



Subcommittee on Pure Water Southern California
and Regional Conveyance

State Water Project Dependent Areas Drought Mitigation Update

Item 3d

September 24, 2024

Item 3d
State Water
Project
Dependent
Areas Drought
Mitigation
Update

Subject

State Water Project Dependent Areas (SWPDA) Drought Mitigation Update

Purpose

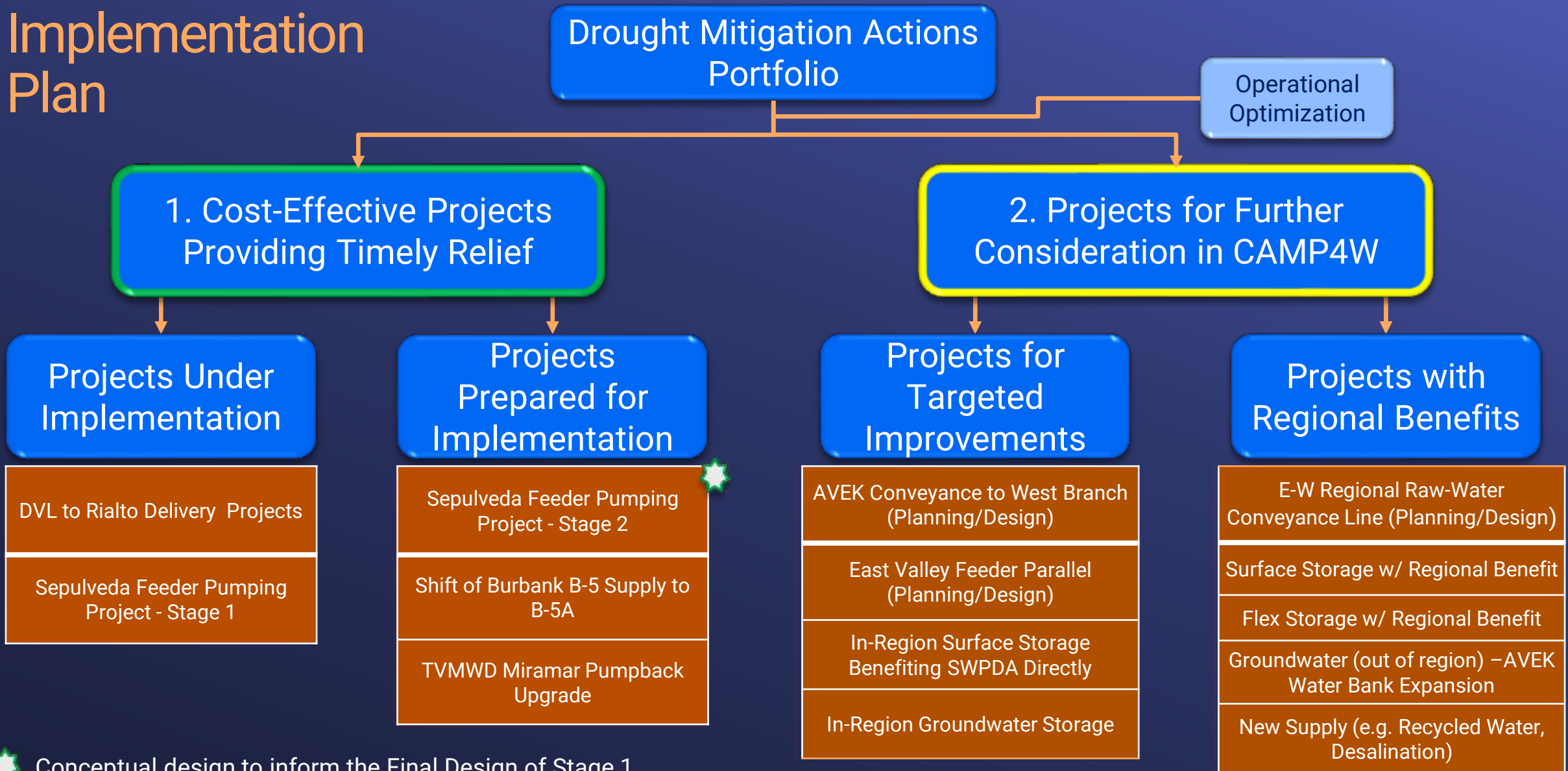
To provide an update on the progress of recommended drought mitigation actions

Next Steps

Continue implementation of projects that will provide timely drought relief to SWPDA

Continue development of other projects to be evaluated in the CAMP4W process

Implementation Plan



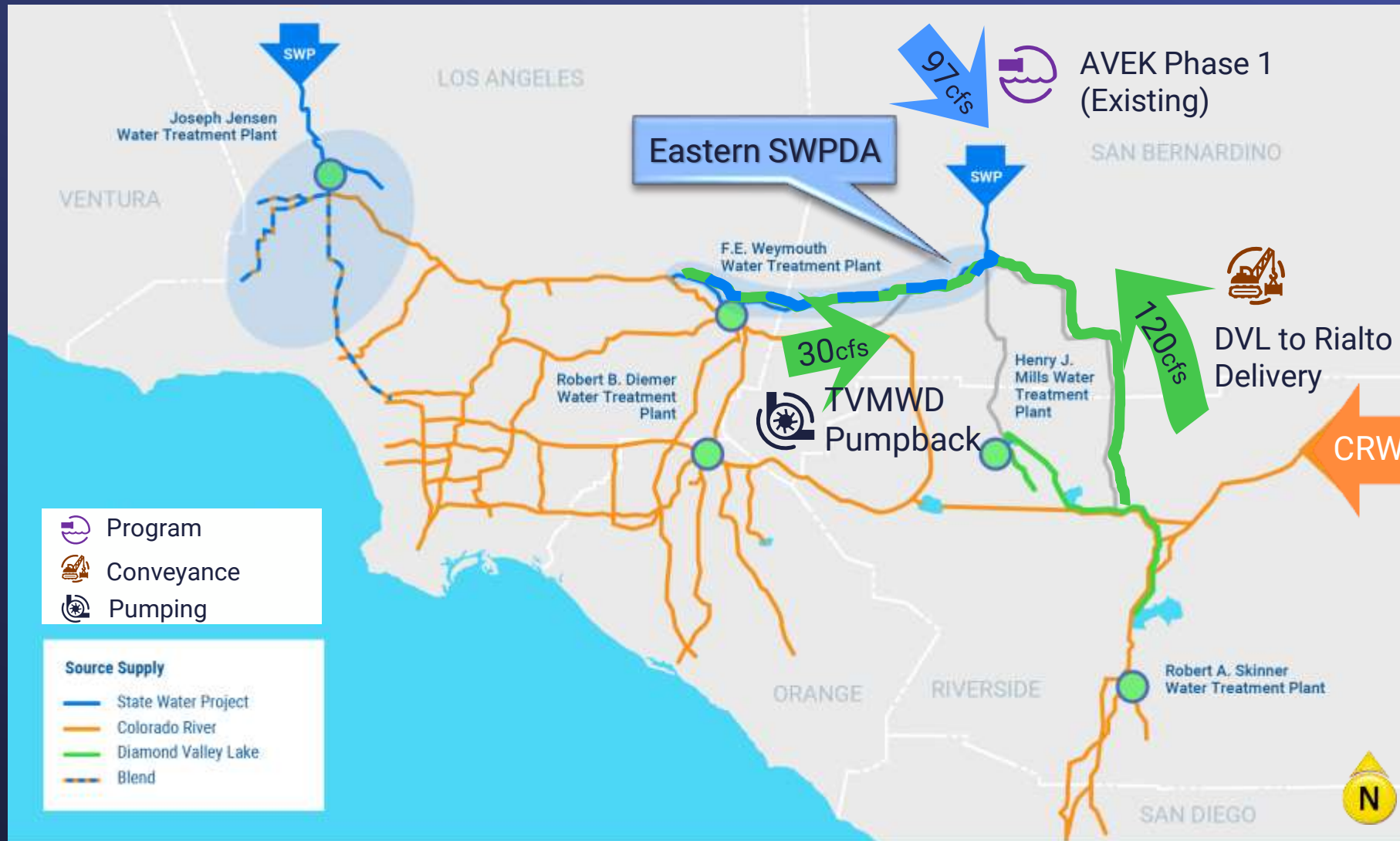
★ Conceptual design to inform the Final Design of Stage 1
Full implementation is to be evaluated under CAMP4W

