



Sonoma Water

Clean. Reliable. Essential. Every Day.

Water Transmission System Capital Projects & Maintenance Update

City of Santa Rosa – Board of Public Utilities

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Agenda

- Recently Completed and Active Construction
- Capital Projects in Design
- Water System Comprehensive Master Plan
- Transmission System Maintenance



Water Supply

Delivering clean, reliable water to more than 600,000 people

Water Contractors

Cotati

Valley of the Moon Water District

Petaluma

Windsor

Rohnert Park

North Marin Water District

Santa Rosa

Marin Municipal Water District*

Sonoma



Active and Recently Completed Construction Projects

Water System Construction Projects	Contract Value (\$)	Contract Award Date	Date of Completion
Ely Booster Station Hazard Mitigation	\$2,666,666	Mar 2022	May 2026
Cotati Tank No. 1 and Kastania Tank Recoating	\$6,450,000	Apr 2023	Jan 2025
Santa Rosa Plain Water Supply Resiliency Project - Occidental Road Well No. 3 Drilling	\$1,316,527	Aug 2023	May 2024
Santa Rosa Plain Water Supply Resiliency Project - Sebastopol Road Well Activation	\$3,102,798	Jan 2024	Dec 2025
Santa Rosa Plain Water Supply Resiliency Project - Occidental Road Well Activation	\$4,797,811	Mar 2024	Feb 2026
Cotati Tank No. 3 Recoating	\$6,962,100	Jan 2025	Mar 2026
Santa Rosa and Russian River-Cotati Intertie Aqueducts Cathodic Protection Upgrade Phase 1	\$2,178,583	Jul 2025	Jun 2026
Wilfred Booster Station Resiliency	\$6,809,340	Dec 2025	Aug 2027



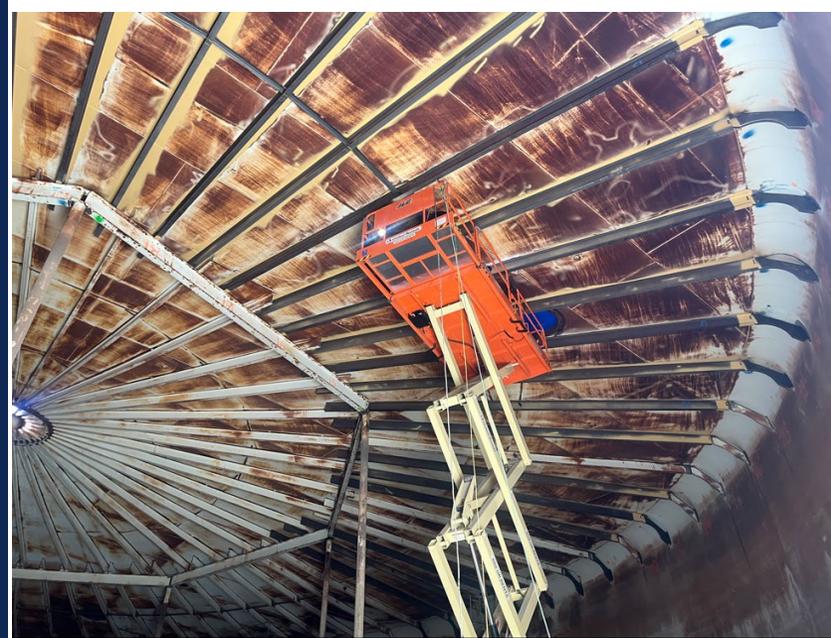
Ely Booster Station Hazard Mitigation

- Project scope
 - Replace and elevate electrical switchgear, valve actuators, MCC, and standby generator above 500-yr flood elevation
 - Replace sound attenuation structures
- FEMA hazard mitigation funding
- Electrical equipment delivered in October
- Existing generator still needs to be relocated and elevated
- Plans to energize switchgear in January and close-out contract by May 2026



Cotati Tank No. 1 and Kastania Tank Recoating

- Project scope
 - Recoating interior and exterior of tanks
 - Replacing or repairing corroded structural beams/elements and installing lateral bracing and new cathodic protection systems
- Last remnants of coal tar removed from the water system at Kastania
 - Kastania online Sep 2024
- Considerable structural beams replaced in Cotati #1
 - Cotati #1 online Nov 2024
- Project completed under budget in Jan 2025



