ADVANCING WATER STRATEGIES

The Future of Water: Securing One Thing We Can't Replace

August 2025 | Boston, MA

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Why don’t we care about water?

moral MIRAGES

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We say we care about this...

It’s not only about caring—it’s about making deliberate choices to guarantee available clean water now and in the future.

industrial REALITIES

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and this...

Every drop counts: From the factory floor to the kitchen table, water isn't just an input—it powers every product and process in our daily lives.

it MATTERS

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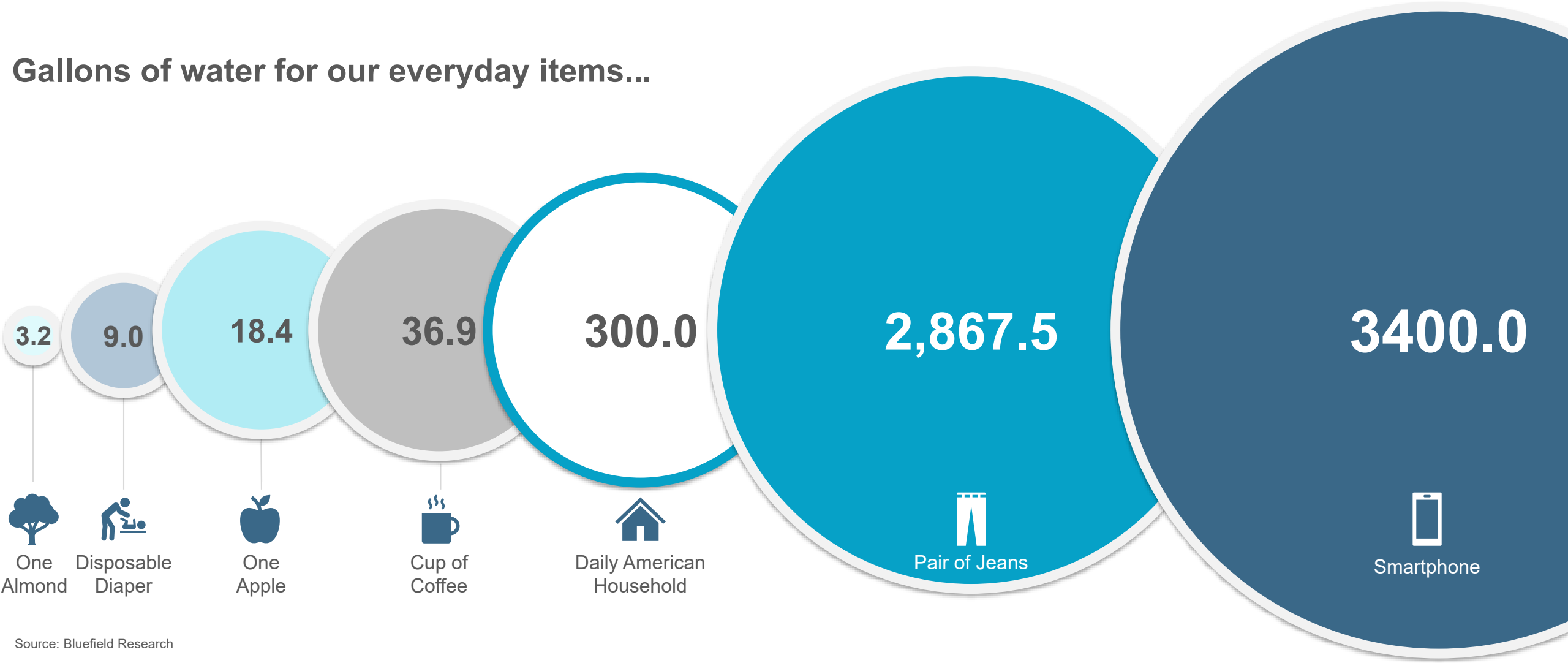
Gallons of water for our everyday items...

