CENTRAL COAST BLUE PRESENTATION

WEF - EDGE OF THE DROUGHT TOUR

One Community. One Water. One Future.

August 29th, 2019

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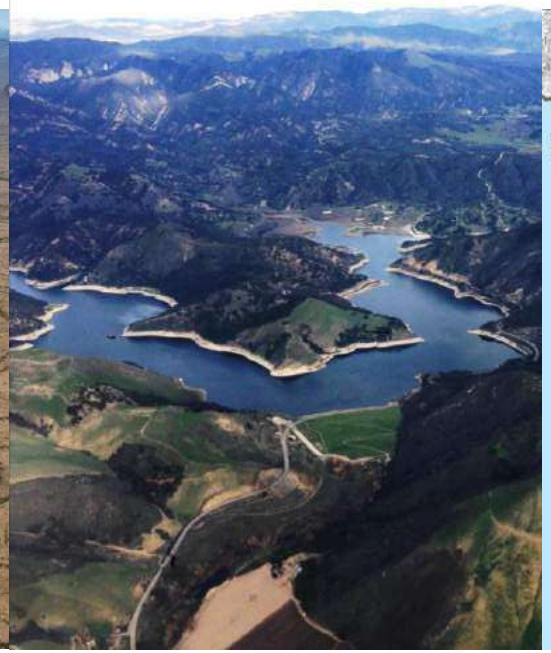
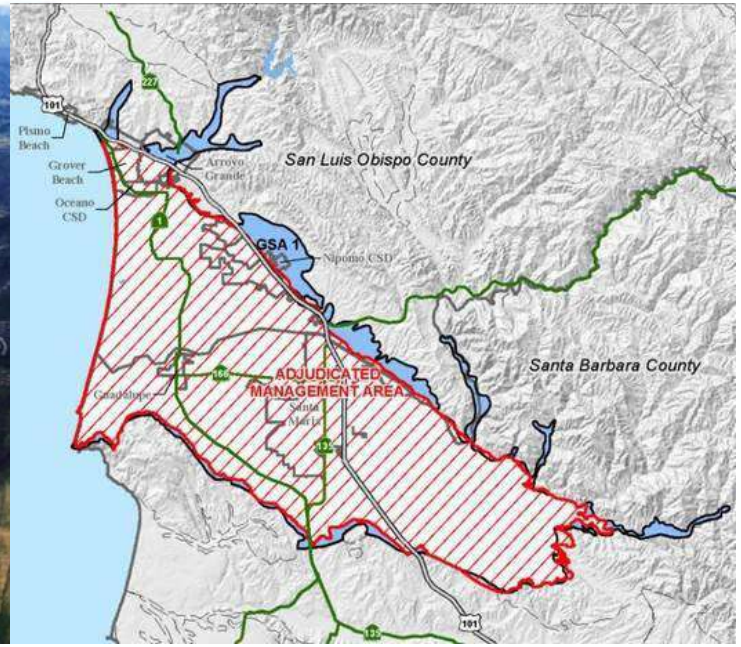
Historic drought highlights vulnerabilities in the Central Coast Blue agencies' water supply portfolio

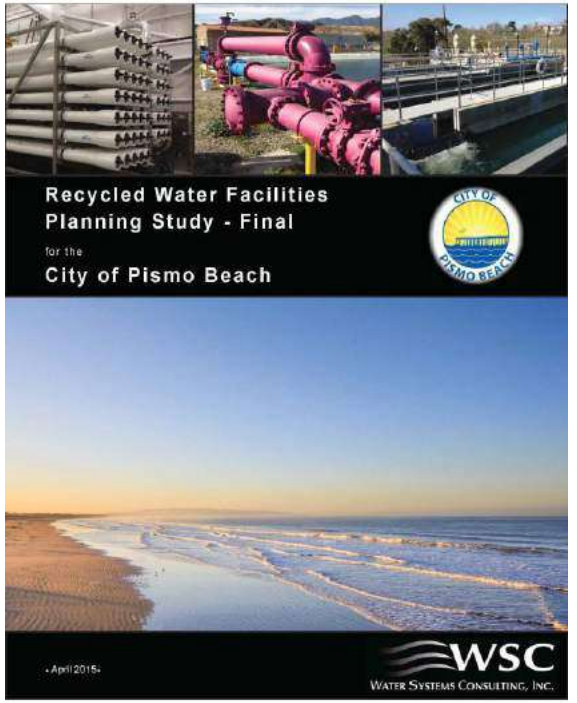
State Water || Lake Lopez || Groundwater