Occidental Rd Well #3 Drilling and Well Activation

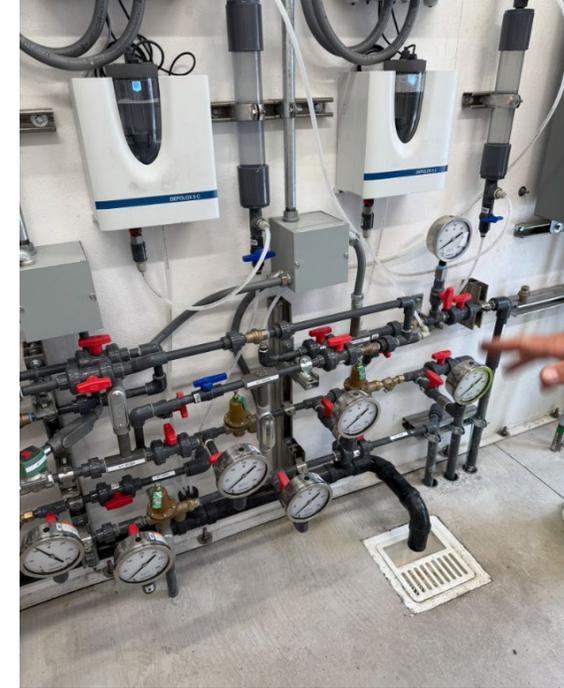
- Drilling completed and topside design awarded in March 2024
- All major deliveries have been received (above-grade piping, buildings, control panels, and I&C package)
- Submersible pump w/Baski valve installed end of October
- Substantial completion and startup planned in January
- Plan, permit, test and implement recharge components internally (2026)

*Santa Rosa Plain Wells Drought Resiliency Project
awarded \$6.9M State Drought Relief Grant*



Sebastopol Rd Well Activation

- Electrical equipment delivered February 2025
- Construction punchlist completed Oct and Nov 2025
- ASR pilot testing in progress through early 2026
 - ASR Cycle 2 in progress



Sebastopol Rd Well Aquifer Storage and Recovery (ASR) Pilot Test

- Initiated on October 2, 2025 and planned for completion end of January 2026
- Injection, Storage and Recovery of approximately 22 acre-feet of treated drinking water
 - Extensive water quality and groundwater-level monitoring
 - Routine backflushing events to evaluate clogging potential
- Evaluation and reporting of results in Q1 2026

