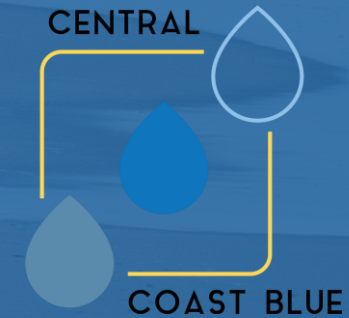


CENTRAL COAST BLUE UPDATE PRESENTATION – OCEANO COMMUNITY SERVICES DISTRICT

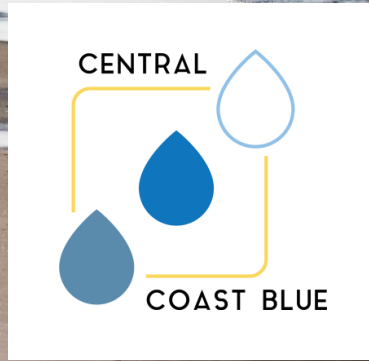
One Community. One Water. One Future.

August 14, 2019



Presentation Overview

- Why Central Coast Blue?
- Project Status Update
- Cost/Benefit Sharing Framework
- Next Steps
- Project Schedule



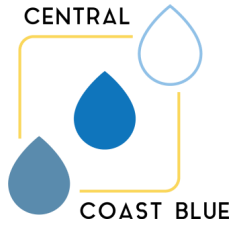
WHY CENTRAL COAST BLUE?



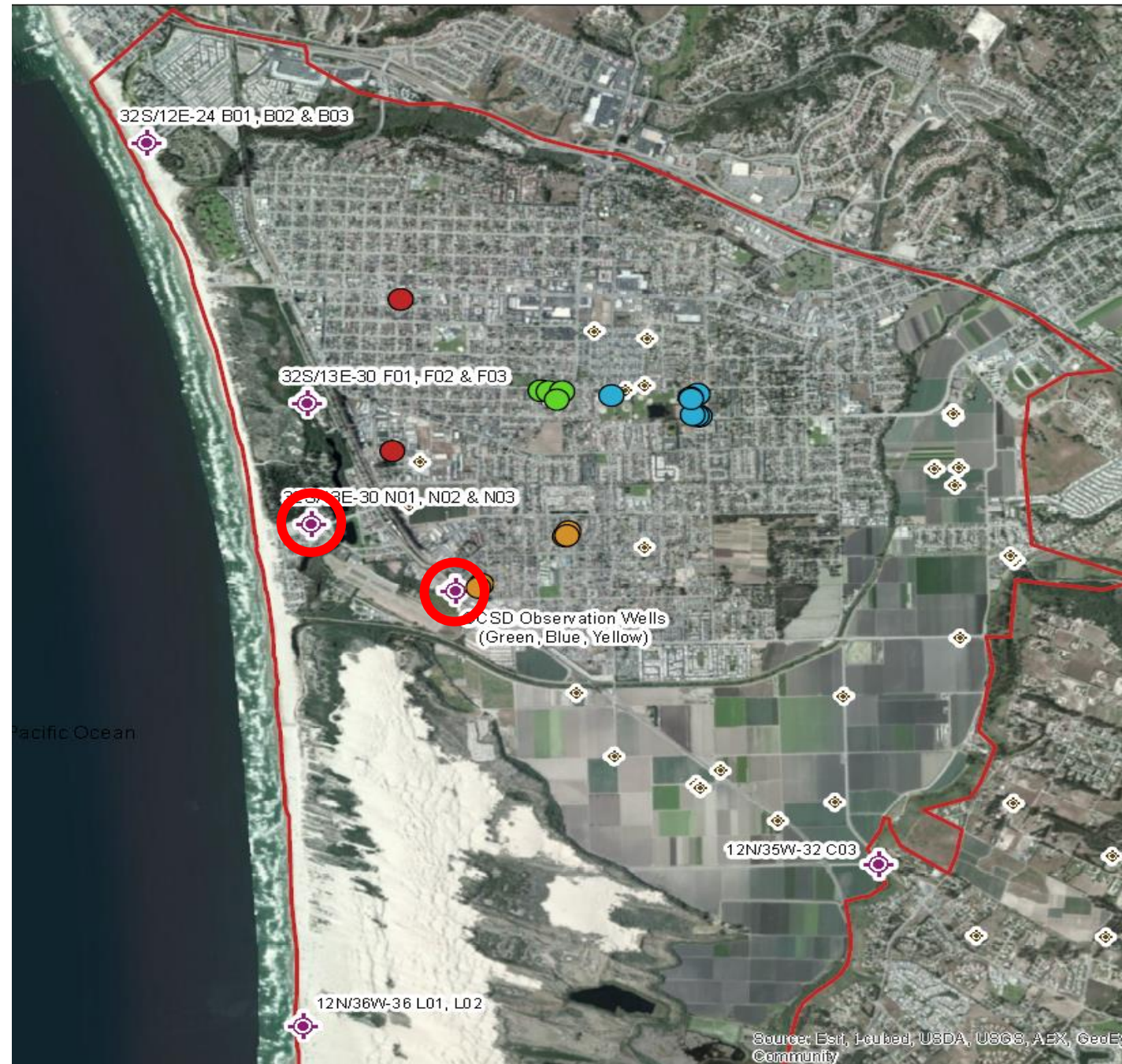
Recent historic drought highlights vulnerabilities in Five Cities Region's water supply portfolio