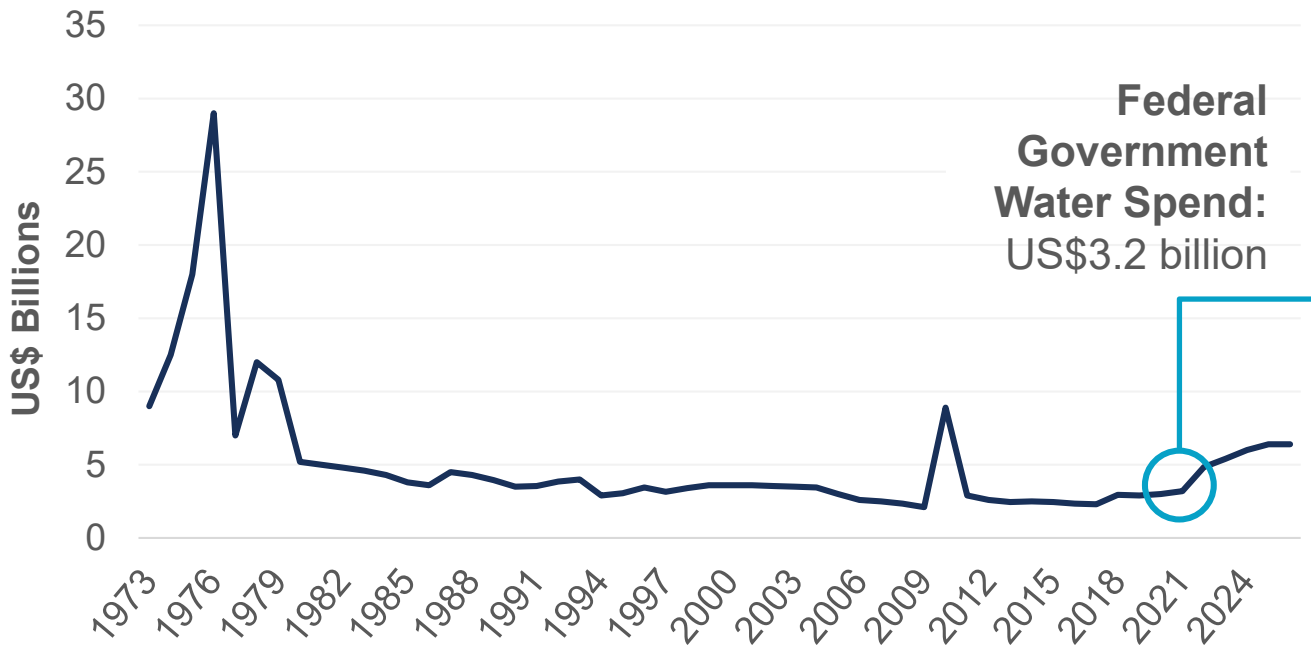


Source: Bluefield Research

Understanding the full scale of our water and wastewater footprints is just the beginning.

our PRIORITIES

Federal water spend compared to other sectors highlights what we value...



Compared to Water

Defense Spending: US$756 billion — **214X**

Transportation: US$105 billion — **30X**

Space Exploration: US$23 billion — **6.7X**

Note: 2020 Dollars
Source: Government Accountability Office, Congressional Budget Office, Bluefield Research

Water is one thing that people cannot live without but is overlooked in its comparative value.

but WHY?

Because we have forgotten where we came from...

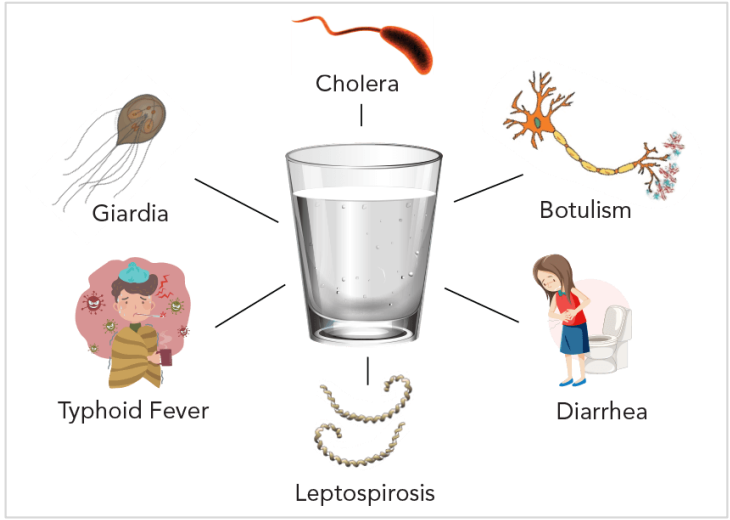
Outdoor Plumbing

In 1920 80% of American homes lacked indoor, flush toilets.

Cuyahoga River (1969)

From Akron to Cleveland, the river was devoid of fish throughout the 1950s and 60s.

