



Trending Forward

Investing Insights from the Sustainable Equity Team

INVESTING IN THE WATER VALUE CHAIN



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In Brief

- The rising demand for freshwater and the lack of access to safe drinking water for a significant portion of the global population, highlights a critical crisis in water availability and security.
- Across the water value chain, there are substantial investment opportunities due to the urgent need for infrastructure upgrades and the growing markets for water and wastewater treatment solutions.
- Innovative technologies are emerging to address freshwater scarcity, safety, and affordability.

Environment

Resource Constraints & Biodiversity



We invest in companies with meaningful exposure to economic tailwinds from long-term transitions that are affecting the global economy: demographics, environmental, technological and governance. The environmental transition includes climate change, natural resource constraints, and biodiversity loss which are driving global efforts to transition to a more resilient economy, creating demand for renewable energy, clean transportation, circular economy, and sustainable agriculture.

Freshwater is arguably our most precious natural resource, and demand has never been greater. Global water use has been increasing approximately 1% per year and is projected to increase by 20-30% by 2050 due to population growth, urbanization, and rising agricultural and industrial needs¹. Depletion of freshwater supplies in aquifers and surface water is being exacerbated by pollution and effects of climate change. As the world faces escalating threats to water security, economic and societal impacts are emerging including devastating effects on global economies, food supplies, demographics, and overall quality of life.

3 out of 10 people globally do not have access to safe drinking water, and by 2050 up to 40% of world's population could face absolute water scarcity².

The need for water resilience has captured the attention of concerned governments worldwide, leading to increased funding for water projects within initiatives such as the Infrastructure Act, Inflation Reduction Act, European Recovery and Resiliency Act, the Water Infrastructure Finance and Innovation Act (WIFIA), and others. In addition to public funding and support, there are companies developing innovative technologies and water solutions across the water value chain, presenting attractive investment opportunities.

1. United Nations. (2019). UN world water development report 2019: Leaving no one behind. 2. UNICEF, WHO.

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The current total addressable market of the global water industry is estimated at ~\$700 billion³. The global water and wastewater treatment markets are projected to grow at a 7.5% CARG (compound annual growth rate) from \$323 billion in 2023 to \$618 billion by 2032⁴.

The need to install resilient water infrastructure that minimizes water loss and maximizes water efficiency has never been greater. Core infrastructure components are aging, as most of the U.S.'s water and waste infrastructure was built in the 1970s and 80s and has been further impaired by decades of underinvestment, with replacement levels averaging ~1% annually⁵. Globally, 1/3 of all fresh water running through pipes is lost to leakage, worsening scarcity and driving prices higher.

The U.S. needs to spend more than \$744 billion on water infrastructure over the next decade to ensure supply, improve infrastructure and properly manage greater wastewater and stormwater volumes⁶.

Beyond basic infrastructure upgrades, there is a burgeoning demand for water application expertise to:

- Address tightening regulatory standards for water consumption and wastewater discharge, especially as pollution levels rise and contaminants such as per- and polyfluoroalkyl substances (PFAS) gain attention.
- Meet higher and higher quality and purity standards for commercial water needs in sectors like technology, food & beverage, pharmaceuticals, and life sciences.
- Build resiliency from accelerating climate-related natural disasters.
- Broaden access to safe water globally and maintain affordability.
- Counter the labor constraints of an aging water industry workforce (~1/3 of water operators in the U.S. are eligible to retire in next 10 years) by leveraging new technologies and automation.

A critical part of solving these water challenges is the implementation of newer connective digital technologies like smart meters, remote sensors, AI, and smart irrigation that can automate monitoring systems and leverage continuous data to optimize water flows and improve maintenance.

Water and wastewater utility expenditure on digital solutions is forecast to grow almost 9% annually to \$55 billion in 2030⁷.

The vital challenges of freshwater scarcity, safety, and affordability are being met by a select group of companies with this specialized water expertise. Operating across the water value chain, their operations include sourcing, transport, testing, treatment, distribution, monitoring, and finally discharging back into the environment.



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3. (Excluding operational expenditures related to labor, energy, and chemicals). Sustainalytics. (2018, April 20). Earth Day 2018: The water scarcity challenge.

