

# Industry Overview

David Totman | Industry Manager

# Water Trends: Water Research Foundation

## Forecasting the Future: Progress, Change and Predictions for the Water Sector

**Table 1. Key Trends to Watch**

1. Uncertain Economy, Financial Instability
2. Decreased Availability/Adequacy of Water Resources
3. Aging Water Infrastructure/Capital Needs
4. Shifting Water Demands
5. Changing Workforce, Dynamic Talent Life-Cycle
6. Expanding Application of Technology
7. Customer/Stakeholder Engagement, Media Influence
8. Increasing/Expanding Regulations
9. Efficiency Drivers, Resource Optimization
10. Climate Uncertainty

### Development of Utility Strategies

Potential strategies were developed for each of the four trend areas (environmental, technological, economic/business, and societal/political) by analyzing each trend and determining the possible range of impact

**Vision of Desired Future.** Based on the research, participating utilities developed a shared vision for the water sector that provides focus and a driving force for improvement over the next 10 to 20 years. Participants defined their vision as a future where all utilities are seen as “essential service providers.” Twelve traits were developed that supported this vision (Table 2). These traits characterize individual utilities and also are traits of a desired future for the water sector as a whole.

**Strategic Imperatives.** Based on the research, seven strategic imperatives were identified. These imperatives, based on strategies that apply to a broad range of trends, represent the most crucial or critical issues that demand the attention and action of the water sector to attain the vision of the desired future (Table 3). Many of these imperatives represent areas where utilities have not focused or excelled in the past and thus are some of the most significant future challenges.

Identify  
Water Sector

### Utility-Specific Strategy Development

A specific objective of this research project is to help utilities identify new initiatives, or refine existing ones, to help them prepare for the future. This process would typically result in developing or changing a utility’s strategic plan

Two broad categories of strategies are useful for a utility to consider, which can be developed and implemented based on a utility’s ability to control the trend. A utility that is generally in more control of trends/forces can develop **Adaptive Strategies**, routinely assessing trends and forces and making adjustments as appropriate. A utility that faces trends and forces beyond its control

**Table 2. Twelve Traits Supporting the Vision: Water Utilities are Essential Service Providers**

1. Trusted guardians of public health
2. Collaborative partners in total water management

# Water Trends: American Water Works Association

State of the Water Industry



## TOP ISSUES

## State of the WATER Industry



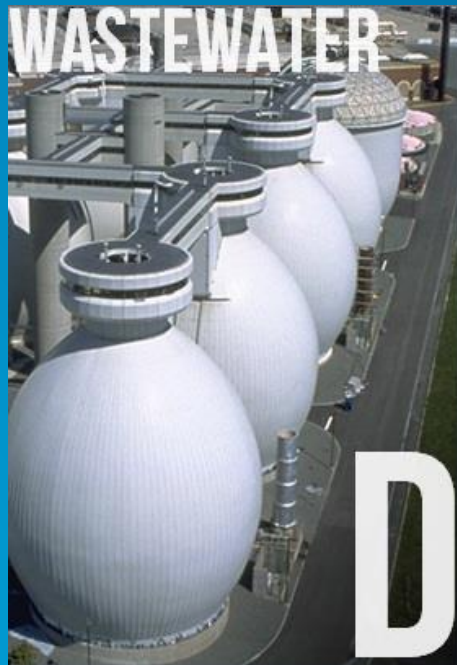
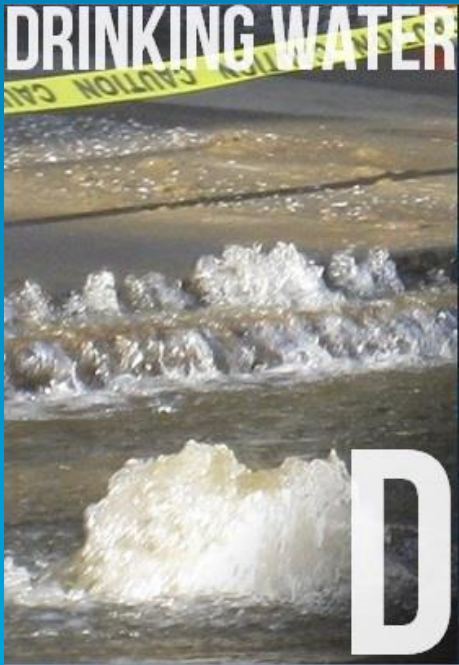
In 2014 water professionals across North America ranked the following issues in the order of their importance:

1. State of water and sewer infrastructure
2. Long-term water supply availability
3. Financing for capital improvements
4. Public understanding of the value of water resources
5. Public understanding of the value of water systems and services
6. Groundwater management and overuse
7. Watershed protection
8. Drought or periodic water shortages



# Water Trends: American Society of Civil Engineers

Report Card for America's Infrastructure



2013 | REPORT CARD for **america's** INFRASTRUCTURE

**ASCE** AMERICAN SOCIETY OF CIVIL ENGINEERS

Every 4 years, the American Society of Civil Engineers releases a Report Card for America's Infrastructure that depicts the condition and performance of the nation's infrastructure in the familiar form of a school report card by assigning letter grades to each type of infrastructure.

AMERICA'S GPA:

**D<sup>+</sup>**

ESTIMATED INVESTMENT  
NEEDED BY 2020:

**\$3.6**  
**TRILLION**











Responding to Water Main Breaks: Then

MapObjects

ArcEdit

ArcIMS

TCP/IP

SQL

AXL

shapefiles

SDE 3.0

ArcPlot

ODBC

ftp



# Responding to Water Main Breaks: Now



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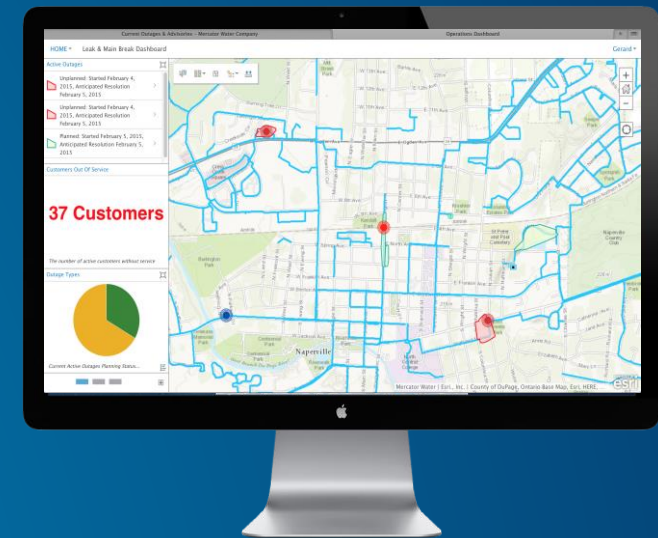
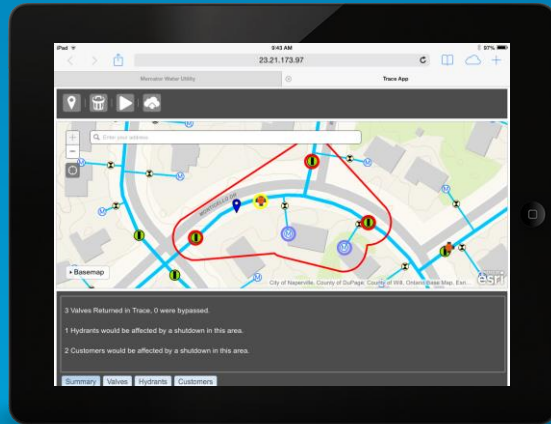
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# 3 Clicks...



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esri

Understanding our world.