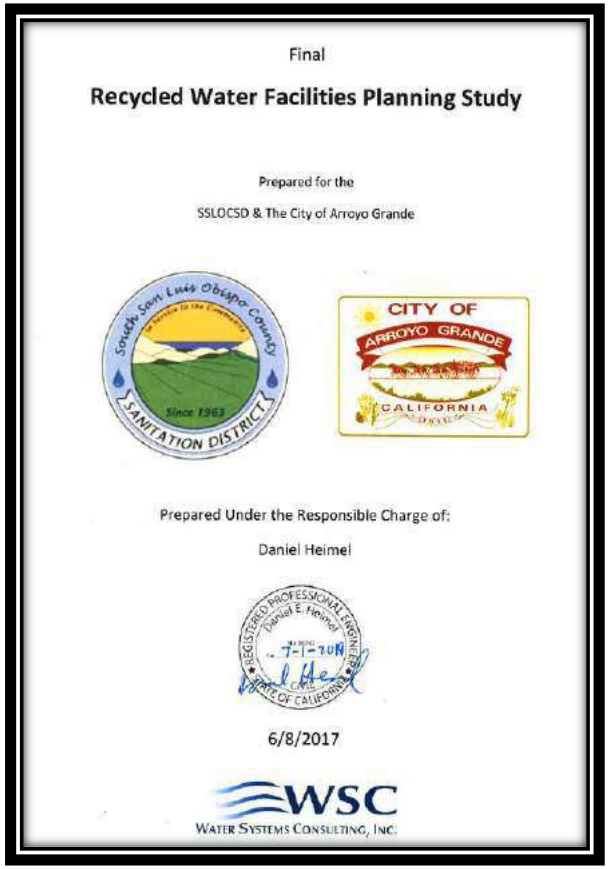




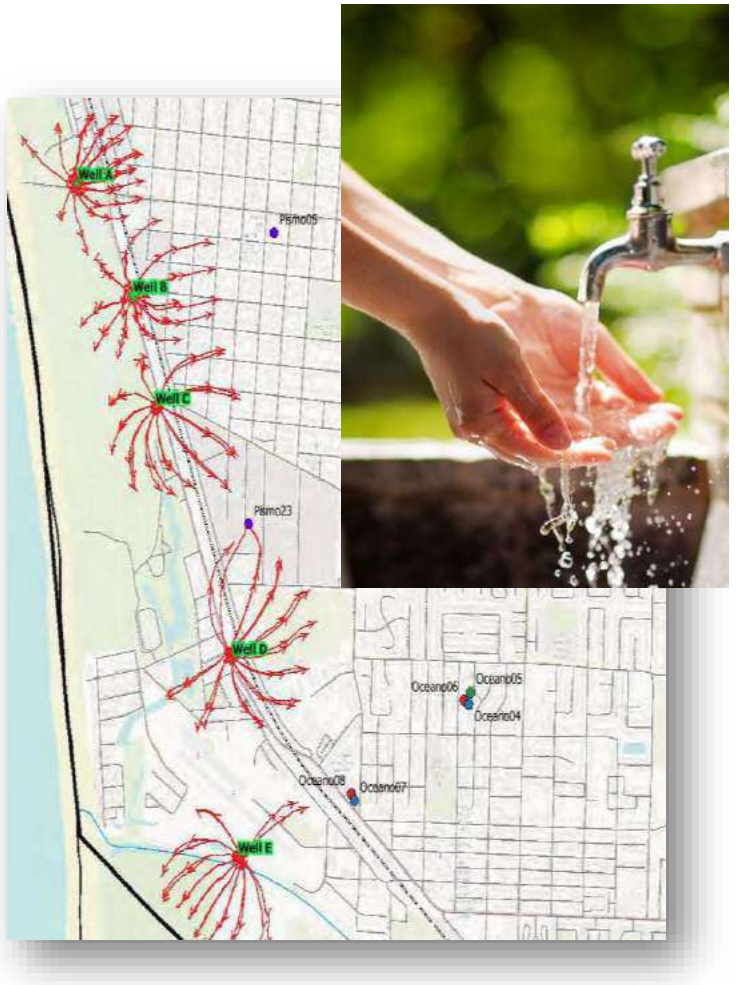
Local agencies take the lead to identify a new supplemental water supply

- UWMP identifies the need for supplemental water supply
- Pismo Beach, Arroyo Grande, and SSLOCSD completed Recycled Water Facility Planning Studies

