



American Water Works
Association



Standards and the U.S. Public Water Sector

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Leveraging Standards for Infrastructure Improvement
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Agenda

1. Overview of the U.S. drinking water system
2. How standards support economic growth and development
3. Relevant standards and certifying bodies for the U.S. water industry
4. AWWA activities and water industry resources





Safe Drinking Water Act (SDWA)

- The federal law that protects public drinking water supplies throughout the nation. Under the SDWA, EPA sets standards for drinking water quality and with its partners implements various technical and financial programs to ensure drinking water safety.





Clean Water Act (CWA)

- ◆ The basic structure for regulating pollutant discharges into the waters of the United States. Gives EPA the authority to implement pollution control programs such as setting wastewater standards for industry.



U.S. Drinking Water System



Only Tap Water **Delivers**

- 💧 Public Health Protection
- 💧 Fire Protection
- 💧 Quality of Life
- 💧 Support for the Economy





Only Tap Water **Delivers**™



Public Health Protection

- ◆ A safe water supply is the first obligation of all water suppliers.
- ◆ Safe water systems eradicate diseases that claim human life around the world.
- ◆ Monitoring: The U.S. government requires testing for 100+ contaminants.
- ◆ Regulations: Utilities must meet close to 90 EPA standards for water safety and quality.

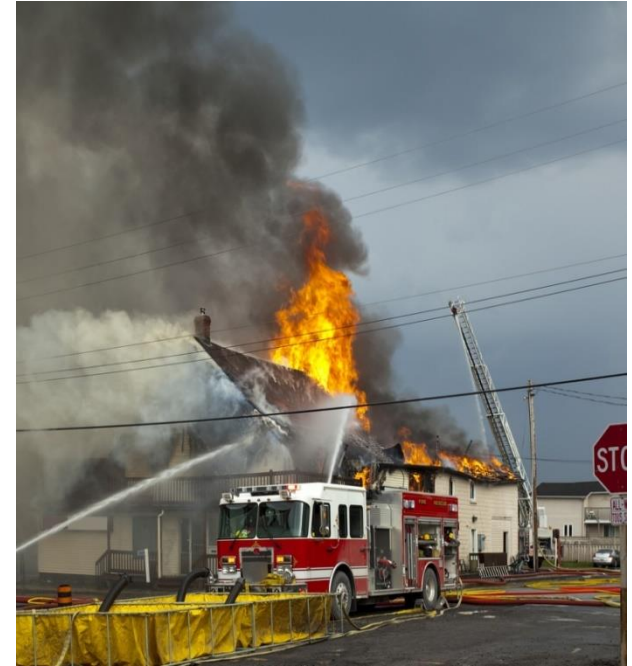




Only Tap Water **Delivers**™

Fire Protection

- ◆ Urban fires led to creation of water systems.
- ◆ In 1906 the city of San Francisco was destroyed by a massive inferno.
- ◆ The ability to suppress fires influences:
 - ◆ Home construction
 - ◆ Insurance rates





Quality of Life

- ◆ Any measure of a successful society – low mortality rates, economic diversity, productivity, and public safety – is tied to access to safe water.
- ◆ How would we rinse our produce, clean dishes, water plants, clean our clothes, or wash our cars?
- ◆ Where would we shower?





Only Tap Water **Delivers**

Support for the Economy

- ◆ Tap water is critical to business operations.
- ◆ Tap water is the primary ingredient in hundreds of thousands of everyday products.
- ◆ Adequate water resources are critical for commercial, residential developments.
- ◆ Businesses must consider availability of water when deciding where to locate.





How Standards Support the Economy

💧 *Customer Confidence & Loyalty*

Consumers want products that are high-quality, reliable, consistent, and safe. They also want a greater selection of goods and services at continuously lower costs. Standards help make this possible.





How Standards Support the Economy

- ◆ ***Efficiency and Cost Savings***

Standards lower costs by eliminating redundancy, minimizing errors, and reducing time to market.