Waterborne Diseases



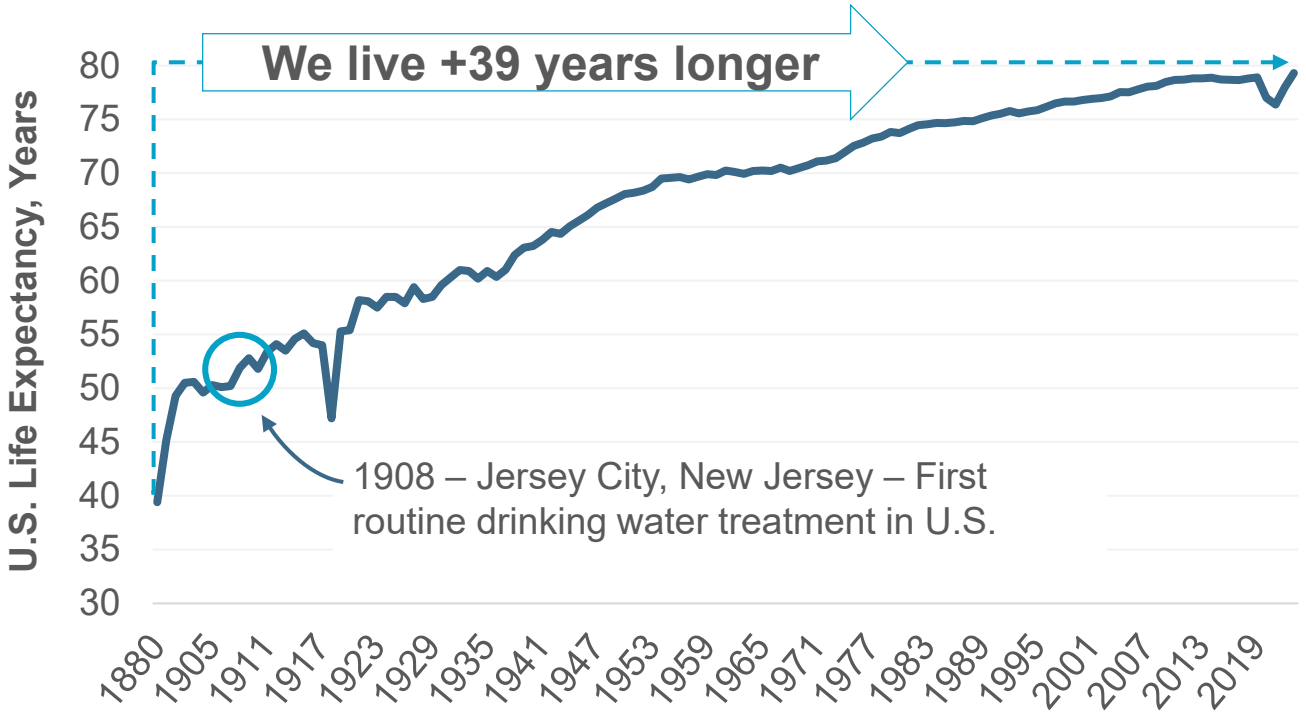
Recreational, water-related illnesses still cost US$2.2 to US$3.7 billion, annually.

Source: National Park Service, Children's Health Defense, Environmental Health, Bluefield Research

We are collectively benefiting from more than 150-years of investments in infrastructure that is now old...

overlooked BENEFITS

Improved water management provides life-long benefits...



- U.S. life expectancy has increased 39 years – 2x from 1880 level.
- Center of Disease Control calls safe water a Top 10 Public Health Achievement.
- Water filtration, chlorination, and sewer systems together explain approximately 50% of declines in urban mortality (Cutler & Miller, 2005).

Source: UN WPP (2024); HMD (2024); Zijdeman et al. (2015); Riley (2005), Bluefield Research

Investing in clean water isn't just morally right—it's one of the best investments we've ever made and now taken for granted.

generational ACHIEVEMENTS

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U.S. water infrastructure assets are out of sight, out of mind...

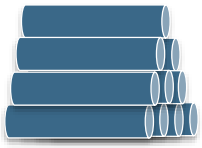
49,700

drinking water utilities serving 131 million households

23,000

wastewater treatment systems for water & stormwater

160 times around the earth...