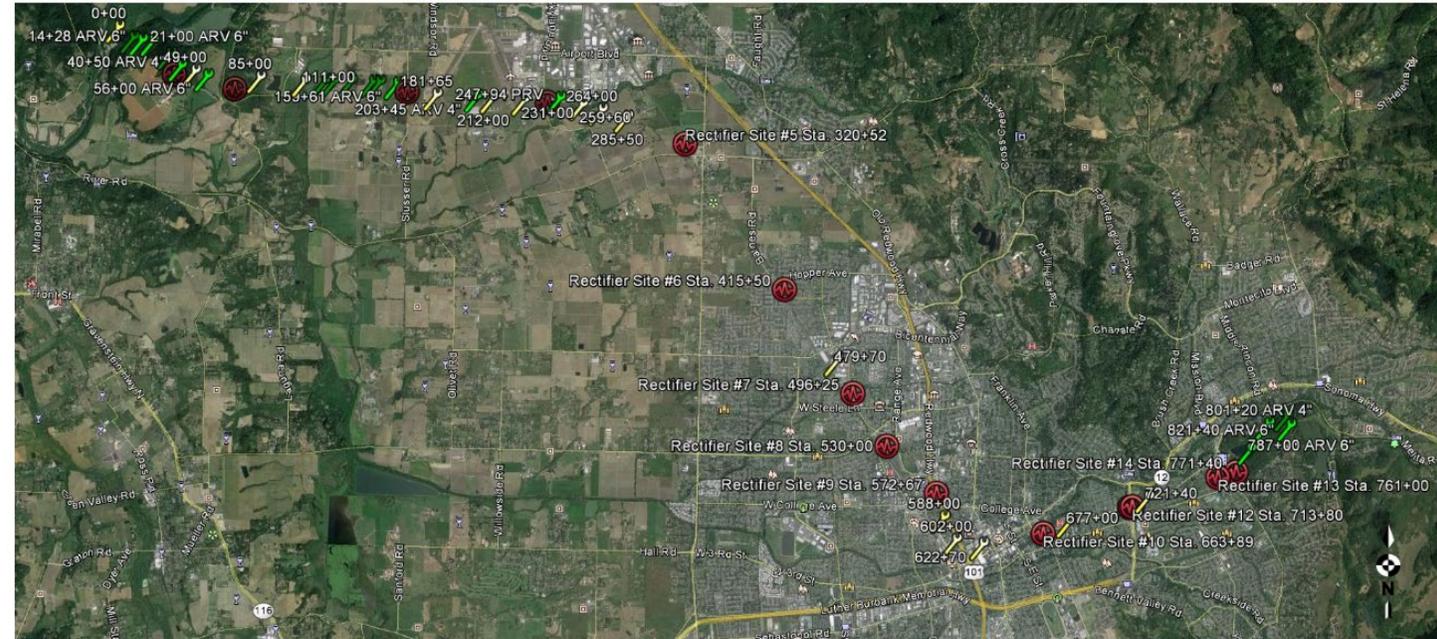
Currently here →

Pre-Test Evaluation - ASR Checkout		Start	10/2/2025 9:00
Recharge:	4.85 hours total	0.20 days	End 10/2/2025 13:51
Rates:	110 gpm	61 minutes	
	310 gpm	63 minutes	
	0 gpm	54 minutes	
	210 gpm	57 minutes	
	430 gpm	56 minutes	
Storage:	0 days		
Recovery:	1.5 hours	0.06 days	
Rate:	1,625 gpm		
.....			
ASR Cycle 1		Start	10/13/2025 9:00
Recharge:	3.11 days	End	10/16/2025 11:35
Rates:	252 gpm		
	1,625 gpm - backflush pumping		
Storage:	4.84 days	End	10/21/2025 7:48
Recovery:	13.0 hours	0.542 days	End 10/21/2025 20:48
Rate:	1,625 gpm		
.....			
ASR Cycle 2		Start	10/27/2025 12:00
Recharge:	21 days	End	11/17/2025 12:00
Rates:	200 gpm		
	1,625 gpm - backflush pumping: 11/6 & 11/17		
Storage:	63 days	End	1/19/2026 12:00
Recovery:	96 hours	4.0 days	End 1/23/2026 12:00
Rate:	1,625 gpm		

Santa Rosa/Cotati Aqueduct Cathodic Protection

- Project split in 2 phases based on ease of R/W and permitting
 - Phase 1
 - 8 total rectifier/anode well sites
 - 8 CP stations
 - Phase 2 –
 - 17-21 total rectifier/anode well sites
 - 21-33 CP stations
- Significant coordination with PG&E
- Phase 1 awarded July 2025
 - Contractor ordering materials
 - Long lead time on meter pedestals
- Phase 2 ROW and permits in progress
 - Survey complete
 - Award in FY27/28