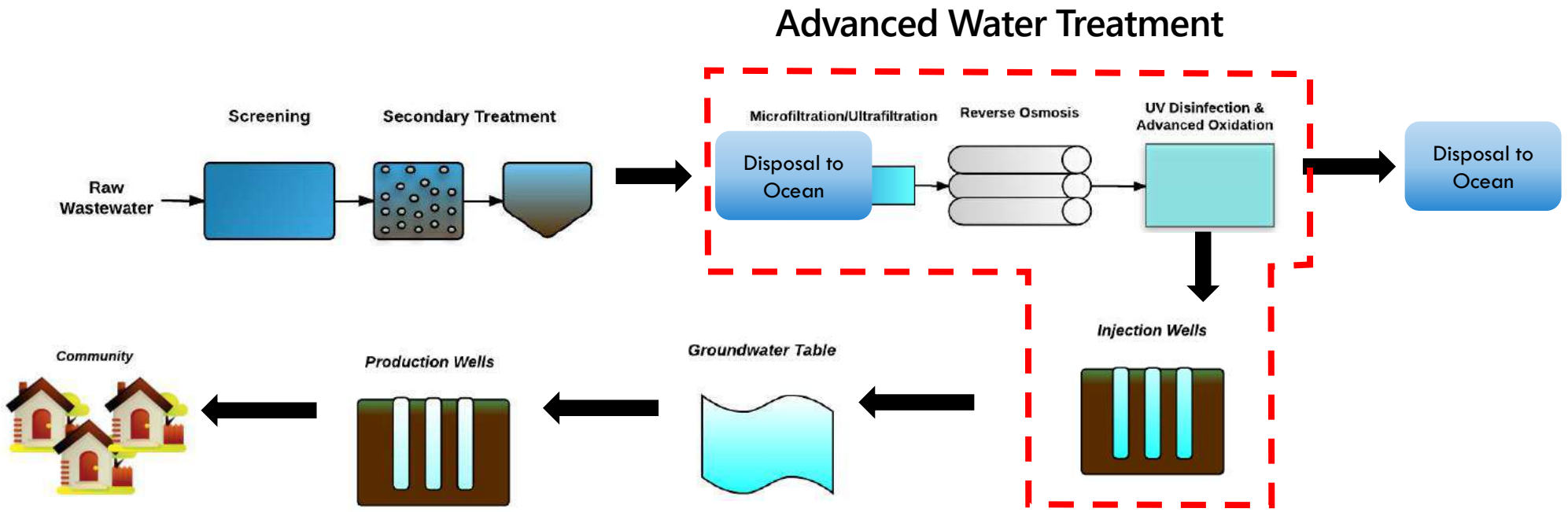




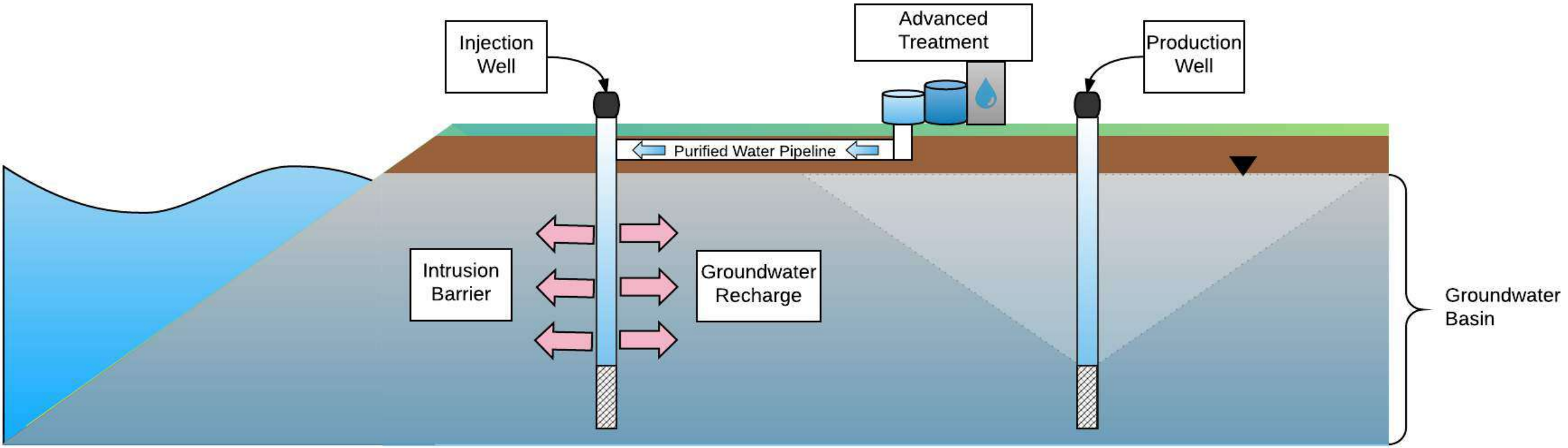
From Purple Pipe to Potable Reuse



Central Coast Blue will leverage a water source that is wasted to the ocean to protect the groundwater basin and improve water supply reliability



Central Coast Blue will utilize recycled water injection to to create a seawater intrusion barrier



Central Coast Blue is able to leverage existing infrastructure connecting the Pismo Beach and SSLOCSD's WWTPs to collect water from both facilities

Central Coast Blue is a regional project envisioned to be completed in 2 phases

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Phase 1 - Capture and treatment of water from Pismo Beach's WWTP

- Anticipated treatment capacity of 1.3 MGD

Phase 2 - Capture and treatment of water from SSLOCSD's WWTP

- Anticipated total treatment capacity of ~5 MGD

Central Coast Blue Injection Scenarios

- **Phase 1** – Injection of approximately 1,100 AFY in 5 locations to protect groundwater supplies.
- **Phase 2** – Construction of 2 new wells and injection of approximately 3,000 – 4,000 AFY to further protect the groundwater basin or delivery of recycled water for agriculture irrigation.