Category 1: Cost-Effective Projects Providing Timely Relief



- Four Eastern SWPDA projects
 - Three under construction
 - One in final design
- Partial delivery by 25/26
 - After construction of Wadsworth Plant Bypass Line
 - Through exchange with SBVMWD
- Full delivery by 2027
 - After installation of Foothill PS Intertie
- Federal & State grants
 - \$5M USBR grant
 - \$50M State grant

Benefits of Category 1 Projects – Eastern SWPDA



Benefits of Category 1 Projects – Western SWPDA



Sepulveda Feeder Pumping

- Purpose
 - Augment existing Greg Ave Pump Station to provide additional flow to western SWPDA
- Potential sources of supply
 - CRW (Upper & Lower Feeders)
 - DVL Storage
 - PWSC (DPR)
- Project delivery
 - Stage 1 installation of 30 cfs capacity
 - No significant upgrade of existing infrastructure
 - Utilize Progressive Design-Build (PDB) to expedite implementation
 - Stage 2 expansion up to 160 cfs total capacity
 - Significant upgrade of existing infrastructure
 - Implementation to be evaluated in CAMP4W



Stage 1 Installation Update

- PDB contract status
 - Install initial capacity of 30 cfs by 2026
 - Design to allow for potential Stage 2 expansion
 - Long-lead equipment awarded in July & September 2024
 - Develop guaranteed maximum price (GMP) to initiate construction in 2025

