Regional Water Issues

- Local Groundwater Supply Improvement Project (Local SIP)
- Interagency Water Transfers
  - Newport Beach
  - Huntington Beach
- Reservoir 2 Recovery

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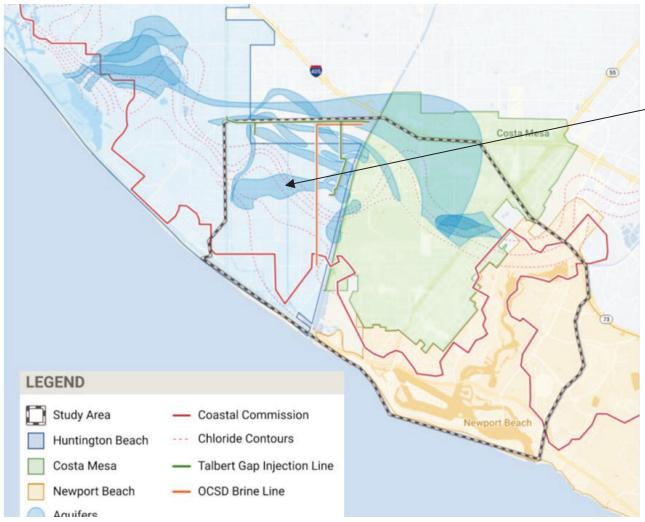
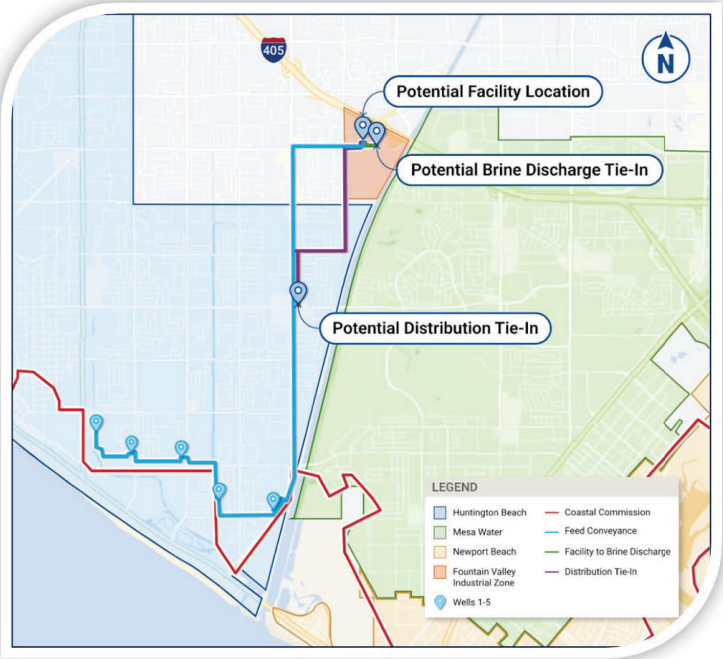
LOCAL SIP

Local SIP



The Local SIP is envisioned to be brackish groundwater desalination facility located seaward of the groundwater injection barrier within the Mesa Water, City of Huntington Beach and City of Newport Beach service areas

