

Regional Recycled Water Project



NORTH SAN DIEGO
WATER REUSE
c o a l i t i o n

SCAP Water Committee Presentation

08/13/2015

Kimberly Thorner & Paul Bushee

Overview

- * Provide overview of the North San Diego Water Reuse Coalition's Regional Recycled Water Project
 - * Partnerships & Grants
- * Discuss some of the IPR/DPR elements in the Project
- * New Issues
 - * SWRCB cutbacks and recycled water vs. IPR/DPR
 - * Recycled Water Pickup Stations

North San Diego Water Reuse Coalition



SAN ELIJO
JOINT POWERS AUTHORITY



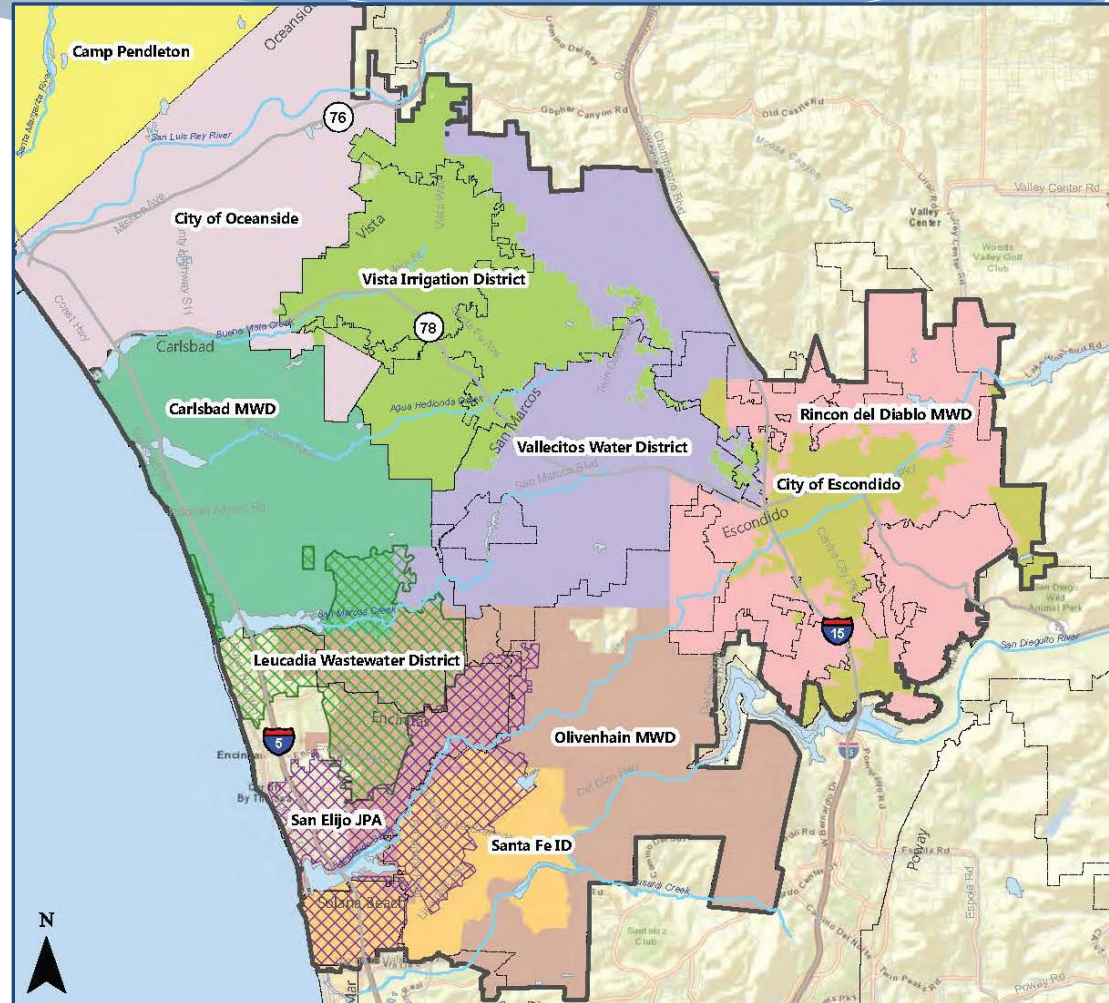
History

- * The need for recycled water
- * MOU - 2010
- * Facilities Plan – 2010- 2013
 - * Considered centralized versus decentralized
- * Lobbying - 2011
- * Grant Funding – IRWM Prop 84 Rounds 1 & 2
- * PEIR – 2013 -2015
- * Sponsorship of other entities – DPR via WaterReuse
- * Started as recycled, grew to reuse



