



**ENTERPRISE
AUTOMATION**
A TETRA TECH COMPANY

PROJECT PROFILE

VTScada pilot for water treatment plant *SUBURBAN WATER SYSTEMS*

Client background

Suburban Water Systems provides high-quality water services to over 300,000 customers in a 42-square-mile service area in California. Suburban Water Systems serves customers through a water distribution system that includes 20 wells, 34 reservoirs, and more than 870 miles of pipeline.

Project background

To ensure the proper stakeholders could interact with and maintain control over various areas, plants, and districts, Suburban Water Systems was standardizing SCADA systems across their organization. Suburban Water chose VTScada, which offers a permission infrastructure that allows their parent organization to administer and control Suburban's various water districts.

Beyond alignment with their parent organization, upgrading to VTScada provided Suburban Water Systems long-term advantages and reduced risk. For over two decades, they had been using a BIF SCADA system that had been developed largely in-house and adapted over the years to meet local needs. Because it was a unique, legacy platform, most of the institutional knowledge lived with key staff who had been successfully managing it for years. But getting any additional support for maintenance or development would have been difficult due to the specialized nature of this platform. By adopting a more widely used platform, it would be much easier to find personnel or consultants who could continue to work on their SCADA system in the future.

Project Manager



**Garrett
Prevo**

Project Technical Lead



**Kyle
Pickrell**

Key Insights:

- Built scalable platform with custom standardized templates for future site development
- Trained operators and stakeholders on VTScada functionality

Key Technologies:

- VTScada
- RedLion HMI
- Modicon M340
- EcoStruxure Control Expert

EA Solutions

Suburban Water Systems wanted to first run a VTScada pilot at the Sativa district. They contracted Enterprise Automation to upgrade their system and teach the operators how to navigate a modern SCADA system. As a certified Advanced Solutions Provider, EA has extensive experience implementing VTScada solutions and has been invested in creating efficient configuration to meet operator needs.

This was a big shift for Suburban Water staff, who were accustomed to using BIF for years. To make this as smooth of a transition as possible, the dialogue between EA engineers and Suburban Water remained open and ongoing. The project kicked off with a hands on design workshop to capture Suburban Water's functional requirements and alarm priorities. EA then translated those requirements into SCADA screen, network architecture, and alarm design concepts. Through this process, EA guided the client through options, validated decisions, and confirmed buy in before finalizing solutions that addressed their pain points.

Alongside developing the platform, EA engineers introduced the staff on the capabilities of their new system, including trends, reporting, alarms, and graphics. Engineers used time-saving methods to make a scalable platform by designing standardized templates to build out the different sites and tag types, which could be modified to use on future site upgrades. A key advantage of VTScada is that it lets engineers build customizable templates with optional configuration settings, so each installation can be adapted to its particular needs instead of forcing a uniform design.

As the stakeholders at Suburban Water became more familiar with the functionality of VTScada through the pilot project, so did their ability to identify areas for improvement more effectively. This pilot left Suburban Water Systems confident in their next steps to convert their other districts, which have also been entrusted to Enterprise Automation.

Enterprise Automation, A Tetra Tech Company (NYSE:TTEK), a nationwide process automation consultant - plans, designs, documents, builds, tests, deploys, and supports critical automation and OT infrastructure for process industries.

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