State Water || Lake Lopez || Groundwater

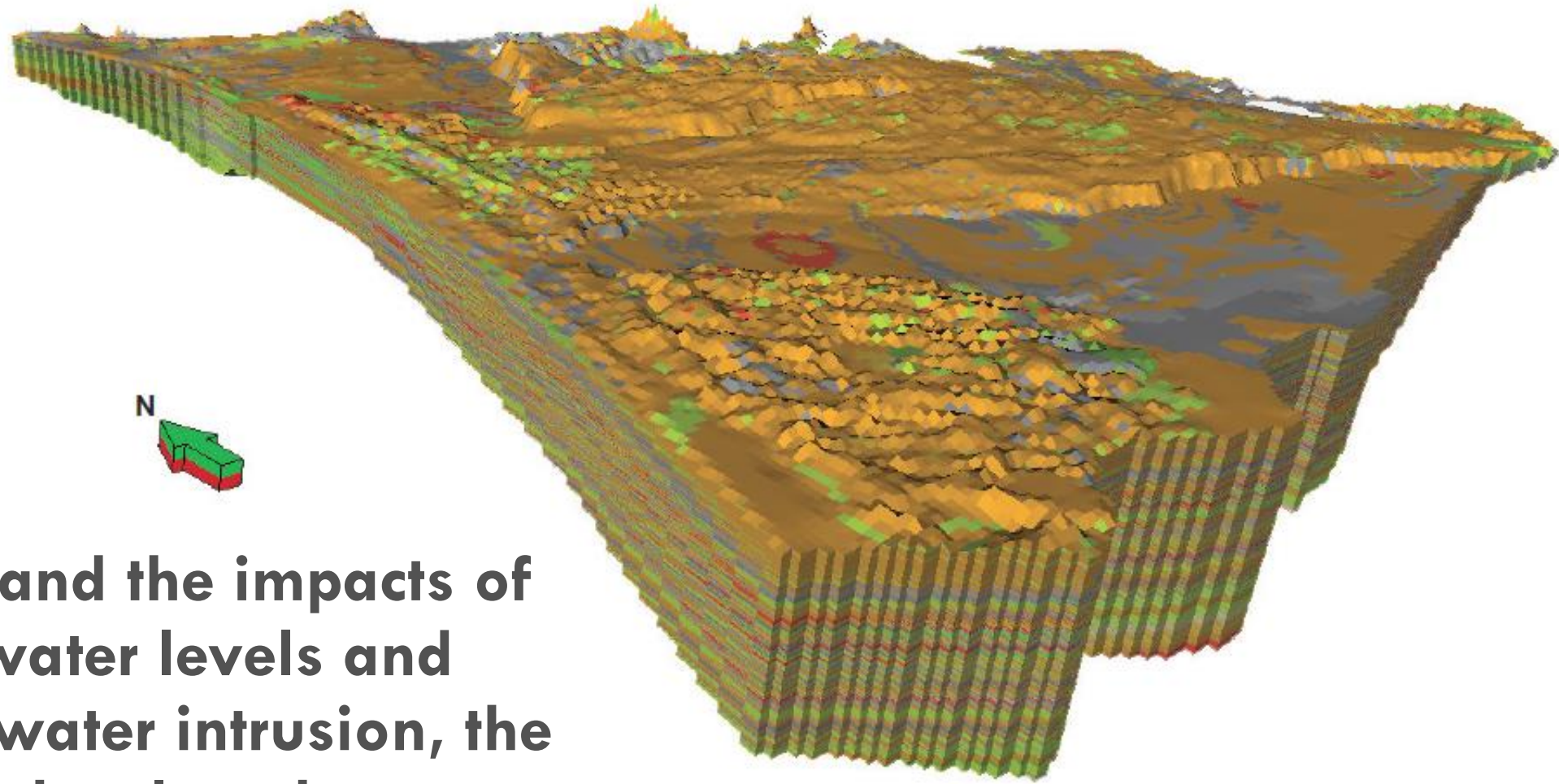




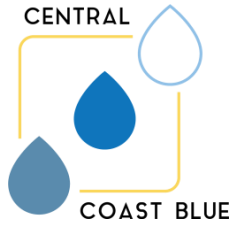
- **Historically local groundwater supplies have been threatened by seawater intrusion.**
- **The 1970 DWR Report identified potential seawater intrusion into the NCMA portion of the Santa Maria Groundwater Basin.**
- **In 2009, evidence of an onshore flow of seawater was detected in two monitoring wells.**



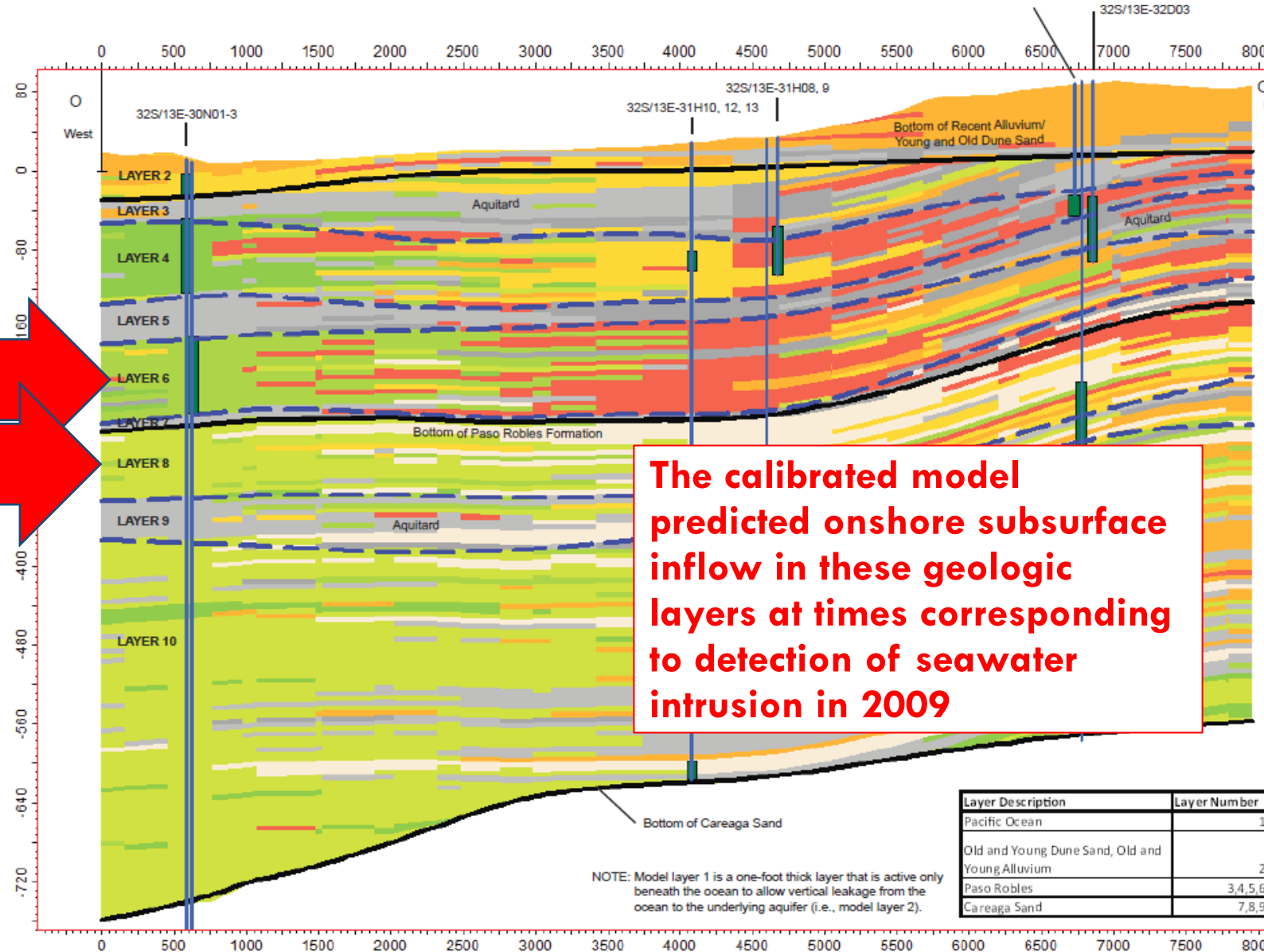
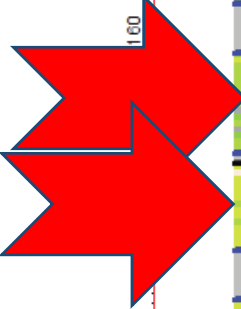
- Sandstone
- Sandstone/Shale
- OH
- Clay
- Silty Clay
- Silt
- Sand and Clay
- Clayey Sand
- Silty Sand
- Sand (<5% silt)
- Clean Sand
- Clayey Gravel
- Silty Gravel
- Clean Gravel