Project Objectives

- * Optimize reuse of available wastewater in North County
 - * Without regard to jurisdictions
- * Proactively plan for facilities that are needed for non-potable and potable demands
- * Combine resources and work together to maximize water reuse
- * Increase water supply availability and reliability



Potential Regional Recycled Water Demands

Agency	Average Annual Demand (afy)				
	Existing	Additional Short-Term	Total by 2025	Additional Long-Term	Total by 2035
Carlsbad MWD	4,150	1,752	5,902	1,585	7,487
City of Escondido	771	6,870*	7,641	3,035	10,676
City of Oceanside	300	4,717*	5,017	4,490*	9,507
Olivenhain MWD	1,100	1,400*	2,500	1,030*	3,530
Rincon Del Diablo MWD	3,279	920*	4,199	0	4,199
Santa Fe Irrigation District	510	1,140*	1,650	1,030*	2,680
San Elijo JPA ⁺	700	80	780	0	780
Vallecitos Water District	--	1,674*	1,674	2,892*	4,566
Vista Irrigation District	--	255	255	2,600	2,855
Totals	10,810 (16%)	18,808	29,618 (32%)	16,662	46,280 (42%)
Wastewater Flow	67,900		92,300		109,400

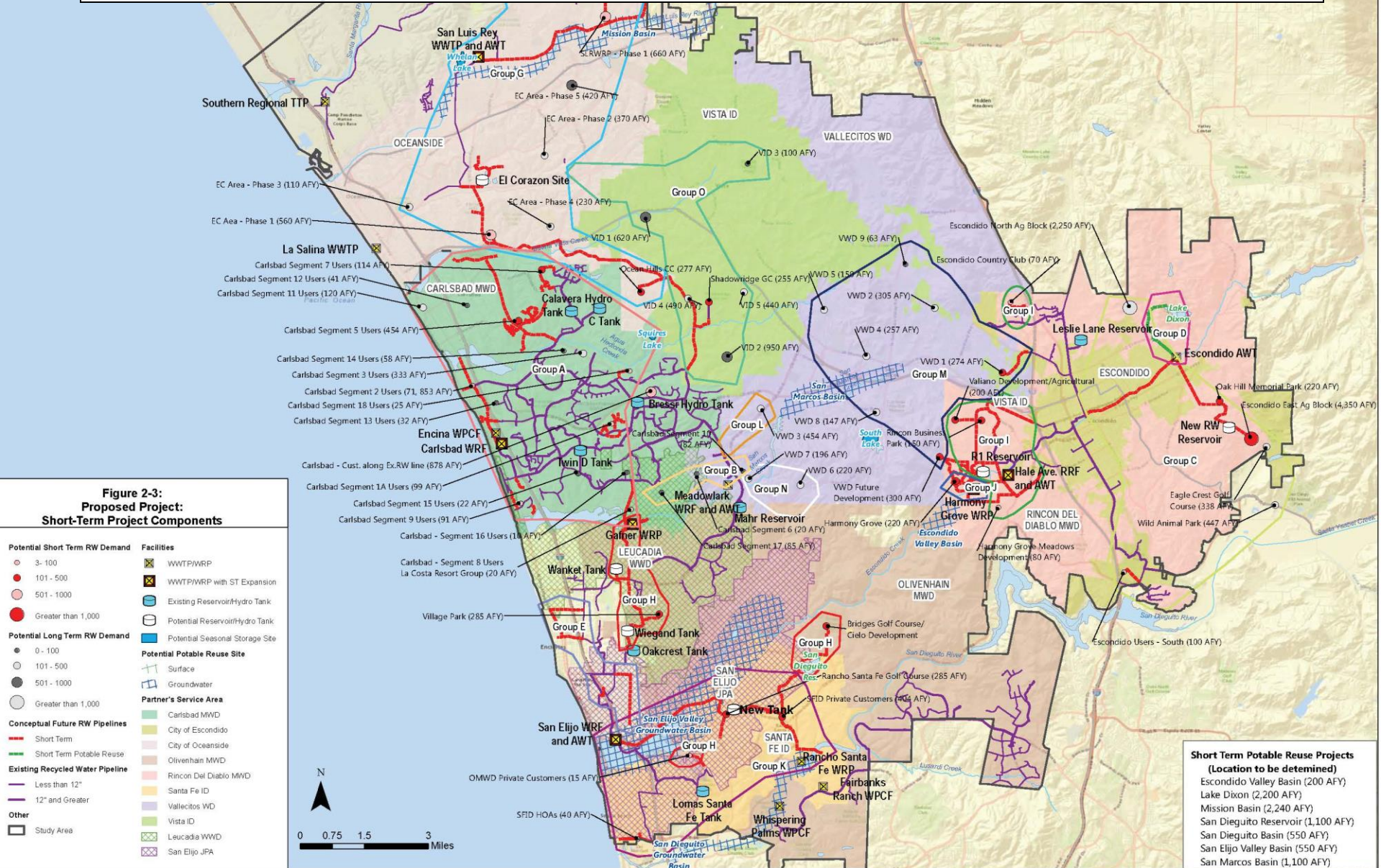
Note: Values updated in 2014. + Serves demands in San Dieguito Water District * Includes potable reuse demand

