

Yucaipa Valley Water District-Agency Update



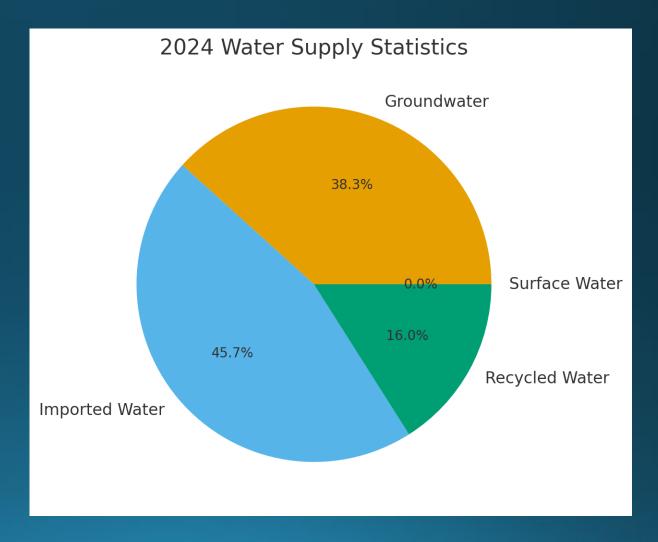


Outline

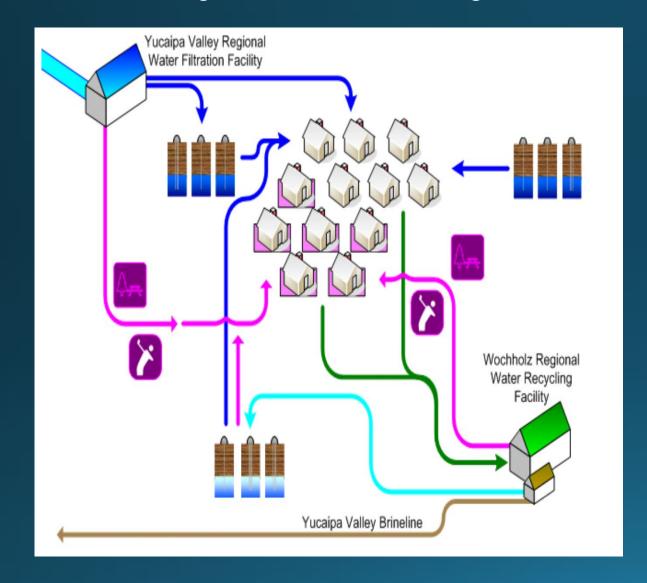
- Yucaipa Valley Water District (YVWD) and Project Water Sources
- 2. Integrated Water Management and Recycled System
- 3. Yucaipa SGMA
- 4. Salinity Concentration Reduction and Minimization (SCRAM)
- 5. Salinity and Groundwater Enhancement (SAGE) and Aquifer Storage and Recover Project (ASR)
- 6. Maximum Benefit- Yucaipa, San Timoteo and Beaumont GMZ

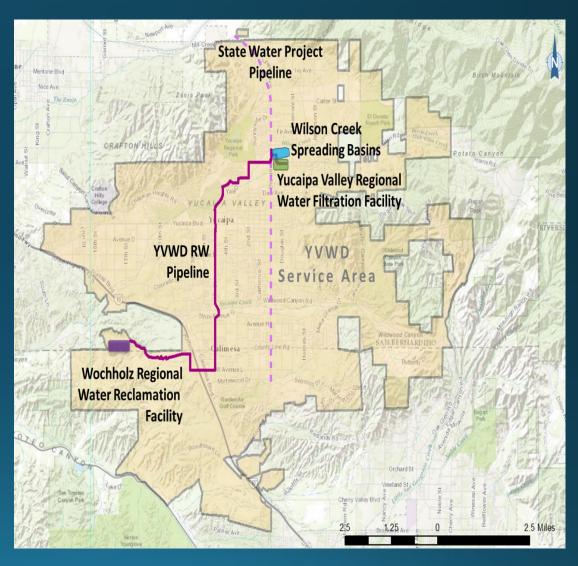
Yucaipa Valley Water District (YVWD) and Project Water Sources

