



**ENTERPRISE
AUTOMATION**
A TETRA TECH COMPANY

PROJECT PROFILE

PUMP STATION PLC UPGRADES

SOUTH COAST WATER DISTRICT

Customer Background

South Coast Water District (the District) owns and manages various water treatment assets in southern Orange County. Serving a diverse community of 35,000 residents and 1,000 businesses and accommodating 2 million annual visitors, the District maintains a significant role in south California. With comprehensive infrastructure, including nine pump stations, 13 reservoirs, and over 12,000 water connections, the District's services are crucial in providing safe and reliable water services. Enterprise Automation (EA) engaged with the District in 2019, initiating a project to replace an obsolete Programmable Logic Controller (PLC) at one of their Ozone treatment facilities.

Project Background

After completing the Ozone treatment facility project, SCWD brought on EA to upgrade the PLC panels at Pump Stations 8 and 9 (PS8, PS9). These ambitious projects encompassed upgrades to flagship Modicon M580 PLCs, replacing the local Tesco Operator Interface Terminals (OITs), removing unnecessary components, and optimizing the systems for enhanced efficiency.

EA Solutions

The core of EA's contribution was enhancing the control systems at SCWD. Added alarms and setpoints give the District unparalleled flexibility in managing its water infrastructure. The upgrade to M580 PLCs increases each system's longevity and facilitates future modifications.


One of the critical outcomes of this upgrade is the heightened usability that empowers District operators to address alarms and errors more efficiently than ever before. The enhanced control system aligns with EA's commitment to delivering solutions that meet immediate needs and future-proof operations, ensuring adaptability and resilience.

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The project's key benefits encompass enhanced flexibility, as the added alarms and setpoints empower the District with newfound control, facilitating seamless adaptation to changing conditions. Additionally, the upgrade with the Modicon M580 PLC ensures increased longevity for the water infrastructure, safeguarding the District's investment over the years. The streamlined operations contribute to operational efficiency, allowing the District to promptly address alarms and errors, minimizing downtime, and maximizing overall efficiency.

Furthermore, establishing new program documentation, PLC standards, and tag standards plays a pivotal role in standardization for future success. This foundation ensures a standardized and efficient approach to upcoming initiatives, setting the stage for sustained operational control system.


In conclusion, Enterprise Automation's work with South Coast Water District exemplifies a commitment to innovation and excellence in water infrastructure management. The successful execution of the PLC upgrade addresses current challenges and sets the stage for a resilient and standardized future. As a trusted partner, EA continues to empower organizations to navigate the complexities of water management with confidence and efficiency.



Key Insights

- PLC Replacement

Key Technologies

- PLC Software
 - OIT Software
 - SCADA Software
 - Alarm Notification Software
 - Operating System
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