Matching Supply with Demand

Agency	Additional Recycled Water Demand (afy)	Average Annual Recycled Water Supply (afy)							
		San Luis Rey	Shadowridge	Carlsbad	HARRF / Escondido AWT	Gafner	Meadowlark / AWT	San Elijo / San Elijo AWT	Harmony Grove
Carlsbad MWD	3,337			3,000*		150*	187		
City of Escondido	9,905				9,905				
City of Oceanside	9,207	8,930		277					
Olivenhain MWD	2,430					300*		2,130*	
Rincon del Diablo MWD	920				700				220
Santa Fe Irrigation District	2,170					200*		2,130*	
San Elijo JPA	80							80	
Vallecitos Water District	4,566			454	1,496		2,616		
Vista Irrigation District	2,855	720		2,135					
TOTAL	35,470	9,650	0	6,466	12,101	650	2,803	4,340	220

Note: Values updated in 2014. * Denotes where flows may come from multiple treatment plants.

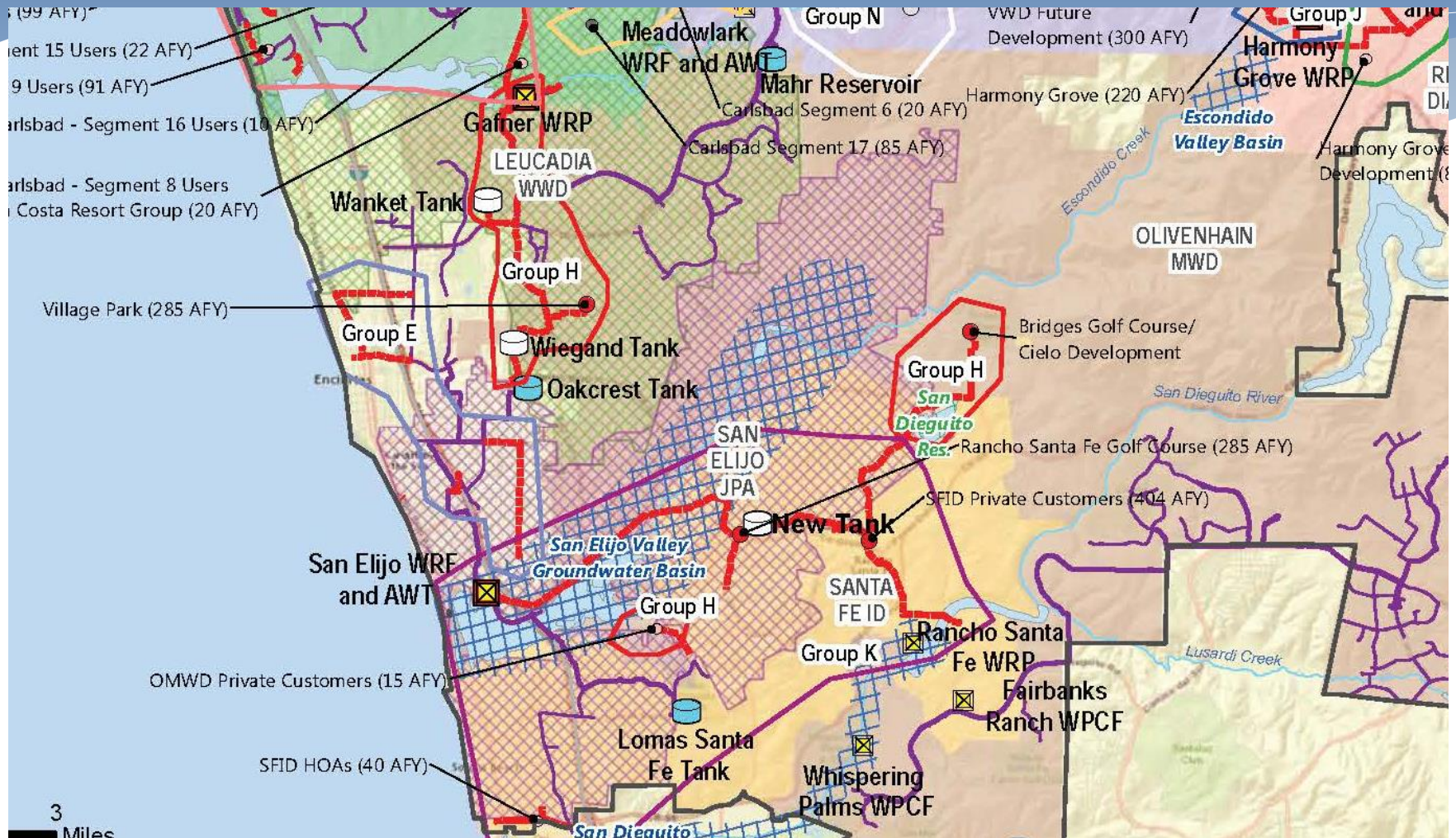
Regional Recycled Water Project



Regional Recycled Water Project

Coalition Agency	Coalition Member Delivers Water	Coalition Member Provides Supply
Olivenhain MWD	Group H	N/A
Carlsbad MWD	Group A, Group B	Group L, Group O
City of Escondido	Group C, Group D	Group I, Group M
City of Oceanside	Group G	Group O
Leucadia WWD	N/A	Group A, Group E, Group H, Group K
