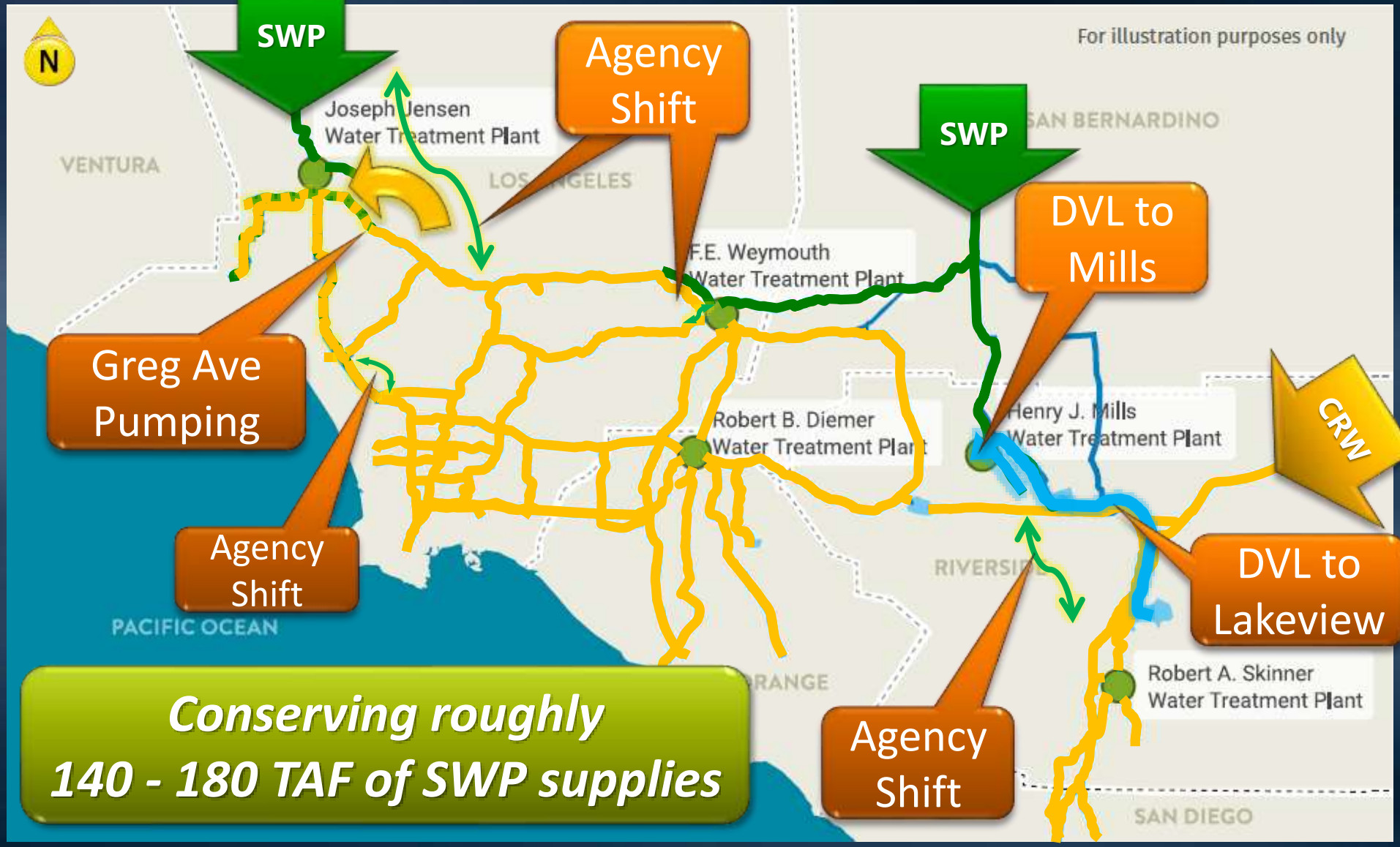
Update on Drought Mitigation Actions

Engineering and Operations Committee
Item 6b
October 11, 2021

Ongoing Extraordinary Drought Actions to Preserve SWP Supplies



Maximizing reliability with extraordinary operational drought actions

Bleak Outlook for State Water Project

Anticipating a zero percent *initial* 2022 SWP allocation

Lake Oroville

- Oroville storage may end the year at record low levels
- DWR projects a 20 percent SWP allocation in 2022 under normal conditions

Evaluating New Drought Actions for the Near- and Long-Term

Collaboration and idea generation across Metropolitan and Member Agencies

- Generated 132 creative ideas
- About 50 ideas selected for further study and potential development