To better understand the impacts of reduced groundwater levels and potential for seawater intrusion, the NCMA Agencies developed a groundwater model.

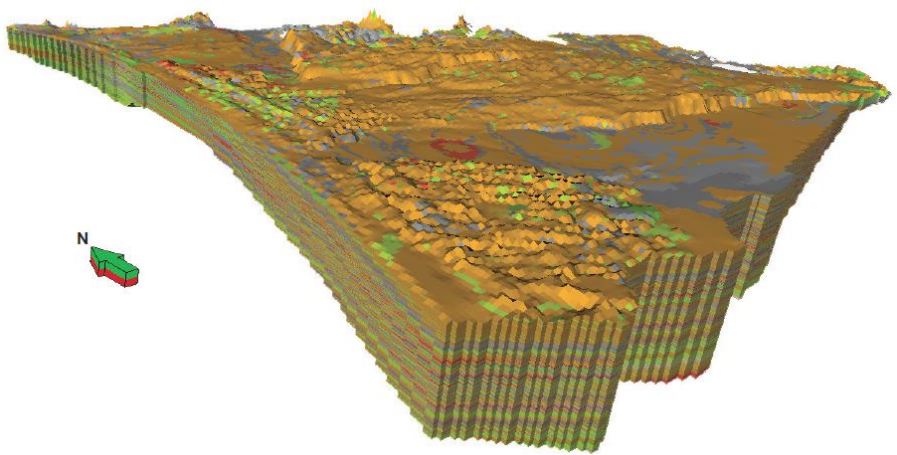


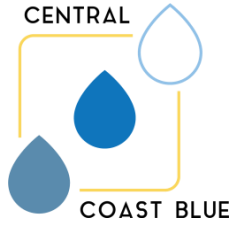
The groundwater model identified pathways for seawater intrusion in the lower Paso Robles and upper Careaga formations



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

Layer Description	Layer Number
Pacific Ocean	1
Old and Young Dune Sand, Old and Young Alluvium	2
Paso Robles	3,4,5,6
Careaga Sand	7,8,9





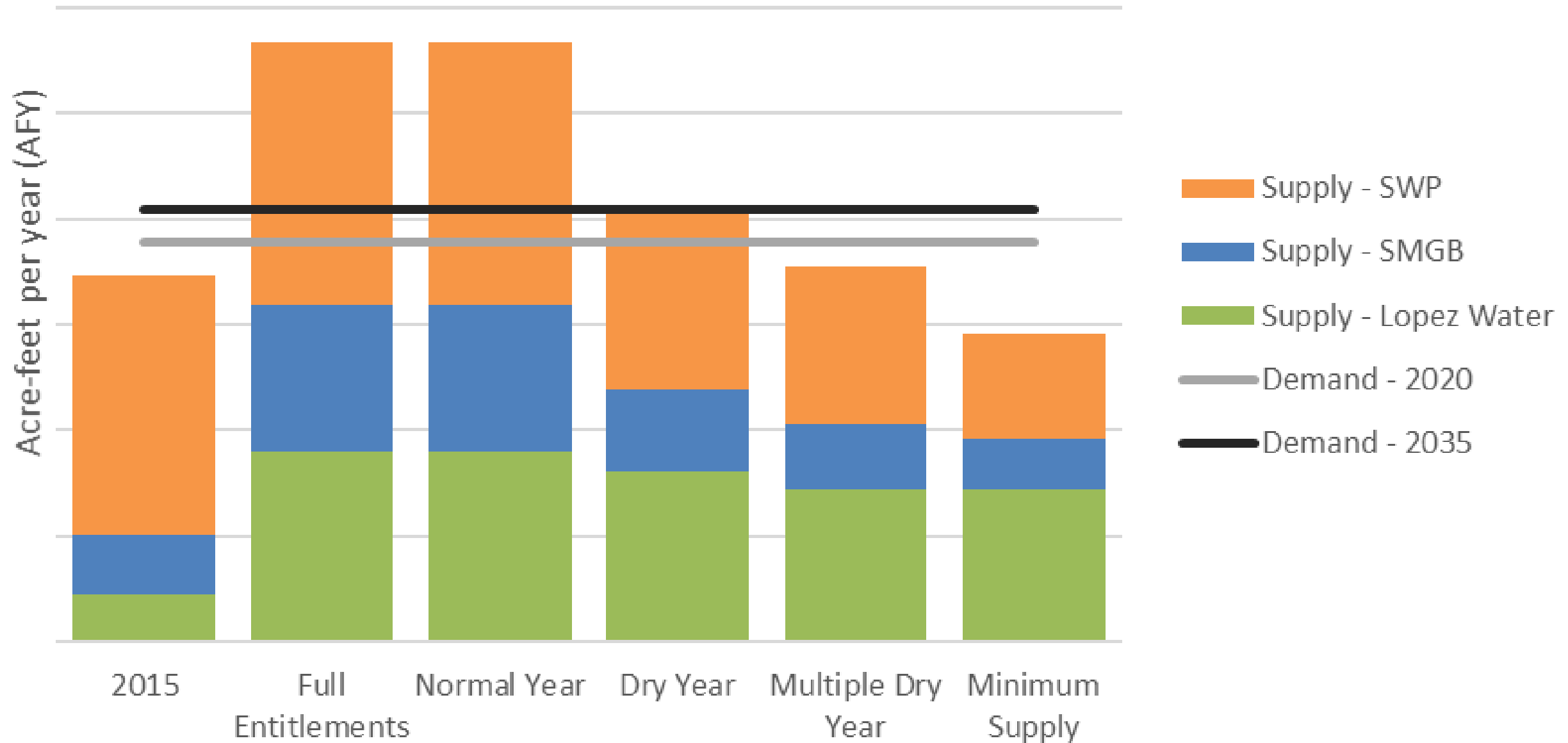
Groundwater Model Findings

During periods of extended drought, the ability of the NCMA agencies to pump their full allotment of groundwater, while maintaining sufficient groundwater depth to maintain offshore flow, is limited. As a result, a Water Supply/Demand Evaluation Tool was developed to analyze need for improved water supply reliability.

