



**ENTERPRISE
AUTOMATION**
A TETRA TECH COMPANY

PROJECT PROFILE

Programming master services agreement

City of Santa Ana

Client background

Residents and businesses receive potable water from the City of Santa Ana, which serves about 334,000 people across roughly 27 square miles. The City produces water from 22 wells and manages system pressure through 4 pressure control stations. Connections to the Metropolitan Water District total 7, and the distribution system relies on 7 pumping stations and 8 reservoirs. The City also operates and maintains 4 sewer lift stations. The City coordinates control and monitoring of its water and sewer assets through a centralized SCADA control room that receives telemetry from remote sites via radio.

Project background

To ensure consistent, high-quality programming for capital projects, the City created a pre-qualified list of systems integrators. The City solicited proposals from integrators across Southern California and set stringent qualification requirements, including experience with both modern and legacy Modicon PLCs. Selected integrators must fully comply with and enforce the City's instrumentation and controls standards, most of which EA developed under the concurrent Change Manager contract.

EA solution

Enterprise Automation, as a preferred programmer, provided the City with consistent, expert integration support during the contract period. EA documented and tracked every configuration in the City's source control system, maintained clear functional specifications, and applied a rigorous four-step testing program: desk check, internal testing, Factory Acceptance Test (FAT), and Site Acceptance Test (SAT). These practices reduced commissioning risk, shortened startup timelines, and ensured all programming complied with the City's instrumentation and controls standards.

Project Manager



**Matt
Avila**

Project Technical Lead



**Kyle
Pickrell**

Key Insights:

- As-needed systems integration services
- Reprogramming pump stations, pressure reducing stations, MWD connections, reservoirs, sewer lift stations

Key Technologies:

- Modicon M340 PLCs
- Modicon Magelis OITs
- Ethernet, fiber, radio communications