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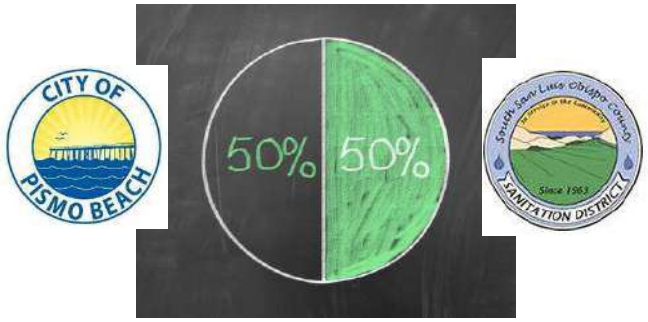
Interagency collaboration is key to project success



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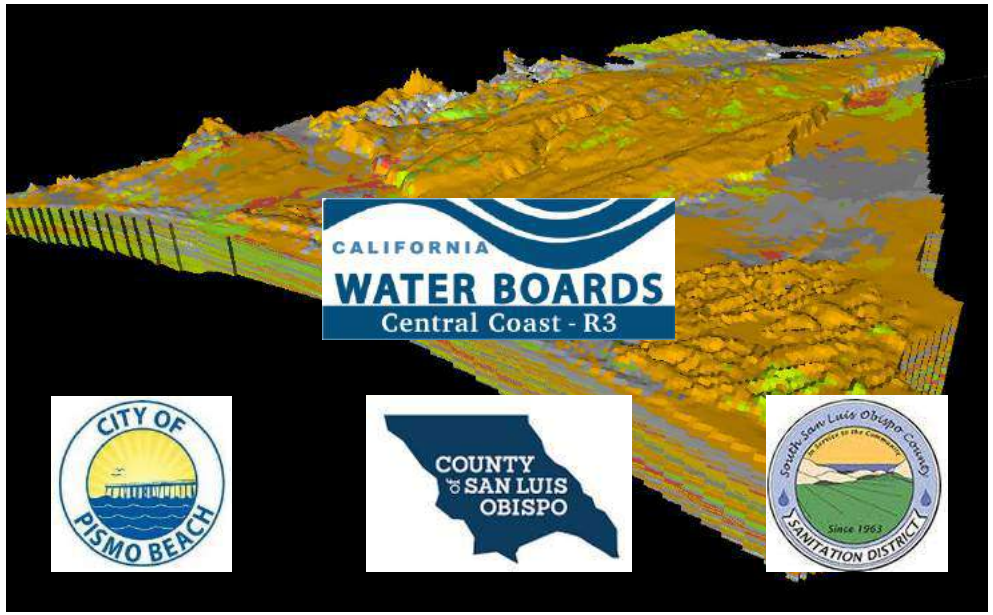
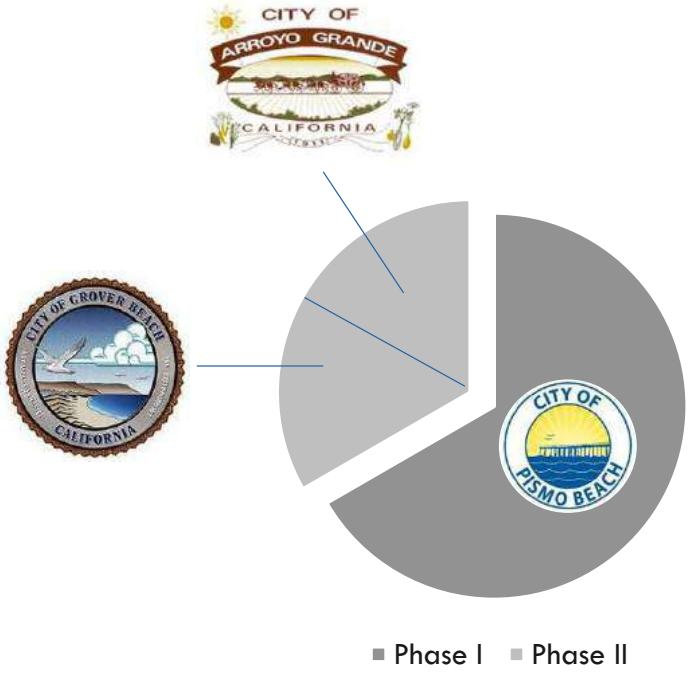