- YVWD is a self-governing special district, est. 1971
- At upper end of Santa Ana River basin 52,212 pop. served across 40 mi²
 - Build-out pop. >100,000 over 68 mi²
- Services include:
 - Drinking Water- 13,645 connections
 - Sewer- 15,370 connections
 - Recycled Water- 912 sites
 - Salt Management and Disposal
 - Watershed Protection Program
 - Groundwater Management

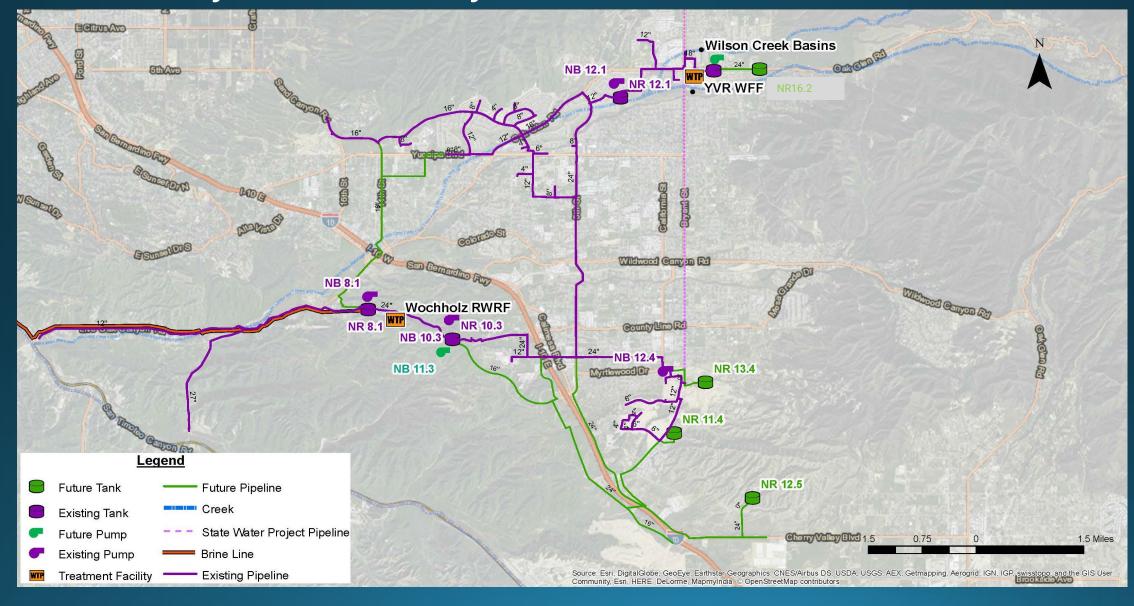


YVWD Integrated Water Management



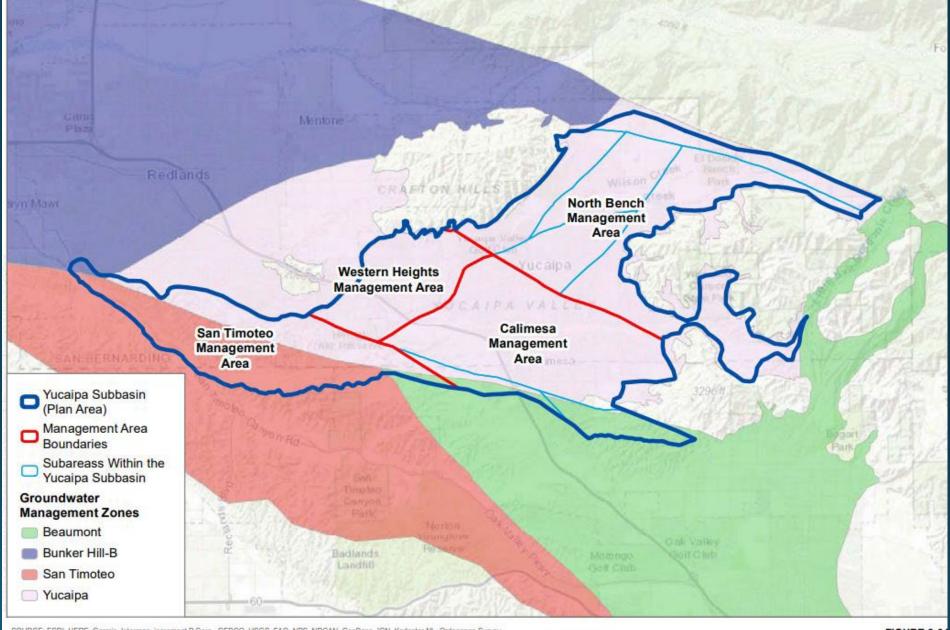


YVWD Recycled Water System



Yucaipa-SGMA

- High priority basin
- 4 Management Areas
- Sustainable Yield = 10,980 AFY
- DWR approved
 GSP on January
 18, 2024