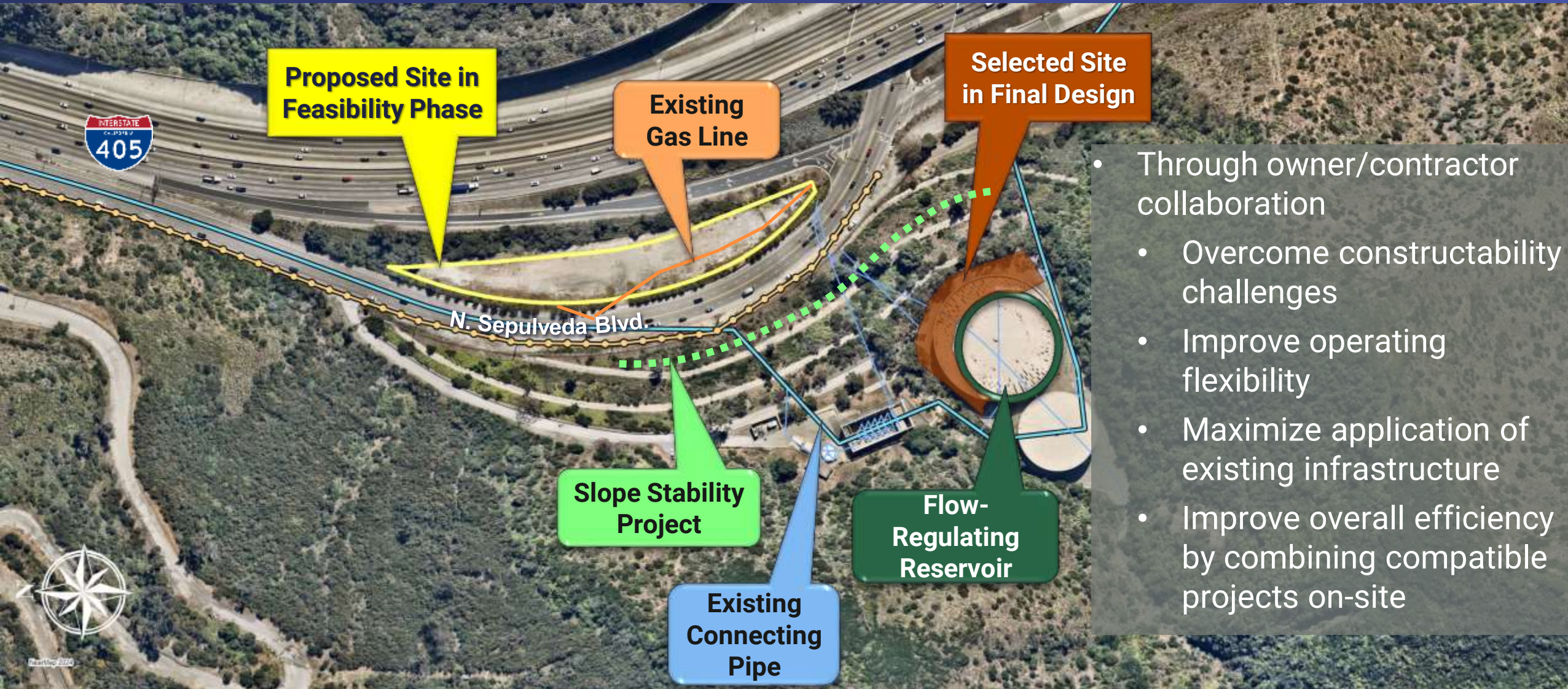


Sepulveda Canyon Facility Rendering



Venice PS Rendering

Stage 1 Design Enhancement – Alternative Pump Station Site

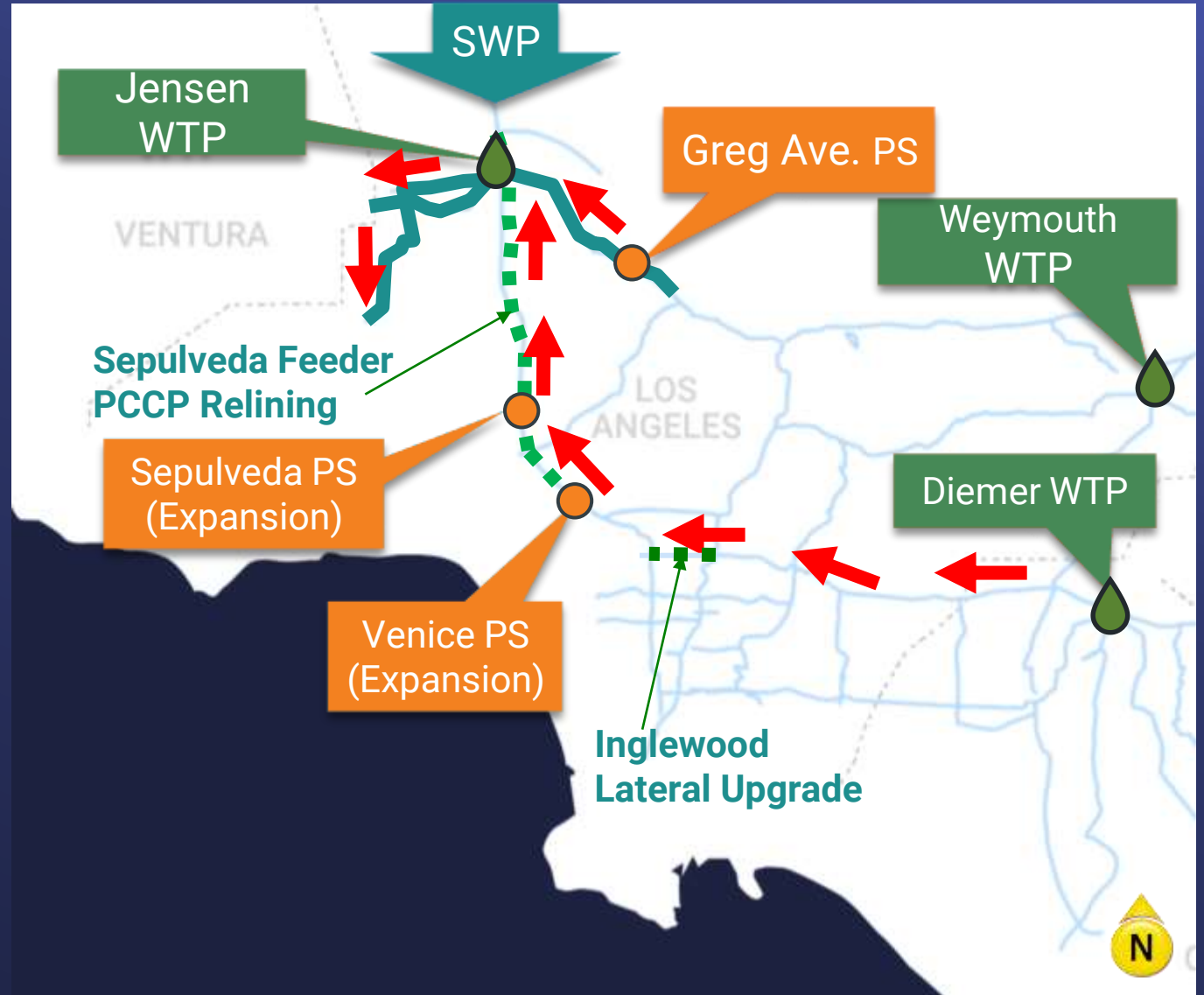


- Through owner/contractor collaboration
 - Overcome constructability challenges
 - Improve operating flexibility
 - Maximize application of existing infrastructure
 - Improve overall efficiency by combining compatible projects on-site