Project Categories

System and Operations

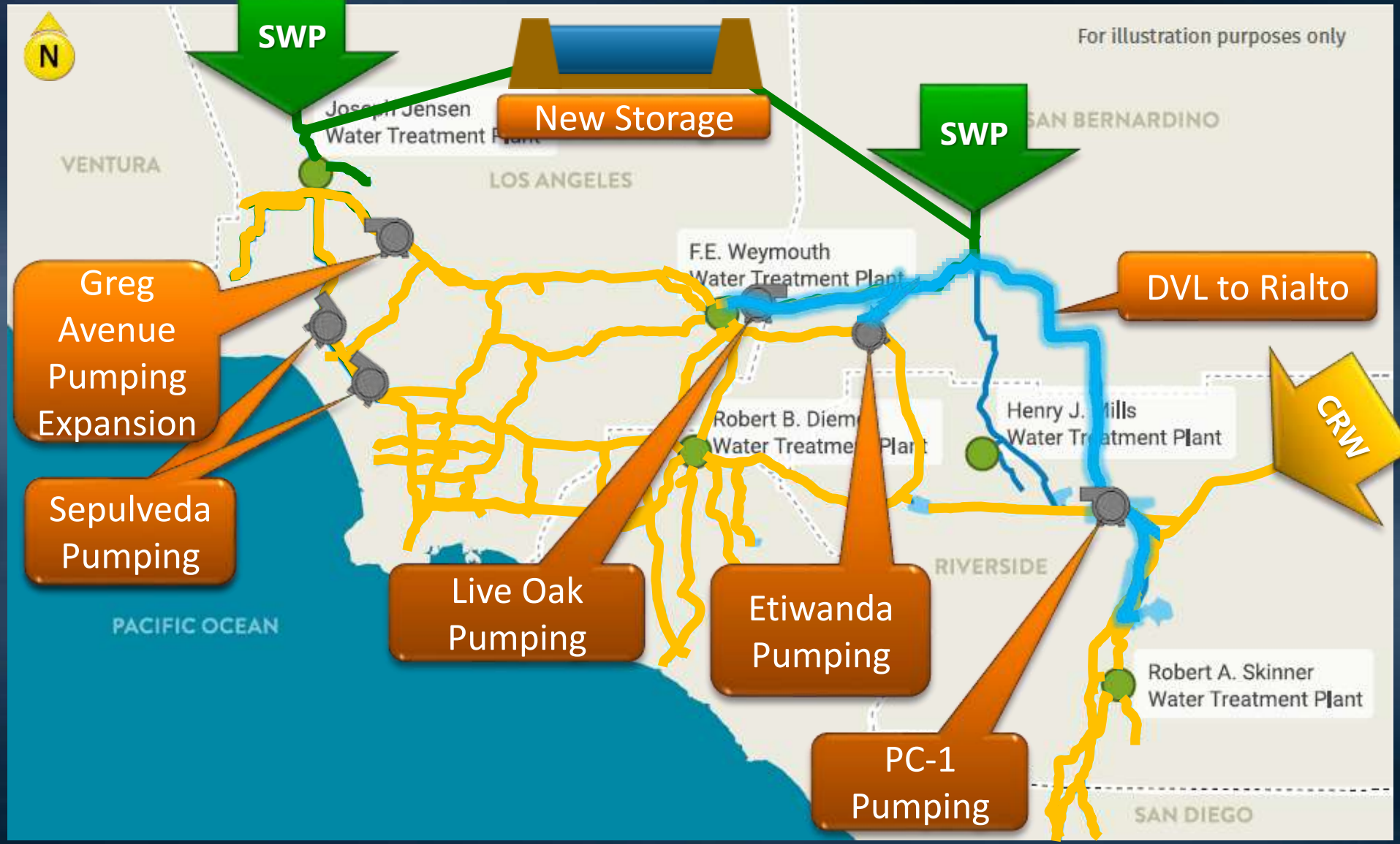
Shift Timing of Deliveries

Increase Local Supplies

Increase Conservation

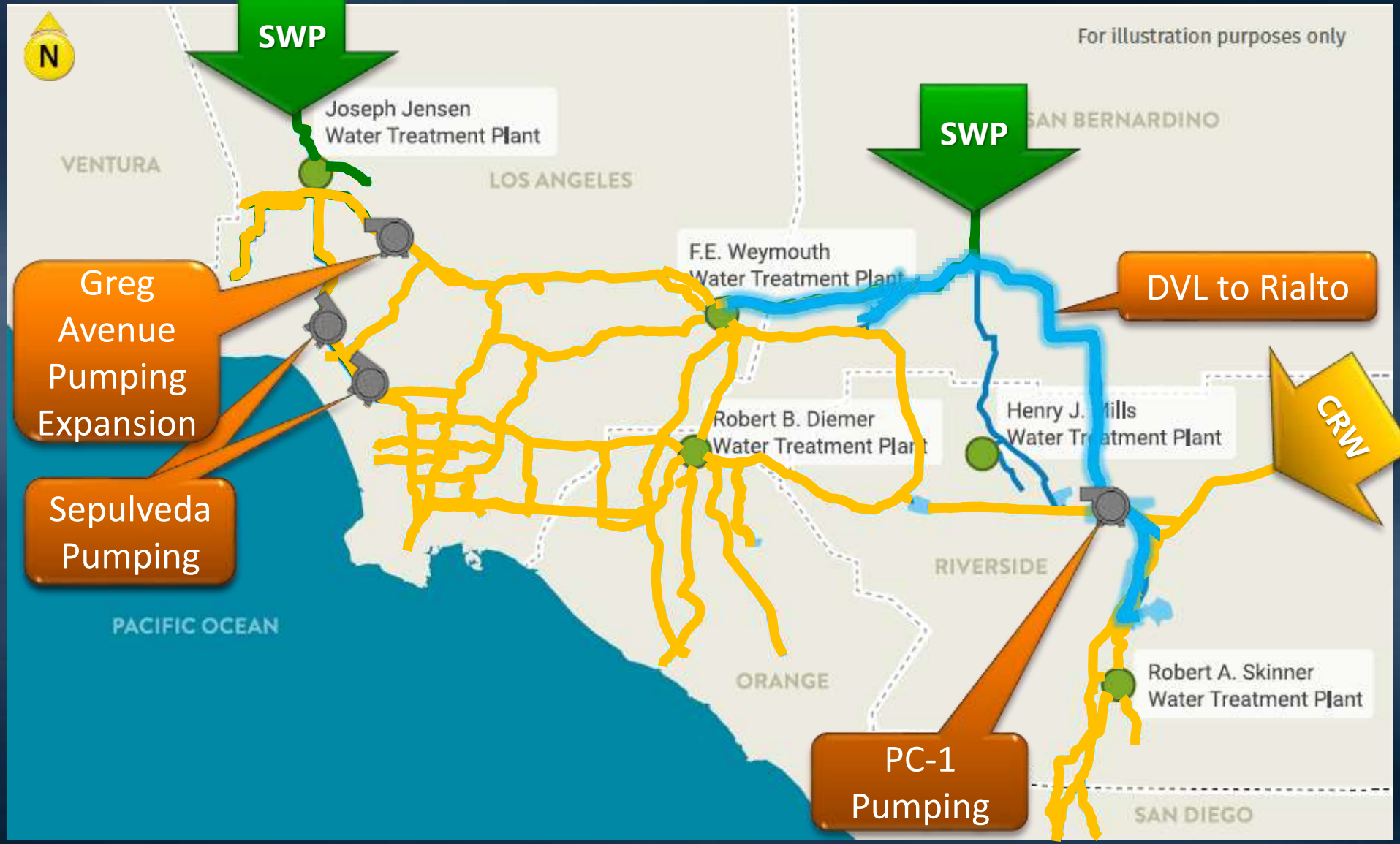
Expand Supply Programs

Long-Term Opportunities to Further Reduce Demands for Limited SWP Supplies



- Projects require significant planning and capital investments
- Continue investigating long-term project opportunities

Long-Term Opportunities to Further Reduce Demands for Limited SWP Supplies



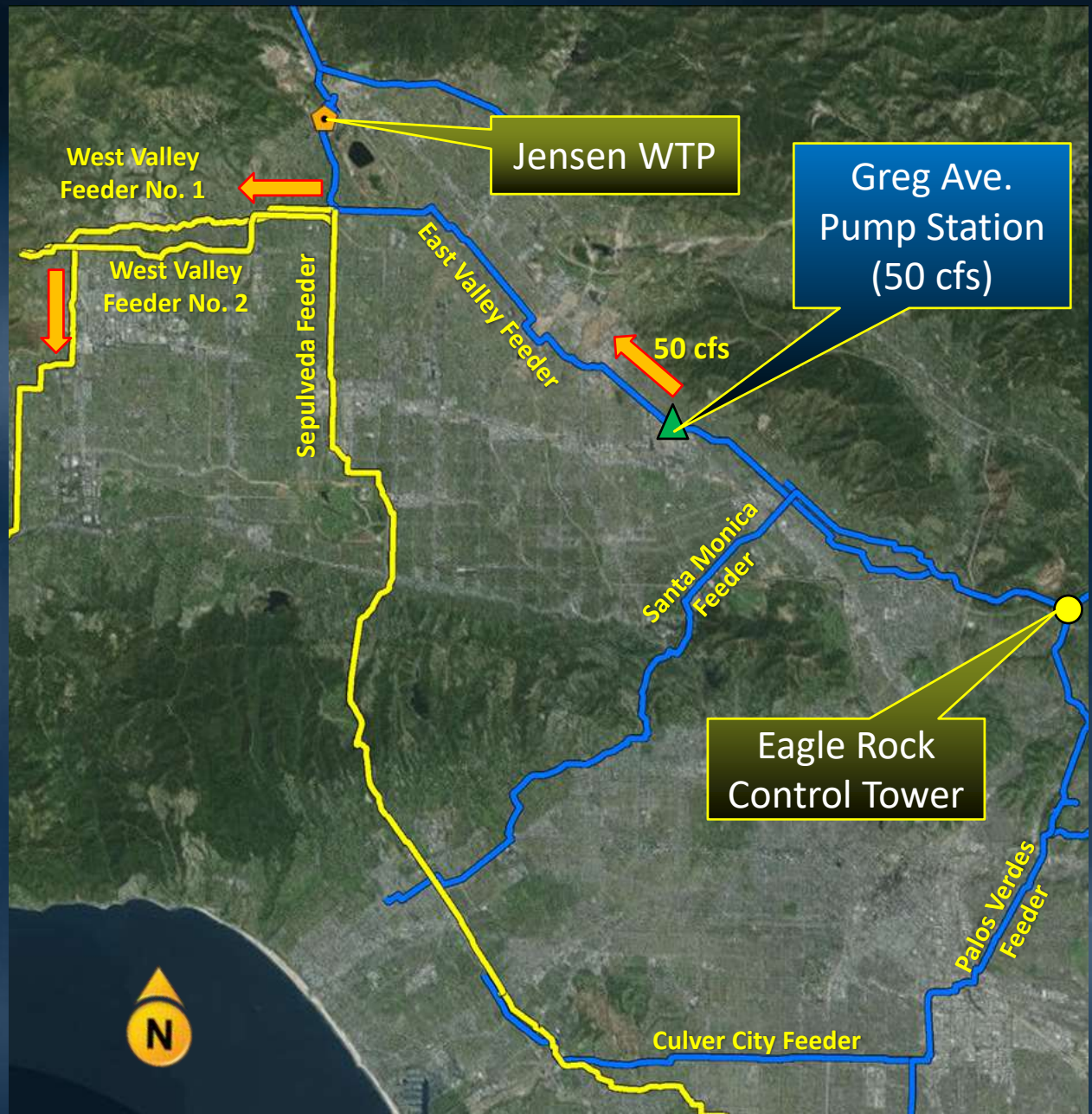
- Projects require significant planning and capital investments
- Continue investigating long-term project opportunities