SOURCE: ESRI, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordanance Survey, ESRI Japan, METI, ESRI China (Hong Kong), swisstopo, OpenStreetMap contributors, and the GIS User Community; DWR 2015; USGS NHD 2017

FIGURE 2-64



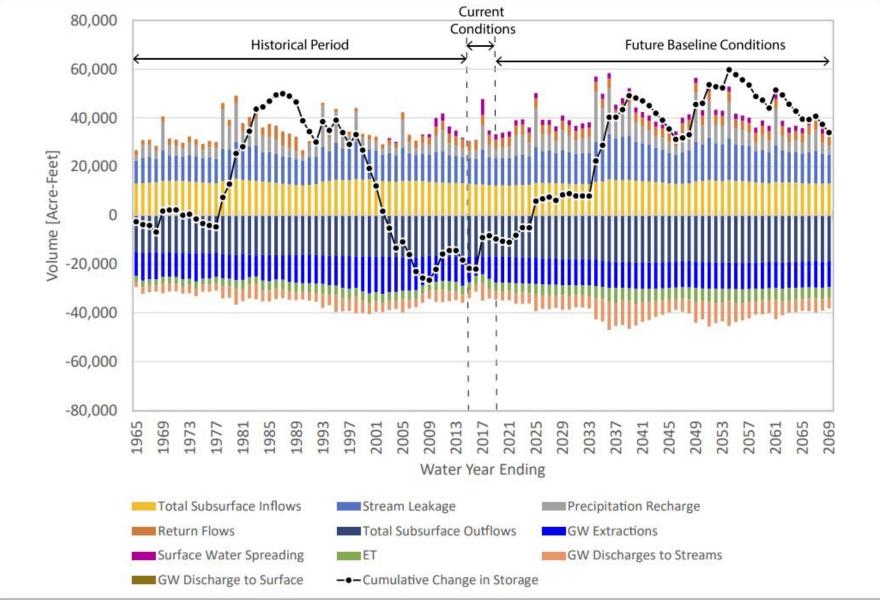


FIGURE 2-61

Historical, Current, and Future Baseline Water Budget for the Yucaipa Subbasin

Yucaipa Subbasin Groundwater Sustainability Plan

Yucaipa-SGMA

- Water budget analysis informed by historical pumping and groundwater levels
- USGS Yucaipa Integrated Hydrological Model
- Imported SWP water reduced local groundwater production to less than the SY

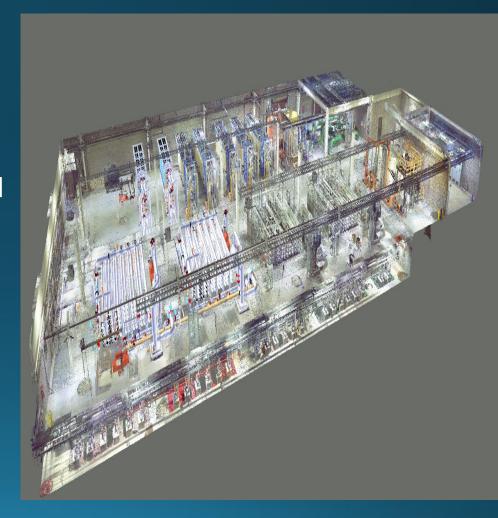
County Line Road Recharge Project

Yucaipa-SGMA

- Projects
 - County Line Road Turnout and Recharge Basin Project
 - 2025
 - recharge up to 1,500 AFY
 - Installed pressure transducers at 11 wells to monitor groundwater levels
 - Outreach to private well owners in Subbasin
 - Adopted GSA Well Ordinance

