



# Working for Clean Drinking Water in New Jersey

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October 10, 2025

**#1** IN CUSTOMER SATISFACTION

with Large Water Utilities in the  
Northeast Region two years in a row.

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# Agenda

- Who We Are
- Why Standards Matter
- Recent Changes in Drinking Water Regulations
- Lead and Drinking Water
- PFAS
- Microplastics and Source Water

*Largest regulated water and wastewater company in the United States*

- Founded in 1886, American Water (NYSE: AWK) has **served customers and communities for more than 135 years**
- We serve a broad national footprint and **a strong local presence**
- We expect **to invest \$40 to \$42 billion in infrastructure** repairs and replacement, system resiliency and regulated acquisitions over the next 10 years
- We treat and deliver more than **one billion gallons of water daily**
- We provide services to more than **14 million people with regulated operations in 14 states and on 18 military installations**
- We **employ 6,700 talented professionals** who leverage their significant expertise and the company's national size and scale to achieve excellent outcomes for the benefit of customers, employees, investors and other stakeholders

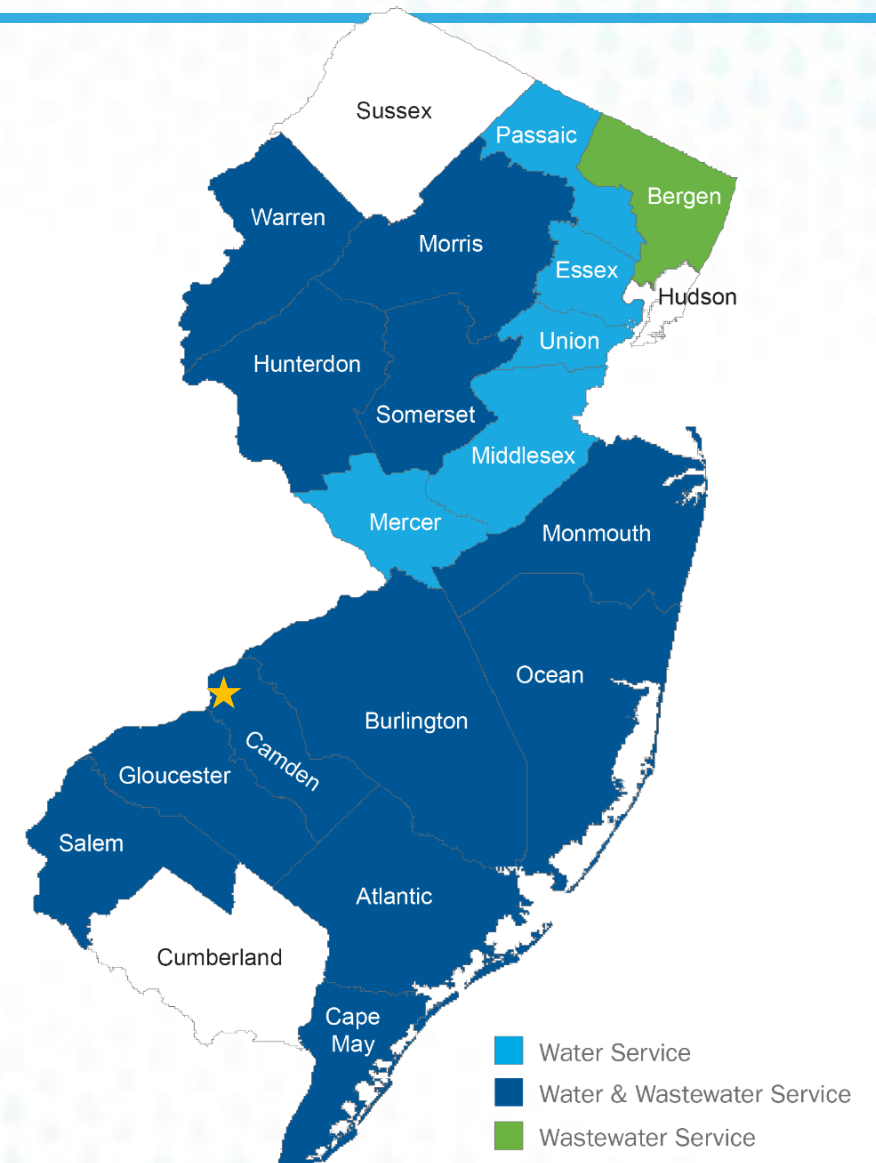
The map displays the following states and their categories:

