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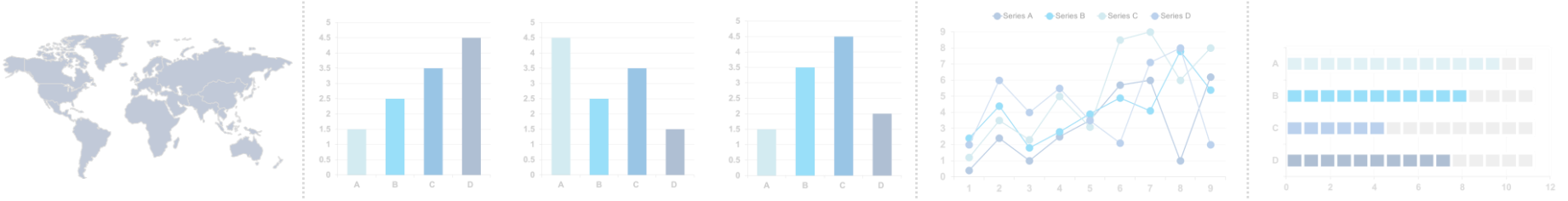
INSIGHT REPORT

U.S. & Canada Industrial Water & Wastewater Market:
Key Trends and Forecasts, 2024–2030

November 2024



Summary

BACKGROUND

The U.S. and Canada industrial base, spanning nearly 450,000 facilities, produces over US$8.5 trillion in annual output. Not only does this fuel significant economic activity, globally, but it also demands significant water resource management, treatment, and stewardship. As industries evolve, corporate spend on water management solutions is set to rise, driven by operational risks tied to water scarcity, regulatory discharge limits, sustainability goals, geopolitics, and shifts in demand.

Against this backdrop, annual water and wastewater management spend (CAPEX and OPEX) across 16 key industrial sectors is projected to exceed US$62 billion by 2030. At the forefront of change are water-intensive industries fueled by the AI boom, such as data centers and semiconductors, both further accelerated by government incentives (e.g., the CHIPS Act) and national security.

Simultaneously, the “energy transition”—shifting from fossil fuels to renewables—is further transforming the industrial water landscape. Beyond traditional water needs in power, oil, and gas, federal initiatives such as the Inflation Reduction Act are unlocking new, emerging opportunities, such as mining for metals, hydrogen, and nuclear power.

This Insight Report offers an in-depth analysis of U.S. & Canada’s industrial water market, leveraging Bluefield Research’s rigorous, bottom-up methodology, and delivers a comprehensive view of trends, growth forecasts, competitive dynamics, and profiles of leading companies.

SAMPLE TAKEAWAYS (1 of 2)

- **Strong Market Growth in Industrial Water Services:** The industrial water market in the U.S. and Canada is projected to grow from US$48.4 billion in 2024 to US$62.0 billion by 2030, with a CAGR of 4.2%. This growth reflects an increasing corporate focus on water quality, operational efficiency, and advanced treatment technologies. With industrial production output valued at over US$8.5 trillion, sectors like food and beverage, chemicals, and automotive have robust demand for water treatment and reuse systems to manage high wastewater volumes and stringent discharge standards.
- **Policy-Driven Expansion and Federal Funding:** Federal incentives, such as the CHIPS Act and the Inflation Reduction Act, have strengthened tailwinds to the semiconductor and energy sectors. The CHIPS Act alone has allocated US$39 billion for U.S. semiconductor manufacturing, with companies like Intel and Samsung investing more than US$100 million per water resource recovery facility. This policy-driven expansion has opened up substantial opportunities for water service providers specializing in advanced treatment solutions.
- **Data Center Water Demand and Cooling Needs:** By 2030, AI is expected to account for 23% (93 TWh) of data center power demand in the U.S.—a rapid increase from 3% (4 TWh) in 2023. As such water management spend for the data center segment is forecasted to grow at a 9.3% CAGR. Large data centers in regions like Virginia, using water-intensive cooling systems, present a rising need for efficient cooling solutions, water reuse, and advanced water management systems.