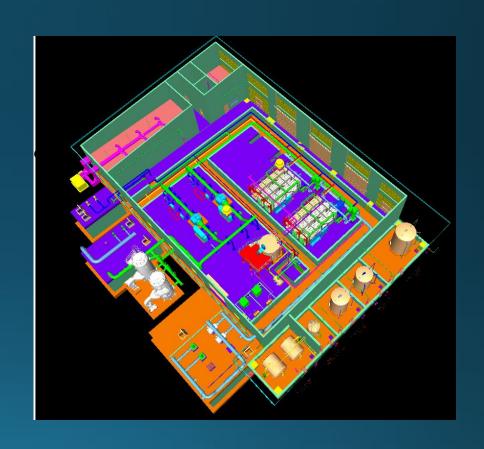
Salinity Concentrate Reduction and Minimization (SCRAM) Project Yucaipa Valley Regional Water Filtration Facility

- Current Microfiltration system consists of 13.6 mgd
 - Addition of 2 MF racks to increase capacity to 20 mgd
- Current Nanofiltration system consists of 6 mgd
 - Addition of 2 NF trains to increase capacity to 12 mgd
- Eliminate 1.45 mgd of concentrate flow to the non-potable system
- Increase the system recovery from 85% to 99%
- Expansion of Dissolved Air Floatation (DAF) system
 - Addition of third unit for increase in system flow and redundancy

