MesaWater DISTRICT®

- U.S. Bureau of Reclamation (USBR) WaterSMART Grant

Presentation and Discussion Item 5

LOCAL GROUNDWATER SUPPLY IMPROVEMENT PROJECT (SIP)

Project Partners

Reliable water is needed in California.

And local supply is the solution.

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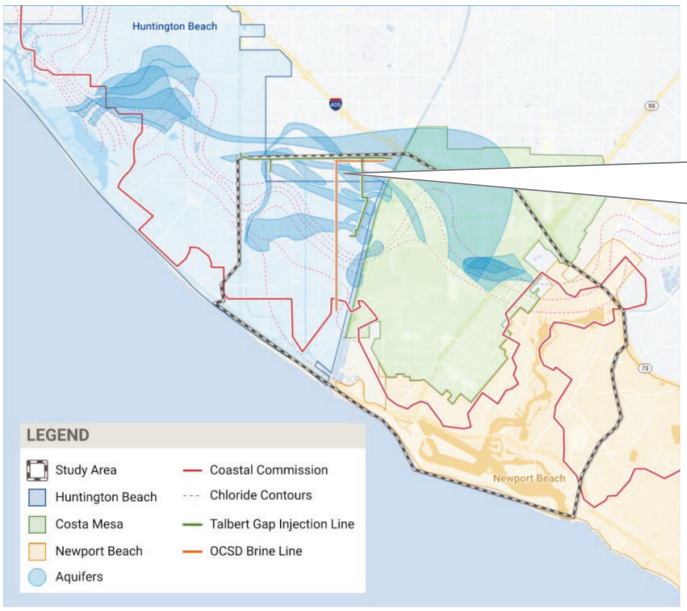
The Local Supply Improvement Project is



The Local SIP is a locally controlled, drought-resilient water supply that converts brackish groundwater into reliable potable water.

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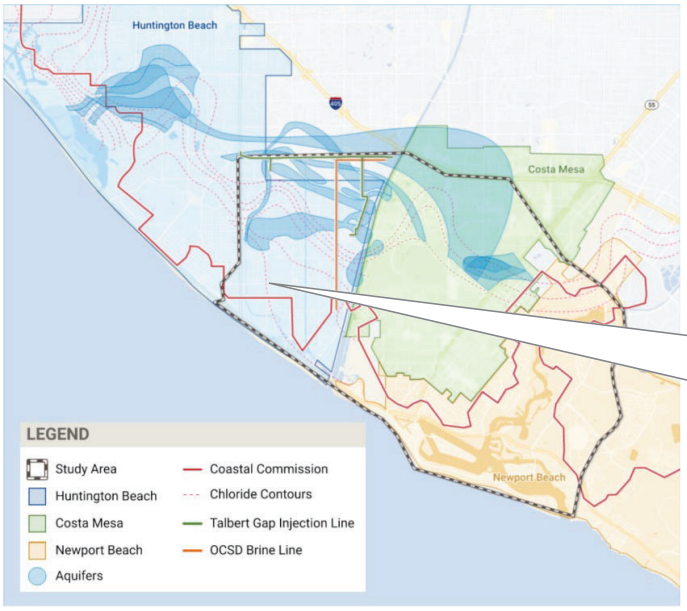
The Local Supply Improvement Project is



The Local SIP accesses brackish groundwater that is too salty to drink from the Talbert Aquifer

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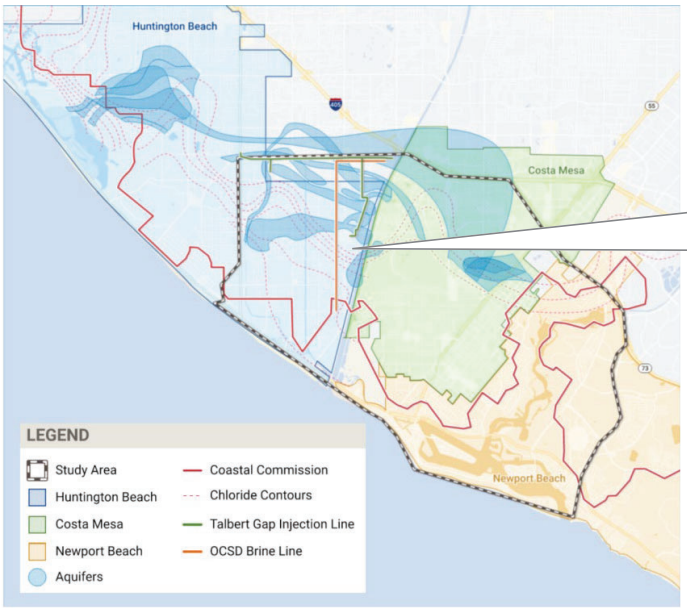
The Local Supply Improvement Project is



... And then treats and makes available ~6,000 AFY of new, reliable, local potable water to the communities of Newport Beach, Huntington Beach, OCWD and Costa Mesa.