4. Fortune Business Insights. (2024, December 16) Water & Sludge Treatment.

5. McKinsey & Company. (2021). U.S. water infrastructure: Making funding count.

6. Council on Foreign Relations. (2020, January 30). How U.S. water infrastructure works.

7. CleanTech. (n.d.). The future of digital water technologies. Retrieved December 2024.

The Water Value Chain

WATER UTILITIES are the backbone of water resilience, involved throughout the value chain as they source, purify, and distribute water for residential, agricultural, and industrial consumers.

American Water Works is the largest investor-owned water utility in the U.S. It is well-positioned to benefit from the supportive regulatory backdrop and capital investment needed to meet large water challenges. Its size and scope makes it an attractive acquirer for smaller community water systems unable to economically raise capital for vital pipe replacement⁸.



INFRASTRUCTURE including pipes, pumps, valves, and regulators, are core components of water flow and transport, and are being increasingly engineered for greater durability, safety, ease of installation, and energy efficiency.

Watts Water Technologies is a leading supplier of products, solutions, and systems that manage the flow of water and energy into, through, and out of buildings. Committed to innovation and sustainability, the company utilizes Smart and Connected products which detect leaks remotely and self-adjust flows and temperatures to conserve water and energy⁸.

WATER TESTING AND TREATMENT services include water testing and treatment to ensure safe drinking water, protect public health, and provide the purity required for specialized industrial uses. Growing environmental and health concerns are fostering stricter regulations around a wide range of contaminants, such as PFAS. In turn, this is driving greater demand for water treatment and innovative methods of purification.

PFAS

Per- and polyfluoroalkyl substances (PFAS), known as "forever chemicals" due to their slow breakdown in the environment, have been used in consumer products and industrial processes for decades and are increasingly linked to harmful health effects. In April 2024, The Environmental Protection Agency (EPA) established Maximum Contamination Levels (MCLs) of 4 or 10 parts per trillion, requiring water systems to monitor these levels within three years (by 2027) and reduce them within five years (by 2029) if they exceed the MCLs. This new regulation poses a challenge for the water industry to implement new technologies that can detect, remove, and ultimately destroy PFAS to prevent their reintroduction into the environment⁸.

The Water Value Chain

ENVIRONMENT



CUSTOMERS

ENVIRONMENT

8. Source: Mirova.

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Veralto is the global market leader in water analytics and testing and a top provider of water treatment systems worldwide serving a range of end-markets including municipal utilities and large industrial clients. It is well positioned to benefit from heightened water quality standards as a long-time pioneer in contaminant assessment and is currently investing in advanced PFAS destruction technologies⁸.

Xylem is the premier pure play water equipment company. It addresses the full cycle of water from collection, transport, treatment, distribution, use, and return to the environment. Beyond its strong franchise in pumps and valves, its Measurement & Control Solutions segment focuses on advanced technologies that optimize water usage and facilitate testing. Its 2023 acquisition of Evoqua propelled it into the forefront of industrial water filtration, including PFAS removal⁸.

