



Engineering, Operations, & Technology Committee

Integrated Strategy for Infrastructure Reliability Progress Update

Item 6c

March 9, 2026

Presented by: Rosa Lau & Eugenia Lin

Item 6c

Integrated Strategy for Infrastructure Reliability Update

Subject

Integrated Strategy for Infrastructure Reliability (ISIR)
Progress Update

Purpose

Provide an overview of the ISIR process and an update on recent developments of equitable supply reliability projects

Next Steps

Continue coordinating with member agencies and schedule ISIR workshops to provide updates on the progress of all studies and projects under this process

Integrated Strategy for Infrastructure Reliability

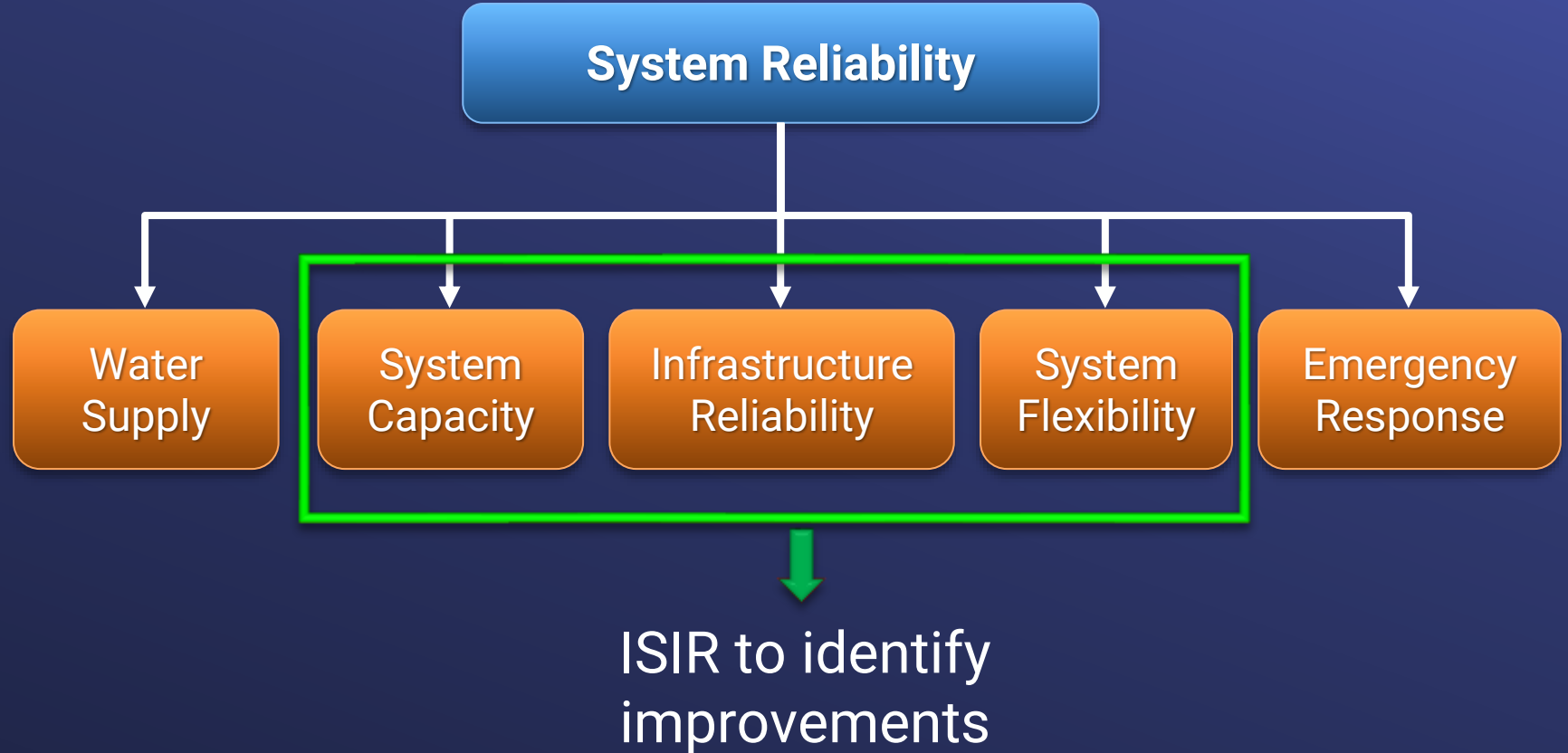
Background

- The purpose of the ISIR is to enhance regional infrastructure reliability through an integrated process
 - Improve efficiency and streamline efforts
- Build broad agreement on a path forward
- Foster collaboration between Metropolitan and its member agencies
 - Series of workshops to coordinate ongoing and planned studies
 - Four workshops completed to date