Built on years of data and analysis, Bluefield Research’s Industrial Water Corporate Subscription has become a key resource for companies across the value chain to identify key verticals, trends, and growth opportunities that stand out in an already crowded and more competitive field.

U.S. & Canada Industrial Water Forecast Research Methodology

RESEARCH SCOPE AND METHODOLOGY

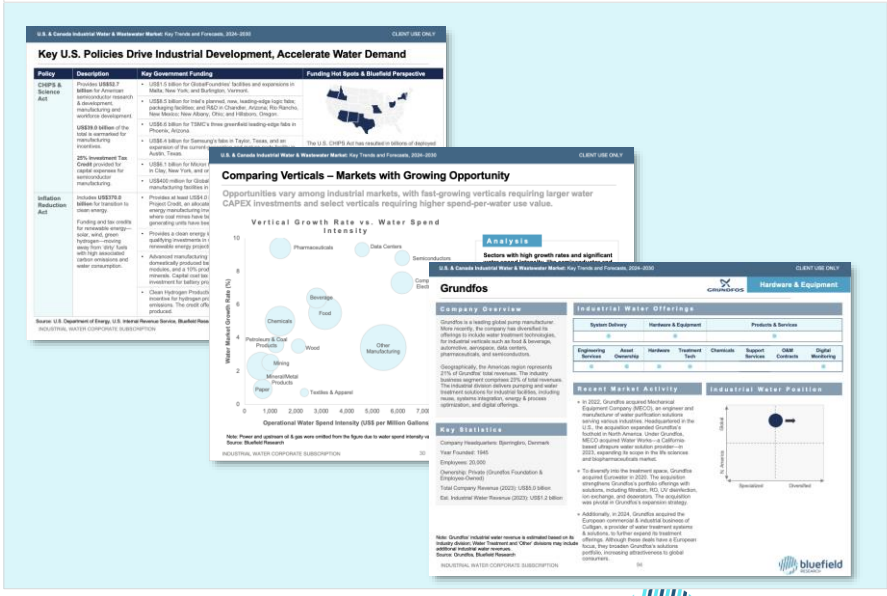
- Forecast of spending on industrial water & wastewater management across 16 industrial verticals to determine the size and growth outlook of the U.S. and Canadian industrial water market from 2024 to 2030.
- Capital investment pricing and growth rates per vertical were estimated based on publicly available resources including financial filings, facility counts, and interviews with industry professionals.

RESEARCH OUTPUT

- Analysis of key drivers and inhibitors to industrial water investment in the U.S. and Canada.
- Forecast of the industrial water market from 2024 to 2030 by geography (country, state, and province), vertical, spend type, spend segment, and project type.
- Competitive analysis of companies in the industrial water value chain.
- Profiles of 16 key industrial verticals spanning resource extraction, manufacturing, and data center, including:
  - Vertical Details – Market Size, Projected Growth Rate, Number of Facilities, Historic Facility Growth Rate, Shipment Values
  - CAPEX & OPEX segment breakouts
  - Addressable CAPEX Assets
  - Market Size by State/Province
  - Bluefield Perspective
  - Vertical Definition
- Profiles of 18 key industrial water companies active in the U.S. and Canada, including:
  - Company Details – Headquarters, Year Founded, Ownership, Company Revenue (2023)
  - Company Overview
  - Industrial Water Offerings & Positioning
  - Recent Market Activity

SELECT COMPANIES MENTIONED

VEOLIA, ECOLAB, DUPONT, GRUNDFOS, xylem, Veralto, BLACK & VEATCH, PENTAIR, SOLENIS, KURITA, METAWATER, gradiant, Stantec, saur, Jacobs, fluence, AECOM, kemira, CORE & MAIN, Franklin Electric, SULZER, TETRA TECH, newterra



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Outline

U.S. & Canada Industrial Water Market Drivers

A range of factors—environmental, regulatory, economic—drive investment in industrial water and wastewater management, creating opportunities for solutions providers.

