Wastewater Treatment Solution

Advanced issue detection, diagnosis, and resolution to simplify critical infrastructure operations and improve decision-making.

Operations leaders at wastewater treatment plants face unprecedented challenges due to aging infrastructure, increased regulatory burden, the need to achieve more with less, and an aging workforce. Operators and engineers must keep their plants running at peak performance but are often asked to do so with limited visibility into equipment performance, asset condition, and system dependencies.

This lack of visibility leads to inefficient plant operations, high maintenance costs, equipment failures, and unplanned shutdowns. By adopting a data-driven approach to plant operations, leaders can better align their people, processes, and tools to clear, well-defined strategic objectives and performance outcomes.

Unlock New Insights

Atonix Digital’s Wastewater Treatment Solution is purpose-built to address the unique needs and challenges of this vital industry. This Software-as-a-Service (SaaS) offering combines wastewater treatment models and templates, machine learning, advanced pattern recognition (APR), and problem remediation tools to your asset data and work processes. The application of these technologies allows you to identify asset anomalies in near-real-time to prevent costly equipment and operational failures while optimizing equipment performance.

With this secure, cloud-based solution, plant managers can transform operations from reactive to proactive. The solution provides an intelligent platform that collects, integrates, and presents performance data and risk assessments through intuitive displays to speed decision-making and head off crises.

This specially-designed asset performance management (APM) solution helps facility engineers improve process monitoring, failure reduction, water quality, and reporting. The solution is geared to help plant managers and operators identify previously undetected changes in system performance in more detail than using common SCADA setpoints.

The Atonix Digital Wastewater Treatment Solution is your alternative to aging, manually-intensive processes and tools, and usually deploys in weeks, not months. The solution is designed to pay for itself in savings, efficiencies and knowledge transfer well within the first year of operation.

Key Benefits

- PREVENT FAILURES & UNPLANNED SHUTDOWNS: Gain valuable insight into performance anomalies in near-real-time to detect, assess, and mitigate process and equipment problems well before they impact wastewater plant operations.

- DEMYSTIFY DATA SCIENCE: Leverage advanced machine-learning techniques and wastewater-specific models and templates that deliver rapid results with low implementation and staffing costs.

- PRIORITIZE MAINTENANCE BY CONDITION: Prioritize your maintenance activities by assessing and quantifying the economic impact of each. Apply condition-based techniques to bolster your current scheduled maintenance and long-term maintenance planning programs.

- SIMPLIFY ISSUE RESOLUTION: Prioritize, manage, and resolve the most critical issues first, to keep your plant running at peak efficiency.

- MAINTAIN OPERATIONAL KNOWLEDGE: Make full use of existing historical and operational knowledge. Information is stored for future reference to inform better decision-making, even as you attract new AI-proficient talent to your team.
Atonix Digital’s Wastewater Treatment is designed to enable early detection and fast remediation of such issues as:

- Sewage discharge
- Poor effluent quality
- Biosolids
- Equipment failure
- Process inefficiency

Key Features

- **INTUITIVE BUSINESS SCORECARD:** A quantified visual summary displays key performance metrics at the facility level that includes a health scorecard for pre-defined assets, process (e.g., flow, pressure) and performance data, and environmental factors.

- **CUSTOM DASHBOARDING & REPORTING:** Real-time operations and performance dashboards for each asset help inform decision-making, boost operational performance, and maximize wastewater plant efficiency.

- **ADVANCED, WASTEWATER SPECIFIC CALCULATIONS & TEMPLATES:** Head off equipment and process issues with greater effectiveness by leveraging industry-specific math models and calculations, machine learning, and cloud computing technology built specifically to address wastewater specific assets and processes.

- **RAPID ANOMALY IDENTIFICATION AND RESOLUTION:** Leverage machine learning and advanced pattern recognition (APR) techniques, including neural networks and linear regression, to monitor, predict, and alert users to small changes in performance and behavior. Provides complete coverage across equipment and processes.

- **ADVANCED DATA EXPLORATION:** No more arduous spreadsheet-based analyses. Powerful and highly-customizable data exploration tools allow users to visualize, trend, filter, and compare large datasets. Better diagnose and understand asset performance deviations by leveraging the highly-customizable reporting and exploration environment.

- **HOLISTIC MANAGEMENT OF ISSUES AND ALERTS:** Review, manage, and document resolutions quickly and efficiently, leveraging integrated email functionality and from any device. An integrated issue resolution library informs future issue diagnosis and planning.

- **CENTRALIZED ALERTING AND DISCUSSION THREAD:** Collect, analyze, diagnose, and address all asset data critical to the health of your wastewater infrastructure – all in one place.

- **RISK & IMPACT CALCULATOR:** Isolate and track impacts on efficiency, maintenance, and other parameters to set priorities against a holistic view of performance and risk. Prioritize your remediation tasks by financial impact to improve risk profiles and achieve higher productivity.

To learn more about Atonix Digital™ and our Wastewater Treatment Solution, visit:

[atonix.com](http://atonix.com)