Rincon del Diablo MWD	Group I, Group J	N/A
San Elijo JPA	Group E	Group H, Group K
Santa Fe ID	Group K	N/A
Vallecitos WD	Group L, Group M, Group N	Group B
Vista ID	Group O	N/A

OMWD Facilities: Group H



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City of Oceanside	Group G	Group O
Leucadia WWD	N/A	Group A, Group E, Group H, Group K
Rincon del Diablo MWD	Group I, Group J	N/A
San Elijo JPA	Group E	Group H, Group K
Santa Fe ID	Group K	N/A
Vallecitos WD	Group L, Group M, Group N	Group B
Vista ID	Group O	N/A

Example of Projects Completed/Underway

- Connection SEJPA & OMWD at Leucadia Blvd
 - Accidental backfeed!
 - 100 af
- Village Park
 - Converted existing unneeded potable reservoir
 - Construction of recycled water mains underway
 - Work to facilitate on-site conversion by future Village Park recycled water users (three schools, 19 HOAs, and the City of Encinitas) has begun
 - 350 acre feet





Project Overview: Short Term (2025) Project Costs

*2013 recycled costs

ITEM	UNITS
Regional Capital Costs	\$ 336,000,000
Regional O&M Costs	\$ 4,260,000 / year
Additional Recycled Water Use	16,500 AFY
Regional Unit Costs	\$1,290 / AFY