4 million

miles of underground distribution and collection pipes

Source: Bluefield Research

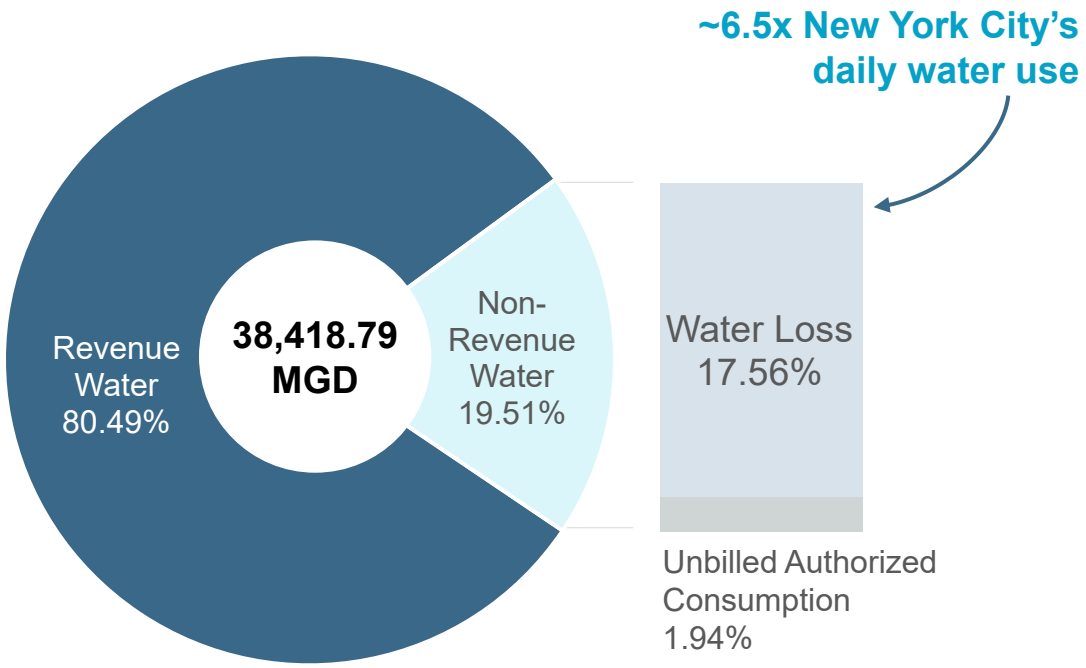
Our economic, social, and health successes are built on the work of prior generations.

our CHALLENGE

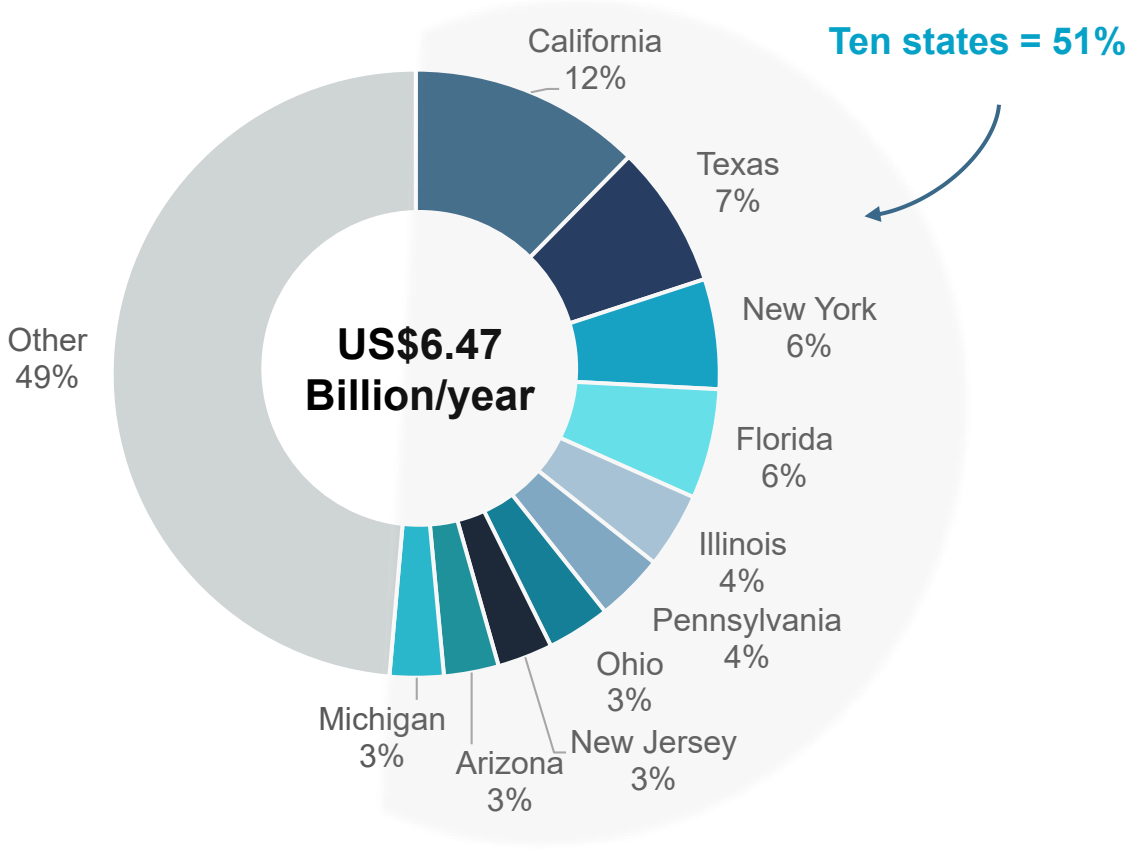
Unfortunately, nothing lasts forever...

aging INFRASTRUCTURE

Nearly one-in-five gallons of water is lost to leakage...