Local SIP

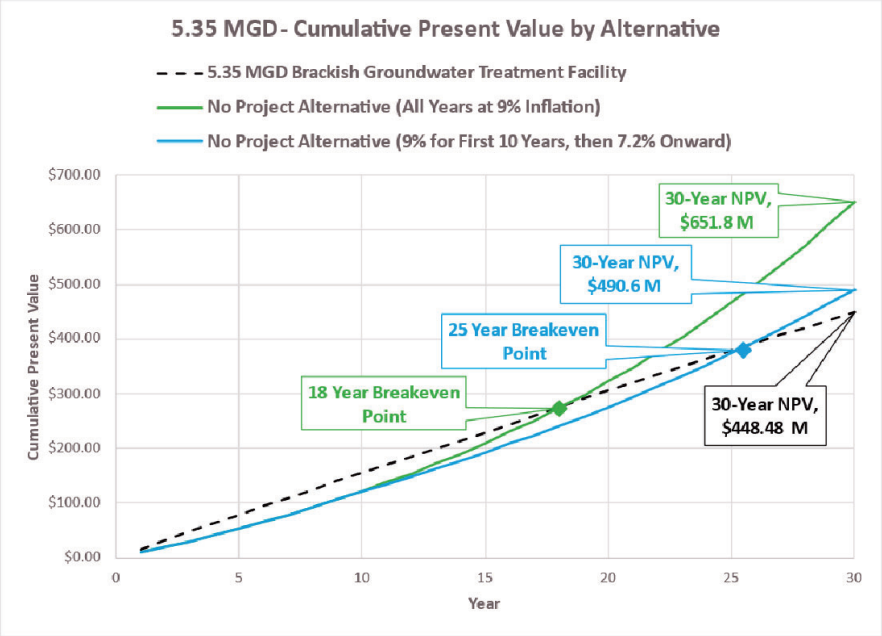


- 5 Brackish water supply wells
- Treatment Facility
- Groundwater conveyance pipeline
- Potable water distribution pipeline
- Brine discharge pipeline

Local SIP Feasibility Study Found Benefits

- ✓ 6,000 AFY of new potable water supply
- ✓ Reduce reliance on imported water
- ✓ Reduce barrier injection needs
- ✓ Sustain the region's economy
- ✓ Cost-effective solution for beneficial use of new local supplies

Local SIP is Cost Effective



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Local SIP Feasibility Study Team

- Public Agencies
  - Mesa Water District (Lead Agency)
  - City of Newport Beach (CoNB)
  - City of Huntington Beach (CoHB)
  - Orange County Water District (OCWD)
- Funding
  - United States Bureau of Reclamation (USBR)
- Consultant
  - Black &Veatch

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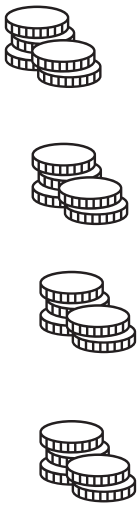
Pursue Funding For the Local SIP

- USBR Grant Funding
  - Funded Feasibility Study
- Notice of Funding Opportunity (NOFO) for desal projects expected in 2026
- Staff and the Board have been in contact with USBR reps and the Local SIP appears to be in good position to receive further USBR funding
- Also pursue State Funding
  - Prop 4 Funding
  - State Revolving Funds low interest loans

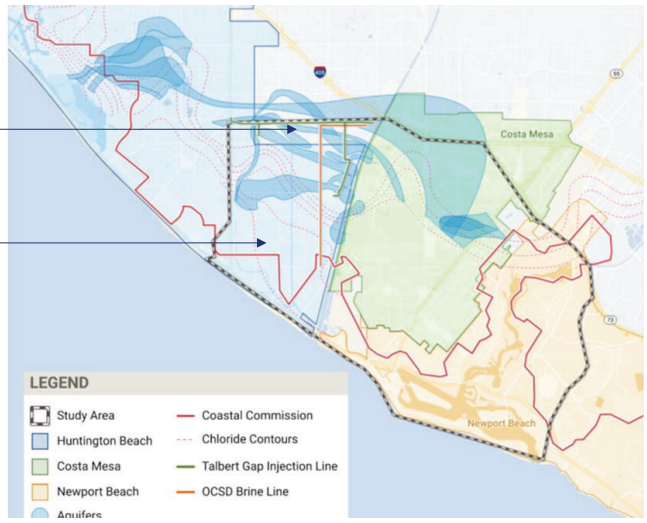


Build Consensus for the Local SIP

- Local SIP Benefits Presentation available
- Appropriate for Boards and City Council meetings
- Ask Partners to commit $25,000 funding for next steps

Fund Next Technical Steps

- Contract amendment for Black and Veatch for next technical steps recommended in the Feasibility Study.
  - Groundwater modeling and analysis of the reduction of injection barrier water needed for the Talbert Basin
  - Studying the potential for subsidence from brackish groundwater pumping
  - Refined construction cost estimate for the project.