Groundwater Model



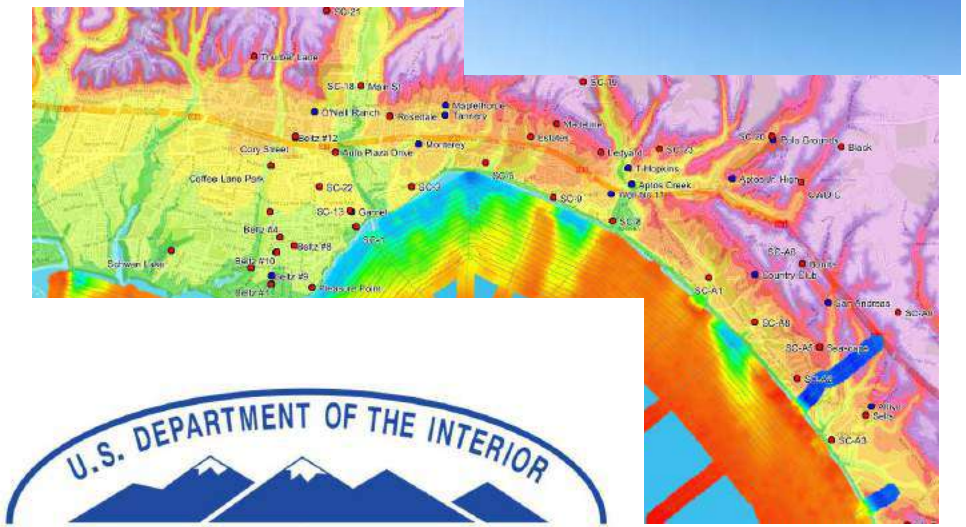
Preliminary Engineering

External funding opens up new opportunities

- Central Coast Blue received Preliminary Award for $2M planning grant. Includes funding for:
  - Test Injection Well
  - Updated Monitoring Plan
  - Basin Level Response Plan
  - Leaching Study
  - **Offshore Aerial Geophysics**

Title XVI

- Award of ~$800k in planning grant funds



Central Coast Blue Pilot Plant

IDE Technologies

Central Coast Blue – Advanced Treatment Demonstration Facility

Microfiltration
(Pall)

Reverse Osmosis
(IDE)

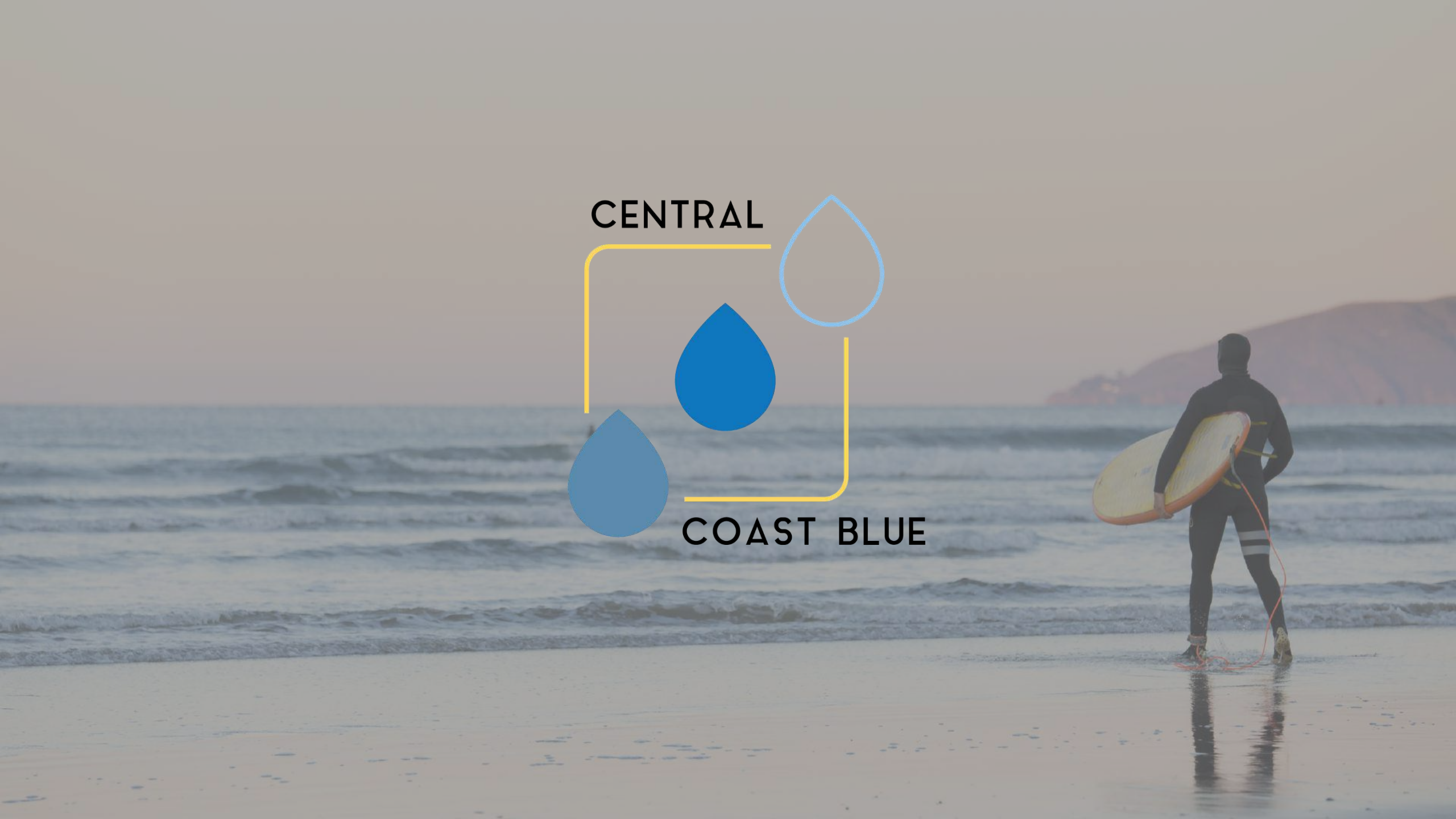
UV/AOP
(Evoqua)