These states are carrying the financial losses...

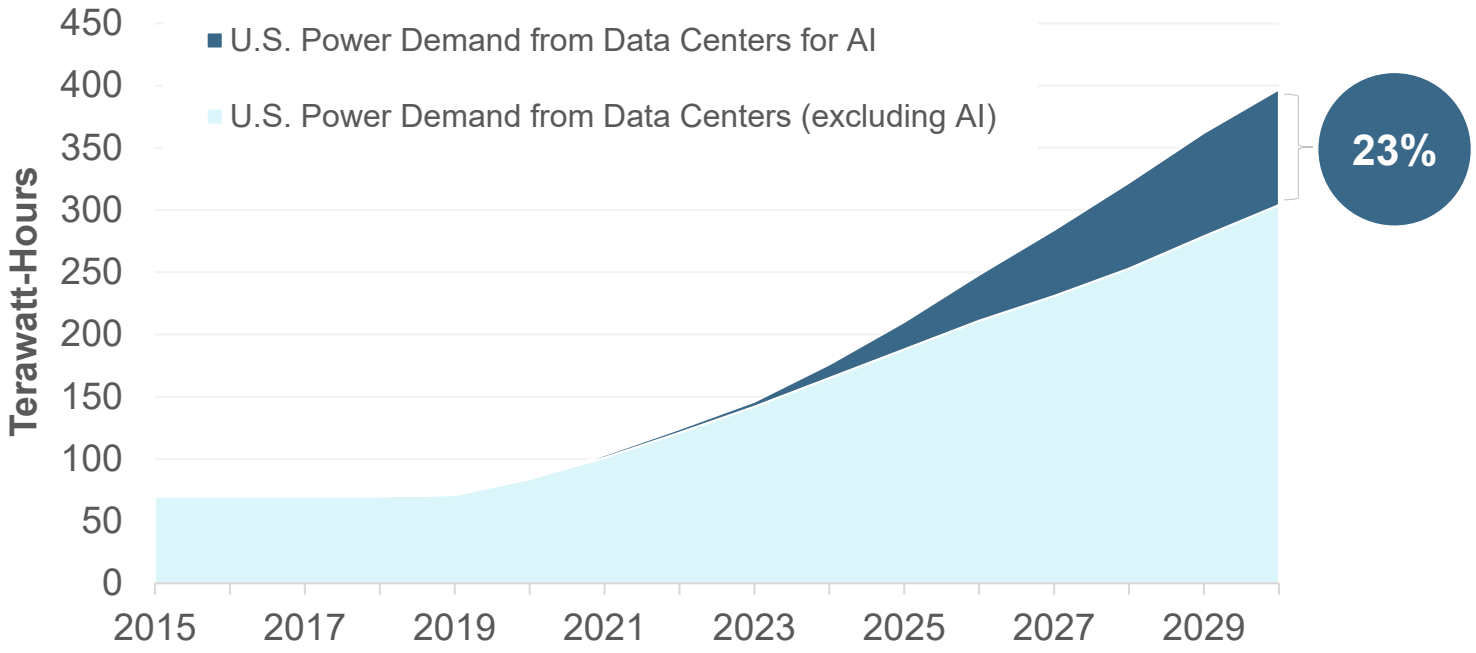


Note: MGD = million gallons per day
Source: Bluefield Research

Water infrastructure ages like milk, not wine. U.S. utilities lose over US$6.47 billion annually to water losses—a clear sign we're falling behind.

changing DEMANDS

U.S. data center power demand surges, driving advanced water management...



- U.S. power demand is forecasted to increase 3.5x, largely because of AI.
- Cumulative spend for data centers has topped US$108.1 billion over the past 10 years.
- Annual water-related expenditures for data centers are forecasted to hit US$797.1 million by 2030.
- 97% of facilities are tied to municipal systems, placing capacity pressure on localities.