- Regulated Water and Wastewater Operations (Dark Blue):** California, Iowa, Illinois, Missouri, Kentucky, Tennessee, Georgia, Maryland, Virginia, West Virginia, Pennsylvania, New Jersey.
- Military Services Groups (Grey):** Washington, Utah, Kansas, Oklahoma, Texas, Louisiana, Alabama, Florida, New York.
- States with Both (Marked with a Star):** California, Washington, Utah, Kansas, Oklahoma, Texas, Louisiana, Alabama, Georgia, Maryland, Virginia, West Virginia, Pennsylvania, New Jersey.

# About New Jersey American Water

*Largest regulated water and wastewater company in the United States*

- **Headquartered in New Jersey** – proud to call Camden home
- **Largest regulated water and wastewater utility in the State** – serving over 190 communities and 2.9 million people
- Significant economic contributor:
  - **\$520 million+ annual capital investment** in NJ infrastructure
  - **860+ employees statewide** with local teams in the communities we serve
- **We care for our customers and communities.** In 2024, New Jersey American Water contributed over \$1.1 million to 40 organizations in our communities through grants, scholarships, general charitable contributions and programming support



# What Standards Matter

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- Protects **public health** by limiting contaminants in drinking water
- Standards set by **EPA** and **NJDEP** under Safe Drinking Water Act
- Established by science, enforced through regulation
- Updated **science and detection methods evolve**
- Strong compliance builds **public trust and confidence**
- Transparency helps customers understand their water quality
- Local leaders and community groups play a key role in **education and outreach**
- Shared responsibility – protecting water from source to tap

# Critical Issues in Water Quality

- **Aging Infrastructure**
  - Pipes, mains and treatment facilities nearing end of useful life
  - Main breaks and leaks threaten reliability and water quality
- **Lead Service Lines**
  - Complying with NJ's 2031 mandate to replace all lead and galvanized steel service lines
  - Increased water quality testing as part of Federal Regulations
- **PFAS & Emerging Contaminants**
  - Investing in award winning treatment technologies
  - Meeting some of the nation's most stringent standards set by NJDEP
  - Complying with all Federal requirements and are prepared to meet any future change
- **Climate & Source Water Risks**
  - Saltwater intrusion, flooding, and drought stress water supplies
  - Protecting rivers, aquifers and reservoirs as reliable sources





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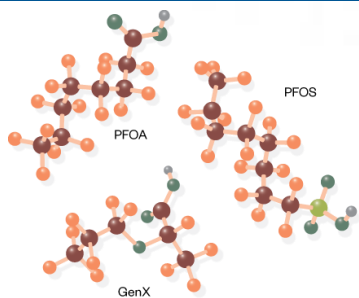
# "Forever Chemicals": PFAS Treatment

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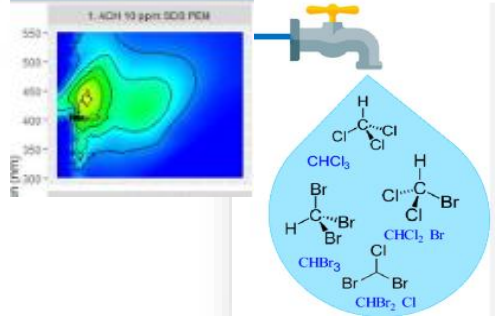
- Regulatory Requirements – and the back and forth!
- Deciding and installing treatment
- Maintaining treatment