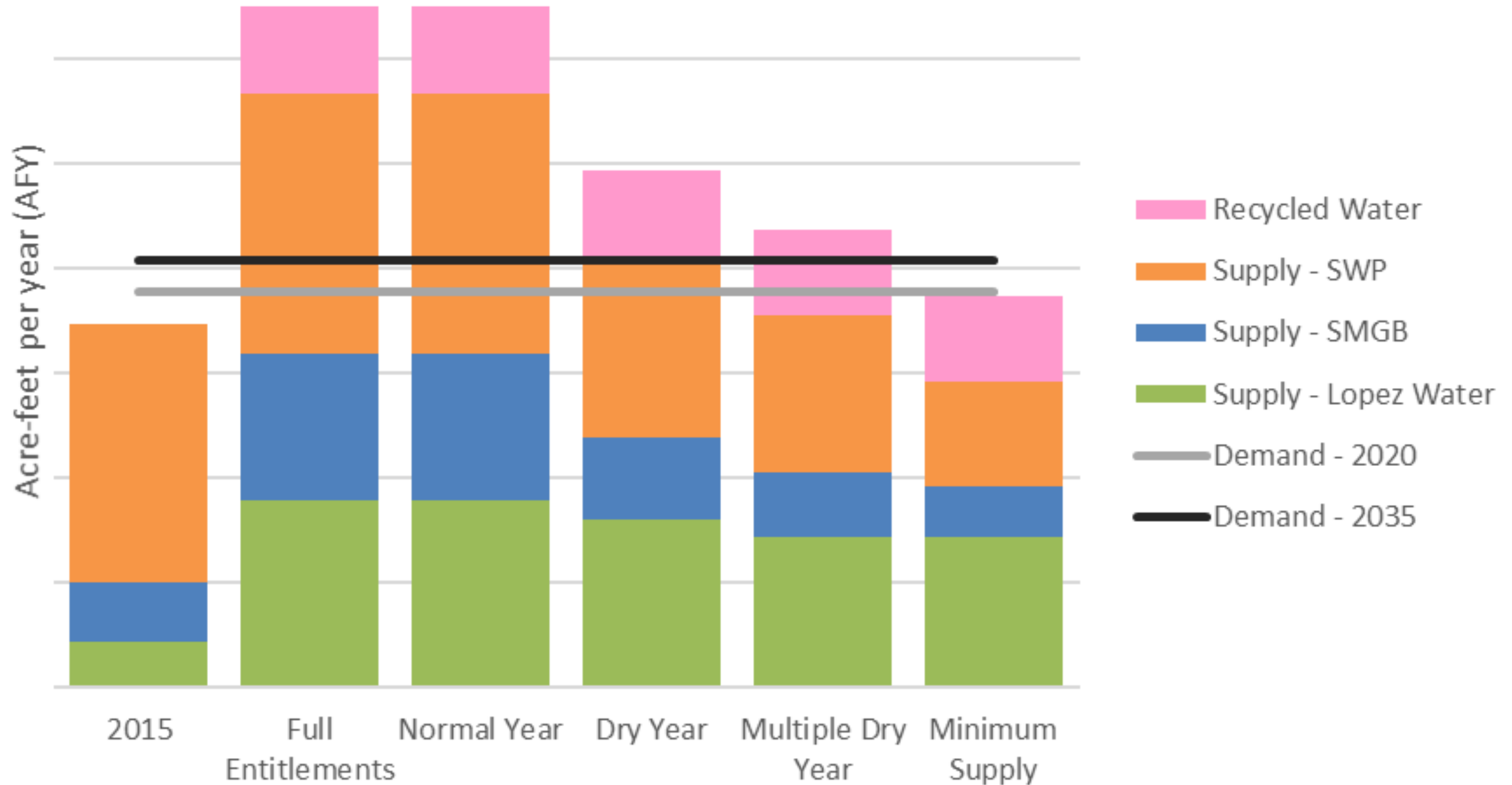
Supply/Demand Analysis Tool incorporated the following:

- Drought impacts on State Water, Lopez and Groundwater Supplies
- Potential demand reductions (conservation) associated with future drought conditions
- Potential increased demand from future growth

Supply/Demand Evaluation identified potential for water supply deficits during periods of extended drought



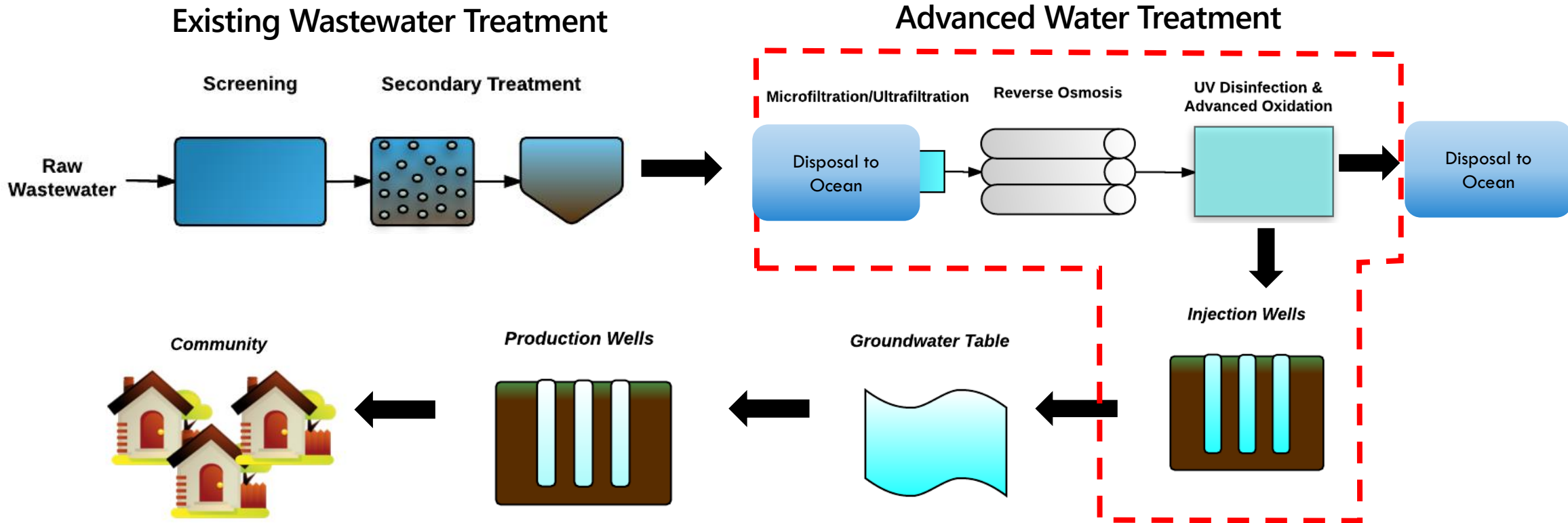
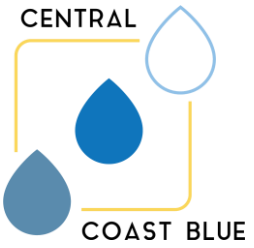
Supplemental supply helps fill supply deficits in drought years