SANTA ROSA AQUEDUCT



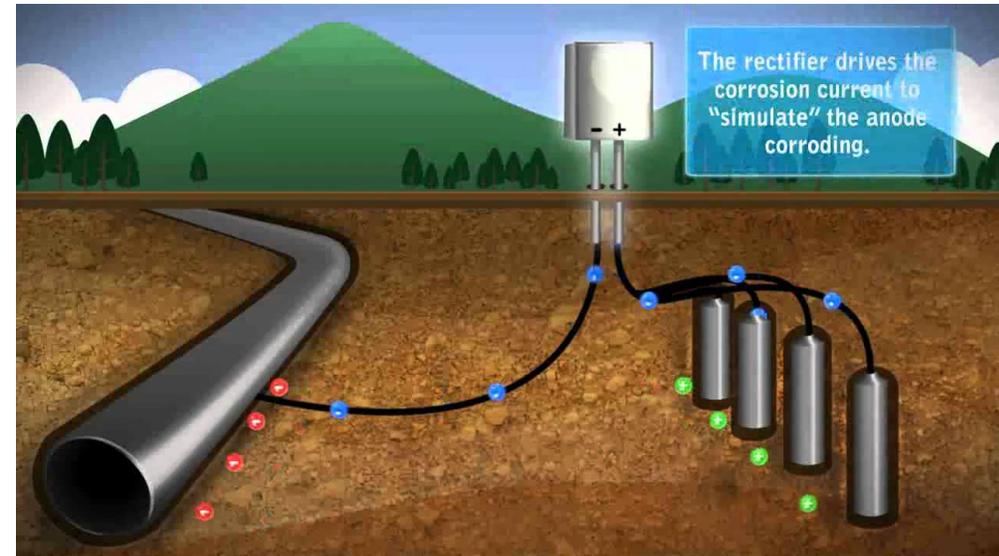
Proposed Rectifier



Proposed CTS – Excavation Required

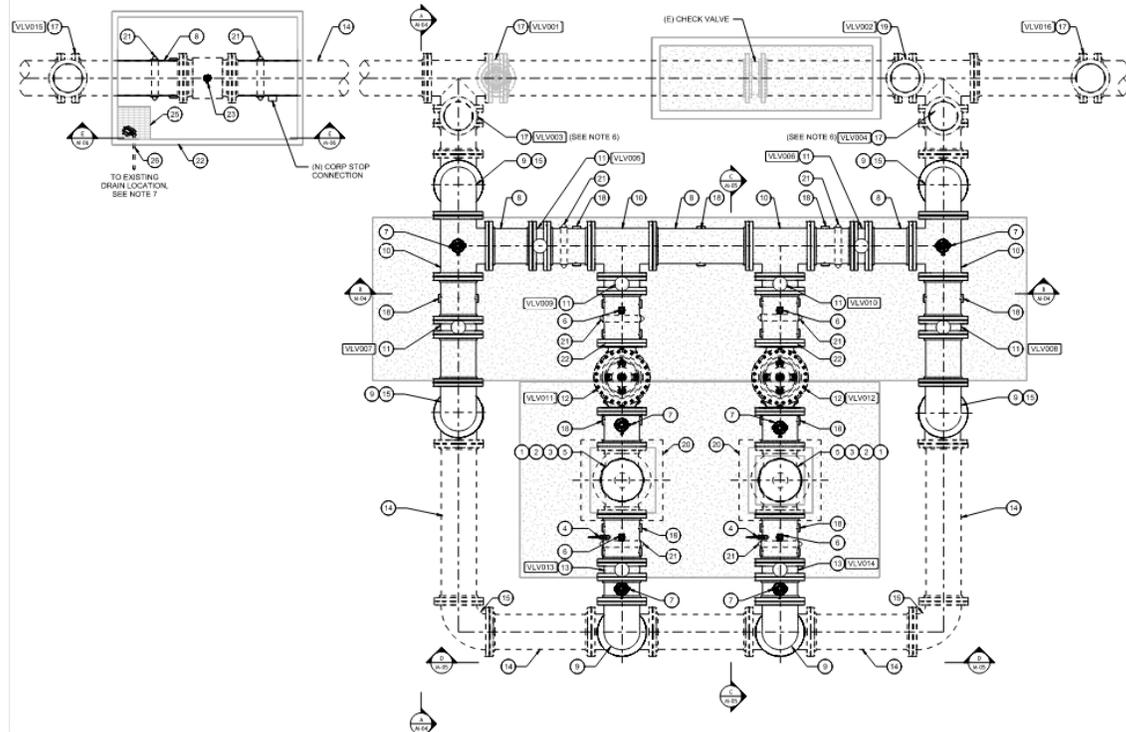


Proposed CTS – No Excavation Required



Wilfred Booster Station Resiliency

- Project includes
 - New electrical building, switchgear, and VFDs
 - Replace 1st pump set
 - Add 2nd pump set and piping for reliability/resiliency
- Capable of pumping north and south
- Switchgear prepurchased June 2024
- Award December 2025