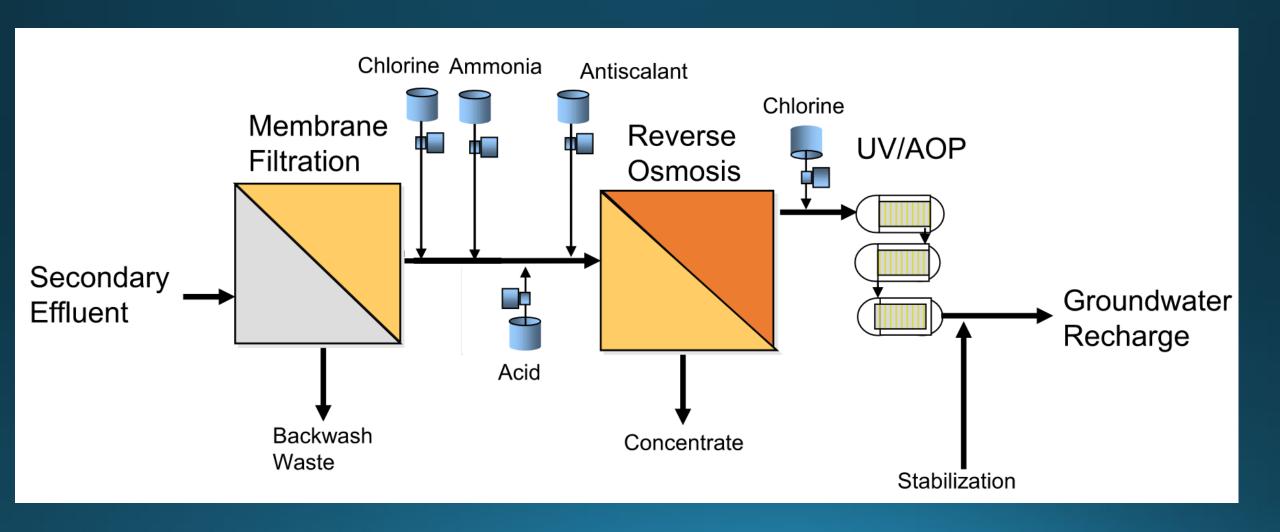


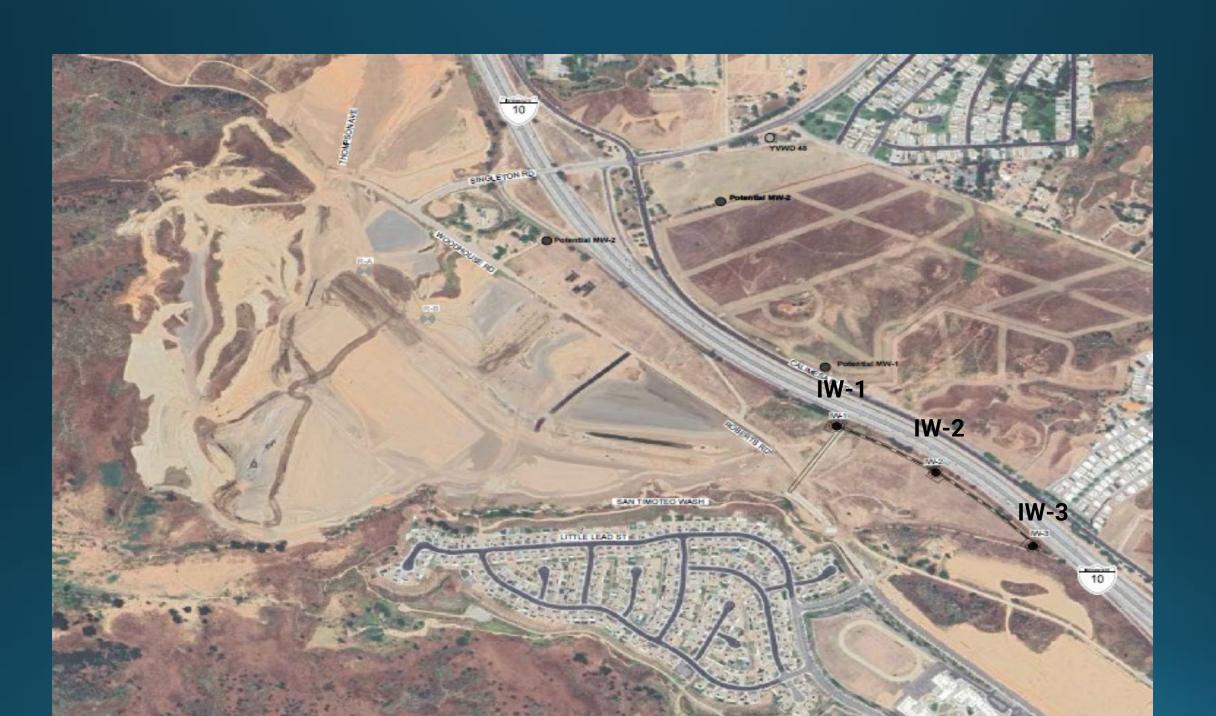
Salinity and Groundwater Enhancement (SAGE) Project

- Upgrade/Expansion to achieve Full Advanced Treatment
- One additional MF rack added to existing MF/UV Building
- 100% RO for groundwater recharge
 - Original RO train modified and new RO train added
- UVAOP (hypochlorite) for oxidation of trace organics and disinfection
- Dedicated AWT Building for RO and UVAOP



Salinity and Groundwater Enhancement (SAGE) Project

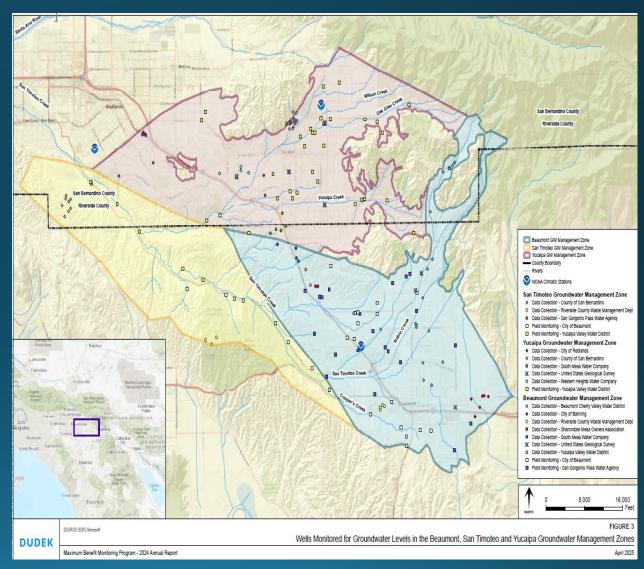




Maximum Benefit Monitoring Program - Yucaipa, San Timoteo and Beaumont

 Less stringent WQOs for TDS and nitrate than antidegradation objectives.