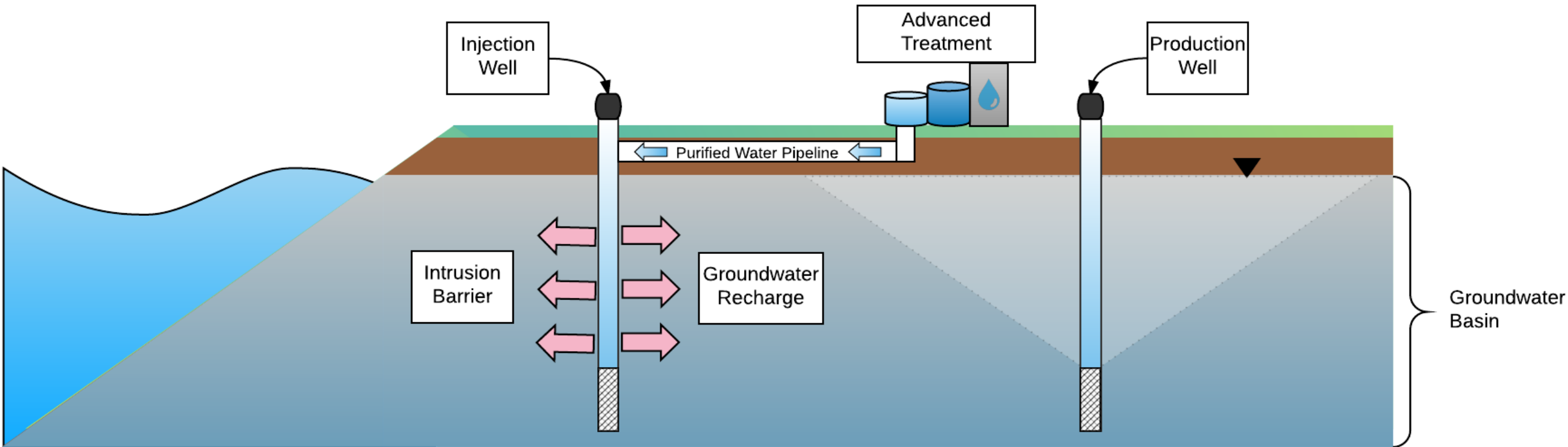
Supplemental Water Supply Studies identified recycled water as the preferred alternative

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

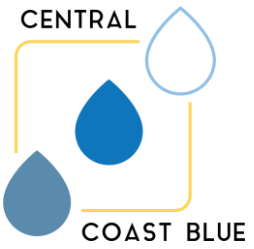
Central Coast Blue will capture a water source that is currently wasted to the ocean to protect the groundwater basin and improve water supply reliability



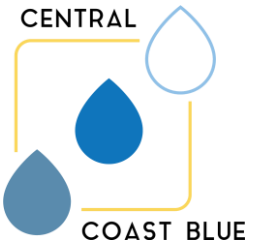
Central Coast Blue will utilize recycled water injection to maintain sufficient groundwater elevations and offshore flow



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



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



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

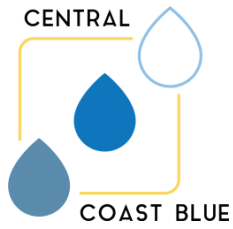
- Anticipated total treatment capacity of ~5 MGD



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.





The Supply/Demand analysis indicates that Phase 1 is expected to be able to protect existing water supplies during extended drought.

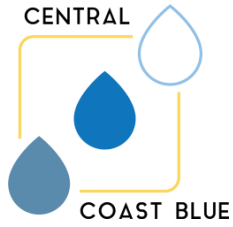


Implementation of Phase 2 may not be needed to address near-term water supply shortages. Phase 2 implementation will likely depend upon a number of factors:

- Climate change impacts on local and statewide hydrology
- Resilience of other water supply sources (i.e. Lopez and State Water)
- Agricultural interest in supplemental water
- Ability to transfer/sell surplus water to other water purveyors when available
- Effectiveness of Phase 1 at maintaining sufficient groundwater elevations
- Future water demand for the participating and/or neighboring agencies