The Demonstration Facility Provides….

- **Acceptance**
  Demonstration facility promotes regional stakeholder engagement
- **Demonstration**
  Performance testing promotes innovation
- **Optimization**
  Detailed analysis allows for design and operational improvements

All this has contributed to the new water journey!

That we call….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Sustainable water supplies

30%

Of existing water demand could be met by Central Coast Blue

Beneficial use of recycled water

77%

reduction in ocean discharge

Lasting Water Independence

5 Agencies

Managing water collaboratively and holistically

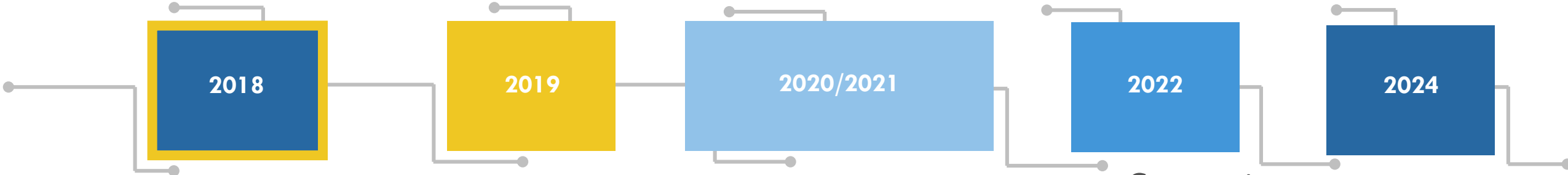
Phase 1 Project Schedule

Groundwater Modeling, Preliminary Design, Technology Piloting,
****Community Connection****

Final Design and Permitting

Operations Begins

Closer to Water Independence



2016 – current
Extensive and thorough planning and collaboration

Preliminary Design & Environmental Review

Begin Public Participation & Comments

Advanced Treatment Design Site Selection; Test Injection Well

Construction Kick Off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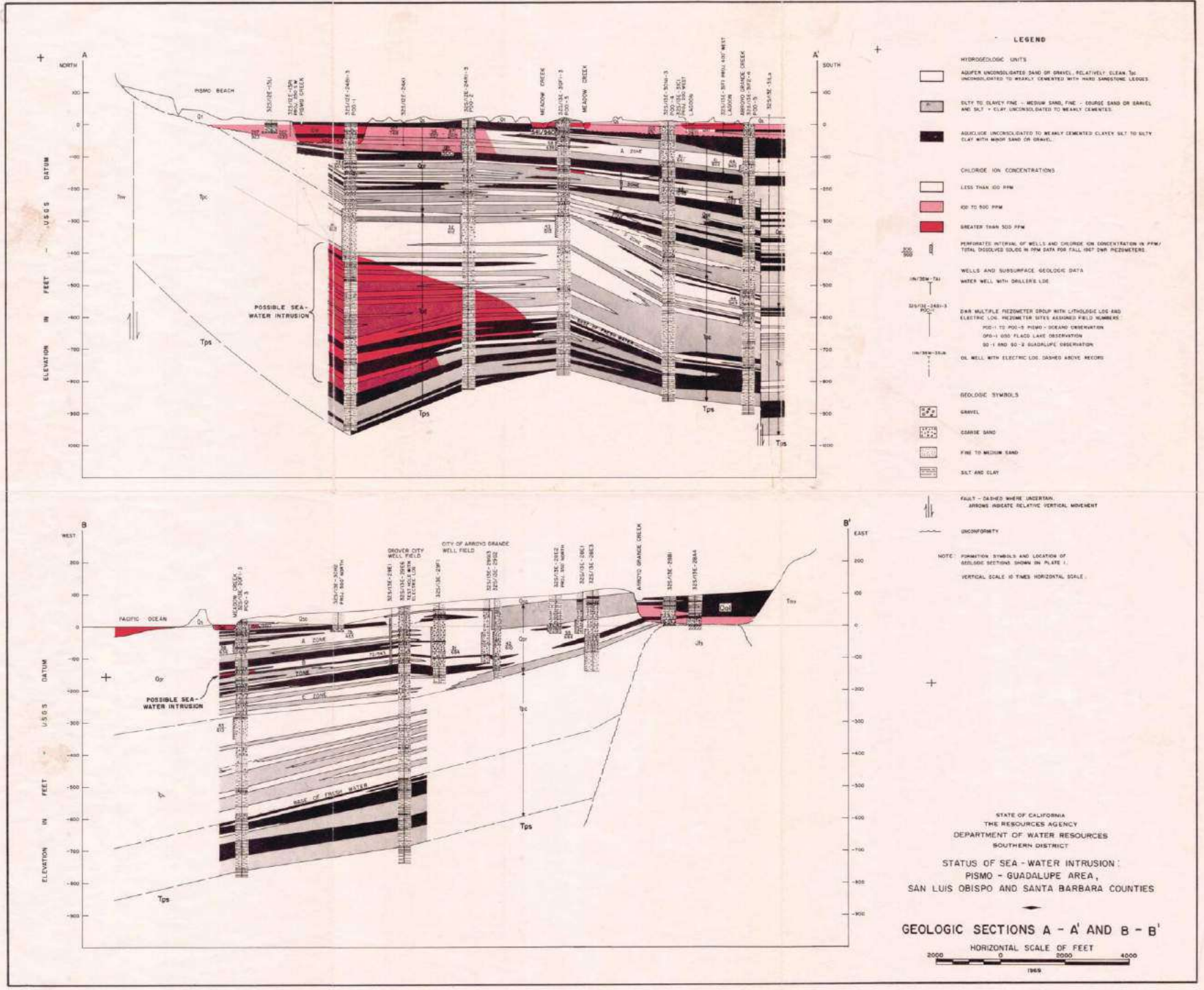
For more information visit:
centralcoastblue.com