Industrial Water Market Drivers

Water Scarcity

Limited water supplies pose operational and reputational risks for industrial facilities. Strategies to improve water management and mitigate risk (e.g., water reuse, operational efficiencies) can drive significant investments.

Regulatory Pressure

Stricter environmental regulations on wastewater discharges (i.e., nitrates, ammonia) drive improvements for on-site treatment or implement pretreatment if discharging to a third party. Failure to comply with industry standards may result in penalties and surcharges ranging from hundreds of dollars to millions of dollars annually.

Water Quality

Intake water quality is a key concern for manufacturers, particularly in industries that rely on highly treated or ultrapure water (e.g., food & beverage, semiconductors). Manufacturers are investing to improve water quality and mitigate risks due to emerging contaminants like PFAS.

Favorable Policies

Federal incentives help spur market investments. Policies for onshore manufacturing in sectors of strategic importance (e.g., Inflation Reduction Act, CHIPS Act) are set to increase water management spend for both greenfield developments and facility expansions.

Energy Transition

As a result of increased reliance on advanced technologies to support global decarbonization initiatives, demand is soaring for green metals that serve as critical components of electric vehicles, solar panels, and other green technologies. In addition, growing use of renewable energy sources will alter the power industry landscape, shifting water needs.

Data Demand

The demand for data storage and processing has spurred rapid expansions in IT infrastructure. As a result of increased use—from IoT devices to artificial intelligence—data center workloads have tripled in the past five years. In turn, the water footprints of data centers, semiconductor fabs, and related facilities have expanded, driving demand for more advanced water management.

Sustainability Initiatives

Manufacturing and resource extraction companies face increasing pressure from customers, investors, and other stakeholders to respond to the growing emphasis on sustainability and circular economies. Firms are deploying water reuse and resource recovery solutions (e.g., biogas capture) to avoid reputational risks and mitigate the environmental footprints of production sites.

Macroeconomic Environment

Industrial production levels in the U.S. and Canada are influenced by a host of local and international macroeconomic variables, ranging from interest rates to consumer spending. Shifts in production can impact industrial water management spending and investments.

Source: Bluefield Research

U.S. & Canada Industrial Water Market Index by Vertical

Industrial water market opportunities vary by vertical, influenced by factors such as water demand, sustainability initiatives, regulatory drivers, water quality standards, and industry growth potential.

Industrial Water Market Attractiveness

Vertical	Water Demand	Corporate Sustainability	Policy & Regulatory	Intake Quality Standards	Growth Potential	Overall Ranking	Notes
Chemical Manufacturing	↑	–	↑	↑	↑	High	High demand for products, opportunities primarily found in wastewater treatment, with greater public attention on the downstream impacts of chemicals (i.e., PFAS).
Semiconductor Manufacturing	–	–	↑	↑	↑	High	Spurred by government policy incentives, large investments announced for new fabs.
Data Centers	↓	↑	↓	–	↑	Medium	High growth market, limited opportunity for water apart from cooling systems and chemicals.
Food & Beverage Manufacturing	–	↑	↑	↑	–	Medium	Fragmented with many small and midsized facilities, driven by wastewater treatment needs.
Mining	–	–	↑	–	–	Medium	Dependent on mineral prices, driven by the energy transition.
Upstream Oil & Gas	↑	↓	↓	↓	↓	Medium	Mature water dominated by legacy players. Produced water management and reuse present opportunities.
Power Generation	↑	↓	↑	↓	↓	Low	Transition toward renewables and decommissioning of coal-fired power plants limit opportunity, though recent U.S. EPA ruling will drive coal ash pond treatment spending.
Paper Manufacturing	↑	–	–	–	↓	Low	Demand for paper is declining with digital adoption; packaging and tissue steady.
Downstream Oil & Gas	↓	↓	↓	–	–	Low	Steady growth, limited expansion due to the energy transition and greater investment in renewables.