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Retain Program Management Consultant

- The Program Manager would be responsible for retaining and managing a project team for
  - Planning
  - Permitting
  - Design
  - Construction
  - Construction management
- Work Packages for
  - Wells
  - Pipelines
  - Treatment facility

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Summary of Next Steps

- Pursue funding
- Build consensus
- Fund next technical steps
- Retain a Program Management Consultant
- Purchase Properties

Purchase Property

- Staff has retained Voit Real Estate to help locate property for the treatment facility and the wells
- Voit has presented a property for consideration that is outside of the prime area for the treatment facility
- Closed session- Real Estate

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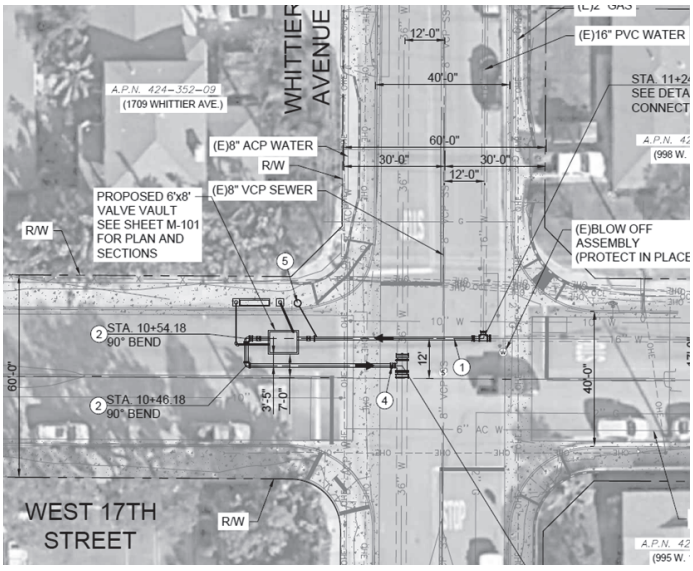
INTERAGENCY WATER TRANSFERS

Newport Beach IWT

- 100% Design
- Metered intertie between Mesa Water® 16” diameter pressurized line and City of Newport Beach 36” gravity line
- Low traffic location 17th Street west of Whittier Ave



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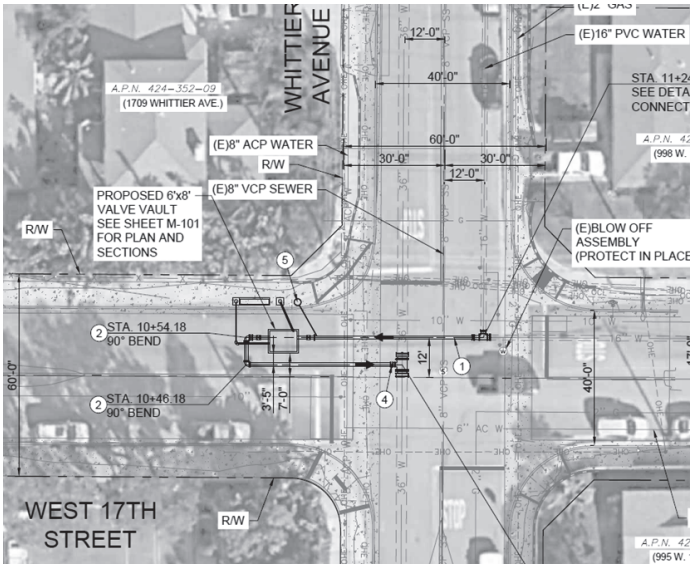
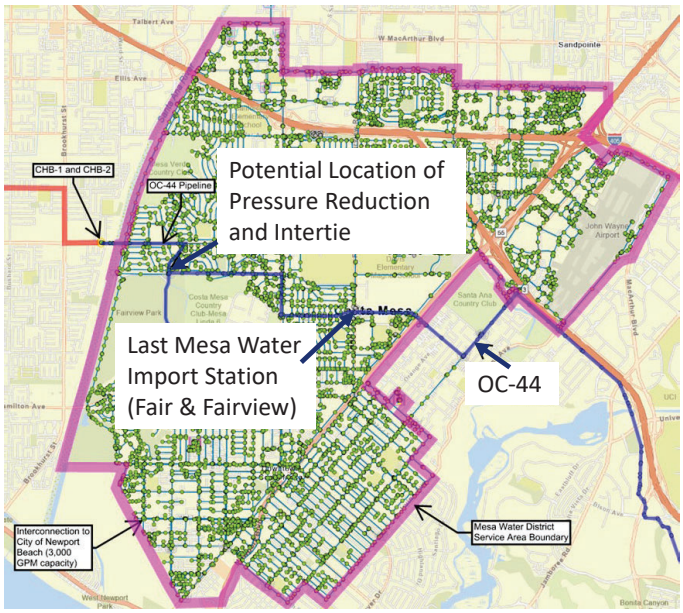
Newport Beach IWT