How Standards Support the Economy

◆ *Competitive Advantage*

Manufacturers and service providers gain an advantage over their competitors by:

- Obtaining insider knowledge and early access to information
- Exerting influence on technical content
- Developing new markets for products, services, and technologies





How Standards Support the Economy

💧 *Market Access & Trade*

Demonstrating compliance to standards helps our products, services, and personnel to cross borders and overcome trade barriers.





How Standards Support the Economy

- ◆ ***Mutually Beneficial for Buyers and Sellers***

Manufacturers benefit by knowing that all parties comply to the same requirements, and purchasers benefit knowing that the materials and products they are purchasing and using provide satisfactory service.





How Standards Support the Economy

💧 *Fostering Innovation*

Building on a previously standardized technology leads to a “better mousetrap” and further innovations into new products and services.





How Standards Support the Economy

💧 *Alternative to Regulation*

If the U.S. standardization community (partnership between public and private sectors) does not deliver standards and conformance-based solutions for key national priorities or needs, then the U.S. government may satisfy those needs through regulation.





How Standards Support the Economy

💧 *Bottom Line !*

The U.S. Department of Commerce estimates that standards and conformity assessment impact 80% of global commodity trade.



Relevant organizations for the U.S. Water Sector

ANSI – American National Standards Institute

***AWWA – American Water Works Association**

WEF – Water Environment Federation

***NSF International – National Sanitation Foundation**

***NFPA – National Fire Protection Association**

***ASTM International – American Society for Testing and Materials**

***IAPMO – International Association of Plumbing and
Mechanical Officials**

*** ANSI-accredited standards-developers**





American National Standards Institute

- ◆ Mission – To enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.
- ◆ Coordinates standards, conformity assessment, and related activities in the United States.
- ◆ Accredits standards developing organizations and approves American National Standards.





American Water Works Association

- ◆ Nonprofit scientific and educational association dedicated to managing and treating water
- ◆ 180 existing standards;
30+ standards in development
- ◆ Dedicated to the World's Most Important Resource
- ◆ A better world through better water



Water Environment Federation

- ◆ Provides technical education and training for water quality professionals who clean water and return it safely to the environment.
- ◆ WEF members have proudly protected public health, served their local communities, and supported clean water worldwide since 1928.
- ◆ Not a standards developer, but provides important information in other forms.



PROTECTING AND IMPROVING
HUMAN HEALTH WORLDWIDE



NSF INTERNATIONAL
WWW.NSF.ORG



NSF International

(National Sanitation Foundation)

- ◆ Mission – To protect and improve global human health. Manufacturers, regulators and consumers look to NSF to develop public health standards and certifications that help protect food, water, consumer products, and the environment.
- ◆ An independent, ANSI-accredited organization that tests, audits, and certifies products and systems as well as provide education and risk management.
- ◆ Most AWWA standards reference NSF standards and often require NSF certifications.





NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

National Fire Protection Association

- ♦ Mission – To minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation around the world.
- ♦ More than 200 technical code- and standard-development committees.
- ♦ NFPA 22 – Standard for Water Tanks for Private Fire Protection
- ♦ NFPA 13 – Standard for the Installation of Sprinkler Systems





ASTM International

(American Society for Testing and Materials)

- ◆ Over 12,000 ASTM standards operate globally.
- ◆ ASTM standards improve the lives of millions every day.
- ◆ Most AWWA product standards reference ASTM standards.





***International Association of
Plumbing and Mechanical Officials***

International Association of Plumbing and Mechanical Officials

- ◆ Protects the public's health and safety by working in concert with government and industry to implement comprehensive plumbing and mechanical systems around the world.
- ◆ Provides code development assistance, industry-leading education, plumbing and mechanical product testing and certification, building product evaluation and a manufacturer-preferred quality assurance program.



AWWA Activities

- ◆ AWWA standards and manuals
- ◆ Participation on consensus bodies of other standards developers
- ◆ Conferences and expositions (ACE)
- ◆ Educational workshops and webinars
- ◆ Utility operator training
- ◆ Trade missions
- ◆ Government affairs and advocacy
- ◆ Research (Water Research Foundation)
- ◆ Philanthropy (Water Equation, Water For People)



For more information

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