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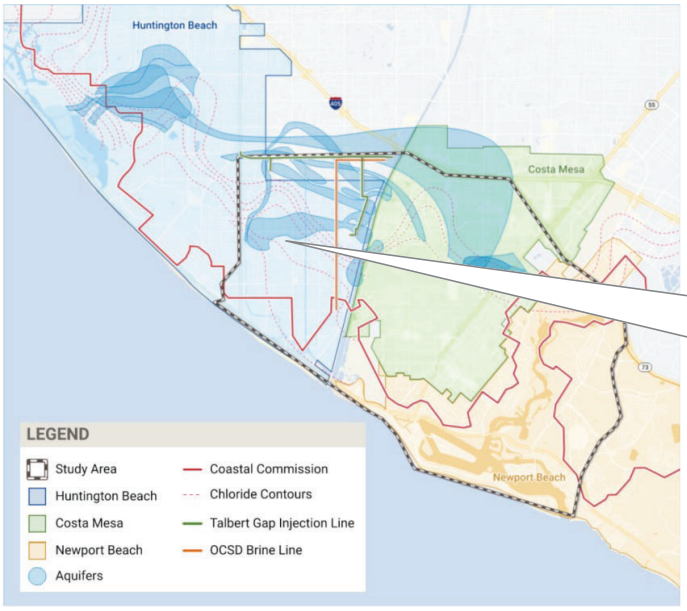
The Local Supply Improvement Project is



... And in doing so it could interact with the Talbert Barrier to reduce the required recharge needed and improve basin health.

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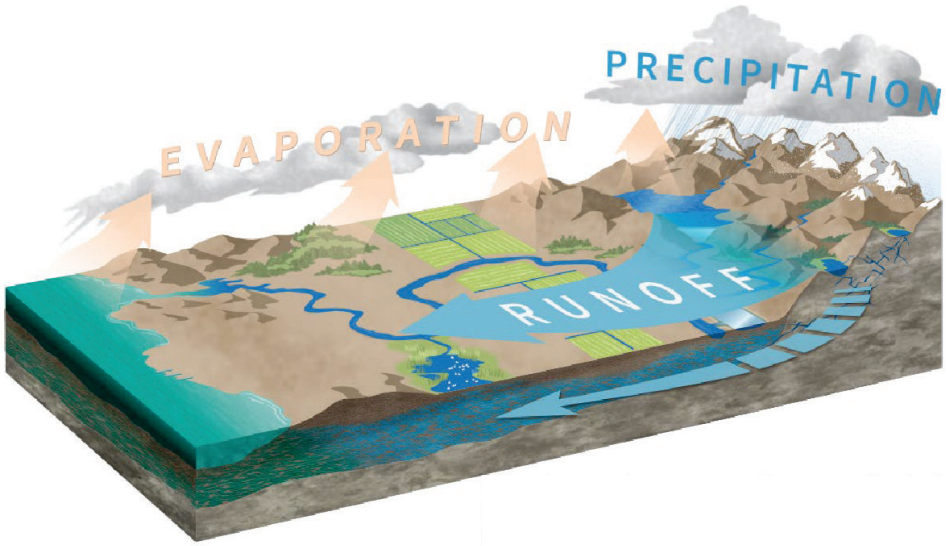
Need For Local SIP



Source: Department of Water Resources, California's Water Supply Strategy, August 2022

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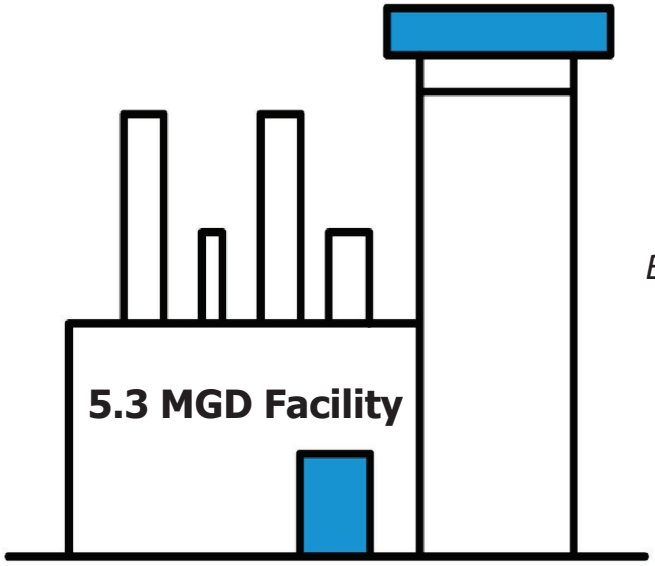
4,600 AFY Supply gap across Newport Beach, Huntington Beach and Costa Mesa within 15 years

Local SIP Benefits & Objectives

- 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 FEASIBILITY STUDY & CONCLUSIONS

Feasibility Study Conclusion



Technology ready.