Groundwater Basin
and Modeling

Possible evidence of seawater intrusion first detected in the 1960s and documented in the 1970 DWR Report



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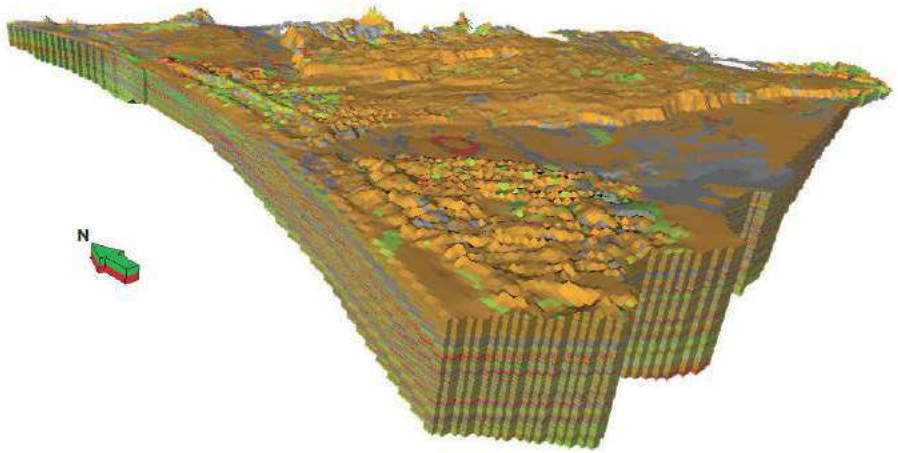
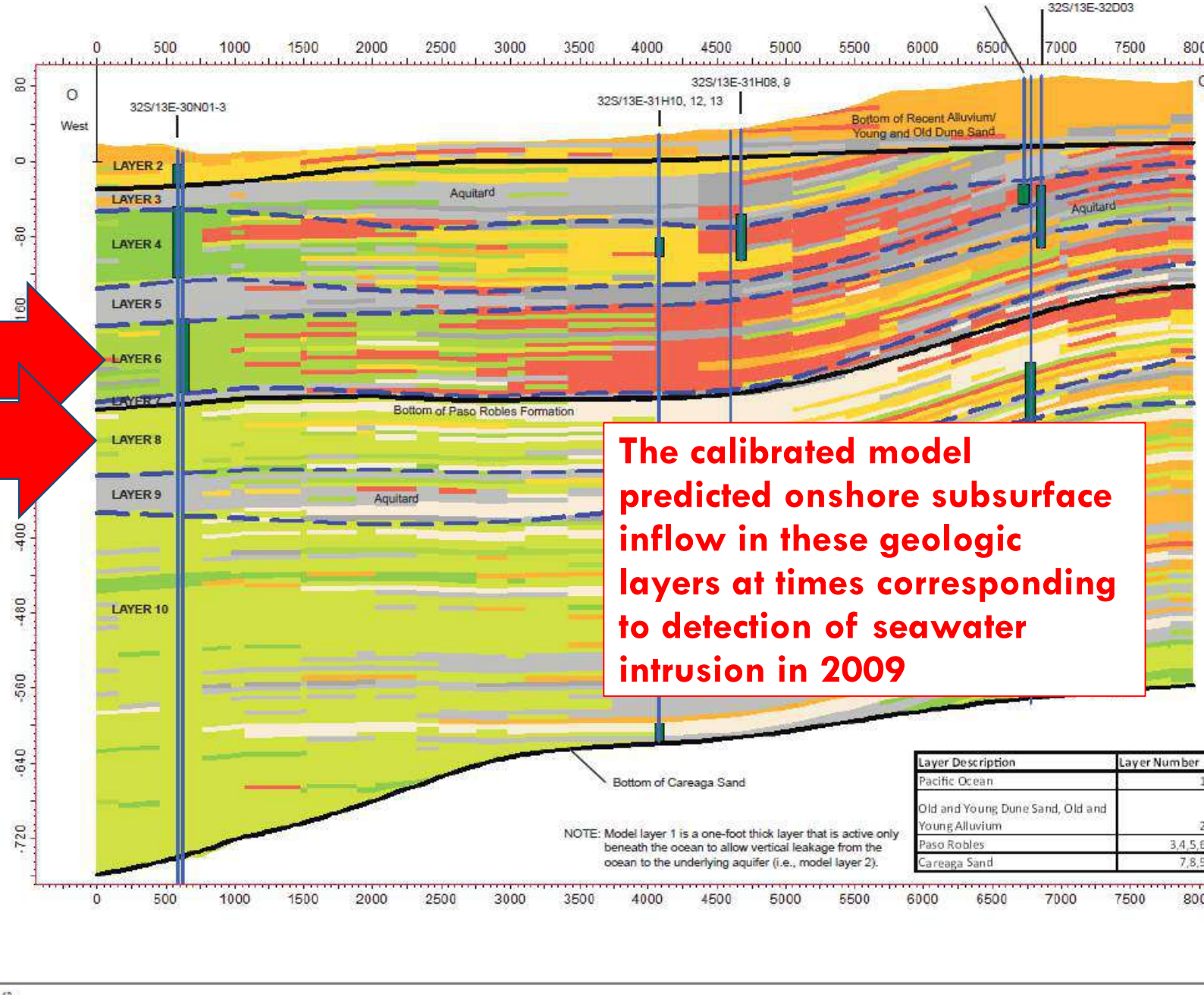
The groundwater model identified pathways for seawater intrusion in the lower Paso Robles and upper Careaga formations