# American Water Research and Our Collaborative Partnerships

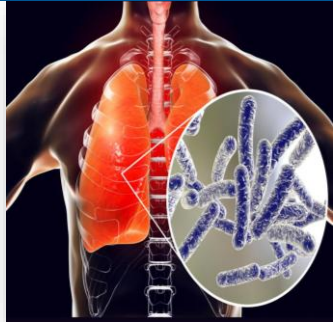
## PFAS



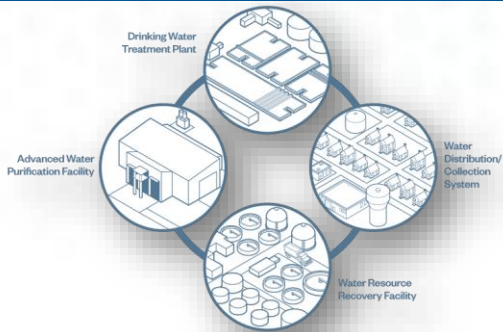
## Disinfection Byproducts



## Legionella



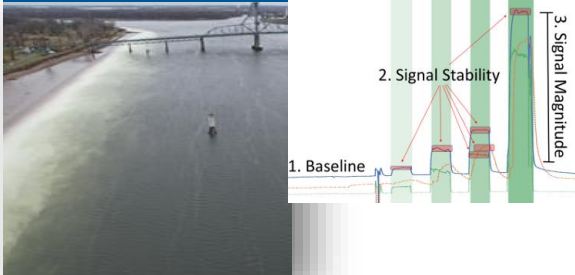
## Wastewater Reuse



## Cyanobacteria/HAB



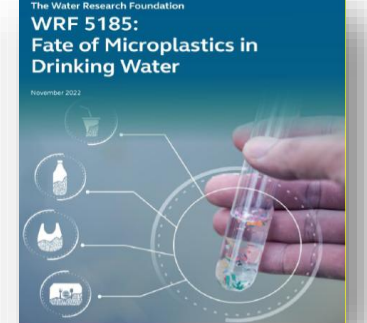
## Source Water Monitoring



## Taste & Odor



## Microplastics



## Desalination



*Addressing risks through continuous engagement with internal and external partners*

# Challenges from the Utility Perspective

- **Paradigms of Best Available Technologies and Emerging Technology Readiness Levels**
  - Effectiveness of GAC and IX not confirmed for all 12,000+ PFAS compounds
  - Additional cost and complexity to treat different PFAS for evolving state and/or federal regulations
  - High-pressure membrane treatment would result in substantially higher treatment cost
  - PFAS monitoring
- **State-level approvals/validation for piloting and treatment**
- **Capital planning and associated challenges with footprint, cost, etc.**
- **Addressing PFAS in wastewater**
  - No viable treatment technology to address PFAS at utility-scale within conventional wastewater treatment plants
  - Prohibitions on land application of biosolids could significantly increase operating expenses





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# Lead in Drinking Water & Lead Line Replacement

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- Public Health Impacts
- Federal Rule Changes
- NJ-Specific Requirements
- NJAW Approach