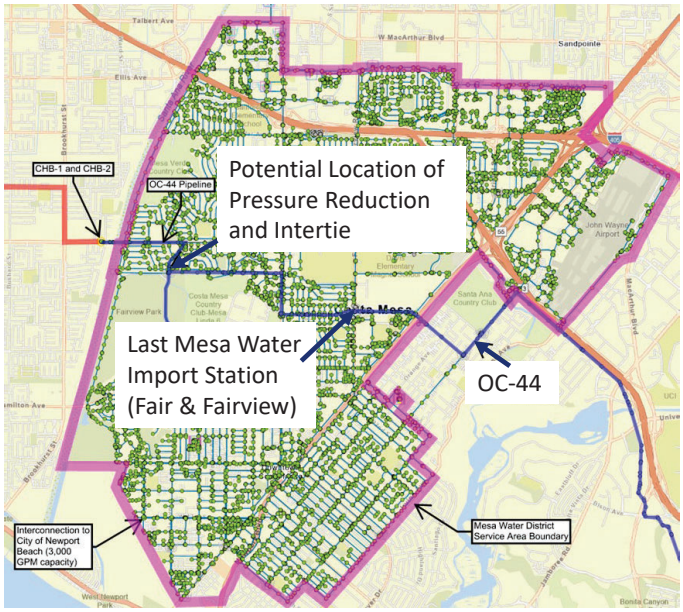
- In Process
  - Interagency Agreement
    - OCWD will allow water transfer to Newport Beach BPP
  - Encroachment Permit
  - Power from SCE
    - Pressure sustaining valve
    - Flow meter
    - SCADA communications
- Proceeding with Construction Contract while the "in process" items are being worked out





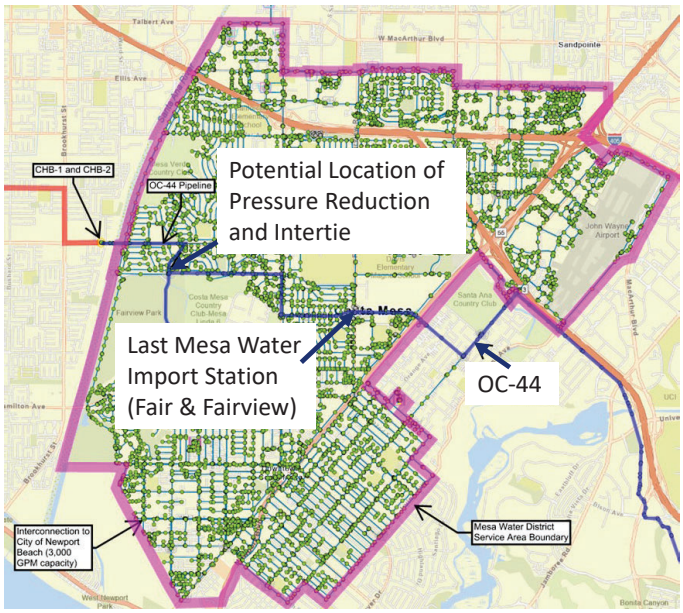
Huntington Beach IWT

- Feasibility Study Complete
- Mesa Water could offset some of HB imported water purchases with locally produced groundwater
- Use shared OC-44 line
- Reduce OC-44 pressure
- Construct intertie



Huntington Beach IWT

- 2,000 AFY Supply Scenario = $650k in 1st Year Savings
- Key Assumptions
  1. Offsetting imported water
  2. MWRF supply not subject to BEA
  3. 12% Wheeling
- Savings increase with time



Huntington Beach IWT

- To be presented at May 20 HB Public Works Commission Meeting
- Working on Interagency Agreement
  - BPP/BEA