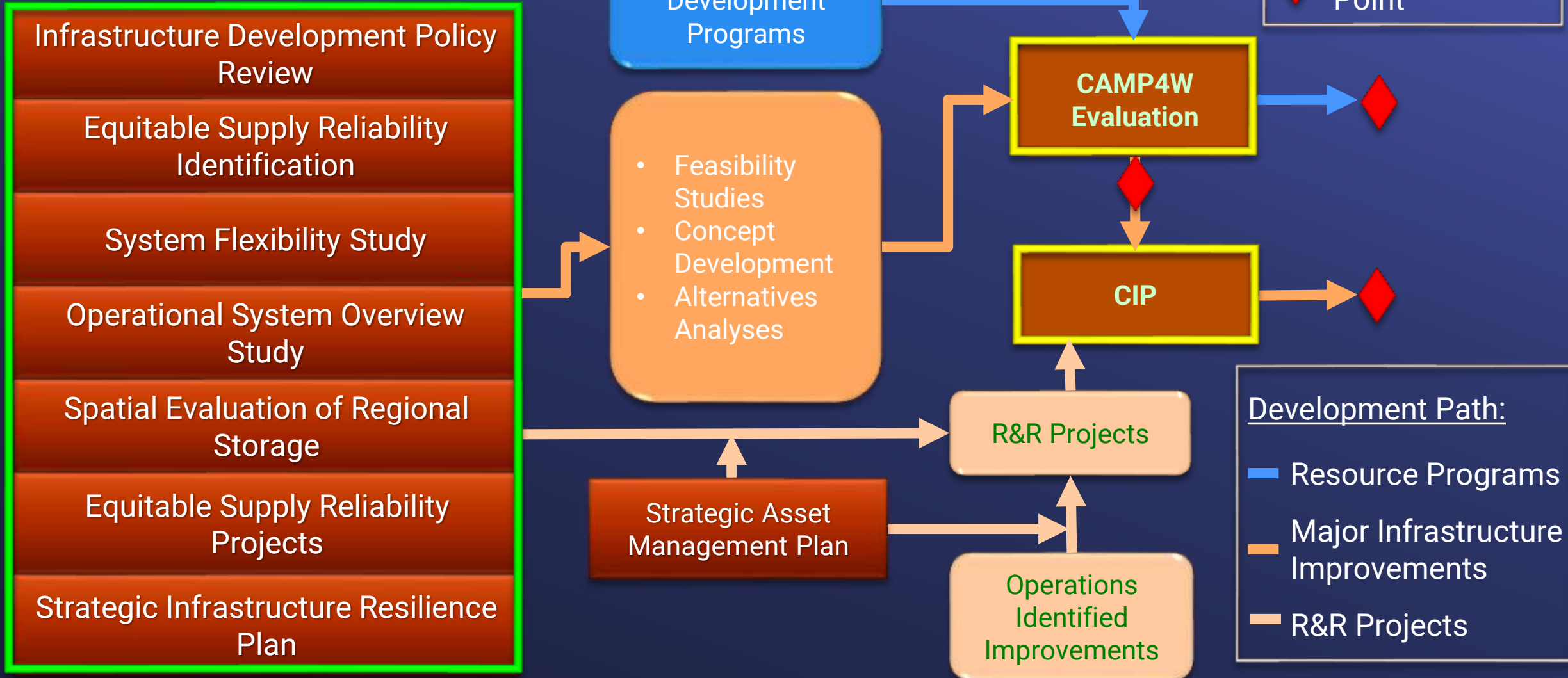
Comprehensive System Reliability Strategy from Metropolitan's 2007 Integrated Area Study

Integrated Strategy for Infrastructure Reliability



Project Development Process for Infrastructure Improvements

Integrated Strategy for Infrastructure Reliability (ISIR)



Metropolitan & Member Agency-Developed ISIR Goals

- Identify infrastructure improvements that increase resilience, reduce vulnerabilities, and ensure reliable water service for all member agencies
- Develop broad agreement on a draft ISIR framework for Metropolitan Board consideration



Metropolitan & Member Agency-Developed ISIR Objectives

- Workshop Approach
 - Establish and refine a collaborative workshop process to inform planning and strategy development
 - Promote a common understanding of key concerns related to infrastructure reliability among stakeholders



