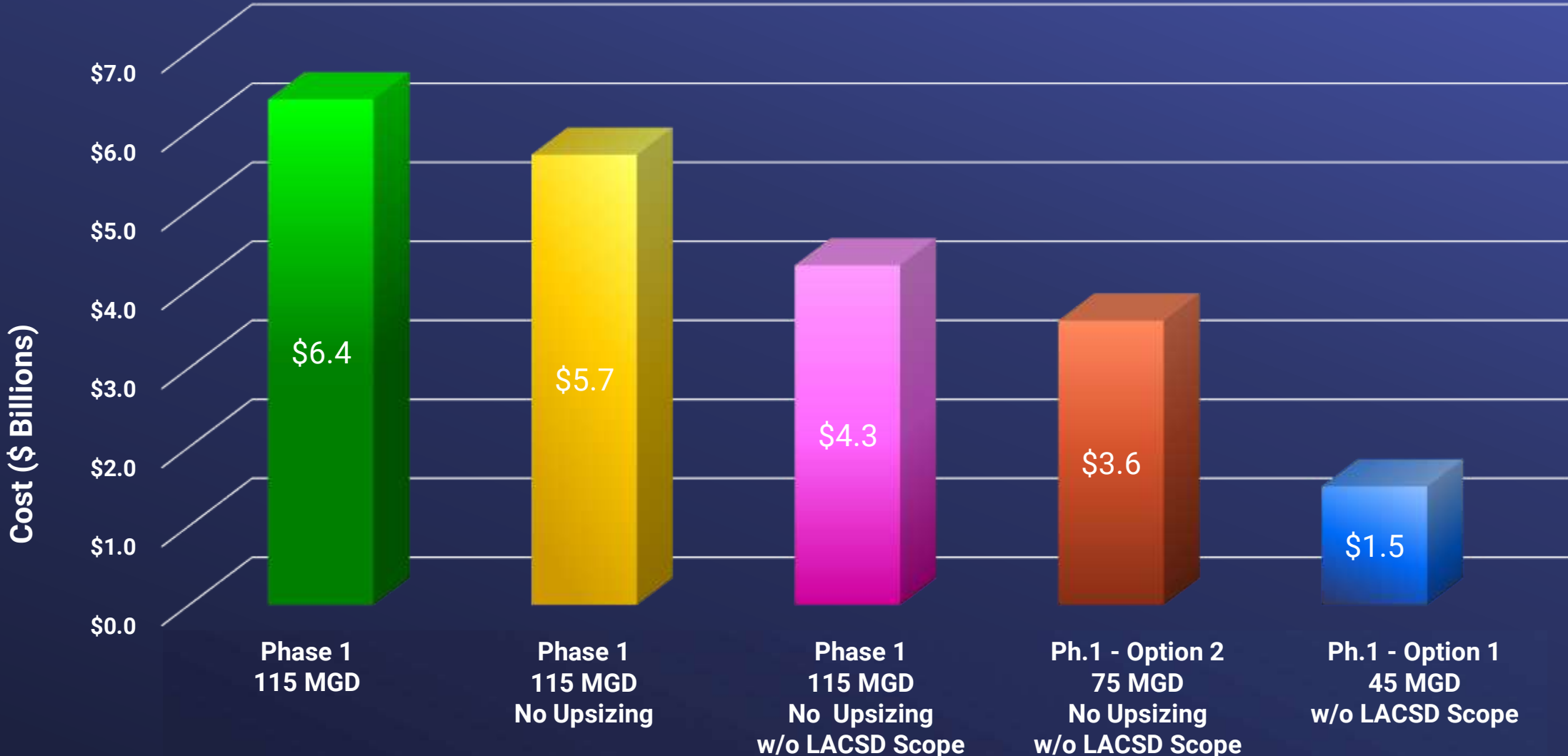
Summary of DPR Considerations

- 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

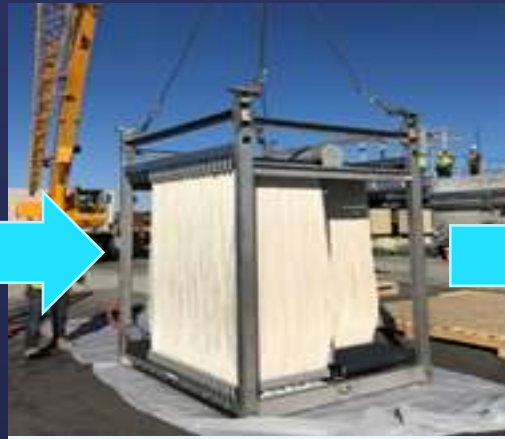
Parameter	Option 1	Option 2
AWPF Capacity (mgd)	45	75
Water Quality	IPR	IPR
Ability to Meet Production Goals w/o New Storage or Stranded Assets	No	Yes
Maximizes Beneficial Reuse of Recycled Water	Low	High
Agencies Served	WBMWD, Long Beach	WBMWD, Long Beach, CBMWD, Upper District, 3 Valleys MWD
Requires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