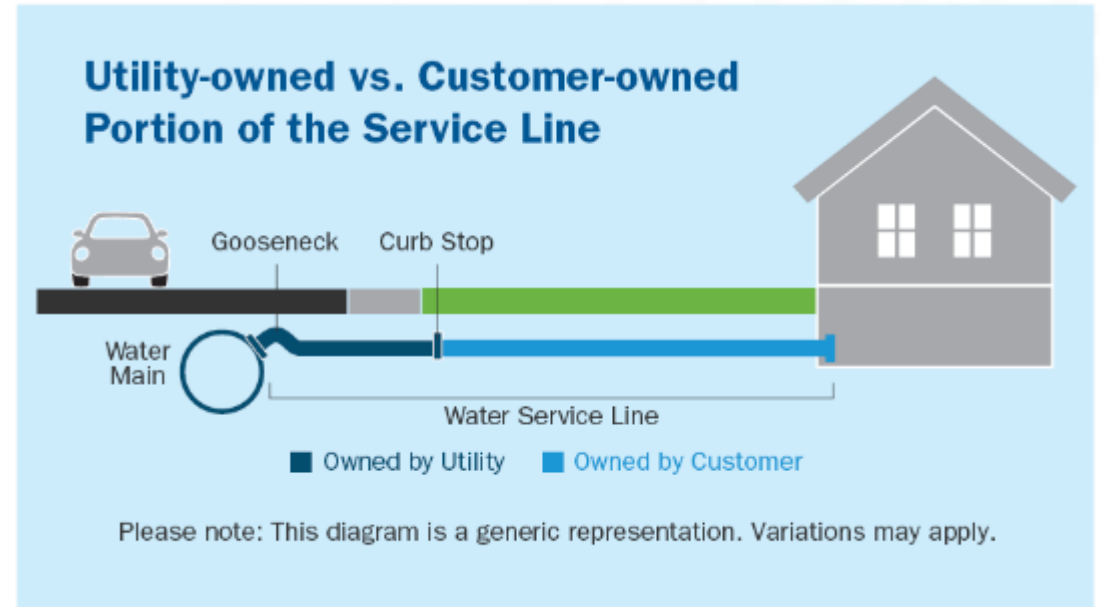
# Background on NJ's Lead Service Line Replacement Law

In July 2021, New Jersey enacted a law that requires drinking water systems to inventory service lines, notify residents and plan for the replacement of all service lines within ten years.

Key elements of this legislation are as follows:

- ✓ **Galvanized lines = lead service lines**
- ✓ Publish service line inventory publicly online. Inventories must show lead, non-lead and unknown service lines down to the parcel level.
- ✓ Mail letter to customers with lead and/or galvanized service lines by certified mail.
- ✓ Utilities must plan to replace all known lead and galvanized steel service lines by 2031.

## Who Owns What?



Regardless of service line material, New Jersey American Water customers can continue to use their water as they normally do. Their water continues to meet water quality standards.

# Replacement Prioritization Model and Plan

In July 2022, NJ Department of Environmental Protection determined that we could not prioritize replacements with a statewide approach but instead must advance each of its 32 PWSIDs concurrently each with an average 10% replacement per year.

How did we do this methodically and with equity in mind?

- Utilized census block groups within each PWSID
- Prioritization Parameters:
  - Density of Known Lead
  - Density of Unknowns
  - Density of Children Under 5
  - Overburdened Communities (census defined)
  - Climate and Environmental Justice areas (census defined)
- Final Score based on weighting criteria of parameters above
- This analysis was completed for PWSIDs with >10 block groups (large systems)



Examples of prioritization maps: 5 = Highest Priority;  
0 = Lowest Priority



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# Microplastics: A New Frontier

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- Research developments
- Testing for Microplastics

# American Water – Microplastics Research



## Current State:

Drinking water and wastewater treatment systems can be highly effective in removing particles of similar characteristics and sizes as microplastics. According to available data, wastewater treatment can effectively remove more than 90% of microplastics from wastewater with the highest removals from physical filtration. Drinking-water treatment has proven effective in removing far smaller size particles at far higher concentrations than those of microplastics.

## Next Steps:

- Continued research
- Treatment plant optimization
- Advanced research and study capability

The Water Research Foundation  
Collaborative Forum on  
Microplastics Summary Report

# Our Role as Environmental & Public Health Stewards

- **Water Quality Leadership**
  - Advanced treatment to address lead, PFAS, and other emerging contaminants
  - Rigorous testing: far surpassing regulatory requirements
- **Environmental Stewardship**
  - Protecting NJ's watersheds, rivers and aquifers
  - Restoring habitats and supporting green infrastructure
- **Resiliency & Sustainability**
  - Hardening systems against floods, storms and climate impacts
  - Investing in energy efficiency and reducing carbon footprint
- **Public Health Commitment**
  - Reliable access to safe, clean, reliable water service for 2.9 million people
  - Partnering with municipalities, schools and health agencies



# Nation's Infrastructure Report Card - 2025



**DRINKING WATER**



**WASTEWATER**



# Thank you!

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