Water utilities nationwide are experiencing long-term declines in water use, creating revenue instability due to less predictable sales and endangering efficiency programs. Water efficiency is an investment in future service reliability, environmental stewardship and economic viability.

Water utilities nationwide are experiencing long-term declines in water use, creating revenue instability due to less predictable sales and endangering efficiency programs. Water efficiency is an investment in future service reliability, environmental stewardship and economic viability.

Investments in water efficiency remain the most cost-effective, immediate and environmentally beneficial way to address short-term water shortages, as well as ensure long-term resource availability and utility financial health. Water efficiency makes economic sense: it helps reduce system costs (both operational and capital) and these reduced costs can mean long-term financial benefits to the ratepayer, resulting in lower consumer rates in the future. Careful planning and sound financial management strategies can help address revenue volatility and prevent potential shortfalls, allowing utilities to maintain high quality service in this changing environment and to pursue the benefits of efficiency.

THE WATER INDUSTRY IS CHANGING

◊ Water use is declining nationwide. This is happening because of installation of more efficient plumbing fixtures and appliances, active utility conservation programs that further reduce demand, economic drivers that impact water consumption, and a growing awareness amongst consumers of the value of water.

◊ This changing water use pattern often results in revenue instability for utilities, presenting challenges on how to collect sufficient funds to cover fixed system costs.

◊ Water is a rising cost industry. Prices continue to rise more quickly in water and sewer than for many utility services. Contributing factors include the expense of obtaining additional water supplies, the need for infrastructure repair and replacement, the cost of evolving treatment regulations, and increasing costs of labor, insurance, energy and chemicals.

◊ Overall demand for freshwater sources is increasing in order to supply growing, urbanizing and industrializing communities, leading to potential shortages expected in 40 out of 50 states.¹

◊ Conservation programs help stretch existing supplies. Every gallon saved is water that does not have to be pumped, treated and delivered – and which can be allocated elsewhere.

◊ Efficiency is the least expensive source of new supply.

SAN ANTONIO, TEXAS, NEW SUPPLY VS. EFFICIENCY:²

New groundwater = 2 TIMES AS EXPENSIVE
New surface water = 2.5 TIMES AS EXPENSIVE
Desalination = 4 TIMES AS EXPENSIVE

◊ Reduced utility costs generally mean reduced customer rates in the long-term. In Westminster, Colorado, residents and businesses have avoided an 80% increase in tap fees and a 91% increase in consumer rates due to conservation programs in place since 1980.³
Conservation programs can help avoid costs of adding new capacity. A 2006 EPA report found that 52.6% of community water system capital expenditures were for expansion of the system, rather than repair or replacement of pipe.\(^4\) Reduced demand from conservation helps extend existing capacity and avoid expensive, potentially stranded, new capacity investments.\(^5\)

Efficiency protects fragile watersheds. Reducing water withdrawals from lakes, rivers and aquifers leaves more water to support ecosystems and maintain the quality of drinking water.

**STRATEGIES TO FINANCE SUSTAINABLE WATER**

Water managers have many strategies available to them to manage this balancing act and ensure fiscal health without sacrificing the benefits of water efficiency:

- **Improved Demand Forecasting:** Better and frequent forecasting, along with more conservative sales projections can help managers better predict revenue challenges and adjust rates accordingly. Forecasting should incorporate variables such as the effects of conservation and installation of efficient products, economic forces, customer base composition and the potential impact of weather.

- **Well-Designed Efficiency-Oriented Rate Structures:** Pricing presents an opportunity to send a conservation signal to customers. Good rate structures help achieve the following objectives:
  - Provide clean drinking water at rates that are fair and affordable
  - Support long-term financial sustainability of water systems
  - Protect water supplies for growing communities

- **Sound Financial Policies:** Financial and governance policies, such as reserve funds and revenue adjustment mechanisms, can enable water providers to address revenue shortfalls when they occur without seeking a wholesale rate revision.

- **Proactive Customer Education and Engagement:** Customers often understand very little about their water and do not understand why rates must increase when they are being asked to use less. Addressing this concern directly, transparently and on an ongoing basis helps customers understand that water prices must go up to cover rising costs, but that conservation will help keep long-term rates down.

**FINANCING SUSTAINABLE WATER: RESOURCES FOR MANAGERS**

AWE has developed new resources to help water managers navigate these challenges and devise solutions through rate setting and financial planning, available at www.FinancingSustainableWater.org.

- **Building Better Water Rates for an Uncertain World Handbook:** A comprehensive guidebook for utility managers, conservation coordinators, public affairs managers, and elected officials to help understand, select, evaluate and implement an efficiency-oriented rate structure.

- **Sales Forecasting and Rate Model:** A user-friendly model to evaluate the effects of current and proposed rate structures on revenue, assist in devising drought rates, simulate scenarios to determine likelihood of meeting objectives in diverse weather and growth situations, and more.

---

\(^1\) U.S. Government Accounting Office  
\(^2\) South Central Texas Regional Water Planning Group  
\(^3\) Alliance for Water Efficiency  
\(^4\) Environmental Protection Agency  
\(^5\) American Water Works Association