



ANALYST PRESENTATION

U.S. & Canada Municipal Utility Capital Improvement Plans: Water, Wastewater, and Stormwater Budget Outlook, 2023–2031

September 2023

identifying OPPORTUNITIES

Why Capital Improvement Plans?

Companies across the water industry value chain are always seeking an edge to better position their products and solutions against their peers. They also want to understand the following:

1. Where are potential customers located?
2. What projects match vendor products?
3. What is the available budget?

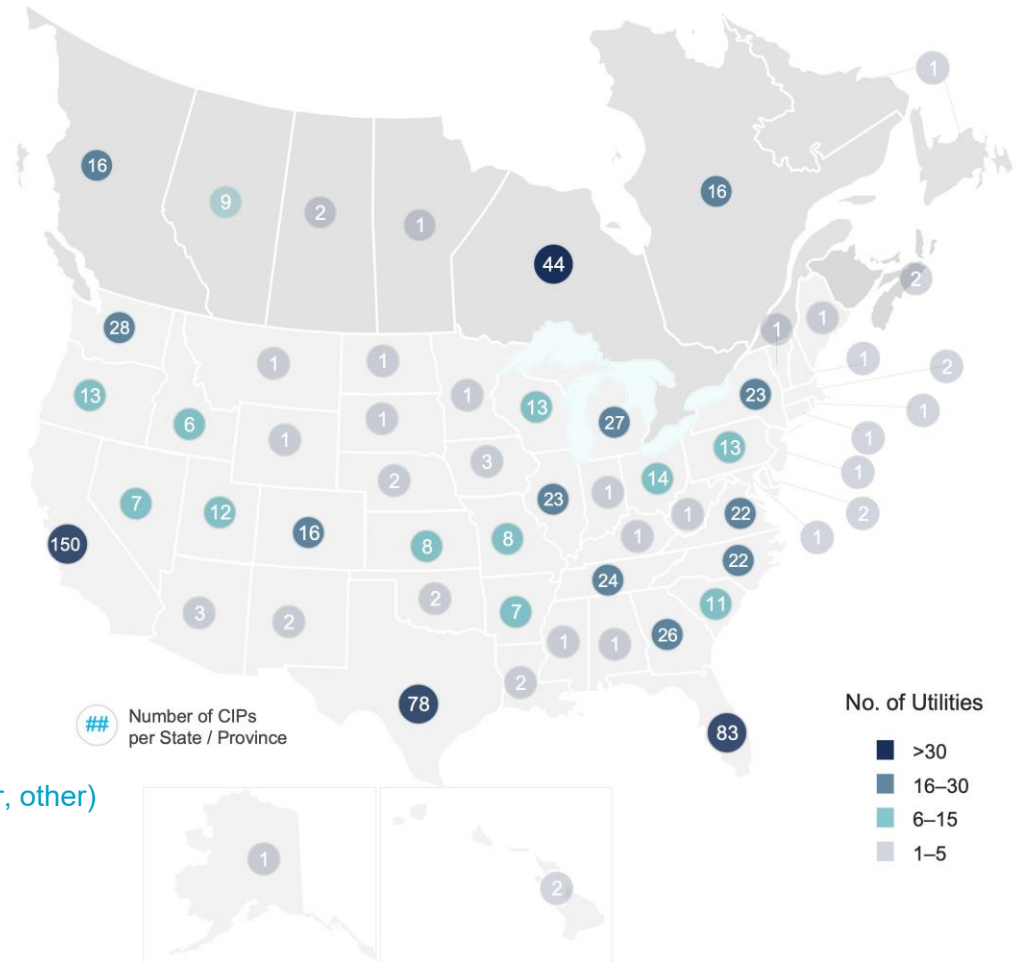
To help, Bluefield’s team of water experts has dedicated significant time and resources to supporting companies with bottom-up data collection and analysis of the capital improvement plans (CIPs) of 763 large and mid-sized water, wastewater, and stormwater utilities across the U.S. and Canada.

These CIPs translate utility capital needs into market opportunities for technology and equipment vendors as well as engineering and construction firms. Bluefield has **systematically organized and categorized tens of thousands of projects across 48 areas, categories, and subcategories.**

763
Utilities

- 3 Years of Reported Data (2021, 2022, 2023)
- Geography (50 states + DC, 8 provinces)
- 4 Areas (Water, Wastewater, Stormwater, other)
- 9 Categories
- 35 Subcategories

Determining where to look and how to start is often the hardest step, so Bluefield has summarized data for the largest, most active markets.



research METHODOLOGY

Bluefield’s team has collected, scrubbed, and organized the data for quick and clear understanding.