Environmentally responsible.

Economically prudent.

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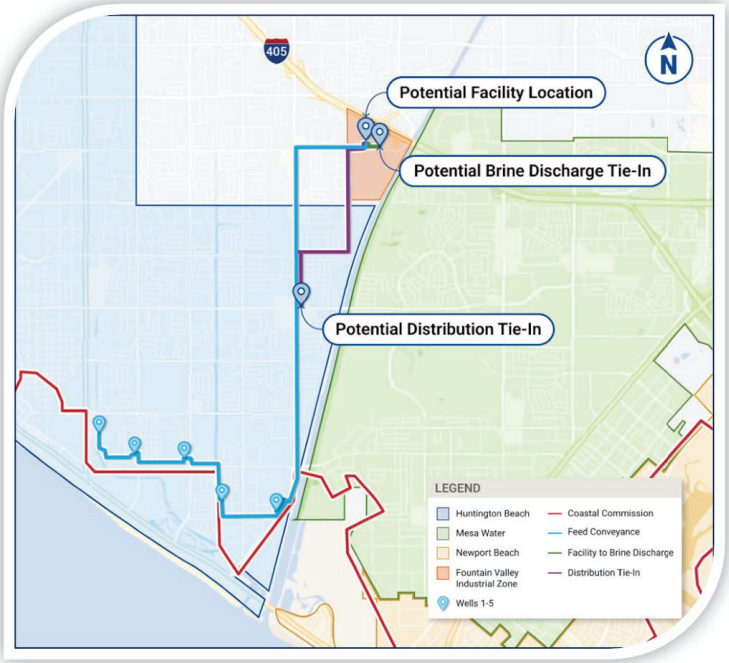
Proposed Local SIP Infrastructure



- 5 brackish supply wells
- Facility located in industrial zone
- ¼ mile brine discharge pipeline
- 2 miles distribution pipeline
- 7 miles well conveyance pipeline
- Tied into existing infrastructure

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Projected Water Supply Deficit

Supply Type	2040	2045
Total Supplies after Anticipated 10% Reduction by 2040 (AFY)	56,026	56,295
Projected Demand (AFY)	60,609	60,908
Projected Supply Gap (AFY)	**-4,583**	**-4,613**

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Project Gap w/ Local SiP (AFY)	**0**	**0**

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Estimated Supply Costs

Life-Cycle Costs and Yield	Cost and Yield	Notes
Project Cost	$317.5 M	Presented in 2025 dollars. Includes total construction cost, site procurement, and 10% design fee.
30-Year Net Present Value (NPV)	$448.5 M	
Annual Project Yield (AFY)	5,993	Equates to 5.35 MGD.
Lifetime Project Yield (AF)	179,800	Life-cycle period of 30 years.
First Year Unit Cost per AF (2025)	$2,671	Year 1 Total Annual Cost ÷ Annual Project Yield
Unit Cost per AF	$2,495	30-Year NPV ÷ Lifetime Project Yield

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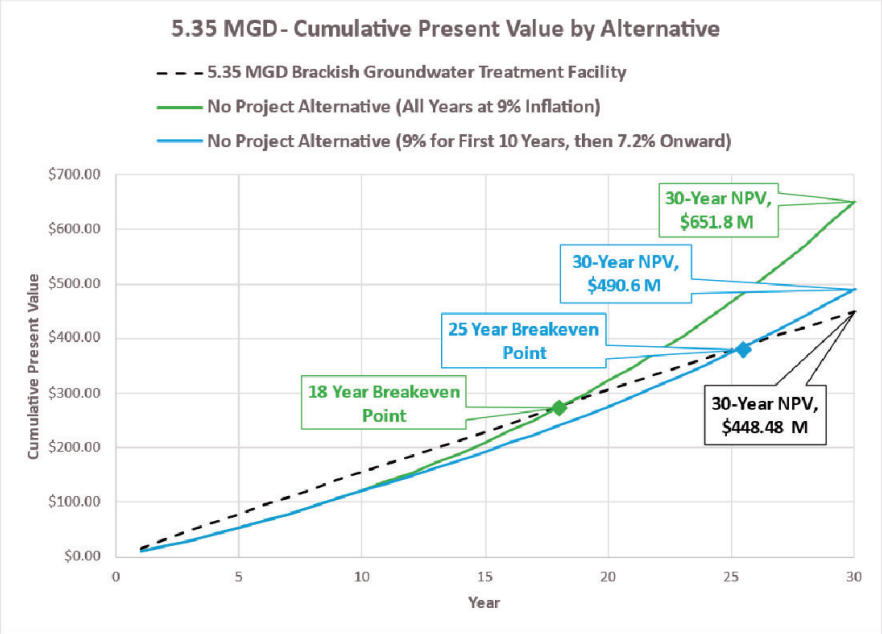
Cost competitive Supply