Sepulveda Canyon Facility

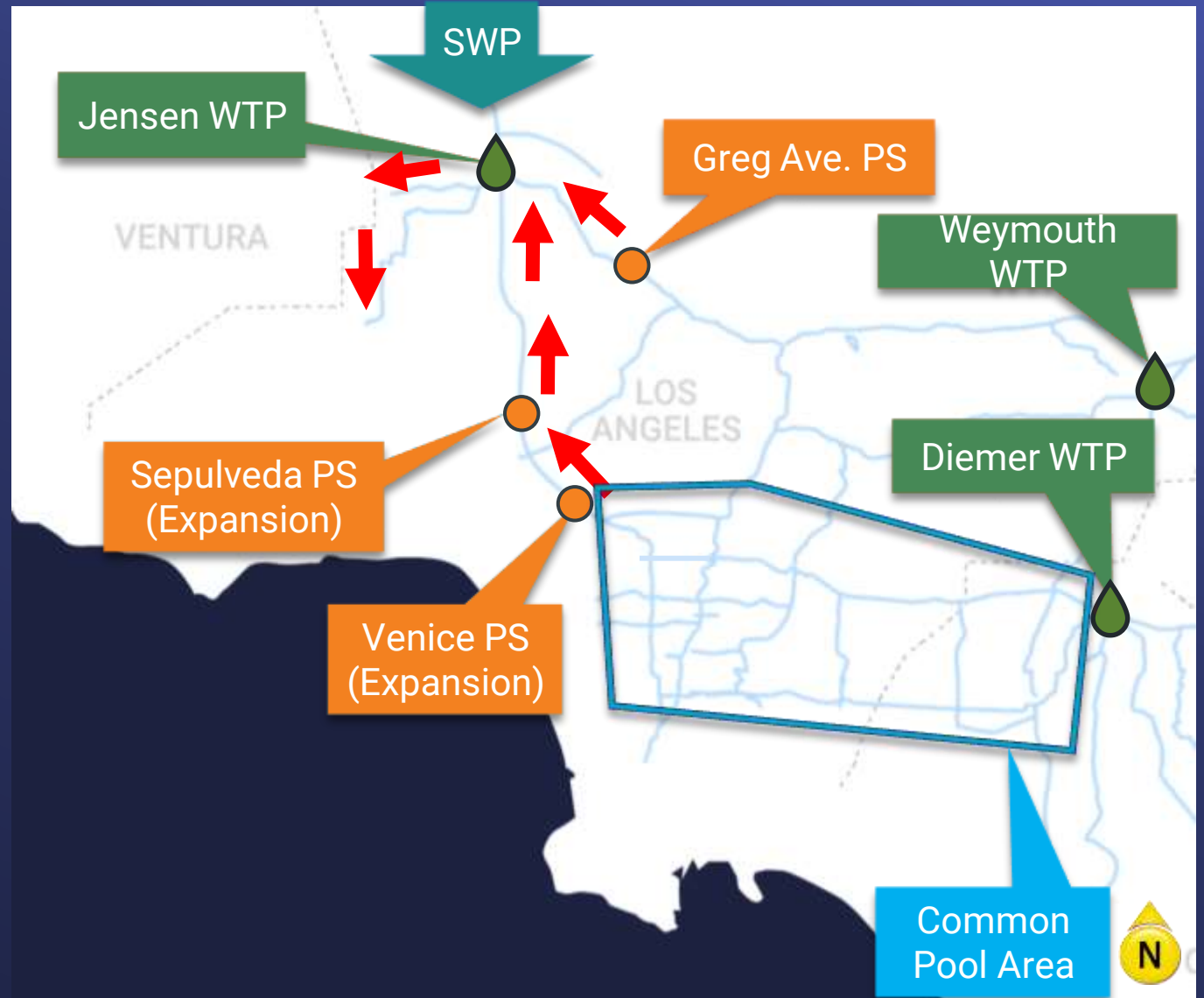
Stage 2 Design Update

- Urgency to start conceptual design to sync with Stage 1 final design process
- Provide critical attributes for CAMP4W evaluation
- Primary design components
 - ✓ • Pump station layouts
 - ✓ • Site utility assessment
 - ⚙️ • Surge protection measures
 - ⚙️ • Sepulveda Feeder PCCP relining
 - ⚙️ • Inglewood Lateral upgrade



Stage 2 Surge Protection Measures

- Highest reliability to protect against simultaneous trips of three pump stations
- Surge protection measures from feasibility study
 - Surge tanks and check valves at pump stations
 - Modifications of existing pressure relief structures (PRS)
- Rerun surge analysis with the proposed alternative site of Sepulveda Pump Station



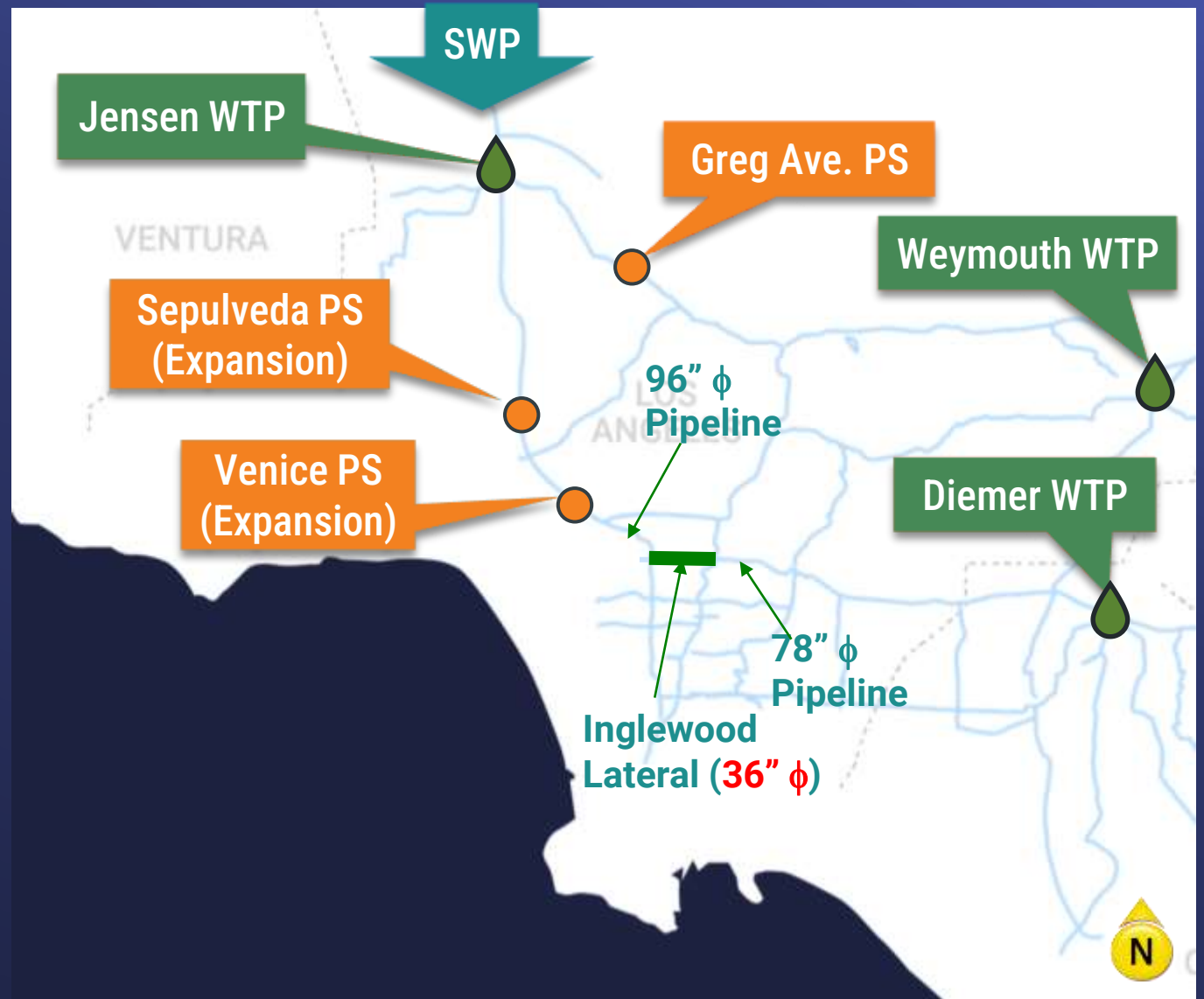
Sepulveda Feeder PCCP Relining

- Reprioritize PCCP program schedule to expedite Sepulveda Feeder relining
- Assess existing fittings and meter valves at service connections
- Status
 - Complete preliminary design of relining by 2024
 - Complete inventory and evaluation of existing apparatus by 2025