Project Overview: Long Term (2035)

*2013 recycled costs

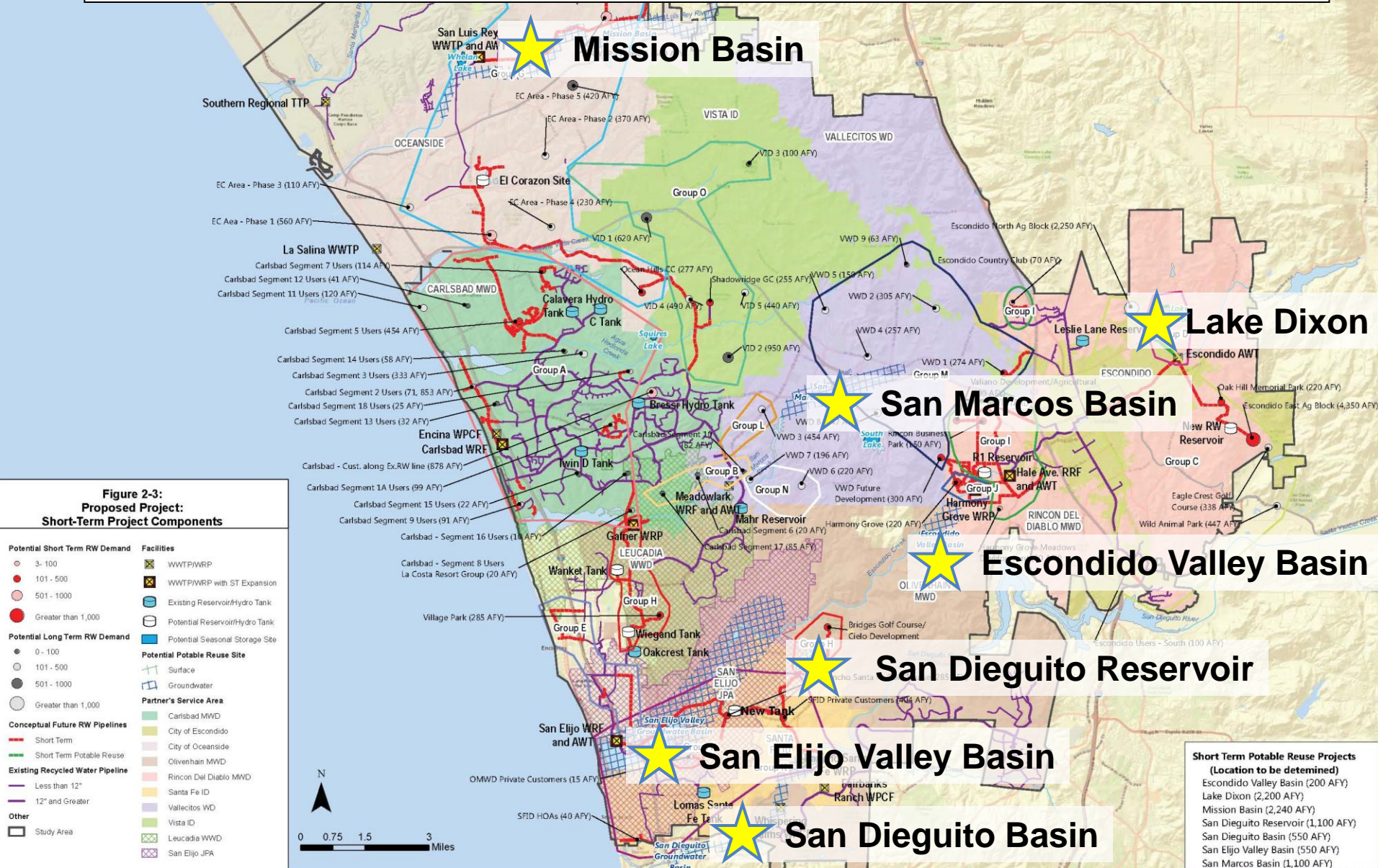
ITEM	UNITS
Regional Capital Costs	\$ 598,000,000
Regional O&M Costs	\$ 9,485,000 / year
Additional Recycled Water Use	31,500 AFY
Regional Unit Costs	\$1,270 / AFY