- YVWD is MBMP data manager for YGMZ, STGMZ and BGMZ
- City of Beaumont other recycled water discharger
- Maximum Benefit Commitments:
 - · Bi-weekly surface water monitoring
 - Bi-annual groundwater monitoring
 - Determine ambient water quality every 5 years
 - Recycled water systems for irrigation
 - Compliant when 10-year volume-weighted average for TDS and NO3 less than MB WQO



Maximum Benefit Water Quality Objectives

Anti-Degradation and Maximum Benefits Water Quality Objectives

Groundwater Management Zone	Anti-Degradation Water Quality Objective		Maximum Benefits Water Quality Objective_	
	Total Dissolved Solids	Nitrate	Total Dissolved Solids	Nitrate
	(mg/L)	(as Nitrogen) (mg/L)	(mg/L)	(as Nitrogen) (mg/L)
Beaumont	230	1.5	330	5.0
Yucaipa	320	4.2	370	5.0
San Timoteo	300	2.7	400	5.0

Yucaipa Zone

- YVWD responsible party
- No surface water monitoring because there is no recycle water discharged
- Sufficient GW spatial monitoring using existing YVWD wells

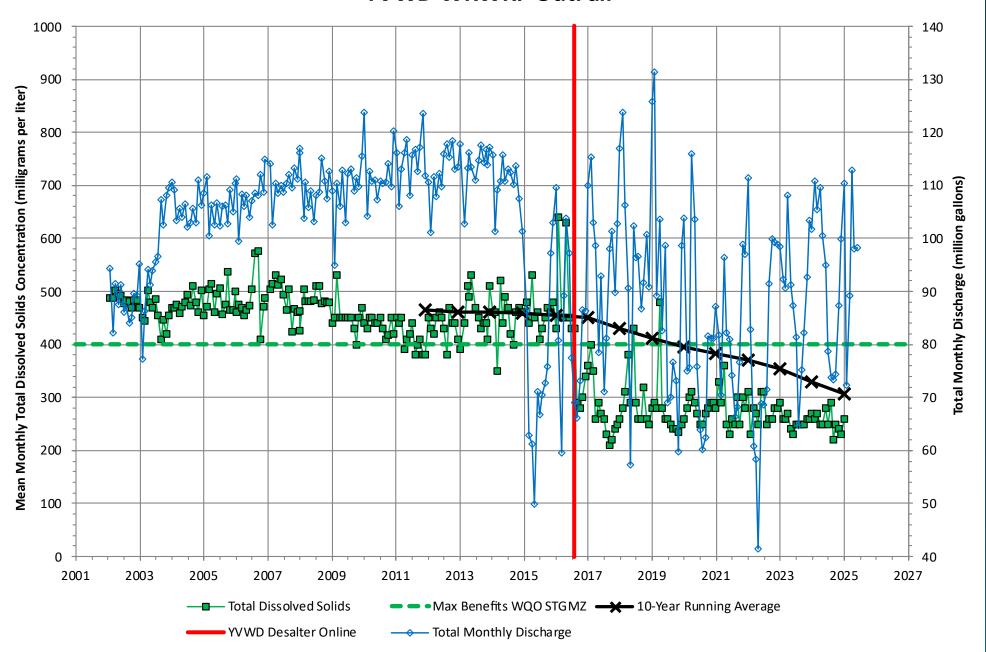
San Timoteo Zone

- YVWD and Beaumont are responsible parties
- Surface water monitoring upstream and downstream of WRWRF outfall
- Sufficient GW spatial monitoring using YVWD, County of Riverside and private wells

