



**ENTERPRISE  
AUTOMATION**  
A TETRA TECH COMPANY

## PROJECT PROFILE

### Low flow diversion pump stations

*City of Long Beach*

#### Client background

The City of Long Beach public works department oversees numerous pieces of City infrastructure, including automated underground runoff control stations that direct polluted surface water runoff into permissible treatment centers. These systems ensure the local beaches and surf remain free of concentrated toxic runoff. Enterprise Automation has helped the City since 2018 develop and maintain a consistent set of low flow diversion sites with consistent programming, hardware, wiring, and operation.

#### Project background

The low flow diversion pump station upgrade project was a multi-phase undertaking, that included updating obsolete telemetry and controller hardware, creating basic site-wide electrical and functional standards, and validating all hardwired IO. Real-time data from each LFD station is securely shared with LA County Sanitation District operations staff. Each Low Flow Diversion site collects runoff during periods of low rain, which is highly concentrated with oil and contaminants from sidewalks and roadways. The collection areas then pump to treatment plants to be combined with other waste streams and properly treated, rather end up in the ocean.

#### EA solution

EA engaged with the City engineers to first understand what pain points and issues they had with the sites. After clearly identifying many of the issues deriving from obsolete equipment, EA engineers developed a retrofit plan based on the available budget. They removed obsolete 900Mhz radios and dated Symax controllers in favor of Ethernet-based communications and modern Allen Bradley controllers. This resulted in sites that were functional, tested, documented, and consistent for operators and for engineers.

#### Project Manager



**Luke  
Stephenson**

#### Project Technical Lead



**Adam  
Ekstrand**

#### Key Insights:

- Obsolete equipment retrofitting

#### Key Technologies:

- Wonderware InTouch
- AB ControlLogix
- AB MicroLogix