Potable Reuse Opportunities

- * Identified Groundwater Basins with Potable Reuse Opportunities
 - * San Elijo Valley Basin
 - * San Dieguito Basin
 - * Mission Basin
 - * Escondido Valley Basin
 - * San Marcos Basin
- * Suitable Surface Reservoirs Also Identified For Additional Study
 - * Lake Dixon
 - * San Dieguito Reservoir

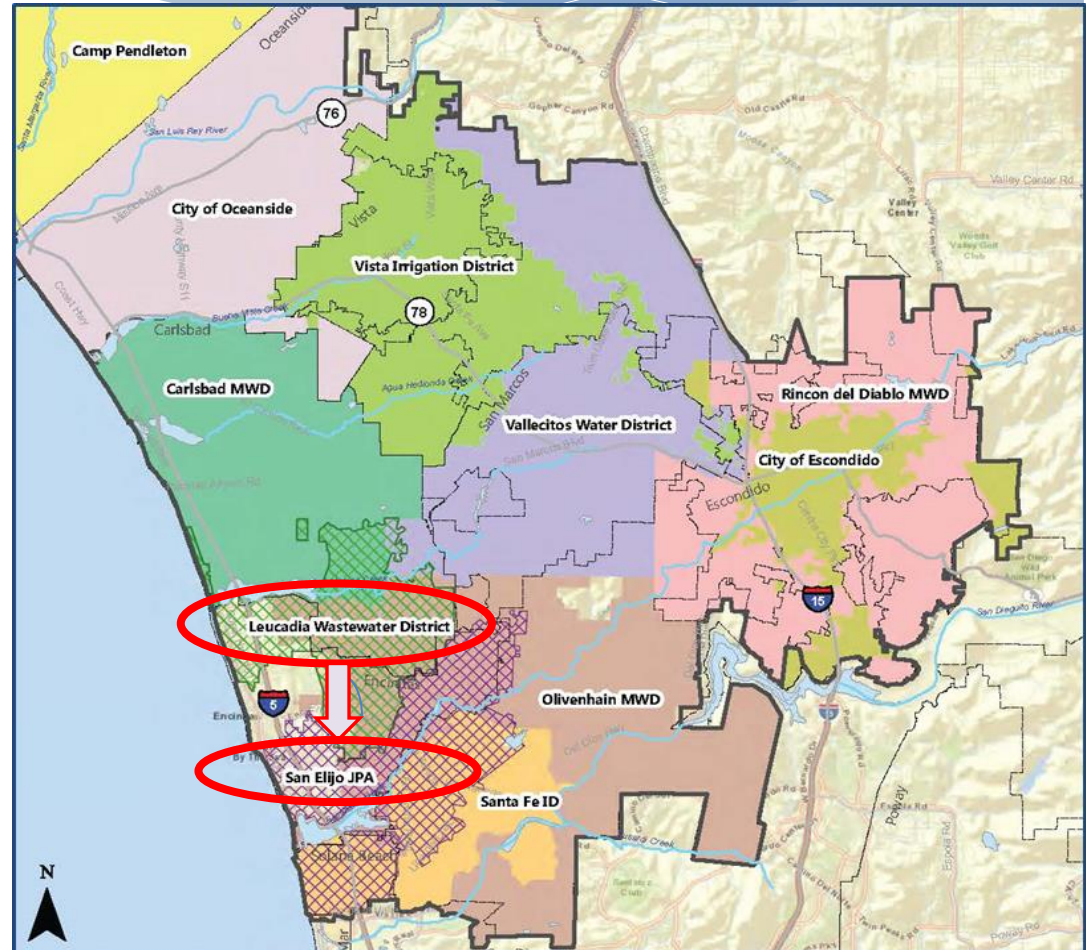


Potable Reuse Opportunities



Utilizing a Regional Approach

- * Interconnecting Systems
- * Decentralized Treatment
- * Moving Supply to Demand
- * Designer Water Concept
- * Optimize System Costs
- * Maximum Utilization of Infrastructure