Long-term Opportunities on SWP West Branch

Long-term Opportunities on SWP West Branch

East Valley Feeder and Greg Avenue Pump Station

- Designed for a maximum 50 cfs
- Increase in capacity requires:
  - Additional pumping capacity
  - A pipeline parallel to East Valley Feeder or lining the existing East Valley Feeder
  - Increase the capacity of the system from Eagle Rock to Greg Avenue (double barrel portions)



Long-term Opportunities on SWP West Branch

Venice and Sepulveda Pump Stations

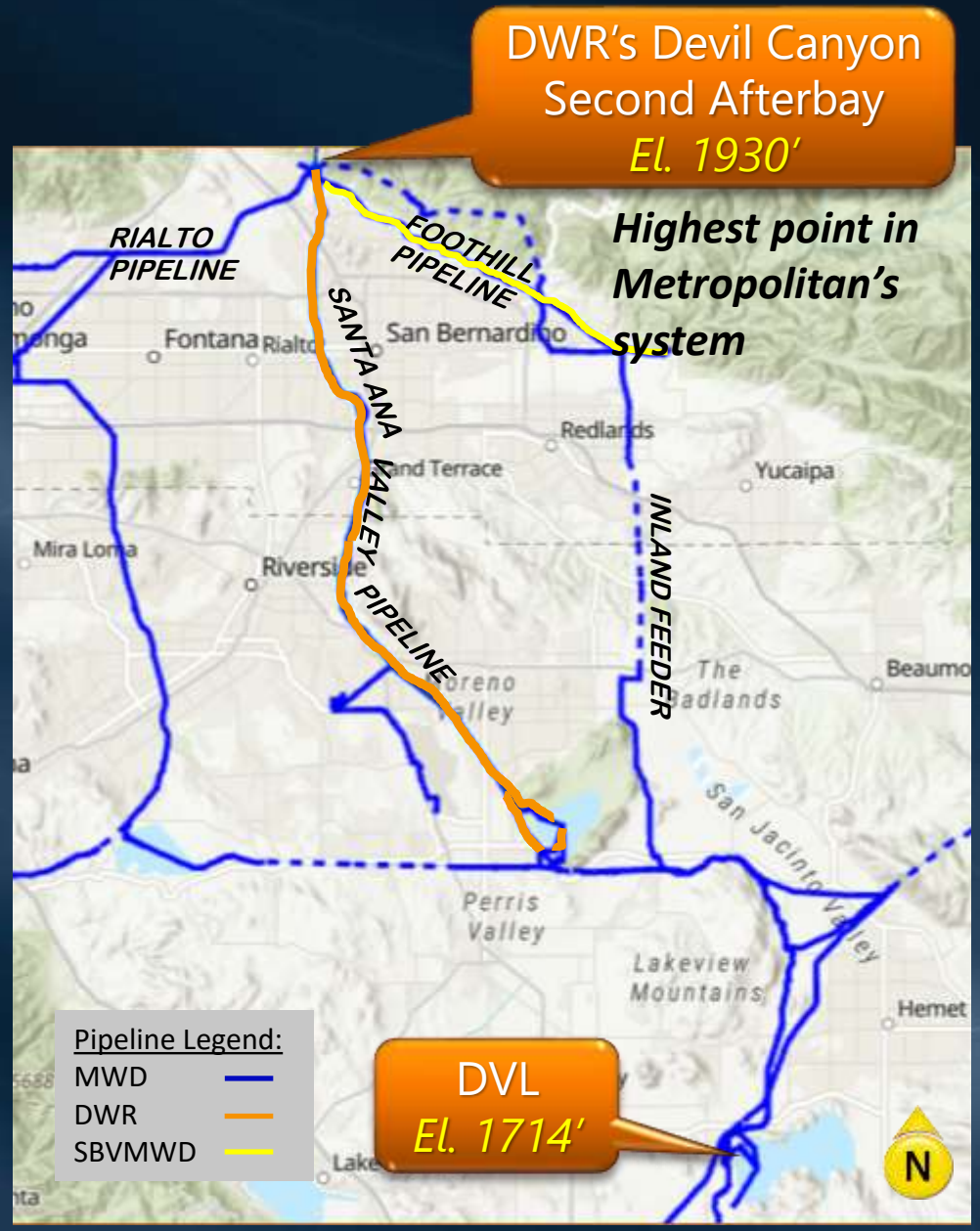
- Deliver water from the Common Pool
- Reverse flow in Sepulveda Feeder
- Requires pumping
- One or both pump stations under consideration
- Requires expediting Sepulveda Feeder PCCP relining, currently scheduled to finish in 2027 or after

Project Yield	50-70 TAF/Year
Potential Online	2026 or after

Near-term Opportunities on SWP East Branch

Integration of Metropolitan, DWR, and SBVMWD systems

Option	Description	Basic Feature	Existing Infrastructure	New Infrastructure	Other Agency Facilities	New or Revised Agreements	Local Supply Introduction
1	DVL to SBVMWD	Exchange	✓	✓		✓	
2a	SBVMWD Local Supply to SBVMWD System	Exchange	✓		✓	✓	✓
2b	SBVMWD Local Supply to Rialto	Exchange	✓		✓	✓	✓
3	DVL to Rialto via Existing Booster Pump Station	Pump DVL water to Rialto	✓	✓	✓	✓	
4	DVL to Rialto via New Pump Station at PC-1	Pump DVL water to Rialto	✓	✓			



Near-term Opportunities on SWP East Branch

Option 1 – SBVMWD Exchange

- Take SBVMWD SWP supply
- Exchange later with DVL Supply
- Use current pumping capacity
- Requires Wadsworth Bypass