Legend: ↑ High – Medium ↓ Low

Source: Bluefield Research

The Big Picture – U.S. & Canada Industrial Water Market Model Formula

Bluefield's market model evaluates each state's industrial water market size, growth, and attractiveness across numerous verticals.

Asset Base: CAPEX

Number of Industrial Facilities

Type of CAPEX Investment	Treatment Source	Facility Size
New facilities	Connected to municipality	Small facility
		Medium facility
Upgraded facilities	On-site treatment & discharge	Large facility

Asset Base: OPEX

Production Output

x

Water-Use Intensity

=

Water Use

Consumption | Discharge

Total U.S. & Canada market size across 16 industrial verticals, 50 states, and 13 provinces

x

Segmentation Breakouts:

- Engineering, Design, Build
- Direct Installation Costs
- Treatment Technology & Equipment
- Plumbing
- Energy
- Chemicals
- Labor
- Maintenance
- Intake Water
- Other

x

Key Market Drivers by Vertical:

- **Water Demand**
- **Sustainability Emphasis**
- **Policy & Regulation**
- **Intake Quality Standards**
- **Growth Potential**

Each vertical is ranked based on **five key market drivers:** water demand, sustainability emphasis, policy & regulation, intake quality standards, and growth potential

=

Total Market Size & CAGR

Source: Bluefield Research

Beverage Manufacturing (1 of 2)

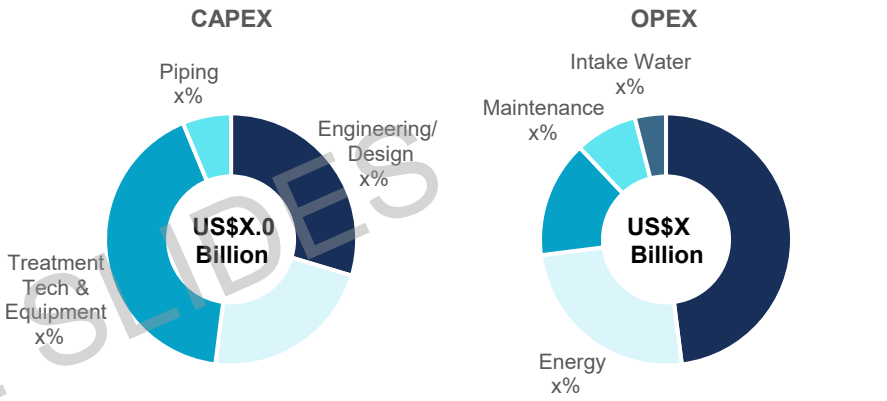
Manufacturing

Beverage manufacturing is a smaller market, ranking 8th out of 15 industries; however, its high growth rate—spurred by the craft brewery market—and focus on sustainability creates opportunity.

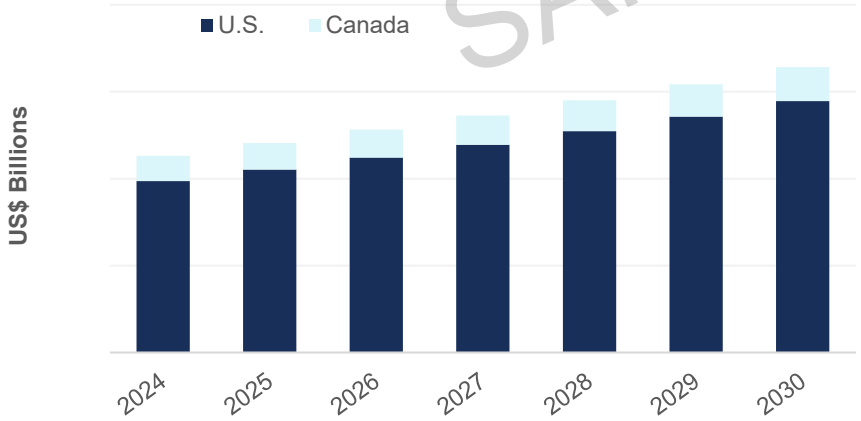
Key Vertical Data

Total Market Size (2024–2030)	US$X billion
Annual Market Size (2024)	US$X billion
Projected Growth Rate (2024–2030)	X%
Number of North American Facilities (2023)	X
Historic U.S. Facility Growth Rate (2021–2023)	X%
Industry Shipment Values (2021)—**U.S.**	US$X billion
Industry Shipment Values (2021)—**Canada**	US$X billion

