DATA-DRIVEN INSIGHTS AMPLIFY EFFICIENCY AND SUSTAINABILITY
ACHIEVE WATER EFFICIENCY AND SUSTAINABILITY

Black & Veatch Smart Analytics Solutions help utilities, businesses and communities achieve greater water efficiency and sustainability. Through integrated data management and analysis, we advance the accuracy of time-critical tactical decisions and sharpen the long-term vision needed to predict and plan for the future.

USE DATA TO DRIVE DECISIONS
ASSET360™ is our powerful cloud-based analytics platform that gathers, integrates and analyzes numerous disparate data sets to generate a holistic view of system performance. ASSET360™ analyzes infrastructure systems, assets and devices and provides Operational Intelligence (OI) and Adaptive Planning (AP) to fill knowledge gaps and transform data into strategic actions:

- Operational Intelligence: Real-time analytics that provide insight into data and operations, enabling clients to understand and improve the day-to-day performance and health of their assets.
- Adaptive Planning: Analytics that combine past and current data with predictive simulations to create, compare and inform complex planning, operational and business decisions.

BUILD WATER SYSTEM RESILIENCE
The U.S. continues to struggle with water scarcity. Using data gathered from numerous sources — such as smart meters, sensors and modeling — ASSET360™ describes the current, real-time conditions and predicts the future-status of each water asset, system or source. This level of insight reveals vulnerabilities and their impacts. Clients can mitigate issues before they become costly and strategically plan system expansion, future projects and financial investments over months, years and even decades. Ultimately, our clients achieve greater water sustainability and function with fiscal soundness, asset health, energy and water efficiency and the flexibility to respond to system shocks and changing regulations.
For a client’s 10 mgd water treatment plant in Texas, we developed a Smart Analytics application to monitor membrane cleaning effectiveness and spot issues that, undetected, could lead to early and costly membrane replacement. The application shows energy and chemical efficiency of the system, long-term trends in the fouling of the membranes and assesses the effectiveness of each of the cleaning operations performed. The information can then be used to maintain performance of the membranes while reducing energy and chemical usage and extending the life of the membranes.

**RESILIENCE STARTS WITH A SINGLE PROJECT**

Our solutions scale to meet budgets, allowing clients to start small and build resilience one project at a time. Our solutions are applicable to a single water system, multiple water sources or to an entire community. Over 50 water utilities, businesses and communities use our Smart Water Analytics Solutions to sharpen their decision-making and propel them towards greater operational efficiency and reliability.

**SMART WATER ANALYTICS SOLUTIONS**

Our ASSET360™ platform hosts our Smart Water Analytics Solutions, which are specific applications with unique functions. Customized, user-friendly dashboards and scorecards convey the results, enabling clear-cut operational and planning understanding. Some of our solutions include:

- Utility Scorecard
- Advanced Treatment Technology Performance Capital Prioritization
- Water Meter Analytics
- Water Demand Projections
- MF/UF and NF/RO Performance
- Pump Station Efficiency
- Condition Assessment

**BENEFITS OF OUR SMART ANALYTICS**

- Better balance of quality, service, reliability, and financial goals
- Improved ability to predict and maintain O&M budgets
- Minimized energy consumption, and minimized GHGs and chemical usage
- Confidence in regulatory compliance

**SPOTLIGHT: Prolonging equipment life and reducing costs**

A water utility client with a daily average demand of over 17 MG uses our Water Loss application to visualize their system and gain a more accurate analysis of metered data. ASSET360™ automatically analyzes and updates water losses in selected areas within the distribution system. Targeted leakage detection reduces water losses in the focus areas. A unique degradation calculation is included ASSET360™ to allow more accurate representation of the failure characteristics. This calculation is important because it helps the utility decide when and whether to repair or replace its meters.
Lack the data infrastructure to support analytics? We can help you manage data from multiple sources including SCADA, LIMS, GIS and CMMS systems. In addition to providing data audits and roadmaps, we work with OSIsoft to deliver an integrated analytics solution that makes it fast and easy to extract value from your data. Visit bv.com/SII and follow us on Twitter @BVSII to learn how ASSET360™ and our Smart Water Analytics Solutions produce and leverage data from increasingly intelligent and inter-connected assets to deliver powerful sources of knowledge, efficiency and value.