



Wastewater Treatment Plant Reduces Energy Consumption with Performance Monitoring Platform

Challenge

Centered in a rapidly urbanized watershed, this award winning municipal wastewater plant located in Tennessee had a mission of continuous improvement for their customers and environment. With flows leading into the Tennessee river, managing all facets of water quality is crucial to maintaining the local ecosystem.

Erratic storms and unexpected wet weather in the region led to excessive inflows causing the plant to endure repeated overflows and violations. The original plant, built in 1963, underwent a renovation and expansion in 2006 to prevent further sewer overflows. Following the plant's renovation, the number of overflows dramatically decreased, but weather patterns worsened.

The utility initiated several programs to alleviate chronic sanitary sewer overflows and improve water quality in the creek downstream. Yet, operating a system of 22,000 customers, covering over 100 square miles in a region of unpredictable weather remained a constant challenge.

The rate of influent flow impacts many aspects of managing and treating wastewater. Energy consumption is a critical parameter for the operators. If they don't have the right information, the energy consumption will spike.

Solution

- Plutoshift monitored the key metrics of the plant in combination with wet weather patterns. Leveraging the existing SCADA system, Plutoshift built a model to forecast influent flow based on weather patterns and previous plant behavior. Requiring no installation or integration, the team was able to access actionable insights into their operation immediately upon deployment.
- Delivered directly to operators through a web-based dashboard, the Plutoshift platform provided operators with information they needed to prepare for the work ahead of them. Plutoshift was able to forecast influent flow by leveraging plant data as well as weather data, predict operational metrics for aeration blowers, predict pump data patterns, and analyze related processes. Plant managers and operators could view the unified performance metrics and set a preferred risk level of notification to manage various anomalies.
- The Plutoshift platform provided a new operational perspective by automating internal functions and changing the way work gets done at the plant. Instead of reacting to events, the operations team could now plan to address the challenges. Monitoring the performance in a proactive way helped them maintain stability in the treatment process, avoid overflow violations, and better plan the work schedules for the operators.

"I've enjoyed working with Plutoshift, and they've been remarkably quick and responsive."

Their product is the first of its kind in our market and it's exciting to be a part of it.

Plutoshift has impressed all of us involved."

-Plant Manager

WHO WE ARE:

Plutoshift's GROUNDED AI™ platform empowers teams with automated performance monitoring for any industrial workflow. We help industrial businesses drive ROI by reducing resource consumption and operating costs.

Schedule a DEMO now at:

✉ hello@plutoshift.com

🌐 plutoshift.com

Advantages: Plutoshift transforms passive data collection into active performance monitoring across industries like food & beverage, oil & gas, power & renewables, chemical, and manufacturing. This enables operators to automatically monitor and predict the performance of critical processes and have access to actionable information in real-time.

Benefits: Plutoshift's insights are displayed through an interactive platform and allows customers and stakeholders to visualize KPI's and data. Our platform is easy to implement. We take data from disparate, unconnected systems to reveal valuable insights and integrate seamlessly to deploy a solution. There's no hardware to purchase and you can access the Plutoshift platform anytime, anywhere from any computer or smart device.