# SMART WATER MANAGEMENT

THE FUTURE OF AN ESSENTIAL UTILITY

> Smart water management programs can help cities monitor and collect the data they need to bring water supplies into the 21st century.

#### THE CHALLENGES OF MAKING WATER AVAILABLE

As population growth and unpredictable weather patterns cause stress on our water systems, monitoring and managing water supplies has become increasingly complex. Droughts reduce the amount of available water, and excessive rainfall creates runoff that affects water quality. Lack of flood monitoring can cause property damage and endanger lives. Developing successful programs for conservation, leak detection and remediation requires rigorous data collection to formulate accurate prediction models for future water demand and consumption.



#### SMART WATER MANAGEMENT SOLUTIONS

Recent advancements in water sensor technology, automation, networking and data analytics have empowered municipalities to better manage this often unpredictable resource. Water flow data can be collected more rapidly by using remote sensors and connectivity to get accurate real-time data.

Sensors deployed in the field can collect information about pressure, flow and distribution. This technology has become critical to detecting the possibility of flooding, and to effectively managing floods when they occur. Leak detection is another proactive use of this technology that can ward off the environmental and financial costs of water wastage. Finally, municipal officials can use data and analytics to more accurately manage and predict future water demands.

### SMART WATER MANAGEMENT CAN HELP IMPROVE COMMUNITIES

With real-time data, municipalities can closely monitor and manage water resources while ensuring the water supply remains safe. Detailed billing data is used to develop conservation programs for commercial buildings and private homes, with specific recommendations and feedback to help reduce usage and improve bottom lines.

Smart water management analytics platforms use all this utility data—as well as a wide range of third-party data—to develop models for future usage across a variety of scenarios. These systems allow the municipalities to better forecast demands and plan for additional growth, so a stable water supply is always available.

Everyone in a community has a role to play in protecting the water supply, which is perhaps any community's most precious resource. With planning, conservation and cooperation between the public and private sectors, smart water management efforts can modernize infrastructure and ensure health and safety for the entire community.

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