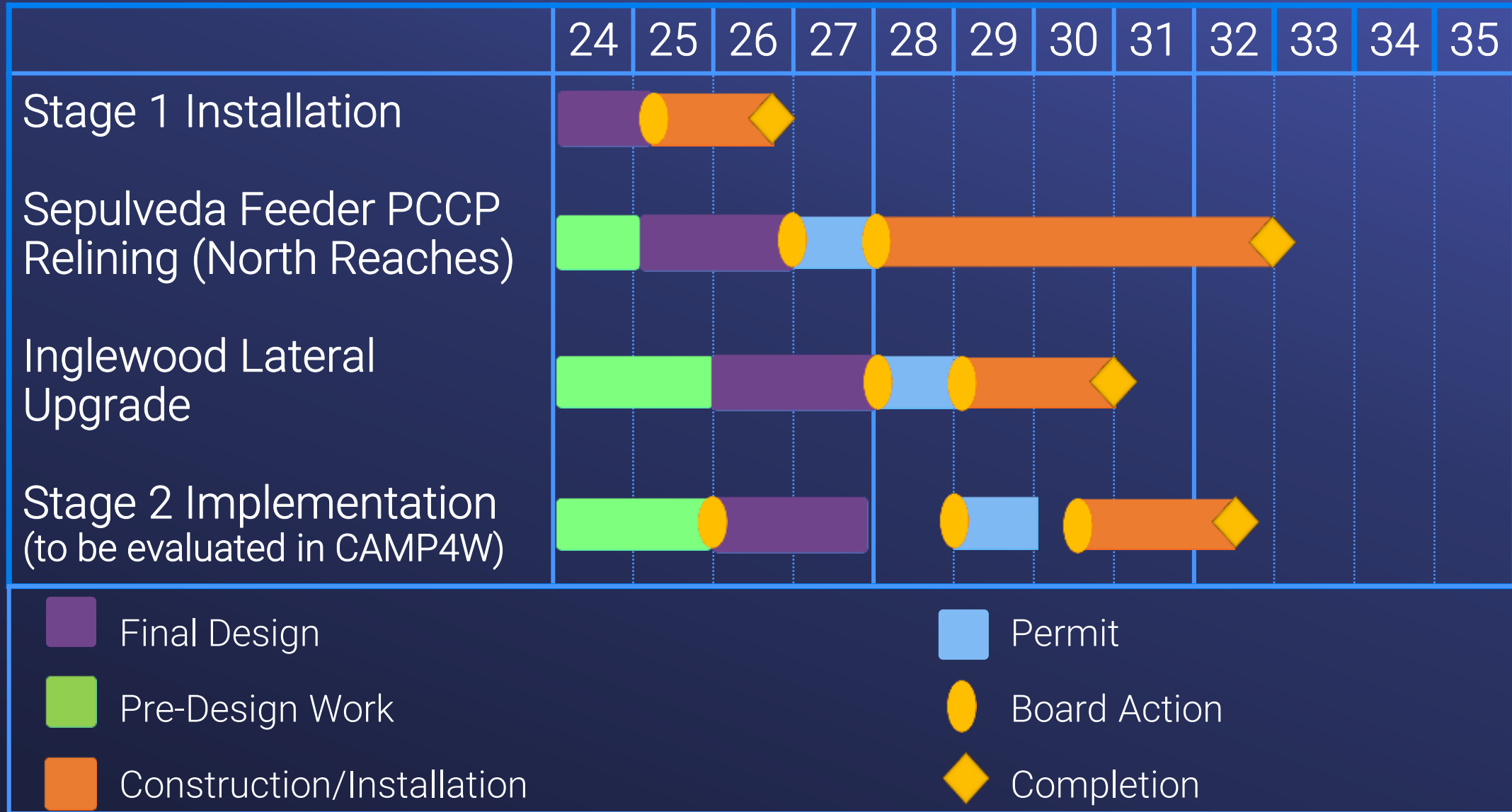


Inglewood Lateral Upgrade

- Existing bottleneck from Sepulveda Feeder to Common Pool Area
- A planned upgrade to enhance operating flexibility
- Expedite design process to accommodate Stage 2 delivery
- Status
 - Complete conceptual design by 2025
 - Coordinate with Sepulveda Feeder PCCP relining project



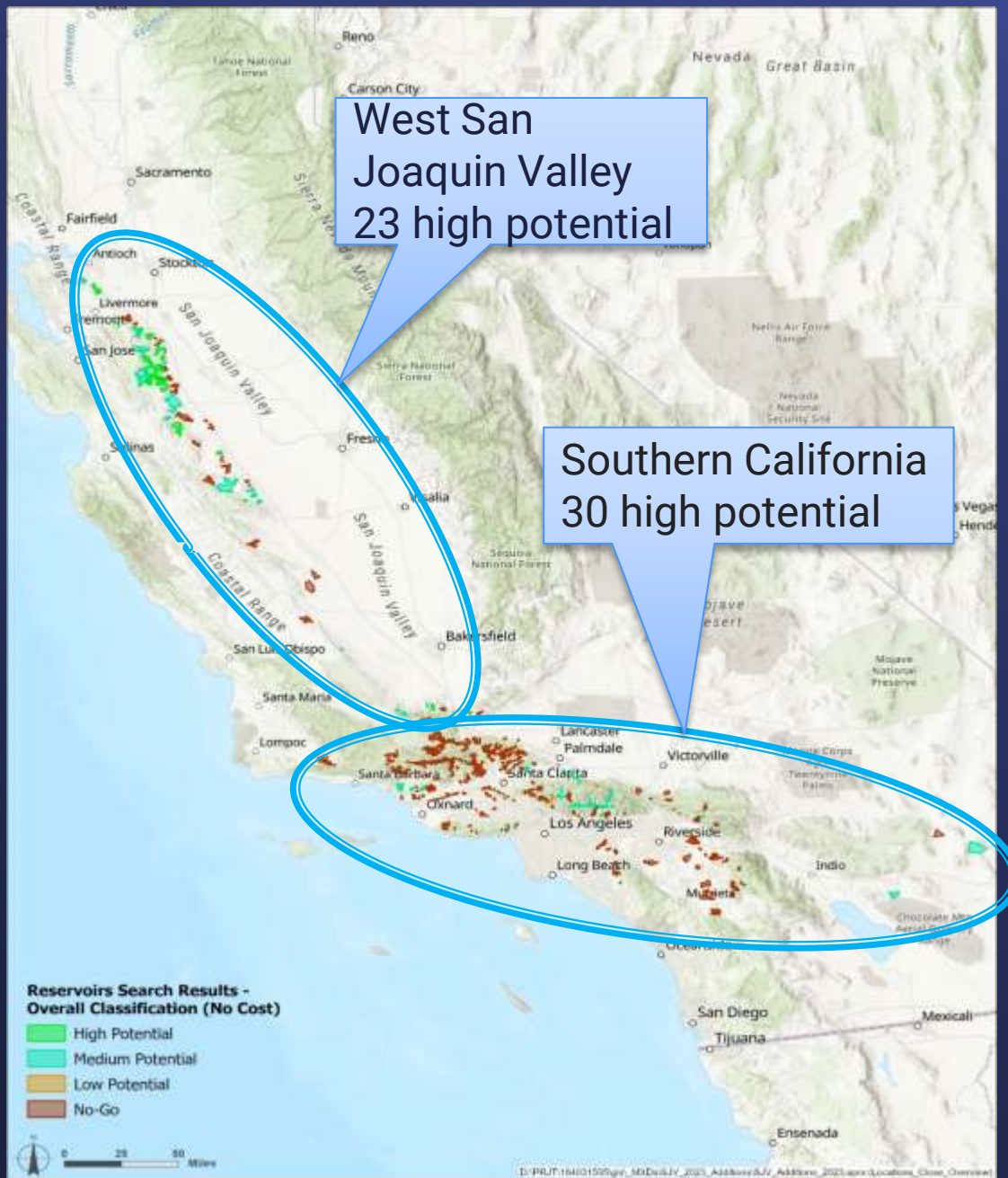
Sepulveda Feeder Pumping - Preliminary Stage 2 Schedule