Source: Goldman Sachs, Cisco, International Energy Agency, Bluefield Research

Water demand isn't static, and it is emerging in places where there isn't enough water.

geographic SHIFTS

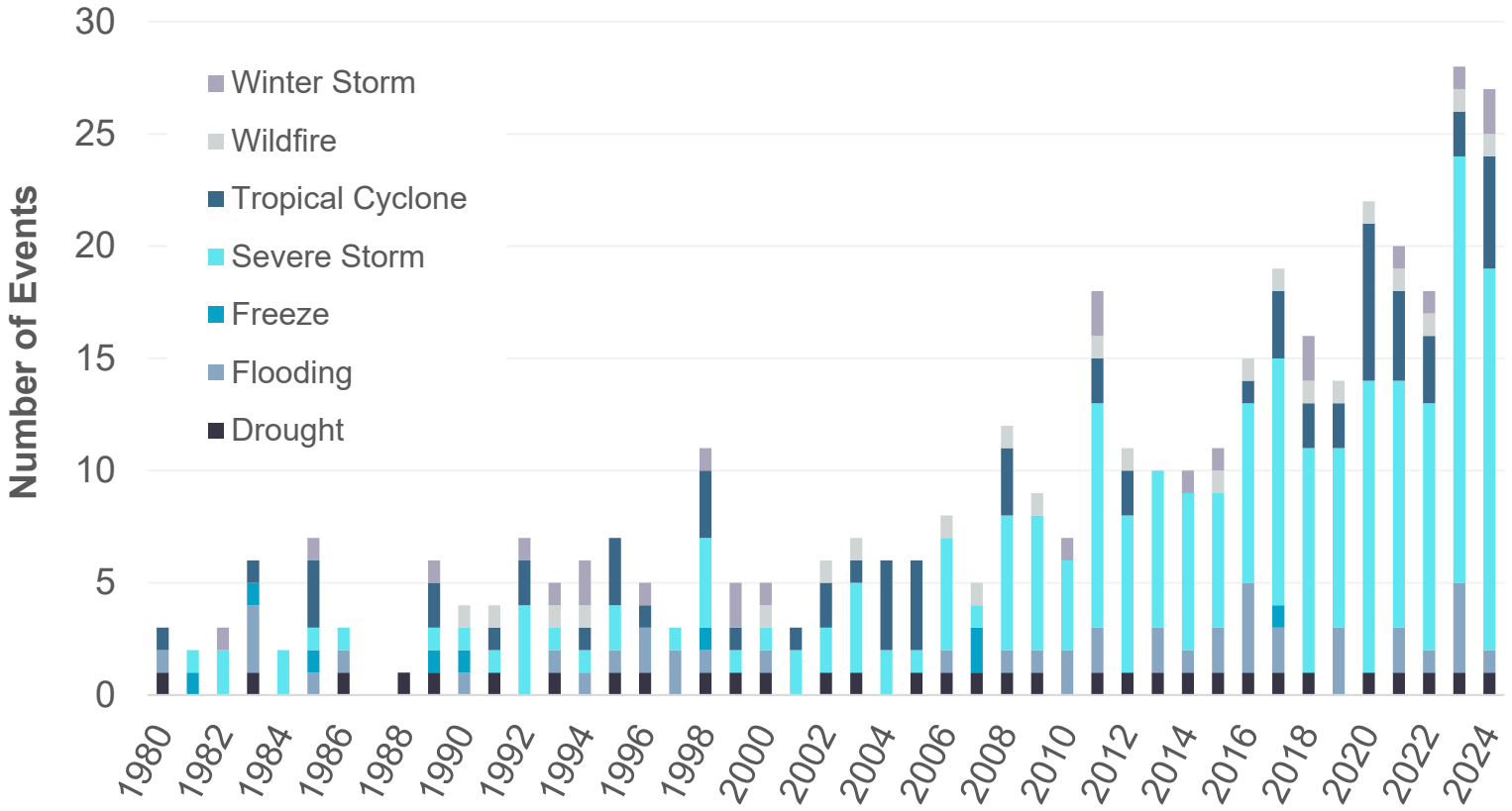
The fastest growing markets are in regions of highest water stress...

- Water-stressed sunbelt states, such as Arizona, Nevada, Texas, accounted for 80% of U.S. population growth over last decade.
- 36 million people are increasingly reliant on Colorado River water, with current levels at 37% capacity.
- From 2010 to 2020, U.S. urban populations increased by 8.0%, while rural populations decreased by 0.5%, placing higher demands on centralized, urban utility infrastructure.

Scaling demand on water supplies is being realized, threatening the long-term sustainability of communities and industry.

climate THREATS

The number of billion-dollar climate events are on the rise...