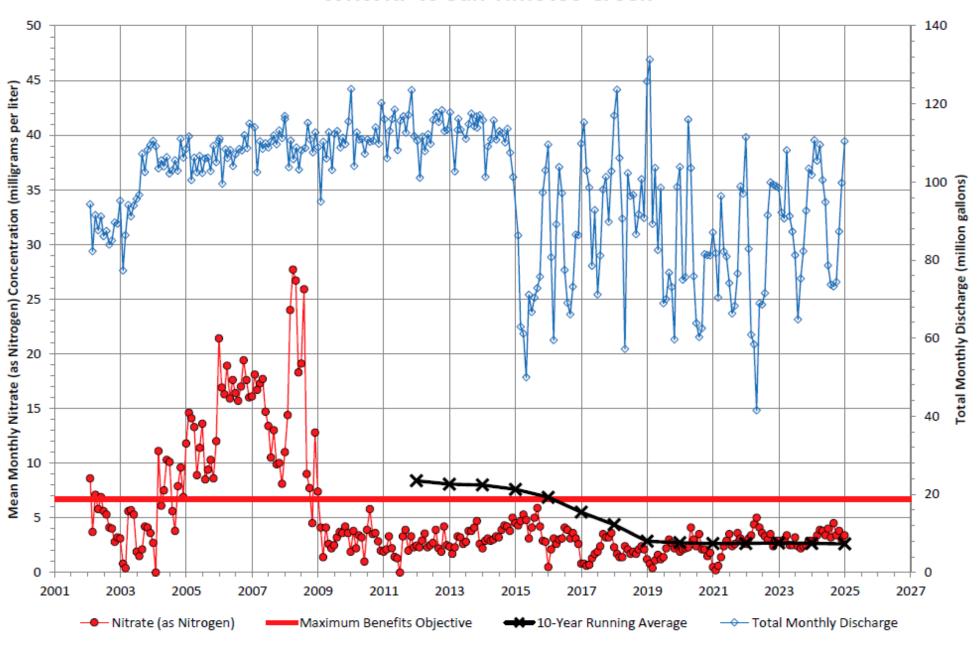
Beaumont Zone

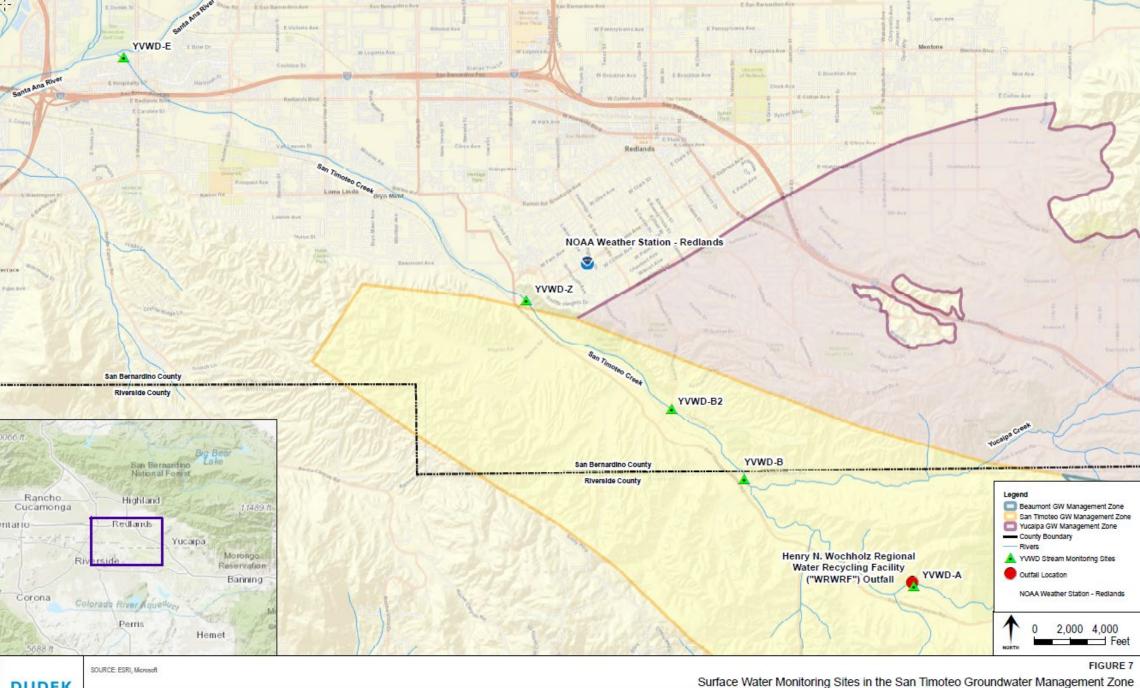
- YVWD, Beaumont, Banning, BCVWD, and SGPWA responsible parties
- Surface water monitoring downstream of Beaumont recycled water discharge
- Sufficient GW spatial monitoring using YVWD, Beaumont, Banning, BCVWD, USGS, and private wells
 - Addressed data gap in NW corner of BGMZ

Total Dissolved Solids and Monthly Discharges of Recycled Water at YVWD WRWRF OutFall



Nitrate (as N) and Monthly Discharges of Recycled Water from YVWD WRWRF to San Timoteo Creek





DUDEK

Maximum Benefit Monitoring Program - 2024 Annual Report

Total Dissolved Solids and Stream Flow at YVWD-B and YVWD-B2