Category 2: Projects for Further Consideration in CAMP4W



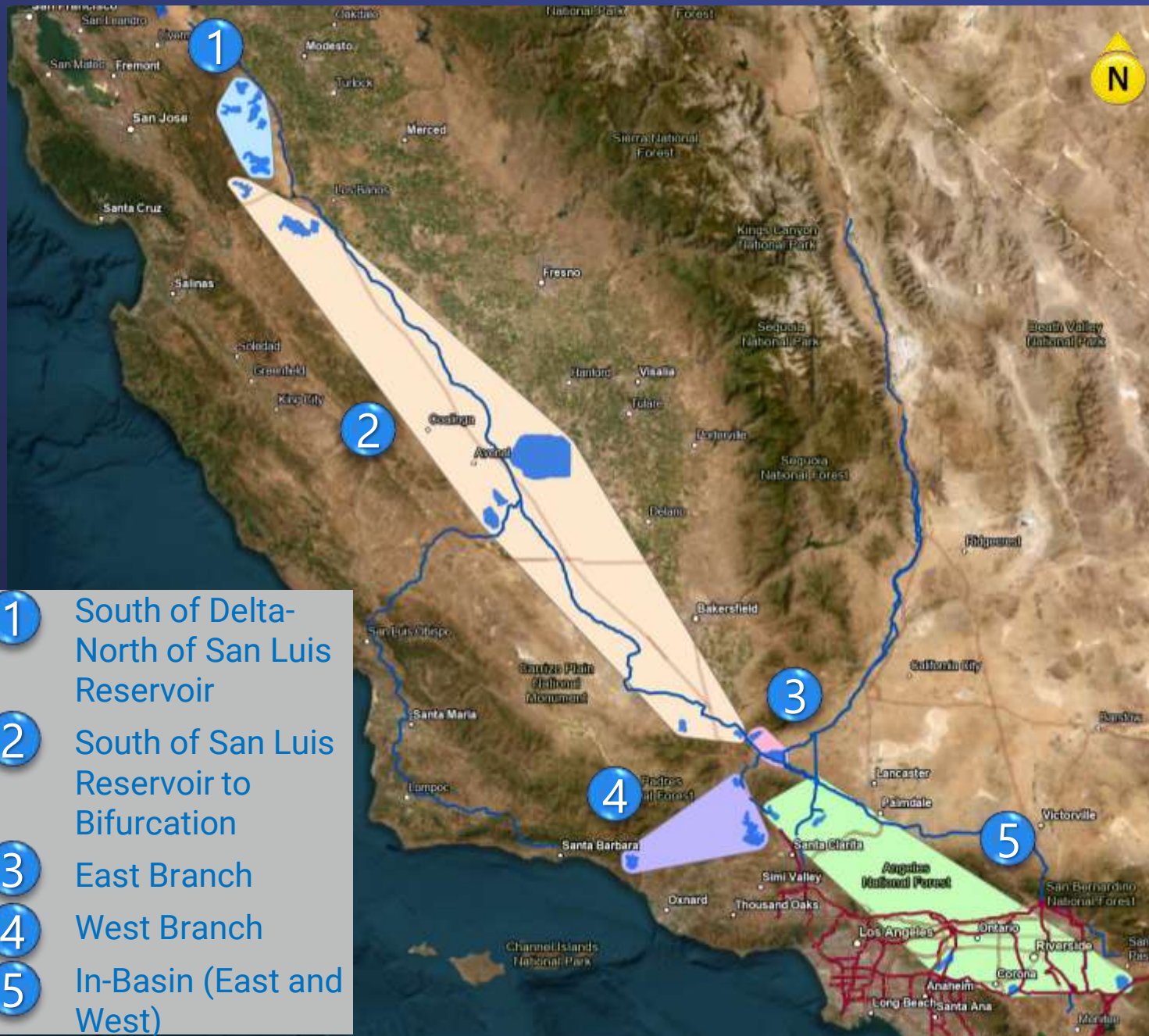
Surface Reservoir Study



- Phase 1
 - Completed September 2023
 - Identified 300+ potential sites
 - Divided into two groupings
 - West San Joaquin Valley
 - Southern California Basin
 - Applied performance criteria:
 - Location
 - Site capacity
 - Geological/geotechnical
 - Institutional
 - Resulted in 53 high-potential sites

