ENTERPRISE AUTOMATION A TETRA TECH COMPANY

PROJECT PROFILE LB-MUST implementation *CITY OF LONG BEACH*

Customer Background

Enterprise Automation was introduced to the City of Long Beach several years ago after they were left in a precarious position when their integrator was unable to successfully complete one of their critical projects. By recommendation from the Los Angeles County Sanitation District (LACSD), EA was brought in to determine the project's status and complete the work.

EA's success in this effort marked the foundation of a trusting partnership. When the City's marquee project, the Municipal Urban Stormwater Treatment (LB-MUST), was set to move forward, EA was their first-choice automation consultant.

Project Background

The LB-MUST project, located in the Lower Los Angeles River Watershed Area, diverts and treats polluted urban runoff and portions of first flush stormwater (the initial runoff from a storm containing the highest concentration of pollutants) from existing stormwater pump stations along the Los Angeles River to the LB-MUST facility.

The project involved the construction of a new facility that would treat the stormwater through ceramic ultrafiltration, media filtration, and photocatalytic advanced oxidation processes before it reached the river or allow its reuse as an alternative water source for vegetation in the adjacent wetlands.

Initially, the facility would be able to treat 2 million gallons per day (MGD), with the potential for future expansion to 4 MGD. Upcoming project phases will link to additional pump stations and initiate the pilot reuse of treated water for purposes such as irrigation, toilet flushing, and other approved applications.

Project Manager



Project Technical Lead



Key Insights:

- Architected networking, PLC, and SCADA design for greenfield project
- Developed a novel method of utilizing industrial graphics and standardized tag names in AVEVA InTouch to create replicable graphic objects to reduce risk and programming effort

Key Technologies:

- AVEVA InTouch
- Allen-Bradley ControlLogix PLC
- Siemens PLC hardware



EA Solutions

Central to the treatment process are the Purifics ceramic ultrafiltration (CUF) and the Photo CAT system. The CUF system removes heavy metals, and the Purifics' Photo CAT technology provides further purification through photocatalytic processes. These advanced technologies enable superior water cleanliness and quality. EA's solution for the LB-MUST Project incorporated technologies that ensured integration and connectivity with the new Purifics assets and the City's existing infrastructure.

For operators, the solution included the implementation of high-performance screens for monitoring the efficient removal of debris and contaminants from stormwater. To address this, EA incorporated a redundant InTouch SCADA system for real-time monitoring and control, ensuring reliable and continuous operation of the LB-MUST facility. Furthermore, EA integrated Siemens and Allen-Bradley PLC hardware to control and manage the treatment processes, which allowed for precise and accurate operations.

Additionally, EA implemented an automated reporting system to generate comprehensive reports which track key plant operation metrics and data. These automated features enhanced operational efficiency and provided stakeholders with valuable insights into the facility's performance in real-time.

EA maintains a client-first outlook in our commitment to staying at the forefront of technological advancements. We aimed to deliver a state-of-the-art stormwater treatment facility for the LB-MUST Project by incorporating cutting-edge components and technologies in a user-friendly way.



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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