CENTRAL COAST BLUE PROJECT UPDATE





Brine Analysis completed to assist with project design and permitting

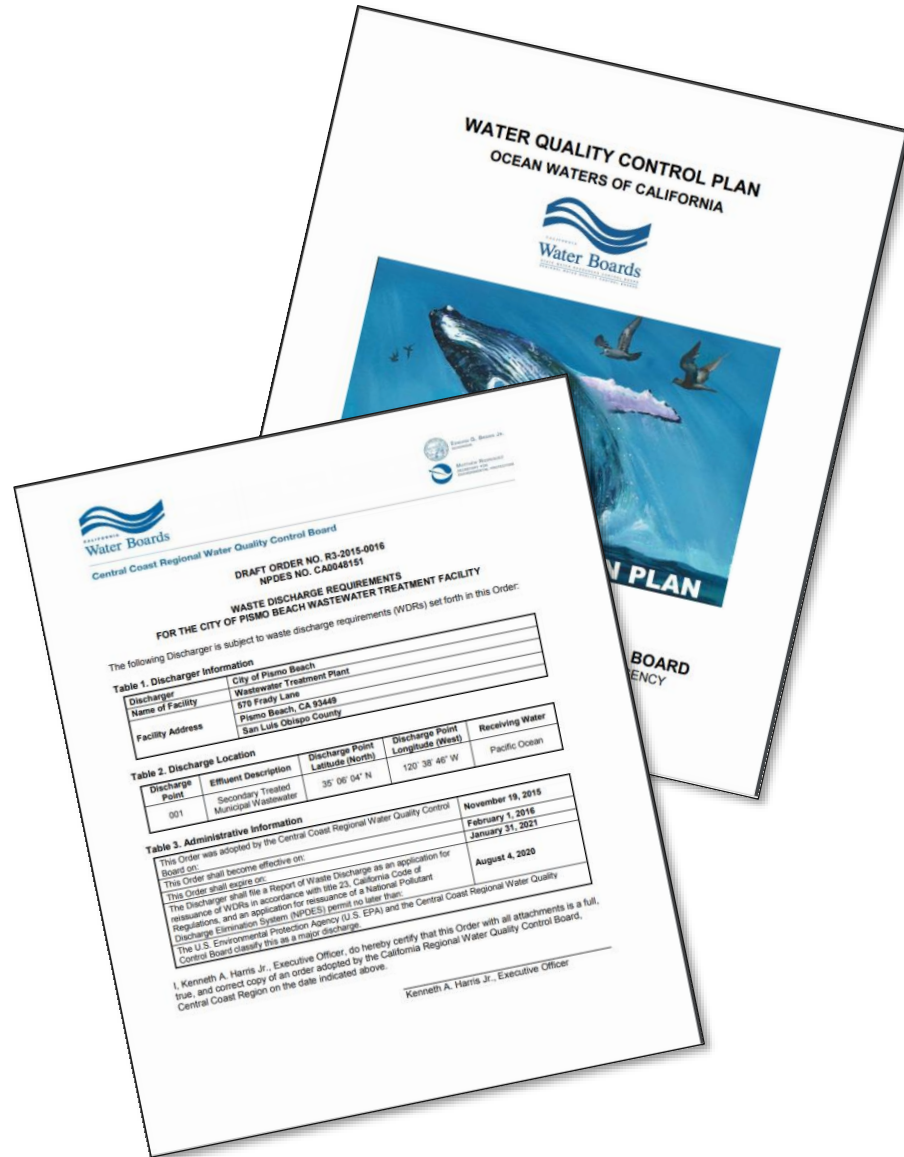
Purpose

- Will RO concentrate discharged from the AWPf to the Pacific Ocean exceed effluent limits

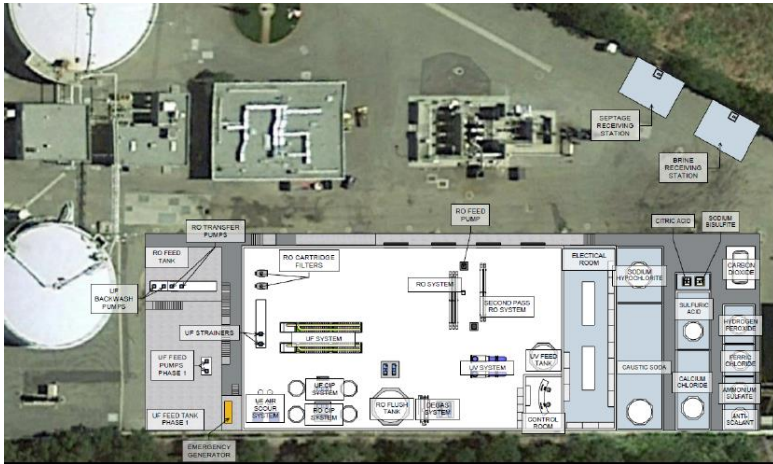
Most stringent criteria used

- City's NPDES permit
- Ocean Plan Water Quality Objective-based effluent limits

Results identified that pilot plant effluent can meet current permit and Ocean Plan discharge requirements without need for SSLOCSD dilution



Updated Project Cost Estimates developed to inform funding/financing evaluations

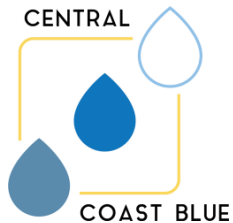


Updated cost estimates represent the best available estimates for the onsite (SSLOCSD) Advanced Water Purification Facility alternative.

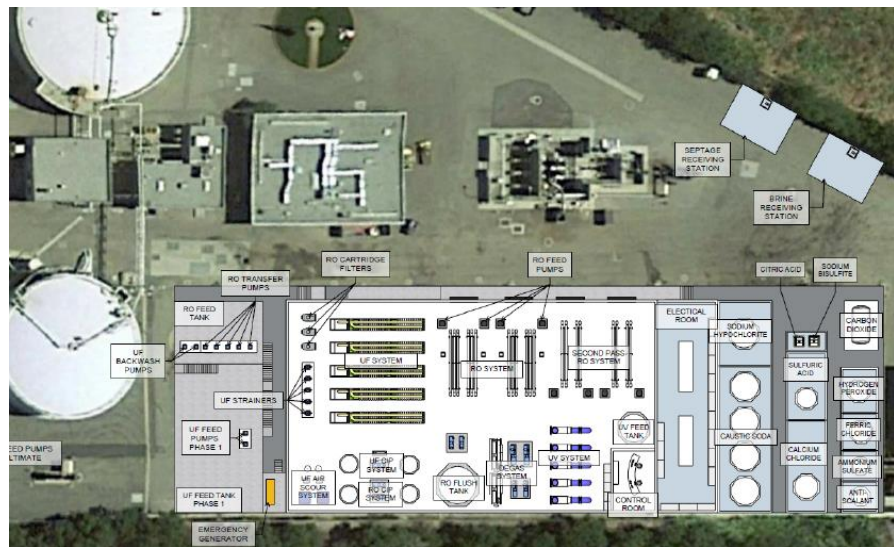
- These costs will likely change as the project evolves and therefore a range of costs are presented
- Estimated accuracy range of -20% to +30% based on best available information of actual costs from similar projects

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.



Updated Project Cost Estimates – Phase 2



Phase 2 Onsite	Cost Estimate
Treatment Facility	\$33 ¹ – 54M
Distributed Infrastructure	\$16 - 25M
Total Capital	\$49 – 79M
Annual Capital Payment ²	\$3.2 – 5.1M
Annual O&M Cost ³	\$6.0M
Total Annual Cost	\$9.2 – 11.2M
Purified Water Produced	4,392
Estimated Project Yield	4,392
Unit Cost (\$/AFY) ⁴	\$2,100 – 2,500

Assumptions:

¹Cost estimate range developed using Association for the Advancement of Cost Engineering Cost Estimate Classification (-20% to +30%) and the Advanced Treatment Facility with Boron Removal.