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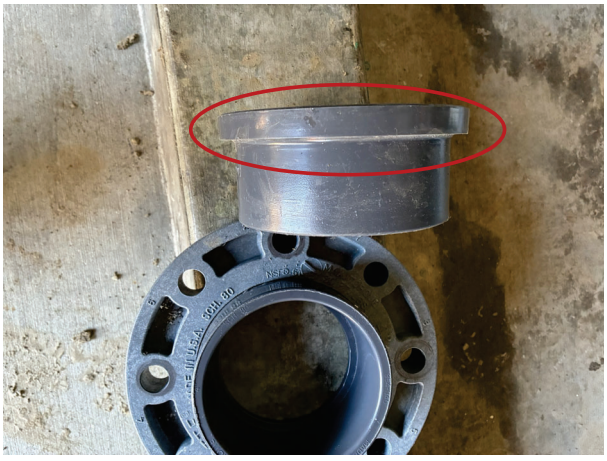
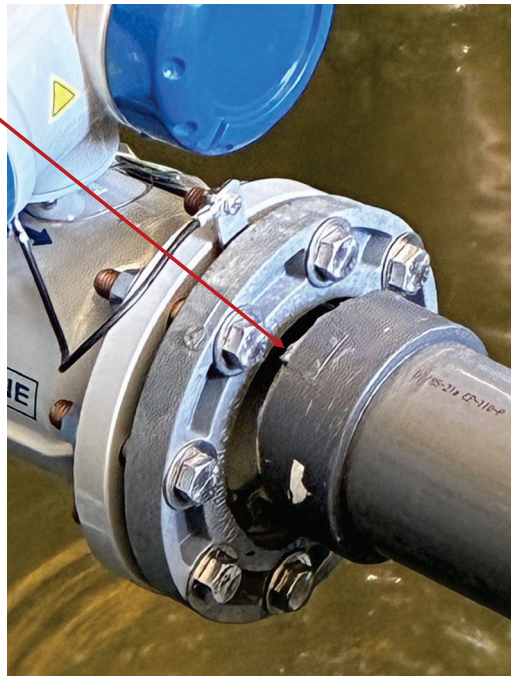
RESERVOIR 2 RECOVERY

Reservoir 2 Pump Station Incident October 2025

Failure on water line that supplies reservoir mixers





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Reservoir 2 Pump Station Incident October 2025

- Submerged existing electrical equipment and instruments
- Damaged SCADA PLC
- Damaged natural gas engines
- Damaged right angle gear drives
- Damaged new construction
  - Chemical system pumps
  - Variable frequency drives

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Reservoir 2 Recovery

Complete: Replaced submerged electrical equipment, instrumentation, and chemical system pumps.

In Progress: Repair of gas engines 1,3,4.

Procurement: Replacement right angle gear drives and replacement variable frequency drives

Design: Replacement of the failed motive water line to supply the reservoir mixers.

Planning: Reservoir 2 draining and disinfection, Engine 2 rebuild, pump station and reservoir commissioning

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Reservoir 2 Recovery Key Challenges

1. Disposal of 2 million gallons of stagnant water in Reservoir 2
   - Approvals needed from Regional Water Board and County of Orange
2. Meeting AWWA standards for reservoir disinfection
   - Spray disinfect empty tank
   - Disinfect piping with 10 mg/l chlorine
   - Fill reservoir to overflow (18M gallons) with distribution system water
   - Pass bacteriological testing
   - Will need pump station back in service to use the water in the full tank
   - Will need new chemical system and mixers on-line to maintain water quality
3. VFD lead time
   - Potential solution if available matrix drives are compatible with pump station control system
   - Otherwise, 8-9 months to replace submerged VFDs in kind

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Recovery Schedule and Financial Outlay

- Reservoir 2 and Pump Station expected to be back in service in June
  - Pump station with 3 of the 4 pumps
  - Temporary motive water line to mixers
- Upfront cost to Mesa Water® between $75K-$1M
  - Expected to be fully recovered

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Impact to the Reservoir 1 and 2 Upgrades Project

- Reservoir 1 and the Reservoir 1 Pump Station must remain in service until Reservoir 2 and Reservoir 2 Pump Station are back on-line
- Reservoir 1 Pump Station upgrades will be paused
- Potential for up to a year delay

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THANK YOU!