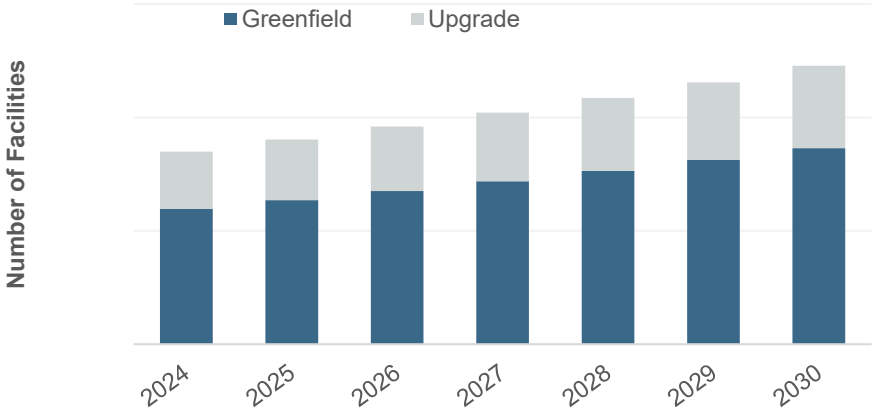
CAPEX & OPEX, 2024–2030



Market Size by Year, 2024–2030



Addressable CAPEX Assets, 2024–2030



Note: Market size and forecast values expressed in 2024 US$
Source: U.S. Census Bureau, U.S. Bureau of Labor Statistics, Statistique Canada, Bluefield Research

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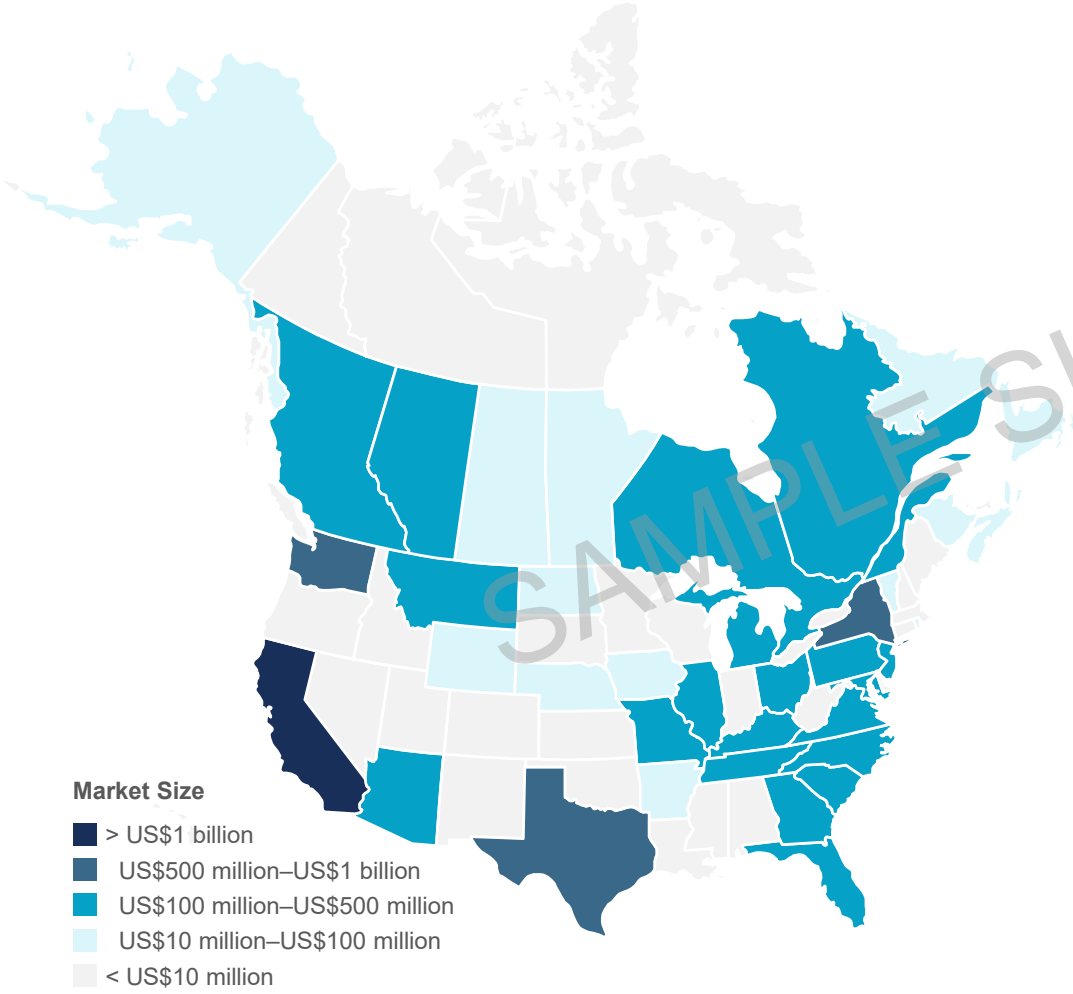
Beverage Manufacturing (2 of 2)