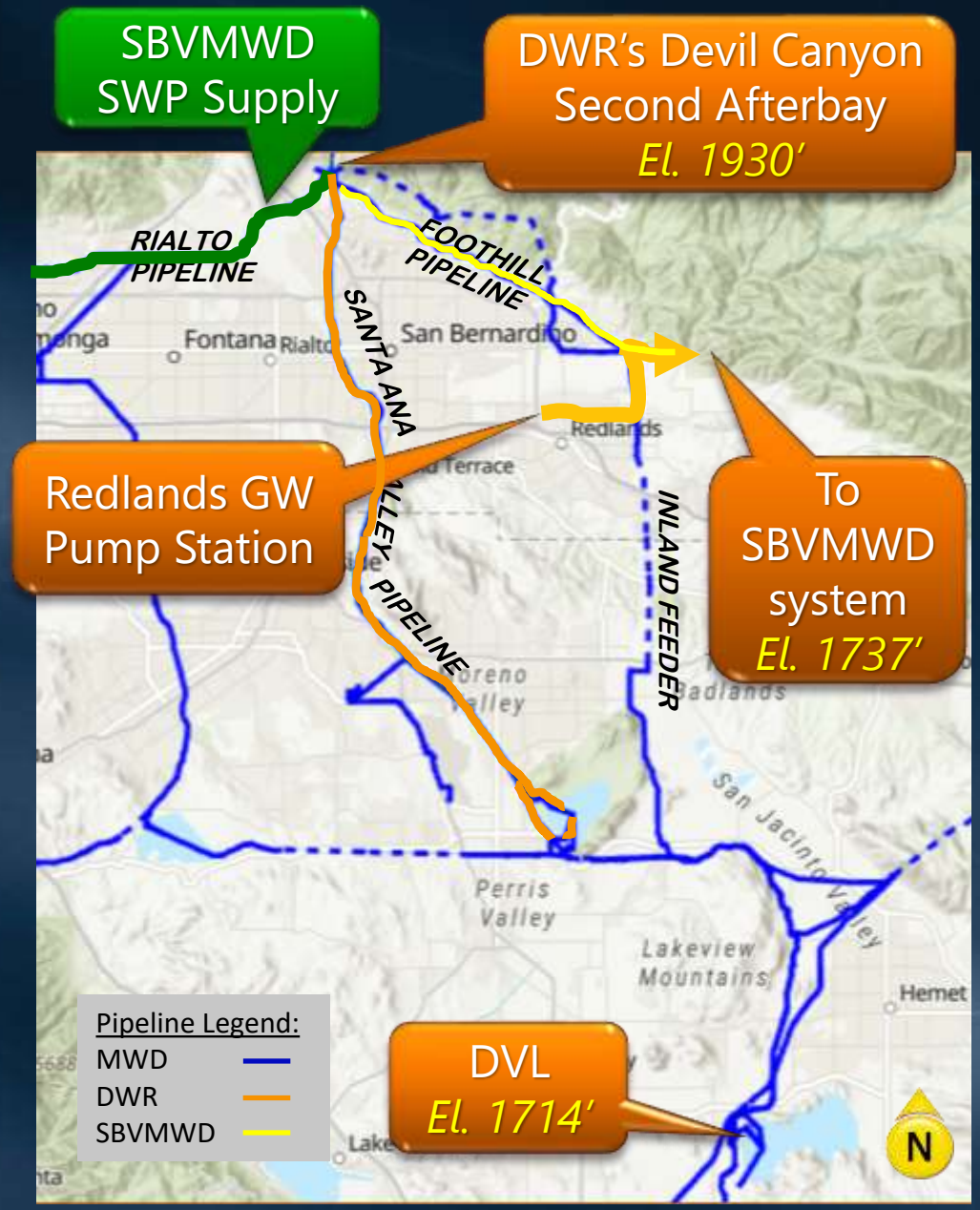
Project Yield	5-6 TAF (carryover supplies)
Potential Online	2023

Near-term Opportunities on SWP East Branch

Option 2a – SBVMWD Exchange with Local Supply Introduction

- Take SBVMWD SWP supply
- Pump SBVMWD local supply through Inland Feeder to parts of their system to offset demands
- Exchange with DVL or SWP supply after drought period
- Requires no new infrastructure

Project Yield	5-6 TAF (carryover supplies)
Potential Online	2022

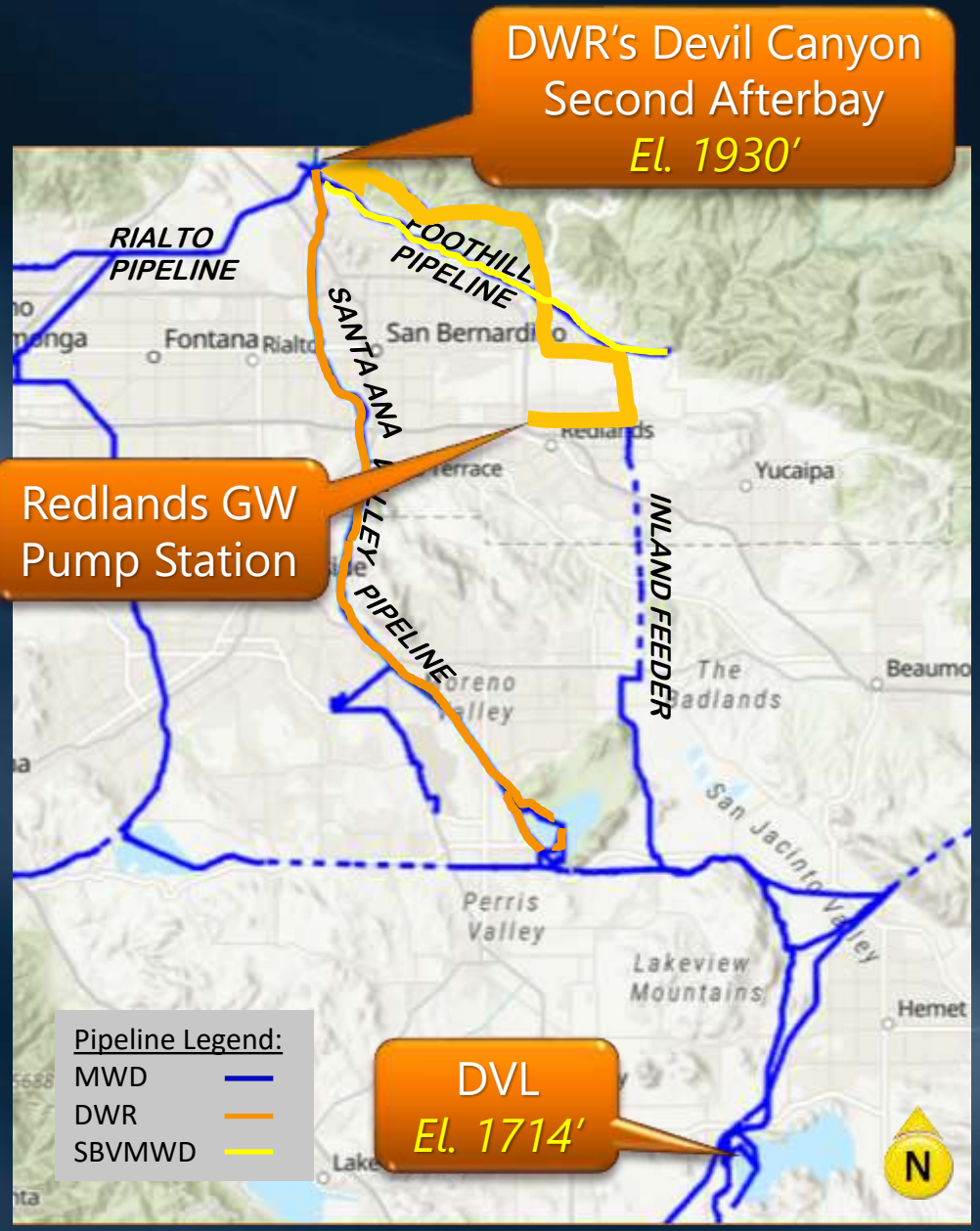


Near-term Opportunities on SWP East Branch

Option 2b – SBVMWD Exchange with Local Supply Introduction

- Pump SBVMWD local supply through Inland Feeder to Devil Canyon to Rialto
- Exchange with DVL or SWP supply after drought period
- Requires no new infrastructure