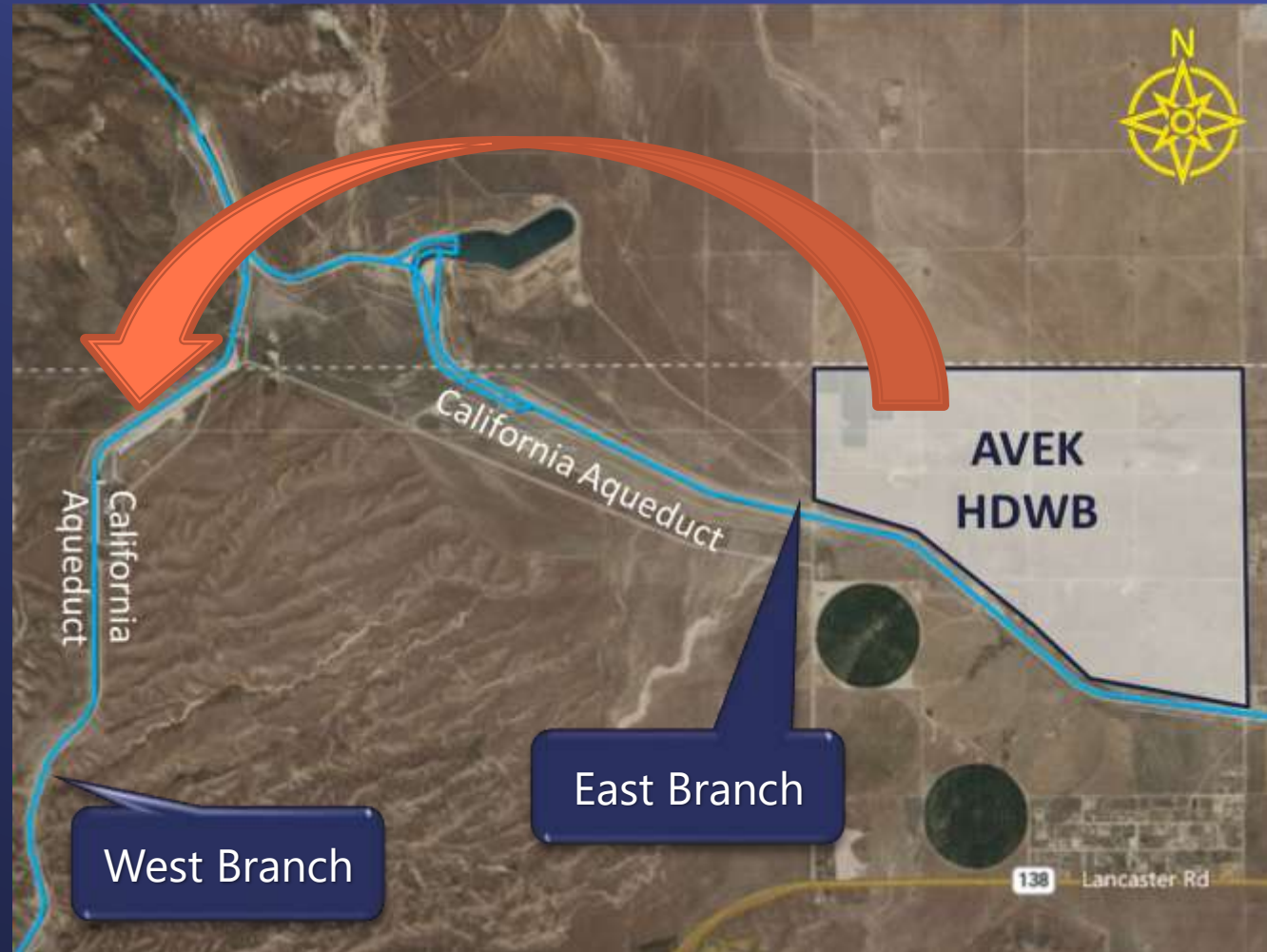
Phase 2 Study

- Finalize evaluative criteria:
 - Technical Constraints
 - e.g., geologic
 - Non-technical constraints
 - e.g., environmental
 - Cost-benefit analysis
 - Opportunities for pump storage
- Screen all short-listed sites against evaluative criteria
- Kick off Phase 3 Study in early 2025



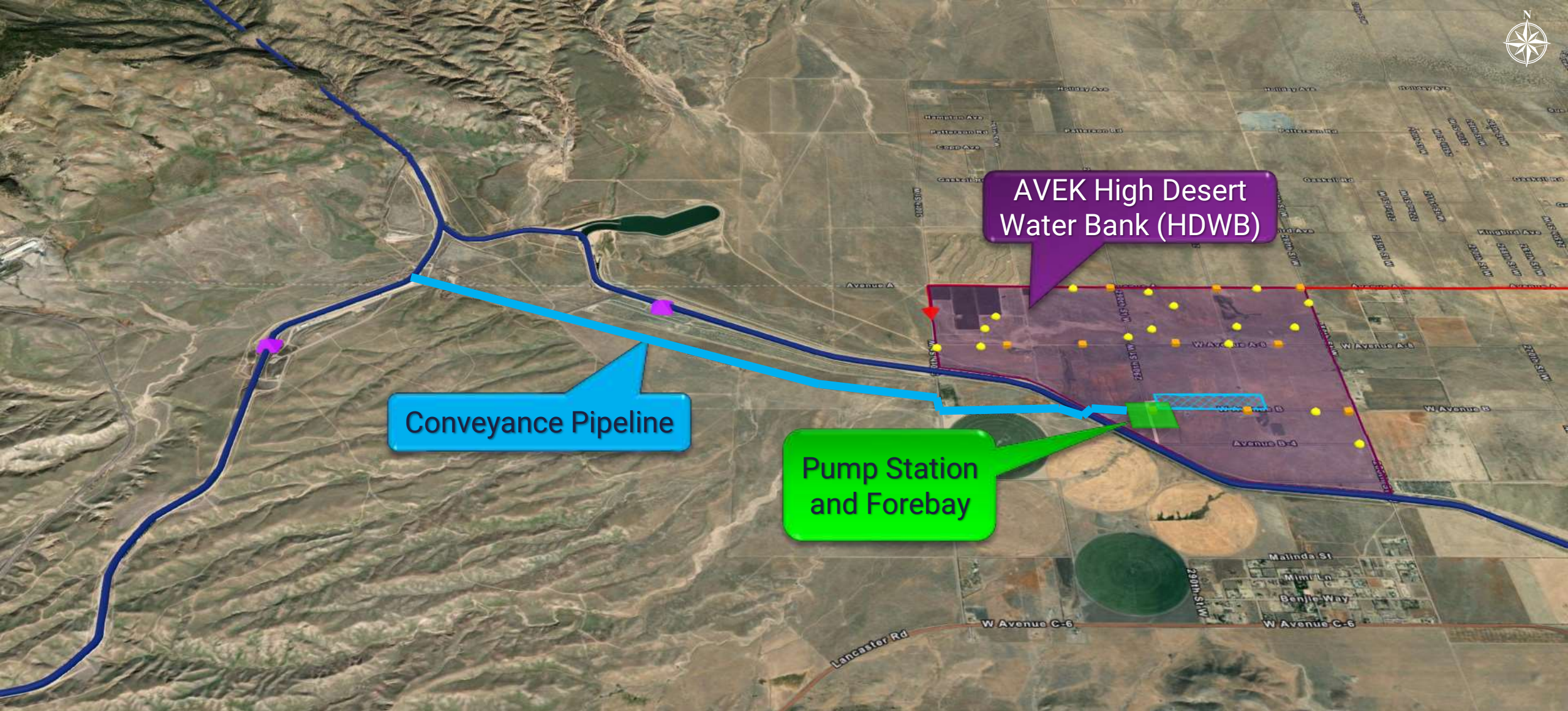
AVEK Conveyance to West Branch

- Conveyance line in place to deliver to eastern State Water Project Dependent Area (SWPDA)
- New conveyance line to deliver banked supplies to western SWPDA
 - New pump station and pipeline
- Feasibility study completed
 - Up to 70 TAFY delivery
 - ROM construction cost: \$85M