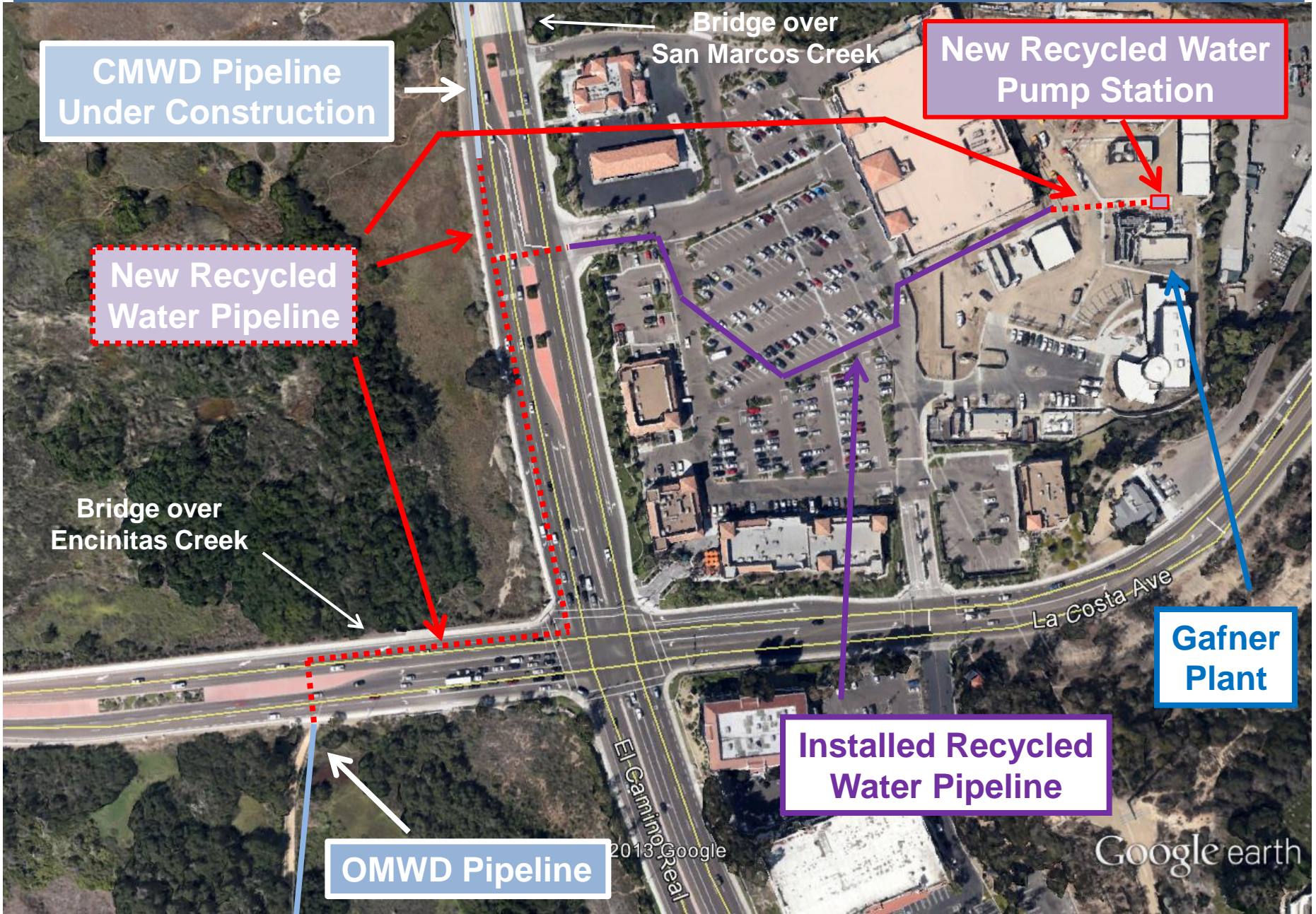


Utilizing a Region Approach

Gafner Water Recycling Facility



LEUCADIA WASTEWATER DISTRICT PHASE I RECYCLED WATER PROJECT



PEIR

- * Aesthetics
- * Agricultural Resources
- * Air Quality
- * Biological Resources
- * Cultural Resources
- * Geology and Soils
- * Greenhouse Gas Emissions
- * Hazards and Hazardous Materials
- * Hydrology and Water Quality
- * Land Use and Planning
- * Mineral Resources
- * Noise
- * Population and Housing
- * Public Services
- * Recreation
- * Transportation and Traffic
- * Utilities and Service Systems
- * Environmental Justice
- * Mandatory Findings of Significance