Project Yield	10-12 TAF/Year
Potential Online	2022

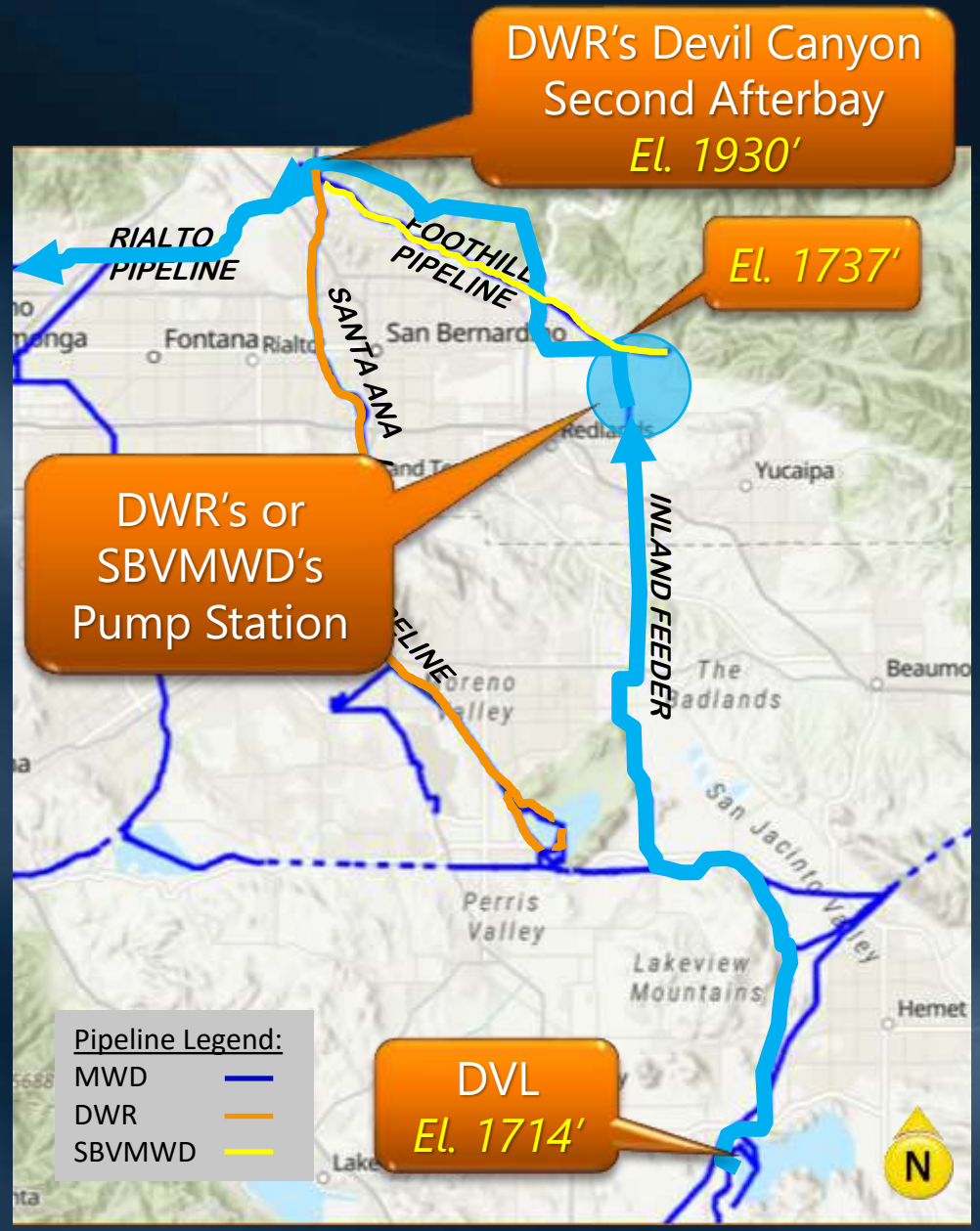


Near-term Opportunities on SWP East Branch

Option 3 – DVL to Rialto (Existing Booster Pump Station)

- Tie into DWR's or SBVMWD's existing pumps
- Pump water from DVL to Rialto
- Agreements with DWR and SBVMWD for facility uses
- Requires Wadsworth Bypass and the Inland Feeder / Rialto Pipeline Intertie

