CONNECT

Industry Accelerator for water

## Domain-specific solutions tailored for specific industrial use cases by our services team

Industry Accelerators are partially configured analytics solutions with visualizations built on CONNECT platform services. They combine several industry use cases to accelerate time to value using CONNECT.

The solution populates analytics models, visualizations, and asset hierarchies with domain-specific asset data and customization options.

The Industry Accelerator for water solution aims to enhance overall business efficiency by monitoring and predicting water supply and demand within the water distribution network, while optimizing energy consumption within available resources and business constraints.
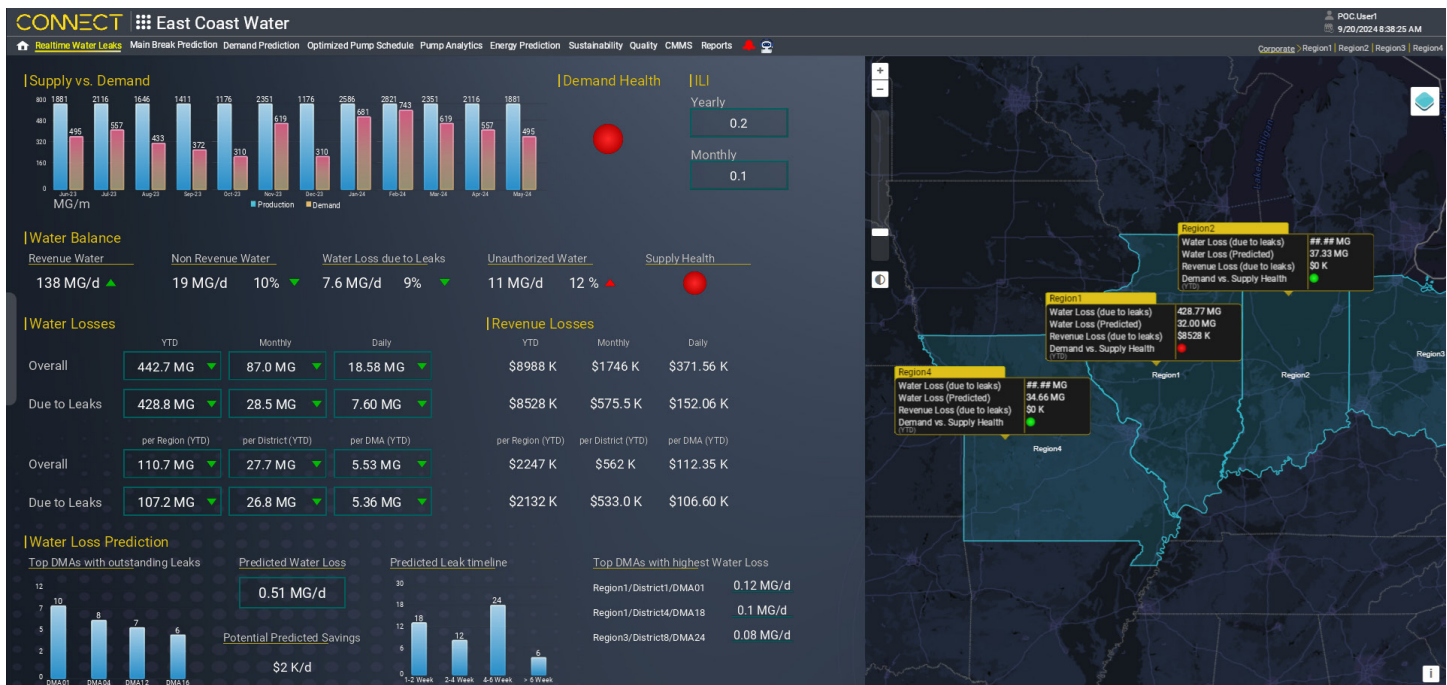
Industry Accelerator for water use cases

1. **Smart water leak detection:** Actively detect water leaks within the water distribution network, by analyzing historical and real-time flow and pressure data, enabling timely repairs and minimizing water loss. By detecting leaks in real time and providing actionable insights, such as leak location and size, the accelerator helps water utilities proactively address issues before they escalate.

2. **Prediction of main breaks:** Leverage historical maintenance data and real-time flow data, perform predictive analytics (AI) to forecast potential pipeline main breaks, enabling proactive maintenance and minimizing service disruptions for water utilities to reduce water losses and enhance network reliability.

3. **Predicted water demand forecasting:** Using advanced analytics (AI), predict water demand for the next seven days (or any specified period) by leveraging historical data and external factors, ensuring optimal resource allocation and supporting real-time decision-making.

4. **Pump performance and efficiency analytics:** Analyze pump performance data to identify inefficiencies and optimize pump operations. By optimizing pump operations, the accelerator helps water utilities enhance energy optimization and maximize energy savings. Leveraging real-time efficiency data ensures the use of the most efficient pumps first, thereby reducing overall operational costs.

5. **Energy optimization with early purchase:** Using advanced analytics (AI) to predict energy demand enables early energy purchases for assets, ensuring cost savings from off-peak operation and efficient energy management.

6. **Energy-optimized pump scheduling:** Create an optimized pumping schedule by leveraging real-time and historical data to prioritize required high-efficiency pumps and perform early energy purchases for predicted demand.

7. **UV optimization:** Utilize AI/ML technology and historical data to predict the optimal UV dosage needed for water disinfection. This reduces operational costs through increased energy efficiency and reduced manual adjustments while still ensuring regulatory compliance.

8. **Flow equalization:** Leverage historical weather data to help water treatment plants maintain consistent flow rates, regardless of weather conditions. This enhances biological process efficiency, predicts and manages peak flows during storms, and allows for significant energy and cost savings.

Learn more about CONNECT, visit:
aveva.com/connect