WASTEWATER AND STORMWATER MANAGEMENT

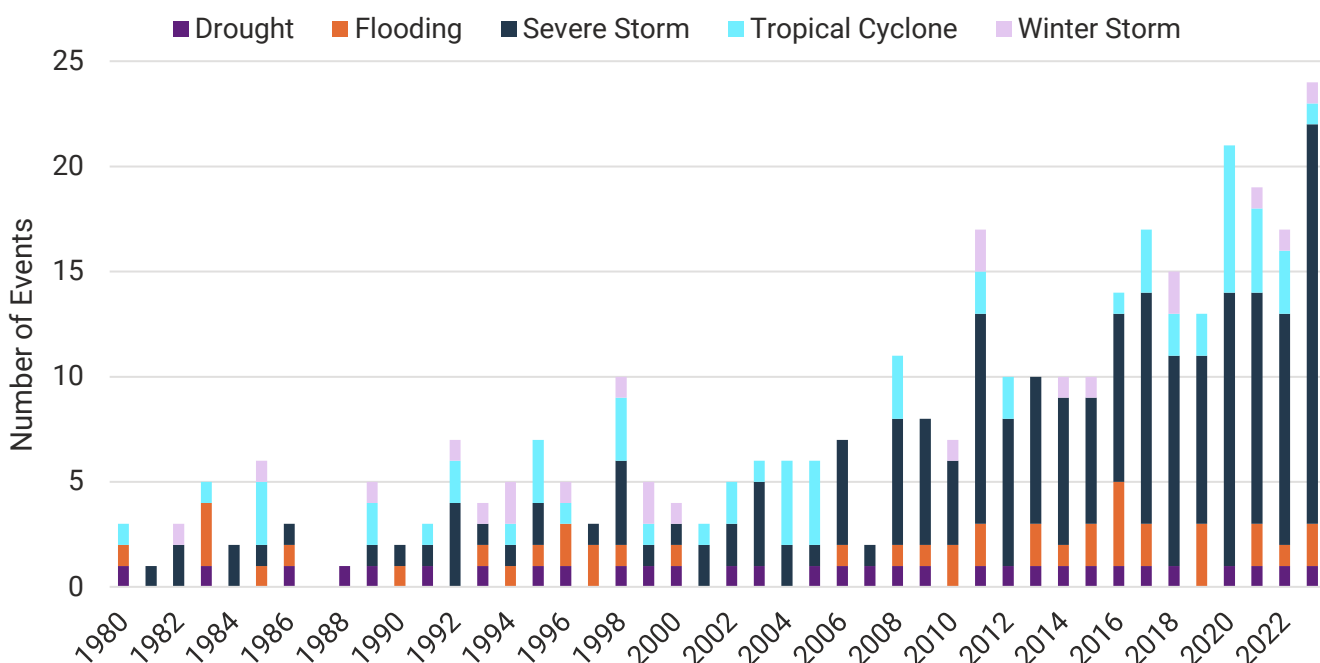
is key to maintaining watershed sanitation and safety by redirecting water flows, collecting runoff, and removing pollutants so that water infiltration is well managed and aquifers and other water sources can properly recharge. The need for better stormwater management is becoming more evident as heavier precipitation and intensifying storm events tied to climate change are deeply stressing existing conveyance and discharge systems.

Advanced Drainage Systems is the leading provider of stormwater and wastewater products, including pipes, grates, drains, and septic tanks. It is the largest manufacturer of thermoplastic piping, which is lighter, safer, and more durable than traditional concrete and metal pipes, and benefits from the ongoing conversion away from those materials⁸.

BIODIVERSITY

Healthy ecosystems depend on freshwater, and any reduction or degradation of water sources can lead to habitat loss and species endangerment, posing a significant threat to biodiversity. Freshwater ecosystems have the highest relative number of species under threat of extinction and some of the fastest rates of biodiversity loss among all biomes, resulting in profound long-term ecological and economic impacts. Across the water supply chain, we seek companies that are effectively managing these risks and taking proactive steps to promote biodiversity through their policies and practices⁸.

U.S. Billion Dollar Water-Related Events: 1980–2023



Source: NOAA National Centers for Environmental Information (NCEI). U.S. Billion Dollar Weather and Climate Disasters (2024).

8. Source: Mirova

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ESG INVESTING RISK & METHODOLOGICAL LIMITS

By using ESG criteria in the investment policy, the relevant Mirova strategies' objective would in particular be to better manage sustainability risk and generate sustainable, long-term returns. ESG criteria may be generated using Mirova's proprietary models, third party models and data or a combination of both. The assessment criteria may change over time or vary depending on the sector or industry in which the relevant issuer operates. Applying ESG criteria to the investment process may lead Mirova to invest in or exclude securities for non-financial reasons, irrespective of market opportunities available. ESG data received from third parties may be incomplete, inaccurate or unavailable from time to time. As a result, there is a risk that Mirova may incorrectly assess a security or issuer, resulting in the incorrect direct or indirect inclusion or exclusion of a security in the portfolio of a Fund. For more information on our methodologies, please refer to our Mirova website: www.mirova.com/en/sustainability



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Mirova is a global asset management company dedicated to sustainable investing and an affiliate of Natixis Investment Managers. At the forefront of sustainable finance for over a decade, Mirova has been developing innovative investment solutions across all asset classes, aiming to combine long term value creation with positive environmental and social impact. Headquartered in Paris, Mirova offers a broad range of equity, fixed income, multi-asset, energy transition infrastructure, natural capital and private equity solutions designed for institutional investors, distribution platforms and retail investors in Europe, North America, and Asia-Pacific. Mirova and its affiliates had \$33.1 billion in assets under management as of December 30, 2024. Mirova is a mission-driven company, labeled B Corp*.

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