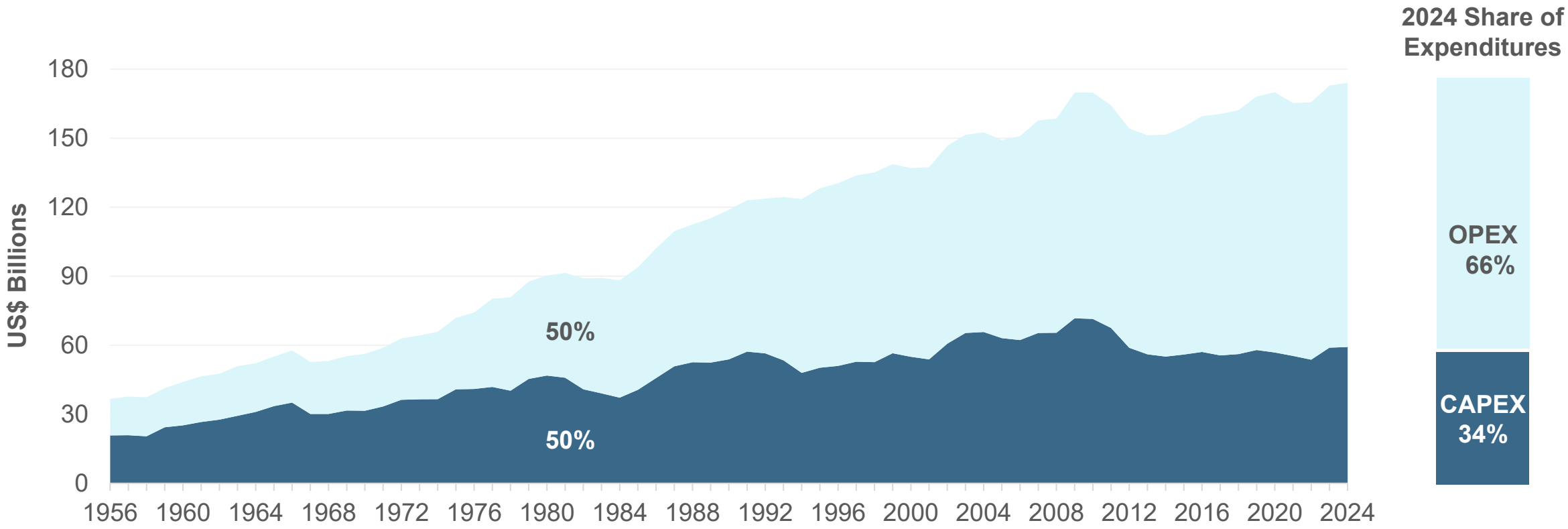
Note: CPI-adjusted
Source: National Centers for Environmental Information, Bluefield Research

- The U.S. has seen a total of 403 major climate and weather disasters since 1980, with cumulative damages surpassing US$2.9 trillion.
- 81% of climate damages tracked by NOAA are water-related.
- The window for meaningful carbon reduction is fading, making adaptation–through smarter water management–a critical path forward.

If climate is the shark, water is the teeth.

financial CHOICES

Utility expenditures signal risks for drinking water & wastewater services...