Environmental Impact Analysis

- * All resource topics analyzed to determine if the Regional Recycled Water Project would have adverse environmental impacts
- * Mitigation is available to reduce nearly all impacts to “less than significant” levels
 - * Except: Air Quality, Greenhouse Gases, Cumulative

State Grant Funding

- * Most successful IRWM project for Prop 84 Grant Funding in first 2 rounds
- * Phase I - Awarded **\$1.5 million** for programmatic EIR, feasibility study, and outreach plan AND direct reimbursement to each partner for their agency's chosen component
- * Phase II - Awarded IRWM Round 2 funding **\$3.4 million** for construction

Federal Grant Funding Efforts (WRRDA & Title XVI)

Water Resources Reform & Development Act

- * Lobbying agreement executed
- * Lobbied in DC seven times
- * Feds very supportive of this effort
- * Met with local Army Corps of Engineers WRRDA has been signed by the President.
 - * **Section 1014**, Section 7001 and WIFIA
 - * Environmental Infrastructure
- * Met with Feinstein last month; working with broad multi-state state coalition to ensure Title XVI revitalization is included in ultimate drought legislation.



Next Steps

- * Complete Programmatic EIR, Army Corps Feasibility Study for WRRDA, and public outreach plan
- * Outreach plan will convey the message of the need for supply diversification and the viability and safety of recycled water, IPR, and DPR
- * Construct suite of projects awarded IRWM Round 2 funding (\$3.4M)
- * Continue the pursuit of state and federal funding
- * Agencies to continue work on individual water resource development efforts with collective goals in mind
- * Possibilities are endless in the future

Ultimate Objective

- * Connect recycled water supplies with recycled water demand throughout North County, including storage and IPR, possibly DPR
- * Create win/win situations for all agencies involved and the region as a whole
- * Partnership opportunities and sharing



New Issues

- * SWRCB

- * 32% mandatory reduction

- * Agricultural Water Comes off the top

- * Recycled Water come off the top

- * IPR/DPR – Does not come off the top!

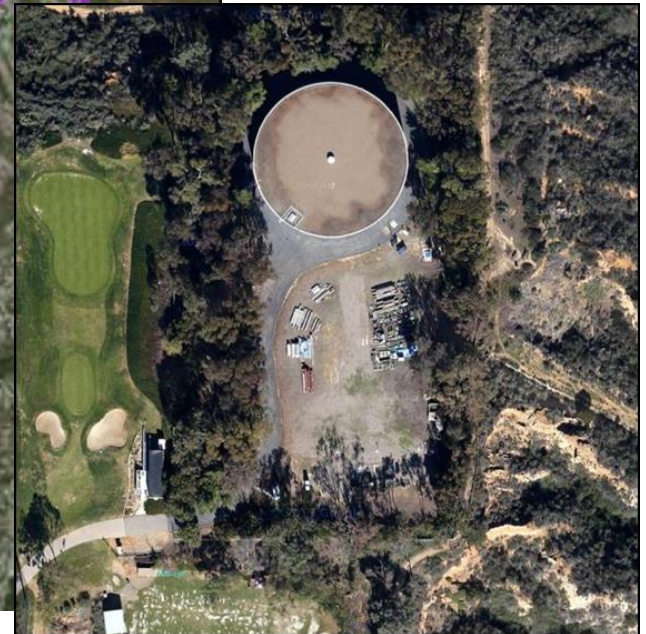
- * This makes recycled water.....

- * Designer Water

- * Treat to the level of end use.



We are laying the foundation for the future....



Recycled Water Pick-Up Stations



Thank you!



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Potable Reuse Opportunities

Advanced Water Treatment at the San Elijo Water Reclamation Facility