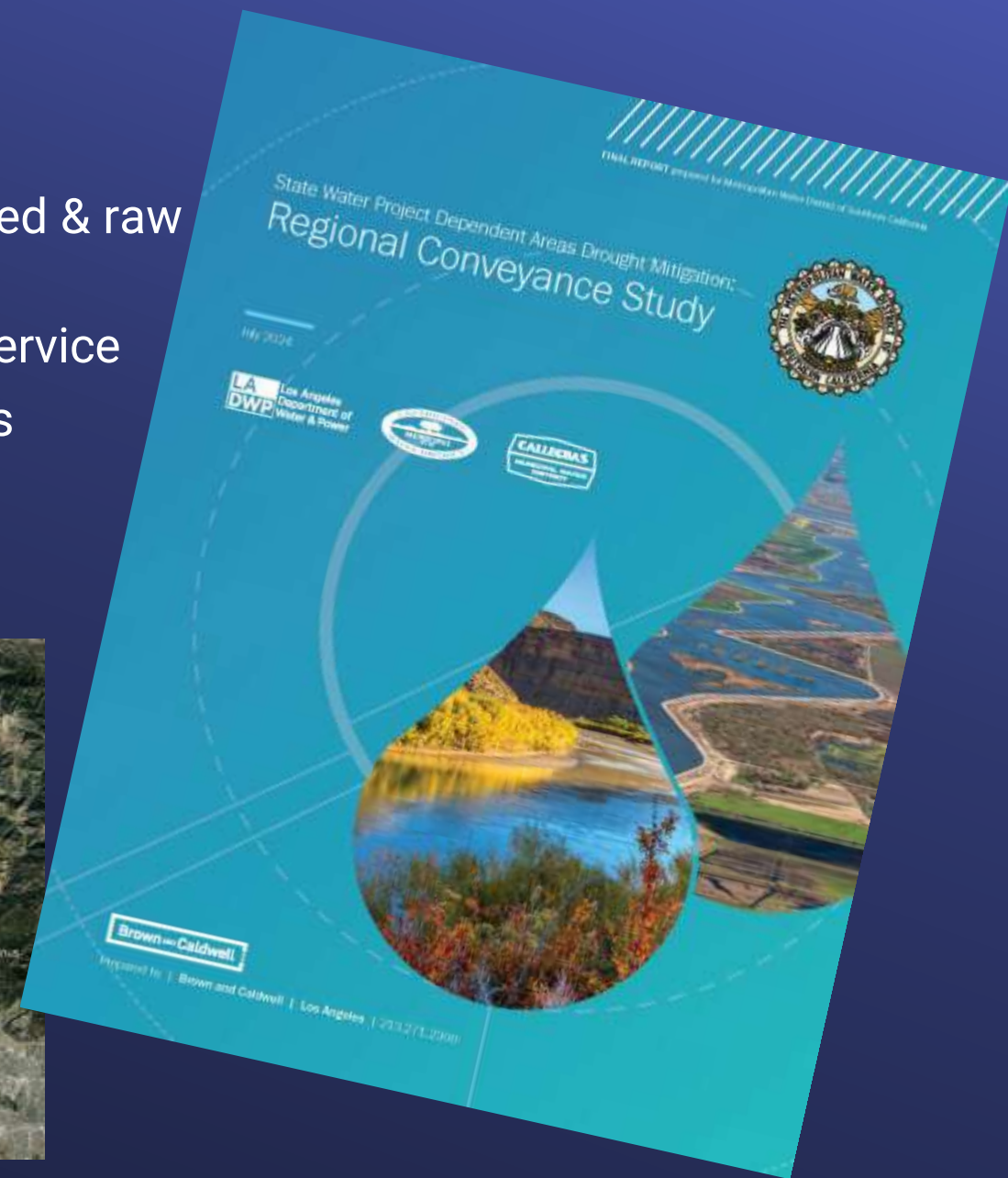
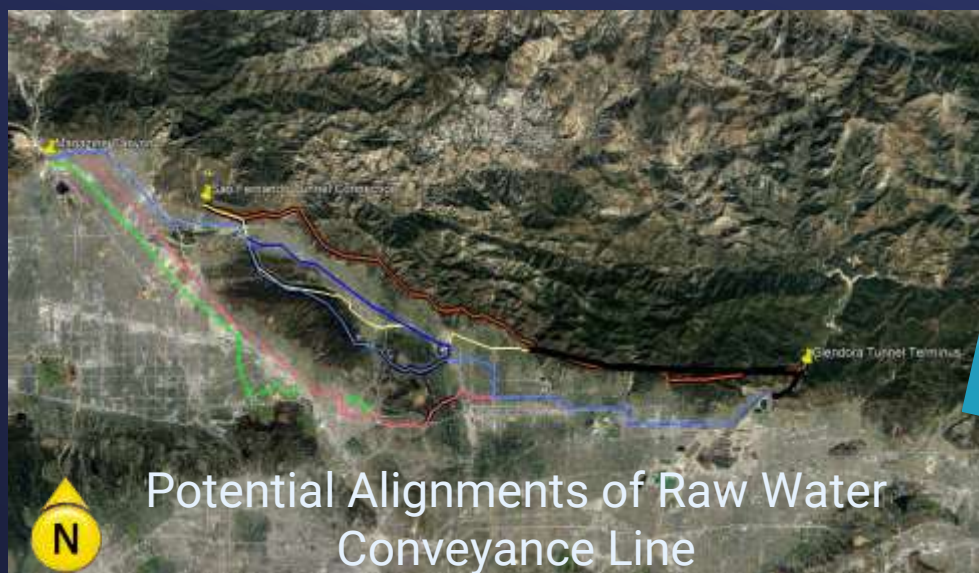
Conceptual Layout

New Conveyance System - Pump Station & Pipeline



Regional East-West Conveyance Line

- Completion of Regional Conveyance Study Report
 - Document development of conveyance options
 - Recommend two hybrid portfolios with both treated & raw water options for further development
- Request for proposals to solicit conceptual design service
 - Define project scope to prepare for CEQA analysis
 - Refine alignments
 - Develop pumping schemes



Next Steps

- Continue implementation of projects providing timely drought relief to SWPDA
 - Complete construction of three DVL/Rialto projects (2025/2026)
 - Complete permitting process for Foothill Pump Station Intertie (2025)
 - Complete PDB design phase of Sepulveda Feeder Pumping Stage 1 (2025)
- Continue development of other projects to be evaluated in CAMP4W
 - Develop prerequisite work for Sepulveda Feeder Pumping Phase 2
 - Surge protection measures
 - PCCP relining
 - Inglewood Lateral upgrade
 - Report Surface Storage Phase 2 study findings in early 2025
 - Prepare request for proposals for conceptual design of Regional East-West Conveyance