Project Yield	60-100 TAF/Year
Potential Online	2023 or after

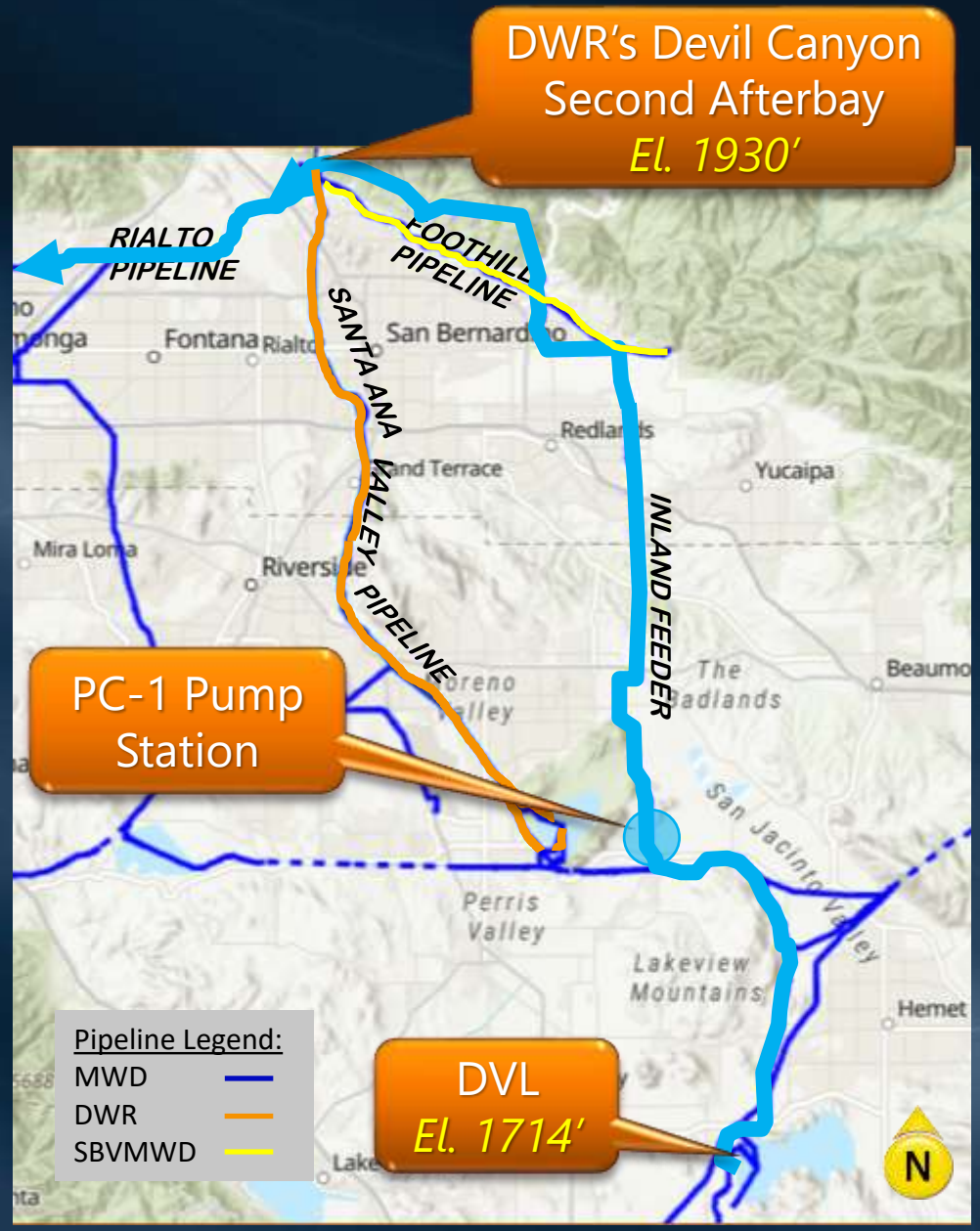


Long-term Opportunity on SWP East Branch

Option 4 – DVL to Rialto (New Pump Station at PC-1)

- Design/Construct PC-1 Pump Station
- Pump water from DVL to Rialto (via PC-1)
- Use of Metropolitan facilities only
- Requires Wadsworth Bypass and the Inland Feeder / Rialto Pipeline Intertie

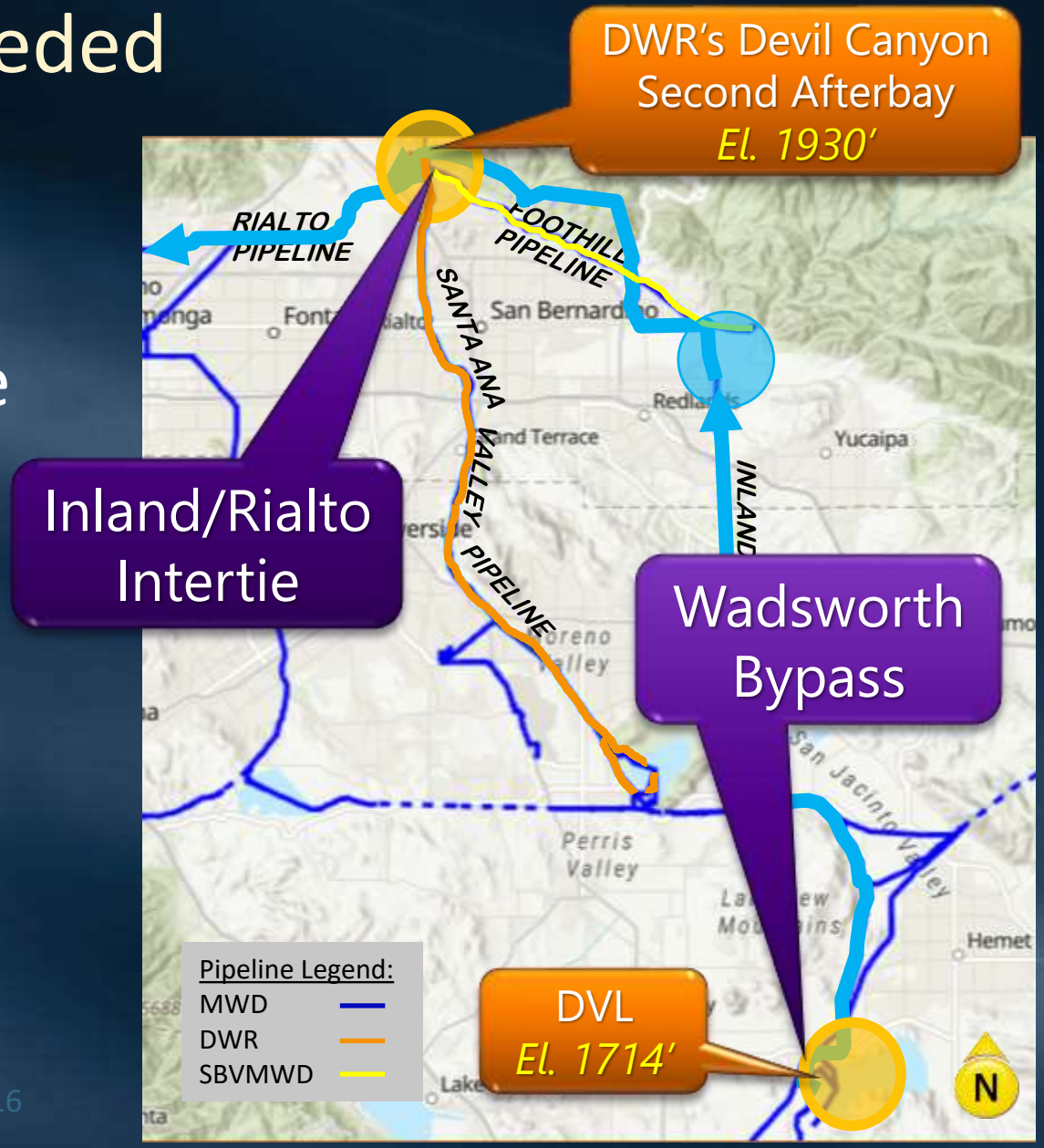
Project Yield	60-100 TAF/Year
Potential Online	2026 or after



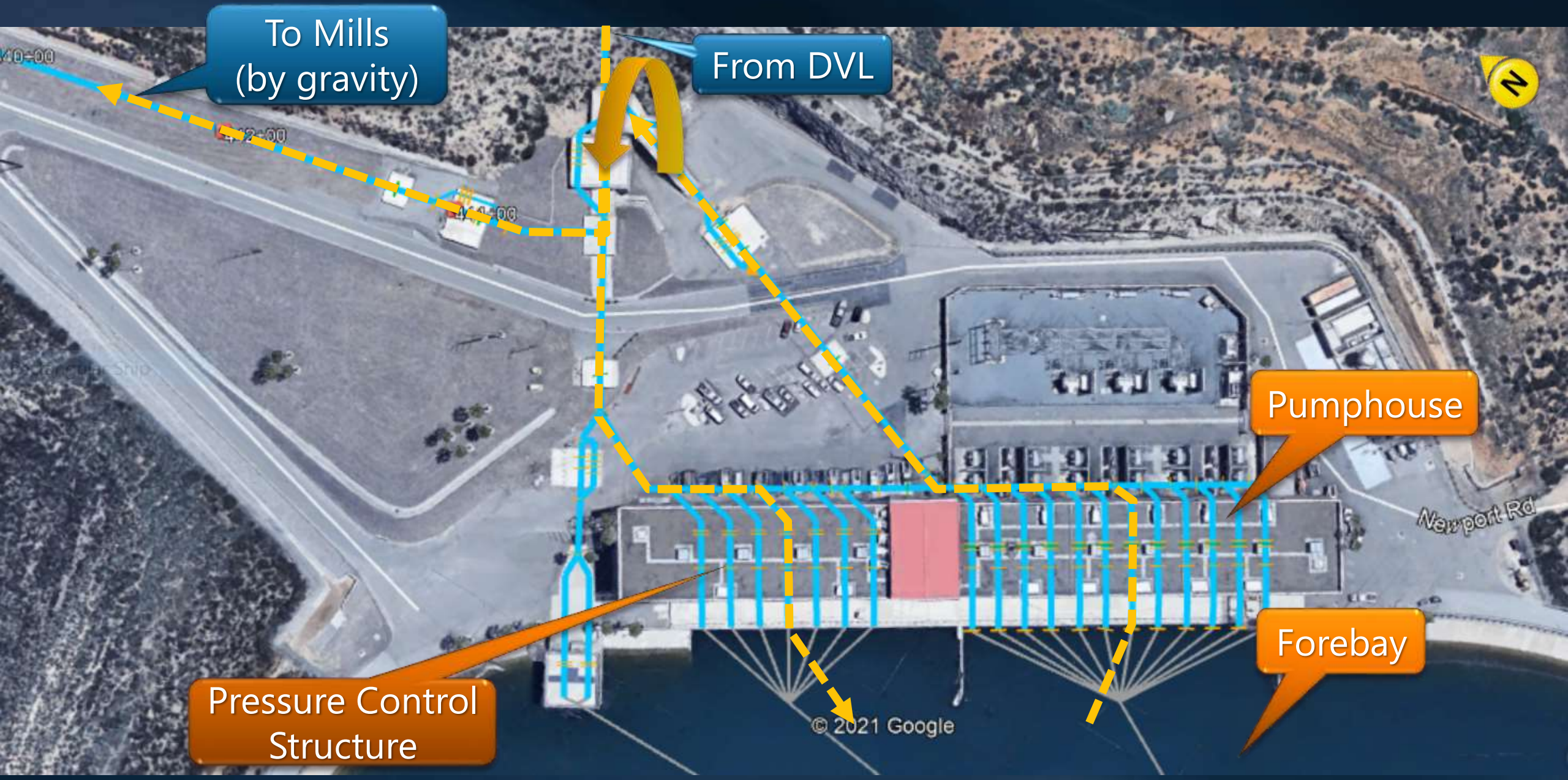
Near-term Opportunities on SWP East Branch