ISIR Workshop #3
(September 19, 2025)

Metropolitan & Member Agency-Developed ISIR Objectives

- Review the Level of Service elements and policies, and identify any areas that may require board consideration
- Promote a common understanding of infrastructure-related policies

Activities

Infrastructure Development Policy Review

- Revisit policies applicable to infrastructure projects
- Develop Metropolitan Infrastructure Policy Reference Guide

Metropolitan & Member Agency-Developed ISIR Objectives

- Investigate system operational challenges for meeting regional demand, including infrastructure capacity constraints, invasive mussels, water quality issues (e.g., nitrification) and spatial storage limitations

Activities

Operational System Overview Study

- Investigate Metropolitan's system to address operational system challenges & capacity constraints

Spatial Evaluation of Regional Emergency Storage

- Evaluate storage assets & identify system considerations to assess the effectiveness of the spatial distribution of emergency storage

Metropolitan & Member Agency-Developed ISIR Objectives

- Evaluate regional flexibility to withstand unplanned Metropolitan service disruptions and identify strategies and mitigation measures for board consideration

Activities

System Flexibility Study

- Evaluate & identify options to improve combined system flexibility of Metropolitan and its member agencies to respond to outages (short duration & long duration)

Strategic Infrastructure Resilience Plan

- Identify projects that improve Metropolitan's infrastructure resilience

Equitable Supply Reliability Identification

- Identify areas within Metropolitan's system that may not have access to available supplies under certain system constraints

Equitable Supply Reliability Projects

- Identify & implement equitable supply reliability projects to mitigate future droughts in the State Water Project-dependent areas & improve regional supply reliability

Equitable Supply Reliability Projects Update

Equitable Supply Reliability Projects

Project Name	Status
Rialto Pipeline Water Supply Reliability Improvement Projects	
Badlands Tunnel Surge Protection Facility	Construction Complete
Wadsworth Pump Plant Bypass Line	Construction
Inland Feeder/Rialto Pipeline Intertie	Construction
Inland Feeder/SBVMWD Foothill Pump Station Intertie	Final Design
Burbank Service Connection B-5 to B-5A Shift	Preliminary Design
TVMWD Miramar Pumpback Upgrades	Preliminary Design
Sepulveda Feeder Pump Stations	Stage 1 – Construction Stage 2 – Feasibility Study
Regional Conveyance	Feasibility Study
Surface Storage	Feasibility Study