²Assumes 5% financing over 30 years.

³Includes second pass RO for Boron removal.

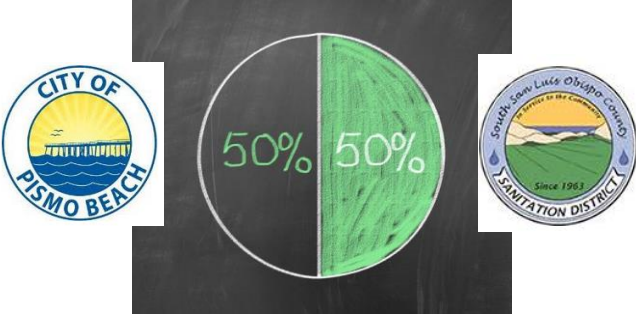
⁴Unit cost based on assumption of 100% recovery groundwater injected into the groundwater basin.



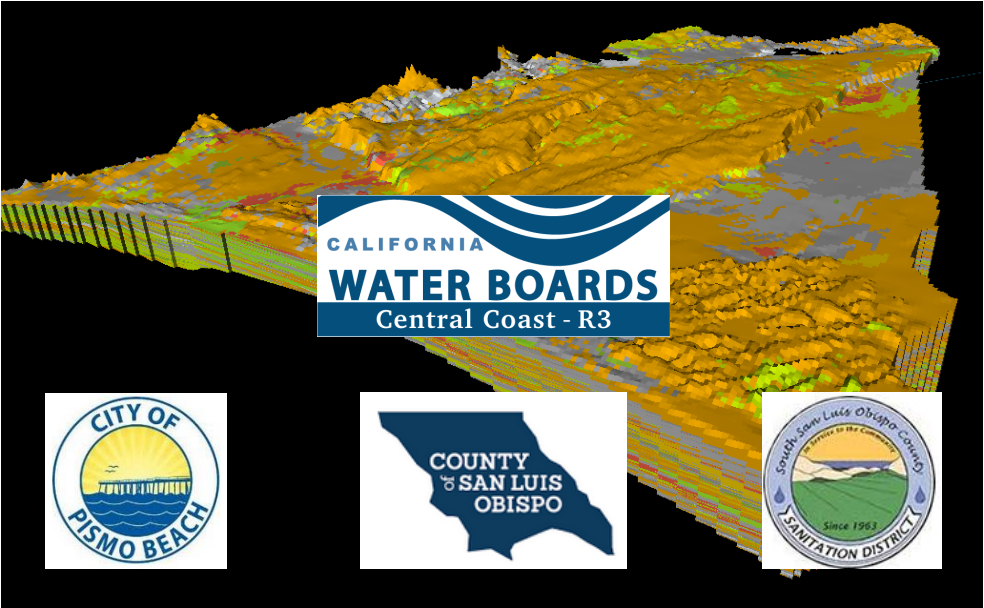
COST/BENEFIT SHARING FRAMEWORK



Interagency collaboration has been key to project success to date



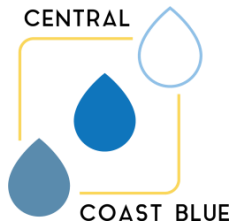
EIR



Groundwater Model



Preliminary Engineering



Funding Sources under Evaluation



Water:

Water Rates

Costs split between water and wastewater agencies



Wastewater:

Wastewater Rates



Grant/ Low Interest Financing

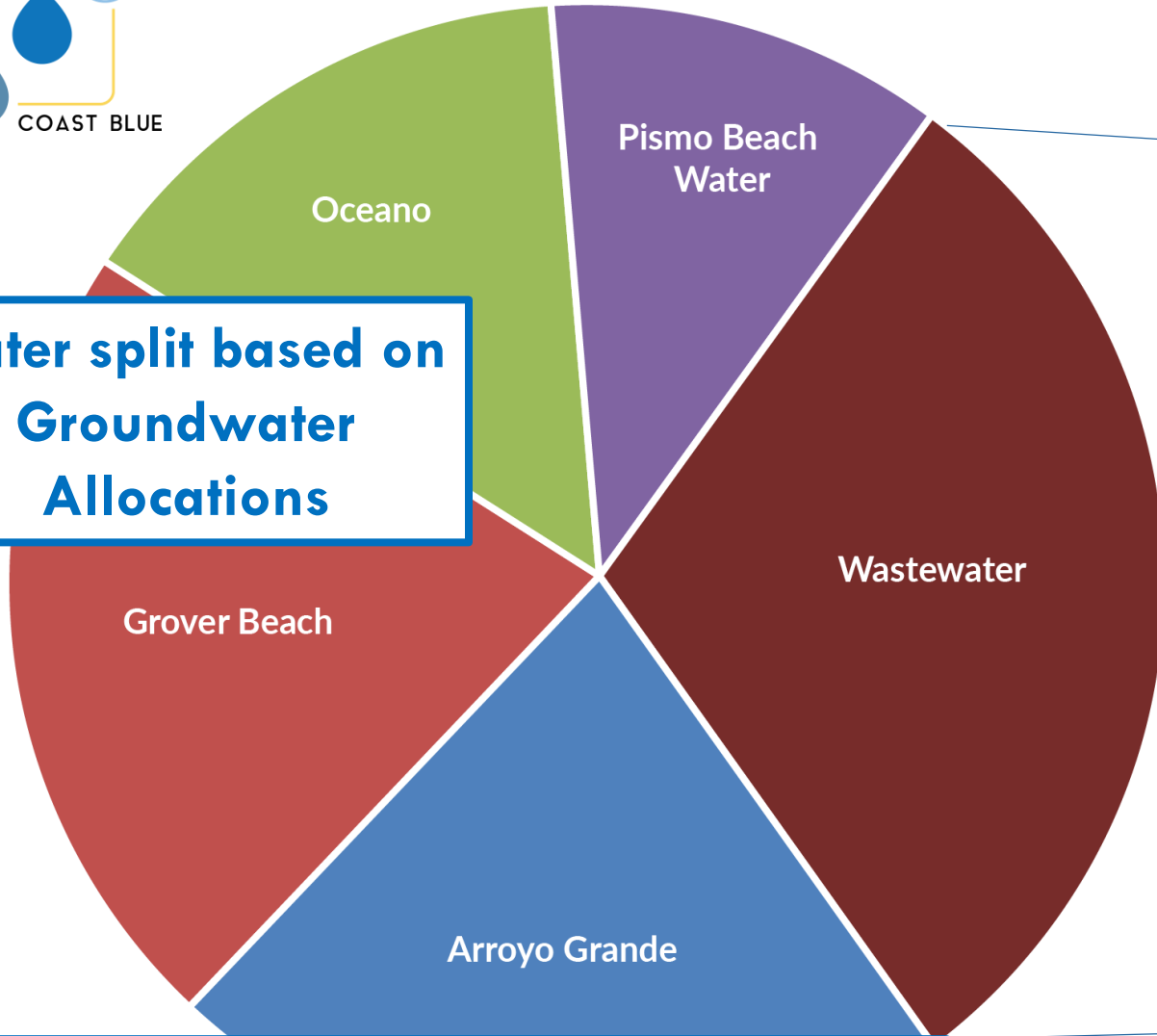
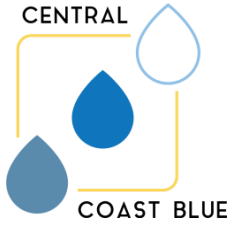
Prop 1 GWGP