Manufacturing

U.S. & Canada Market Size. 2024–2030



Bluefield Perspective

- Similar to food manufacturing, the fragmented landscape of the beverage manufacturing sector (i.e., over 18,000 facilities with fewer than 100 employees each) presents opportunities for smaller water management solutions providers to enter the market.
- Rising interest in craft breweries propelled the growth of the beverage manufacturing sector in the mid-2010s, but it has since slowed down. The large influx of new breweries increased the sector's asset base and associated water services demand.
- Breweries, representing 37% of total beverage manufacturing facilities in the U.S., have been at the forefront of sustainable water management, adopting innovative strategies to cut costs and utilize 'eco-friendly' processes in branding. For example, in 2019, California-based Lagunitas Brewing Company entered a 10-year agreement with Cambrian Innovation to use a monitoring system for its wastewater reuse system (installed by Cambrian in 2013).
- California serves as the largest market for water for beverage manufacturing, comprising 16% of the North American beverage asset base. The state was the starting point for the American craft brewing movement and is home to nearly 40% of all U.S. wineries. California's increased focus on sustainable water management, strict permitting standards, and high operational costs drive significant investment.

Vertical Definition

Water for beverage manufacturing includes water used and treated at the following facilities: soft drinks, ice, bottled water, breweries, wineries, and distilleries (NAICS code: 3121).

Note: Values expressed in 2024 US$
Source: Bluefield Research

Veolia

VEOLIA

Diversified

Company Overview

Veolia is a global provider of industrial water equipment and services. End markets include chemicals, pharmaceuticals, pulp & paper, power, oil & gas, mining, microelectronics, and food & beverage. Veolia also serves the municipal water market with O&M and private water businesses. Other non-water businesses include energy and waste recycling.

The U.S. contributes 11% to Veolia's total revenue, 32% of which comes from the Water Technologies & New Solutions business (US$2 billion), split between Engineering Services (26%), Technologies & Products (15%), Chemical Solutions & Monitoring (33%), and Integrated Services (26%).

Veolia offers a full range of integrated treatment and reuse solutions that span the industrial water value chain, including membrane filtration, activated carbon, and biological processes.