Two Key Facility Improvements Needed

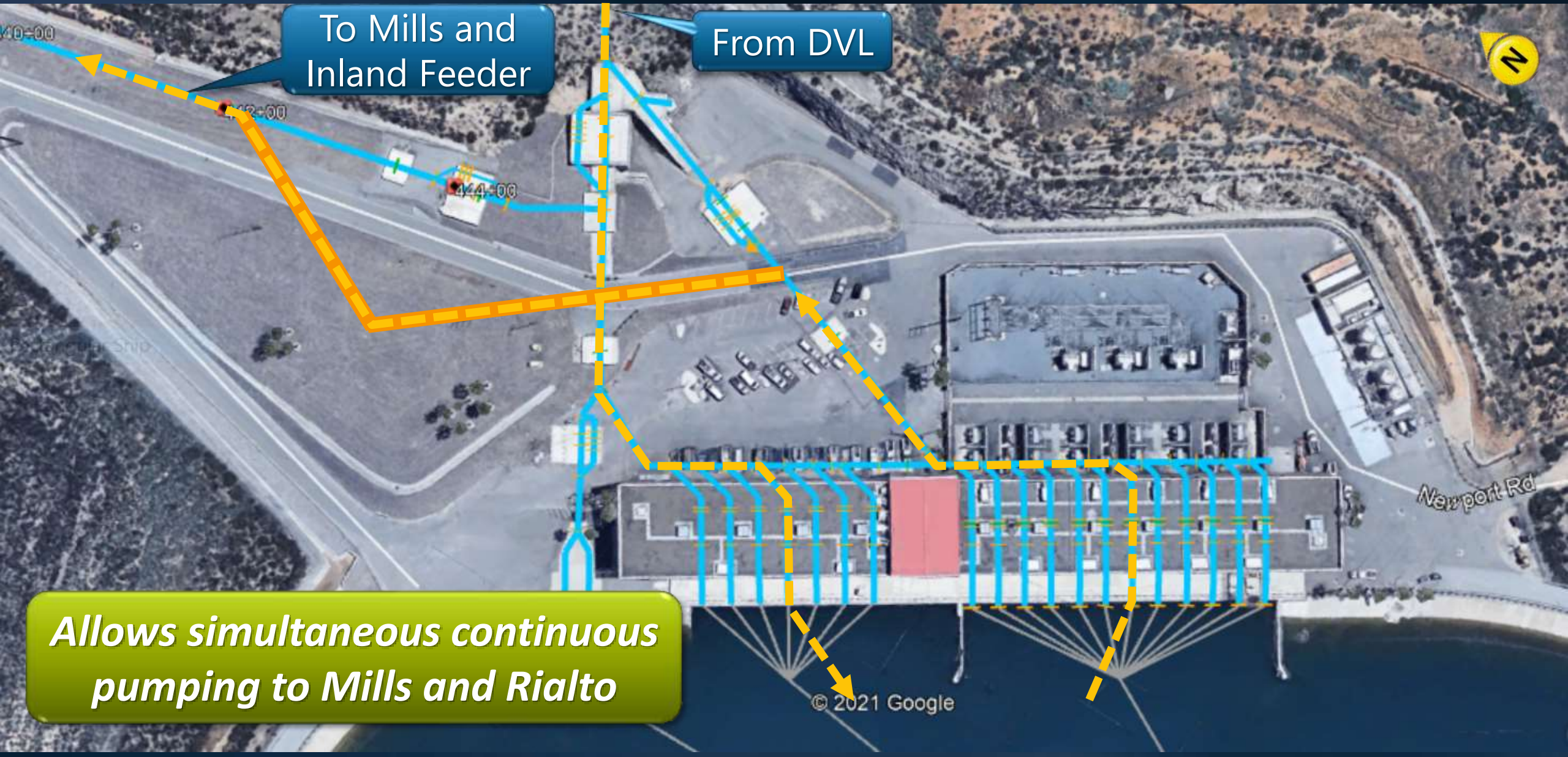
- Wadsworth Bypass Pipeline
- Inland Feeder/Rialto Pipeline Intertie