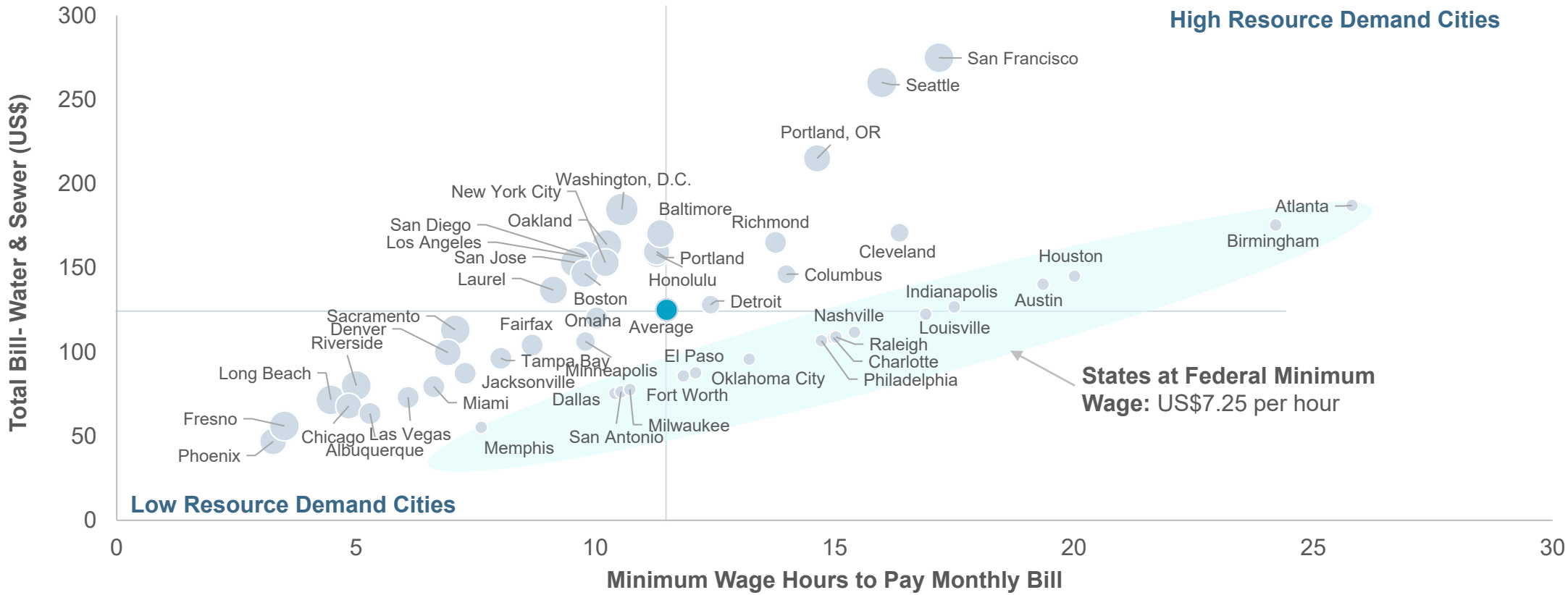


Note: Values from 2024–2030 are forecasted
Source: U.S. Congressional Budget Office, Bluefield Research

Utilities are spending to patch, not to renew– OPEX is climbing towards 70%.

water AFFORDABILITY

Minimum wage hours needed to pay monthly water & sewer bills point to affordability issues...



Note: Minimum wage is respective to each state, ranging from federal minimum (US$7.25) to US$17.50 in Washington, D.C.
Source: U.S. Department of Labor, Bluefield Research

Affordability has hit a crisis point. Select cities require over 20 hours of minimum-wage work to cover water and sewer bills.

political WILL

Government– at all levels– plays a critical role in water infrastructure and management...

If our leaders can't agree on this, how can they agree on long-term, sustainable water policies and investments?

Source: Bluefield Research

Politics threaten the long-term sustainability of reliable water supplies and services for the U.S. municipal and industrial sectors.

realizing CONSEQUENCES

Reviewing the critical factors shaping our future of water...

Climate	We are sailing past climate targets with eyes wide open
Demographics	We are moving to places without enough water... or too much
Infrastructure	Our treatment systems and assets are old; water quality is at risk
Leadership	Showmanship is eclipsing statesmanship

Source: Bluefield Research

By ignoring the consequences, we have committed to adaptation in terms of water supplies and management.

solution PROVIDERS

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Source: Bluefield Research

Technology isn't the problem – the top 50 water companies generated US$127 billion last year, only scratching the surface of opportunity.

the OPPORTUNITIES

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INFRASTRUCTURE HARDWARE

Aging and new systems demand significant capital investment in new pipes, pumps, and monitoring to replace and upgrade essential assets.

INDUSTRIAL / CORPORATE WATER

Companies face rising operational risk and regulatory pressures, driving demand for robust on-site water management solutions.

AG-WATER MANAGEMENT

Irrigation technology, energy-efficient pumping, and water scarcity are accelerating operational efficiencies for agriculture.

DIGITAL TECHNOLOGIES

Connected assets and data-driven solutions benefit operational efficiencies, lifecycle costs, workforces, and operations.

PRIVATE PARTICIPATION

Alternative delivery, ownership, and financing models (e.g., Design-Build, CMAR, PPP) to accelerate water infrastructure build-out.

ADVANCED WATER TREATMENT

Treatment technologies delivering improved water quality, access to new, sustainable supplies, and regulatory compliance.

OPERATIONS & SERVICES

Labor constraints, cost pressures, technology demands are accelerating third-party services for municipal and industrial facilities.

This will be the work that defines tomorrow's strategic opportunities in water.

So, why don’t we care about water?

Now is the time to make a difference. Stop asking and start doing!

about BLUEFIELD

Advancing Water Strategies

Exclusively Water

- We focus on water, wastewater, and stormwater.
- Our focus and resources are dedicated to water—its management, and the market forces shaping its future.

Proprietary Data

- Our team collects and analyzes market data on an ongoing basis.
- Datasets cover M&A, facility infrastructure, treatment projects, operations contracts, ownership structures, and corporate intelligence.

Analysis, Not News

- We differentiate ourselves from peers through primary research and a focus on business strategies.
- Ongoing analysis of market trends, forecasts, and competitive shifts.

Analyst Access

- A team of in-house water experts stand behind our research, providing clients full, 24/7 support.
- Follow-up research, clarification, and methodology reviews.
- Board room, business unit, and stakeholder presentations.

Demonstrated Value

- The growing roster of clients span the industry's value chain.
- From ongoing water sector intelligence to tailored consulting, Bluefield delivers solutions—not just products.

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