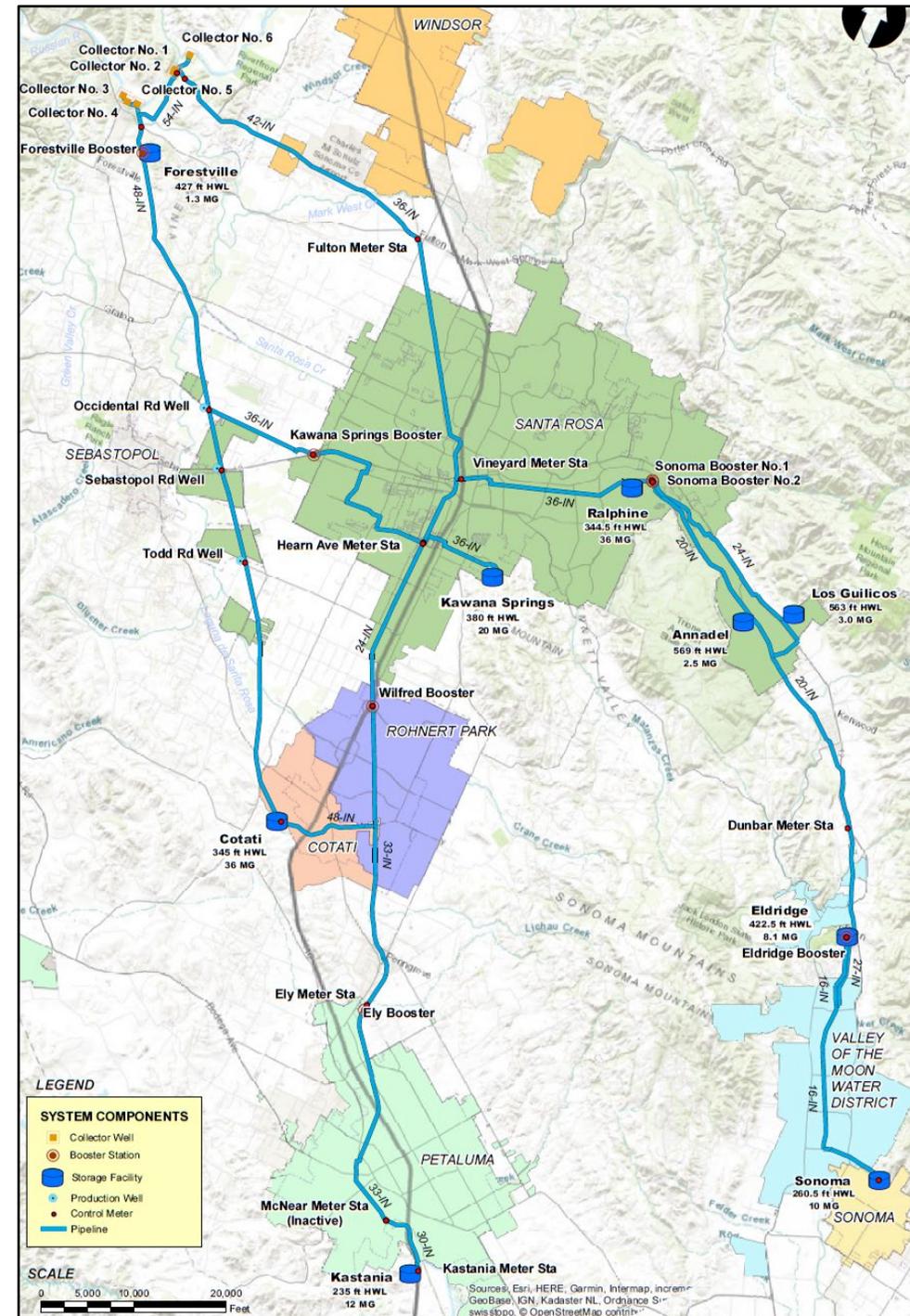
Active Design Projects

	Current Design Stage	Planned Advertise Date
Ralphine Tank Farm Security Fence	100% design	Nov 2025
Ralphine Tank No.1 Recoating & Seismic Improvements	99% design	Jan 2026
RDS Resiliency Improvements	99% design	Jan 2026
Sonoma No.1 Recoating & Seismic Improvements	90% design	Mar 2026
Warm Springs Dam Hydropower	90% design	Apr 2026
Wohler Road Storage Facility	60% design	Dec 2026
Santa Rosa and Russian River-Cotati Intertie Aqueducts Cathodic Protection Upgrade Phase 2	30% design	Sep 2027
Water Treatment System Modernization – CT Compliance	50% design	Dec 2026



Comprehensive Master Plan

- Completed:
 - Task 1 - Water System Baseline
 - Task 4 – Project Prioritization Methodology
- FY25/26:
 - Task 2 – Water Demand Forecasting (UWMP*)
 - Task 3 – Basis of Cost Information
- FY26/27:
 - Task 5 – Generate Project Groupings
 - Task 6 – Compile Master Plan



Nexgen CMMS System

What is Nexgen?

Our Computerized Maintenance Management System for tracking, managing, and optimizing all maintenance operations across the organization.