Current DVL Operation

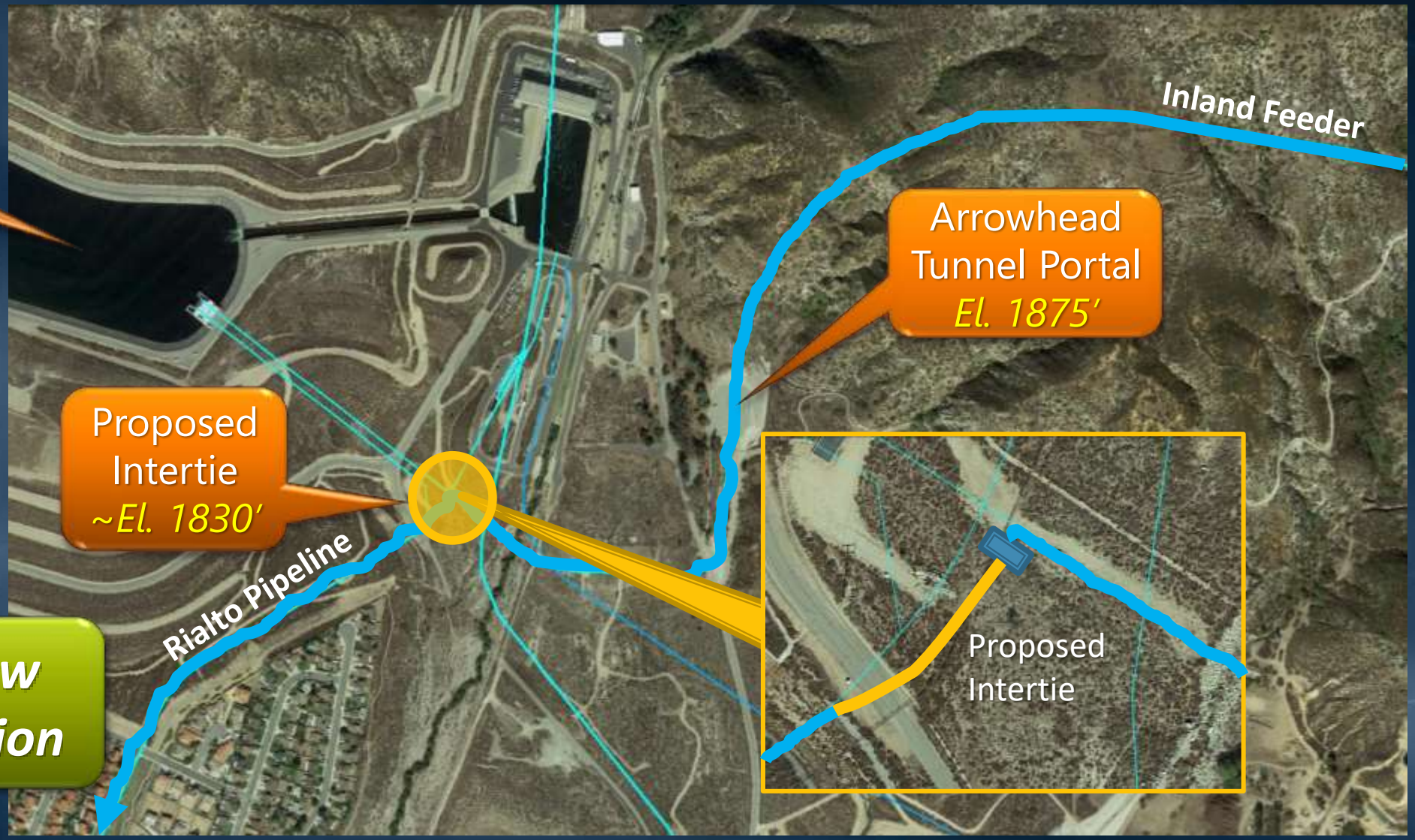


Wadsworth Bypass Pipeline



Allows simultaneous continuous pumping to Mills and Rialto

Inland Feeder / Rialto Pipeline Intertie

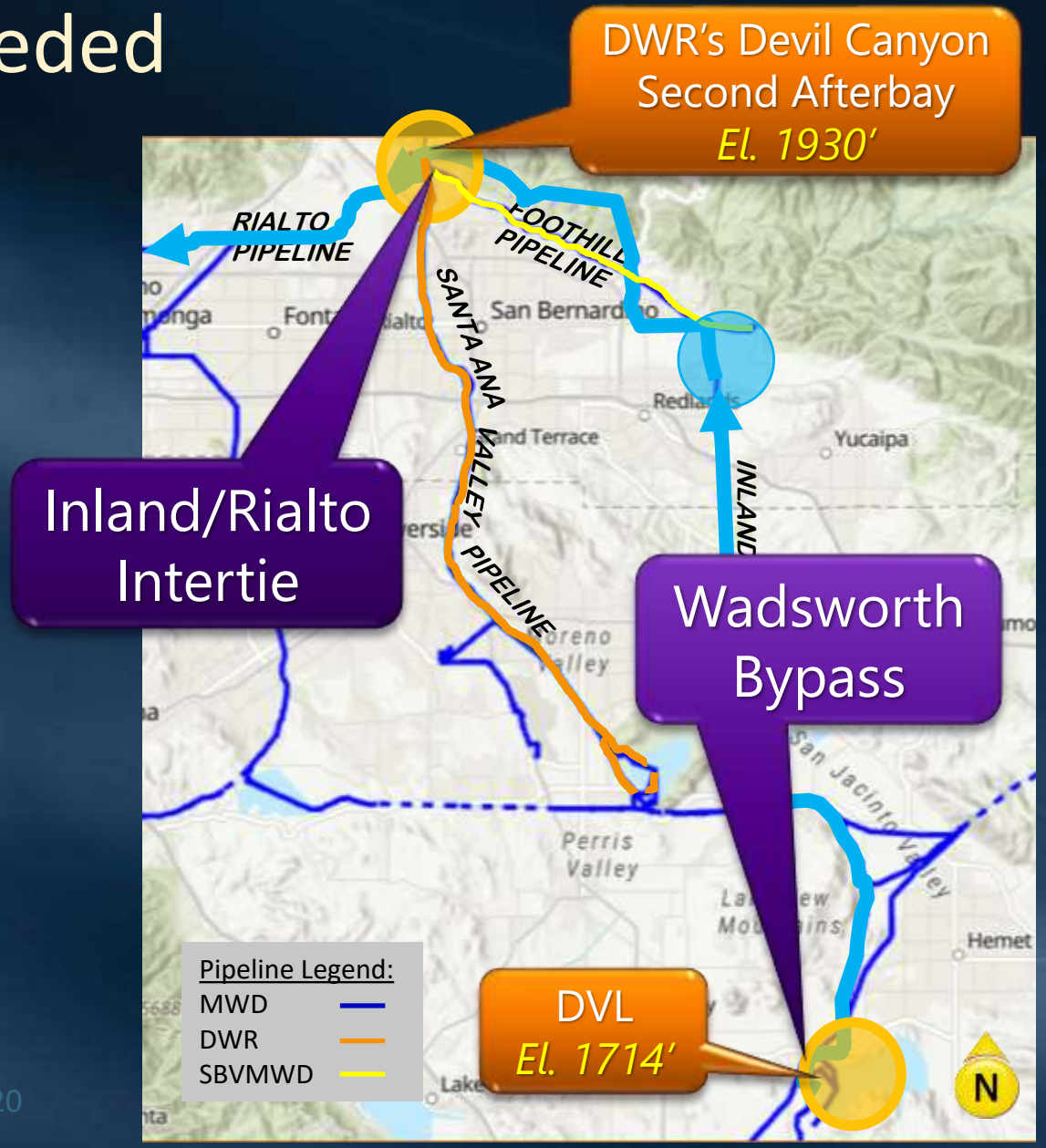


Allows higher flow and easier operation

Near-term Opportunities on SWP East Branch

Two Key Facility Improvements Needed

Option	Description	Potential Online Date	Needs Wadsworth Bypass	Needs Inland/Rialto Intertie	Potential Yield
1	DVL to SBVMWD	2023	✓		5-6 TAF (carryover)
2a	SBVMWD Local Supply to SBVMWD System	2022			5-6 TAF (carryover)
2b	SBVMWD Local Supply to Rialto	2022			10-12 TAF/yr
3	DVL to Rialto via Existing Booster Pump Station	2023 or after	✓	✓	60-100 TAF/yr
4	DVL to Rialto via New Pumps at PC-1	2026 or after	✓	✓	60-100 TAF/yr



Next Steps

- Continued coordination and action planning with member agencies, DWR, and other partnering agencies
- Implement short-term drought mitigation actions
- Staff to review details at the E&O Virtual Field Inspection Trip on October 21
- Schedule Board Action on Wadsworth Bypass and Inland Feeder/Rialto Pipeline Intertie
- Develop long-term plan for increased system resilience and flexibility


THE METROPOLITAN WATER DISTRICT OF
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