Key Statistics

Company Headquarters: Paris, France

Year Founded: 1853

Employees: 218,000

Ownership: Public

Total Company Revenue (2023): US$50.0 billion

Est. Industrial Water Revenue (2023): US$5.2 billion

Industrial Water Offerings

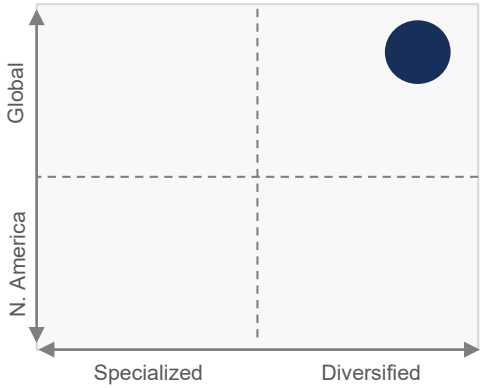
System Delivery	Hardware & Equipment	Products & Services
●	●	●

Engineering Services	Asset Ownership	Hardware	Treatment Tech	Chemicals	Support Services	O&M Contracts	Digital Monitoring
●	●	●	●	●	●	●	●

Recent Market Activity

- In 2021, Veolia acquired Suez for €12.9 billion (US$14.1 billion). The merger of these complementary businesses—focused on water, waste, and energy—is one of the largest-ever water deals, allowing for expanding industrial solutions, expertise, and customer base.
- Since 2019, Veolia's revenue in the U.S. has increased by 260% from US$2.0 billion to US$5.4 billion, while the water technology segment has increased sevenfold over the same period. Veolia's position in the North American water market was strengthened by its acquisition of SUEZ.
- Major project wins in 2023 included a US$186 million wastewater treatment system for Samsung's Texas semiconductor fab, US$104 million brine crystallizer system for OxyChem, and a US$84 million anaerobic digestion treatment system for RNG Energy.

Industrial Water Position



Note: Veolia's industrial water revenue is estimated based on its Water Technologies business segment; further breakouts are not provided
Source: Veolia, Bluefield Research

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Data Navigator

Data underpins Bluefield's breadth of insight reports and analysis. Our Data Navigator platform supports corporate subscription clients with direct access to a range of industrial water data through an interactive, flexible platform.

Sample Digital Water Data Dashboards

Water for Power: Market Trends and Forecasts, 2023–2030

Dashboard Widgets:

- Water for Power Forecasts by Country
- Water for Power Forecasts by U.S. State
- Expenditures by Type
- Expenditures by Application
- Expenditures by Region

U.S. & Canada Industrial Water Forecasts, 2024–2030

Dashboard Widgets (US$):

- Mapping Expenditure by State, by Province
- Expenditure by State, by Province
- Spend Over Time by Industry Category
- Spend in Industry Vertical by Spend Type
- CAPEX by Industry Vertical
- CAPEX by Industry Vertical, by Project Type
- CAPEX by Industry Vertical and Spend Segment
- OPEX by Industry Vertical
- OPEX by Industry Vertical and Spend Segment

Water for Chemicals Forecasts, 2023–2030

Dashboard Widgets (US$):

- Water Management Expenditure by Country
- Water Withdrawal by Region, Gallons
- Water Usage by Type, Gallons
- Water Expenditure by Type
- Annual Expenditure by Category, by Region

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Global companies across the value chain are developing strategies to capitalize on greenfield opportunities in water − new build, new business models, and private investment. Bluefield Research supports a growing roster of companies across key technology segments and industry verticals addressing risks and opportunities in the new water landscape.

Companies are turning to Bluefield for in-depth, actionable intelligence into the water sector and the sector's impacts on key industries. The insights draw on primary research from the water, energy, power, mining, agriculture, financial sectors and their respective supply chains.

Bluefield works with key decision makers at utilities, project development companies, independent water and power providers, EPC companies, technology suppliers, manufacturers, and investment firms, giving them tools to define and execute strategies.

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