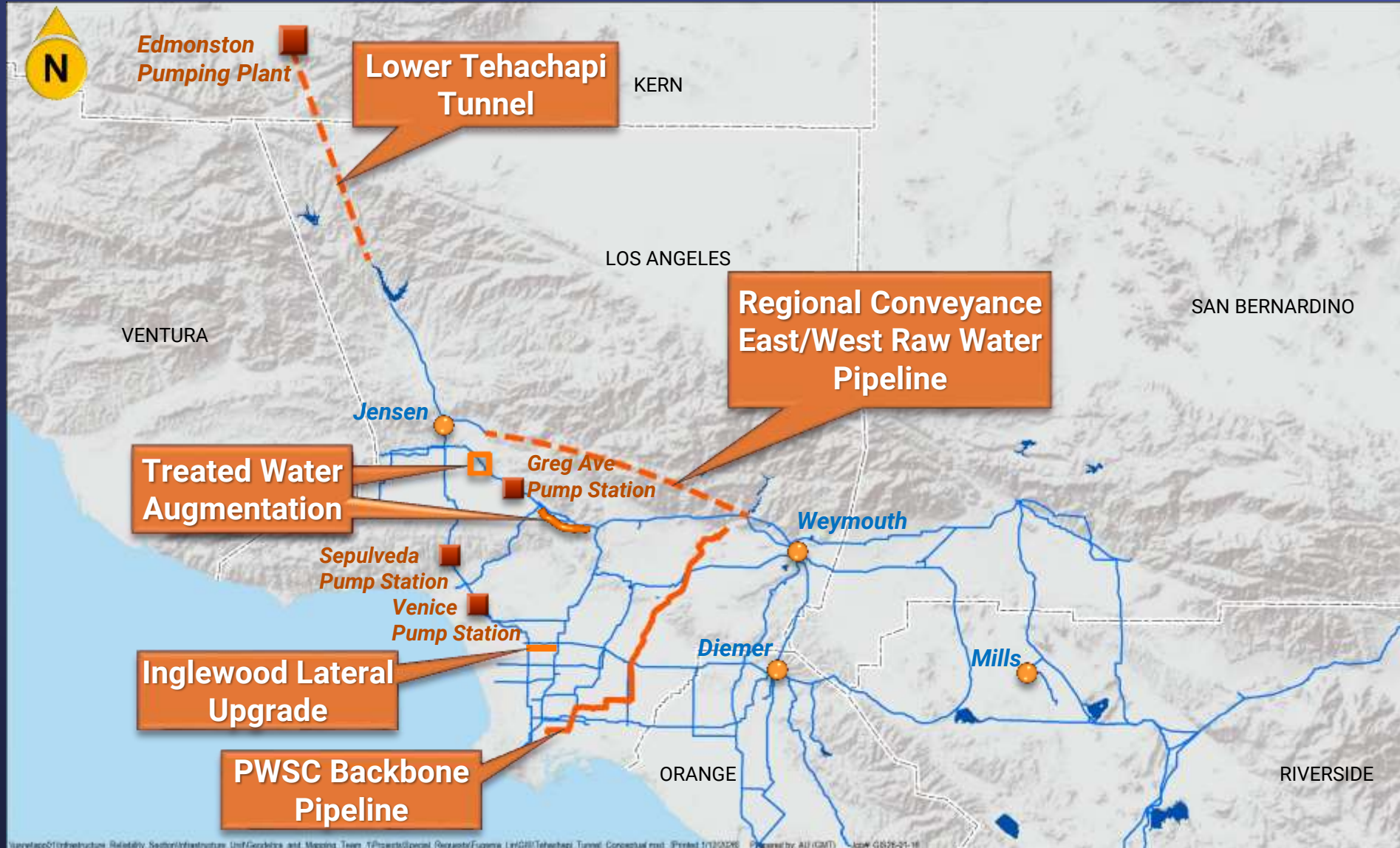


Pumped Flow Delivered to SBVMWD's Facility from Successful Pump Test in Oct 2025



Sepulveda Feeder Pump Stations Stage 1
Venice Pump Station Construction

Potential Regional Conveyance Improvements

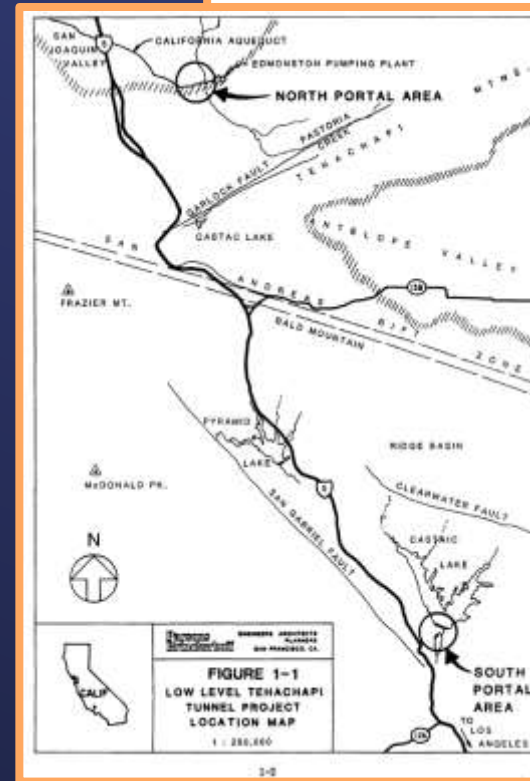


Examples of Comprehensive Regional Conveyance Studies

- East/West Raw Water Conveyance (Middle Reach of Foothill Feeder)
 - Complete loop between SWP's West and East Branch
 - Allow flexibility in operations with potential for power saving
- Lower Tehachapi Tunnel
 - Minimize power consumption by conveyance through tunnel and avoid pumping