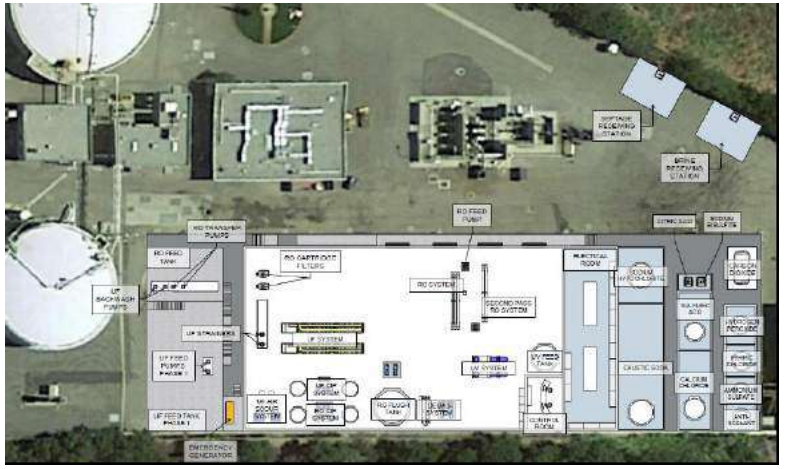




The calibrated model predicted onshore subsurface inflow in these geologic layers at times corresponding to detection of seawater intrusion in 2009

Supplemental Water Supply Studies identified recycled water as the preferred alternative

Alternative	Recycled Water Alternatives				Desal	Lopez Lake Spillway Raise	State Water Project
	Secondary -23 Irrigation	Tertiary Irrigation	AWT for Coastal Injection	AWT for Inland Injection			
Annualized Cost ($/AF Recoverable)	$15,900	$5,400	$2,800	$2,800	$3,112	$1,370	$2,503



Updated Project Cost Estimates developed to inform funding/financing evaluations

Updated cost estimates represent the best available estimates for the onsite (SSLOCSD) Advanced Water Purification Facility alternative.

- These costs will likely change as the project evolves and therefore a range of costs are presented
- Estimated accuracy range of -20% to +30% based on best available information of actual costs from similar projects

Phase 1 Onsite	Cost Estimate
Treatment Facility	$17 - 31M
Distributed Infrastructure	$11 - 19M
Total Capital	$28 – 50M
Annual Capital Payment	$1.8 – 3.2M
Annual O&M Cost	$1.8 – 2.3M
Total Annual Cost	$3.6 – 5.5M
Purified Water Produced	1,120
Estimated Project Yield	1,120 – 1,613
Unit Cost ($/AFY)	$2,300 – 4,900

Note: These estimates are current but preliminary. Range of estimates are appropriate for preliminary engineering phase.