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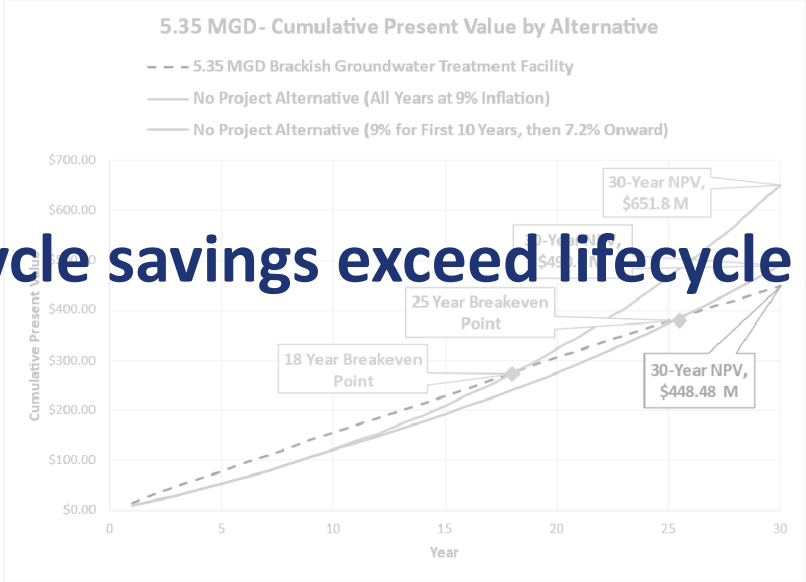
Cost competitive Supply



Lifecycle savings exceed lifecycle costs.

Multi Benefit Project

Water Supply

- Increased flexible water supply
- Enhanced supply reliability
- Reduced imported water
- Reduces recharge capacity required for intrusion

Environment

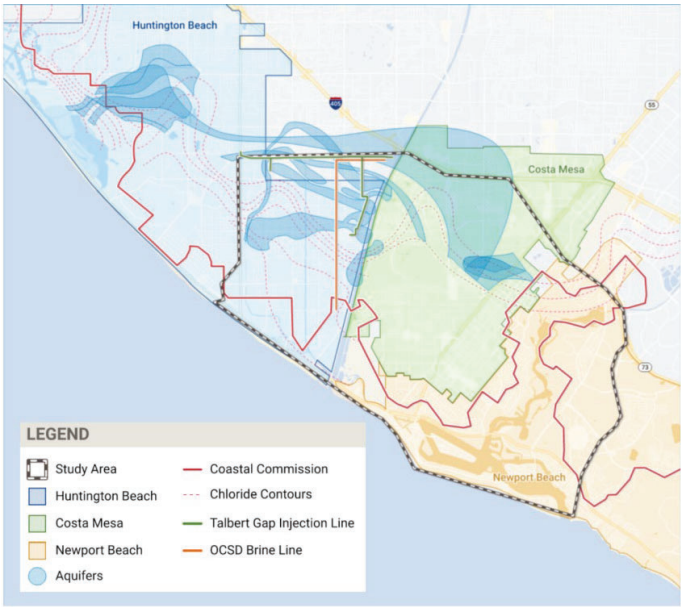
- Improved basin health
- Seawater intrusion management
- Drought & climate resilience
- Salinity reduction
- Reusing existing infrastructure

Community & Economy

- Closes supply gap threatening Orange County's economy
- Regional program (MWD exchange agreement)
- Serves disadvantaged communities

NEXT STEPS

Call to Action



Stakeholder Support

Requesting $40,000 per stakeholder for Phase II advancement of Local SIP

Local SIP Phase II Next Steps

Next steps and further discussion at April 29 Board Workshop

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