Title XVI

CWSRF

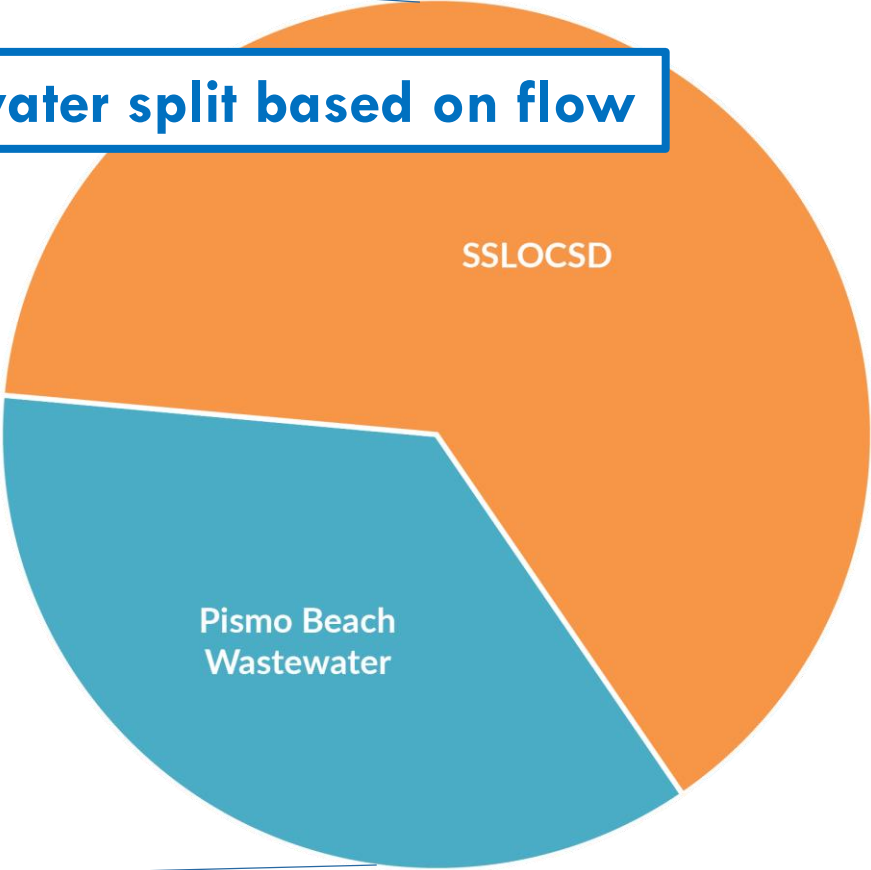
Outside funding pursued to reduce costs to water and wastewater customers.

Proposed Cost Sharing Framework

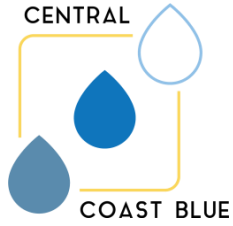


Water split based on Groundwater Allocations

Wastewater split based on flow



Water/Wastewater split based on benefit to Wastewater agencies



Grant Funding Update

Prop 1 Groundwater Grant Program

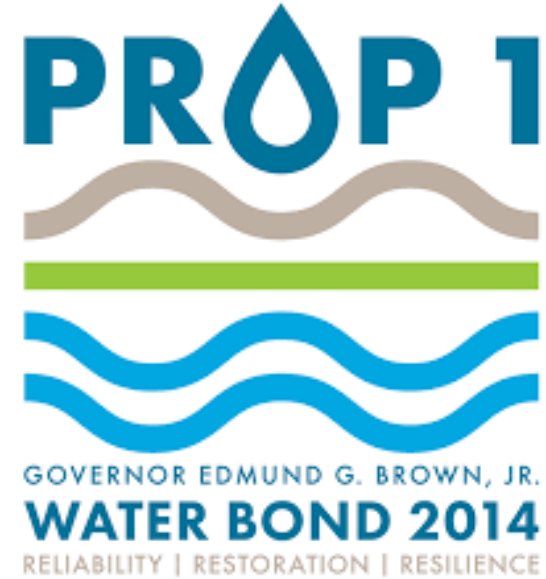
Round 1 - Awarded \$2M in planning grant funding

Round 3

- Central Coast Blue to apply for implementation funding in Round 3
- Eligible for up to 50% of implementation costs
- Key schedule driver as Funding Agencies want to see significant progress between planning and implementation grants

Title XVI

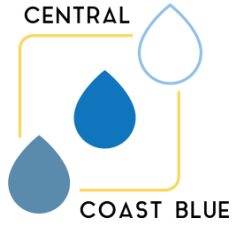
- Preliminary award of ~\$800k in planning grant funds
- Funds 25% of Final Design, Program Management, Value Engineering
- City eligible to apply for implementation funding in subsequent rounds





NEXT STEPS/ONGOING INITIATIVES





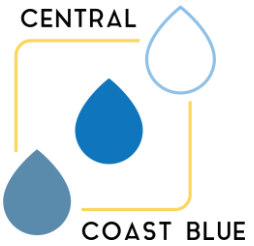
Upcoming Critical Stakeholder Agency Decision Points

- Development of final project benefit participation and cost sharing agreements (this includes South San Luis Obispo County Sanitation District participation)
- Individual agency participation percentages in capital and operations and maintenance costs
- Development of a project governance structure
- Potential water and/or wastewater rate increases - Proposition 218 hearings
- Mechanisms to reconcile costs paid to to-date relative to level of participation in the project

PROJECT SCHEDULE



Phase 1 Project Schedule



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

Final Design and
Permitting

Operations Begins
Closer to Water Independence

2018

2019

2020/2021

2022

2024

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

One Community.
One Water.
One Future.