January 2023

Implementation Started



12,789

Closed Work Orders



1,563

PM Schedules



17,864

Assets Managed



94,144

Labor Hours Captured



Key Features

Reporting • Asset Tracking • Work Order Management • Cross Department Alignment



Departments Using Nexgen



CMMS Services



Collection System



Electrical/Instrumentation



Emergency/Safety



Facilities Services



Field Maintenance



Fleet Maintenance



Laboratory Services



Mechanical Maintenance



SCADA Services



Warehouse



Industrial Waste



Water/Wastewater



Environmental



Working to onboard

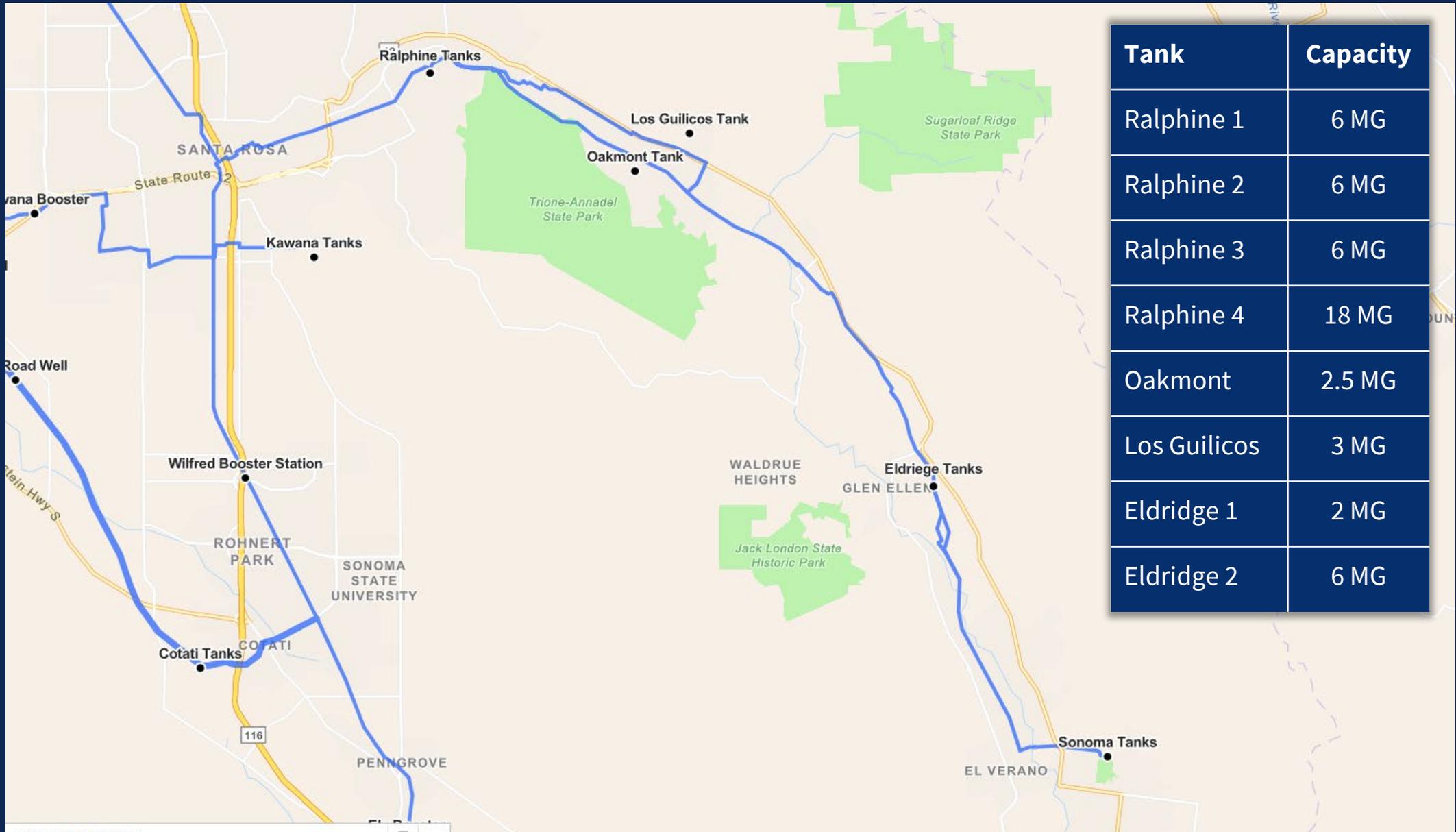


Security



Land Assets

Sonoma Aqueduct & Storage Tanks



Tank	Capacity
Ralphine 1	6 MG
Ralphine 2	6 MG
Ralphine 3	6 MG
Ralphine 4	18 MG
Oakmont	2.5 MG
Los Guilicos	3 MG
Eldridge 1	2 MG
Eldridge 2	6 MG

Nexgen Tank Maintenance Program

CMMS Analysts, Engineers, Managers, and Coordinators collaborated to create a process for tracking tank maintenance and inspections.

All Tank Maintenance tracked in **10-year cycle** via Nexgen Project, tying together all work orders and capturing total cost & metrics.