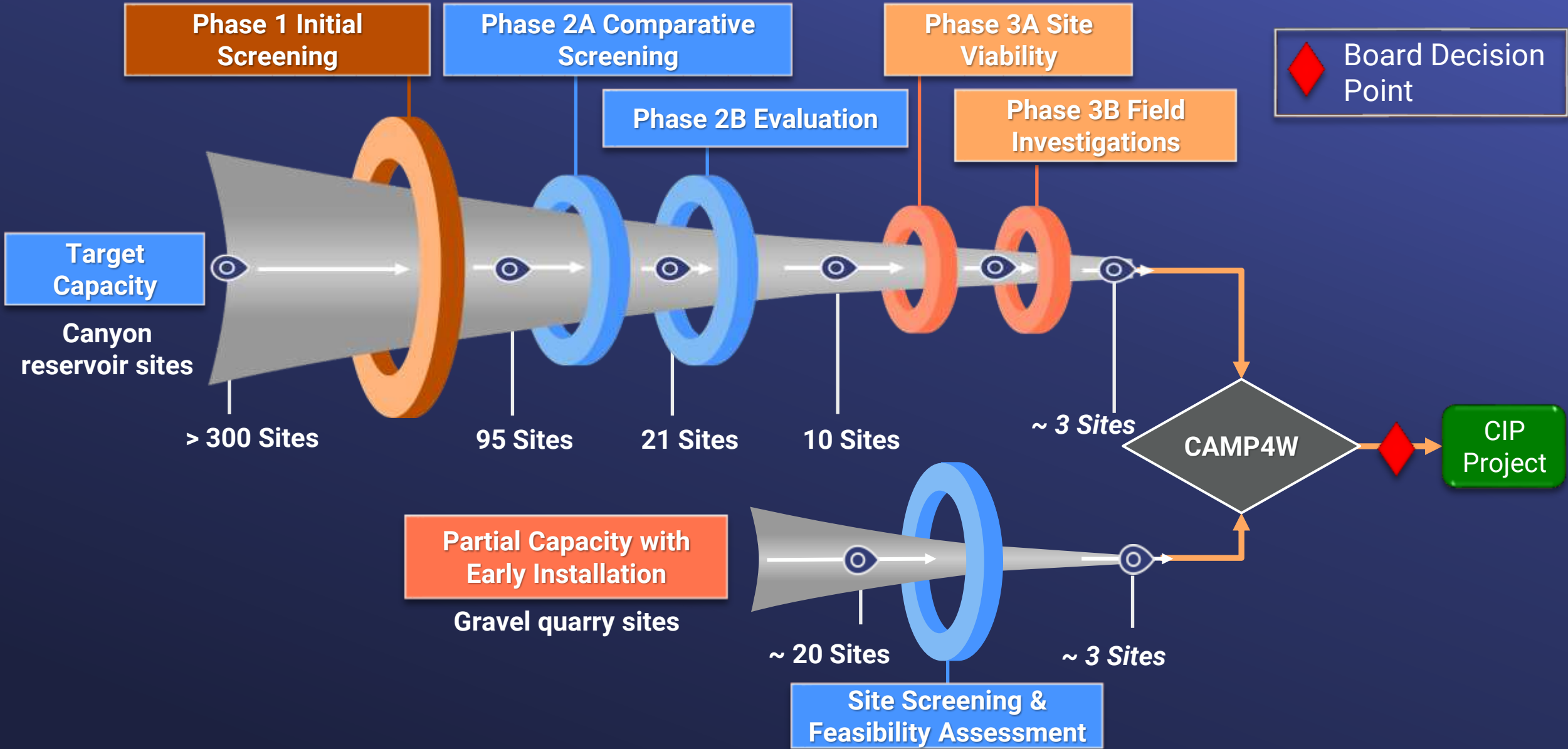


The Need for Major Additions to Metropolitan's Distribution System Study July 1983 (Report 949)



Low Level Tehachapi Tunnel Feasibility Study Oct 1984 (CR PBQ&D 85-0243)

Surface Storage Phased Approach



Surface Storage Phase 2B – Results



Sites Retained

Site Name	Storage Capacity (TAF)
Ingram Creek	300
Del Puerto Creek Large	330
Crow Creek	140
Lower Garzas Creek	330
Lower Garzas Creek Large	650
Upper Quinto Creek	500
Kettleman Plain	100
Sunflower Valley	340
Freeman Canyon	110
Eagle Valley Round	210

Surface Storage Phase 3 Update: Site Specific Assessment

- Performing operational analysis by modeling a new 300 TAF storage site consistent with Metropolitan's IRP simulation logic
- Screening sites from Phase 2 with engineering design assumptions and operational benefits
- Planning field reconnaissance to confirm site viability
- Investigating newly identified potential sites



New potential site in Kern County



Staff's visit to new potential sites

Next Steps

- ISIR
 - Continue the various studies identified and underway
 - Collaborate with Member Agencies on the various studies
 - Next workshop: May/June 2026
 - Regional Water Conveyance
 - Identify and evaluate possible flexibility improvements to regional conveyance system
 - Surface Water Storage
 - Assess potential sites
 - Complete Phase 3 evaluation to select most promising sites to proceed into next phase
- Inform CAMP4W