Contractors
Submit reports




Engineers
Receive & review

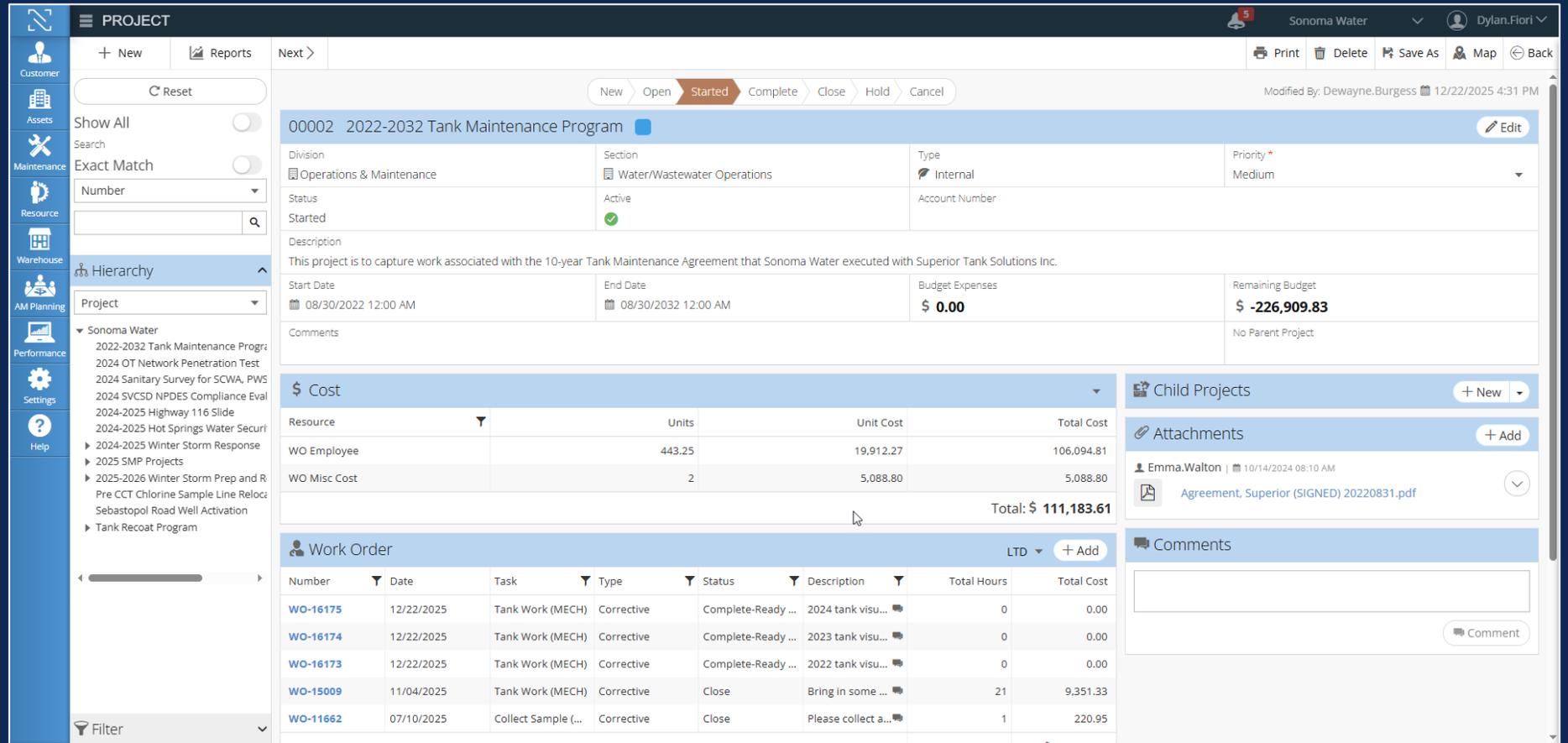



Nexgen System
Create work orders




Field Staff
Review & repair

CMMS Project View - 2022-2032 Tank Maintenance Program



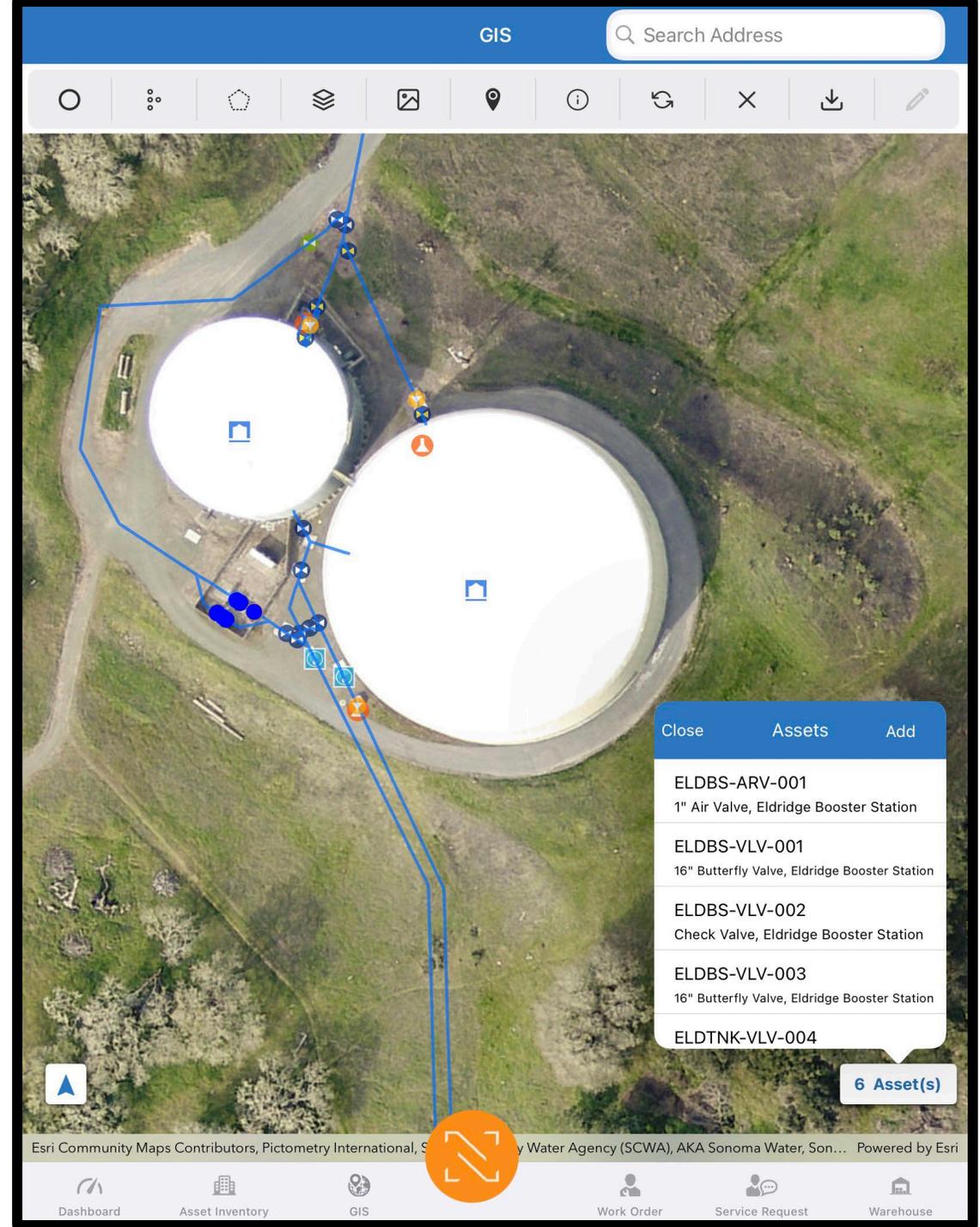
The screenshot displays the CMMS Project View for the 2022-2032 Tank Maintenance Program. The interface includes a navigation sidebar on the left with categories like Customer, Assets, Maintenance, Resource, Warehouse, AM Planning, Performance, Settings, and Help. The main content area shows project details for '00002 2022-2032 Tank Maintenance Program', including its status (Active), start/end dates (08/30/2022 to 08/30/2032), and budget expenses (\$0.00). A cost breakdown table is visible, showing resources like 'WO Employee' and 'WO Misc Cost' with their respective units and costs. Below this, a 'Work Order' table lists individual work orders with columns for Number, Date, Task, Type, Status, Description, Total Hours, and Total Cost. The work orders listed include WO-16175, WO-16174, WO-16173, WO-15009, and WO-11662. The total cost for the project is \$111,183.61. The interface also features sections for Child Projects, Attachments (including a signed agreement PDF), and Comments.

Resource	Units	Unit Cost	Total Cost
WO Employee	443.25	19,912.27	106,094.81
WO Misc Cost	2	5,088.80	5,088.80
Total:			\$ 111,183.61

Number	Date	Task	Type	Status	Description	Total Hours	Total Cost
WO-16175	12/22/2025	Tank Work (MECH)	Corrective	Complete-Ready ...	2024 tank visu...	0	0.00
WO-16174	12/22/2025	Tank Work (MECH)	Corrective	Complete-Ready ...	2023 tank visu...	0	0.00
WO-16173	12/22/2025	Tank Work (MECH)	Corrective	Complete-Ready ...	2022 tank visu...	0	0.00
WO-15009	11/04/2025	Tank Work (MECH)	Corrective	Close	Bring in some ...	21	9,351.33
WO-11662	07/10/2025	Collect Sample (...)	Corrective	Close	Please collect a...	1	220.95

Nexgen – GIS Portal

- Interactive Asset Visualization
 - View assets on an integrated map with accurate geospatial data.
- Spatial Work Order Management
 - Create, view, and assign work orders directly from the map interface.
- Mobile Integration
 - Access GIS portal from field devices for on-site work order completion.
 - Update asset condition and status in real-time.
 - Capture photos, notes, and inspection data directly at the asset location.



Oakmont Tank

AQ crew replaced a 16" butterfly isolation valve and the 14" butterfly drain valve at Oakmont tank.



Oakmont Tank

Conduit installed at tank site for new security cameras. Grant funding has provided for installations at each site. New security fencing is also being installed



Eldridge Tank

Eldridge tank was taken offline to allow for maintenance through our 10-year tank maintenance program. During that time vent hoods were replaced on each tank.