Data at Your Fingertips

Geographical Coverage	Areas	Categories	Subcategories
<p>United States</p> <ul style="list-style-type: none"> Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania Rhode Island South Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming <p>Canada</p> <ul style="list-style-type: none"> Alberta British Columbia Manitoba Newfoundland and Labrador Nova Scotia Ontario Quebec Saskatchewan 	<ul style="list-style-type: none"> Water Wastewater Stormwater Other 	<ul style="list-style-type: none"> Administrative Collection Digital Solutions Distribution Green Infrastructure Other Other Assets Supply Treatment Facilities 	<ul style="list-style-type: none"> Asset Management Billing/Customer Information Systems Cybersecurity Desalination Drains/Culverts/Catch Basins Equipment Facilities Maintenance Fleet Green Infrastructure Hydrants Land Lead Service Lines Manholes/Enclosures Metering Monitoring/Telemetry Other Other Hardware Other Software PFAS Pipes Pipes/Tunnels Plans/Studies Plants Power Generation Professional Services Pumps/Motors/Drives Recycling Reservoirs/Dams SCADA/Automation Source Water Protection Tanks/Towers Testing/Lab Valves Waterways Wells/Aquifers

Overview

Leveraging a demonstrated research methodology and data management expertise, Bluefield’s team has packaged a robust set of bottom-up CIP data for companies that includes:

- Capital budget data and analysis for **763 water, wastewater, and stormwater utilities**, each serving approximately 50,000 people or more.
- Geographic coverage of **50 U.S. states, 8 Canadian provinces, and Washington, DC**, serving **234.6 million people** in total.
- Line-item data for **41,478 utility capital projects** classified across **48 distinct areas, categories, and subcategories**.
- Option to access data via Bluefield’s online and interactive **Bluefield Data Navigator** platform.
- Budget outlook spanning **2023–2031**.

data accessibility with DATA NAVIGATOR

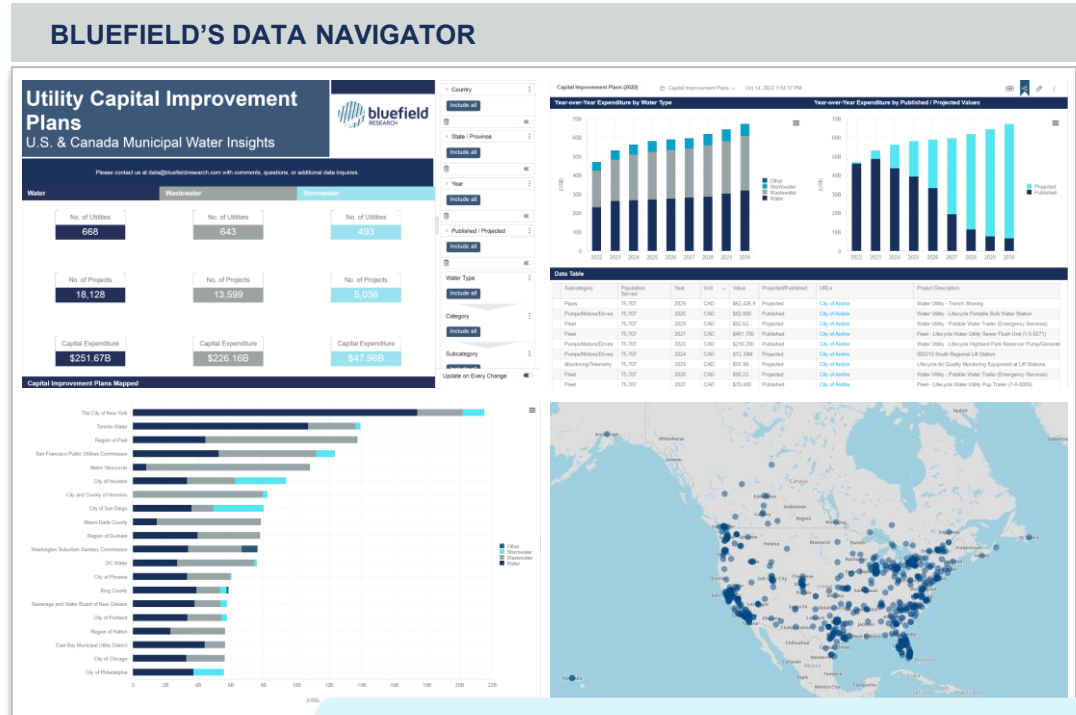
Analyzing thousands of municipal and industrial water and wastewater systems, our dashboards provide in-depth overviews of a wide range of water market segments and opportunities.

As most people know, Amazon is a very data-driven culture. Having the depth of market intelligence and the ability to dive deep into the Bluefield Navigator has been invaluable to our team. We can quickly generate defensible insights that guide our decision-making process.

Worldwide Head of Development,
AWS Water

Bluefield's Data Navigator platform offers layers of water market intelligence that have a positive impact on our business development strategy. The ability to drill down to the project level in capital improvement plans while understanding a larger scope allows us to efficiently evaluate addressable and identifiable opportunities with greater confidence.

Manager, Water Markets & Strategy,
Kiewit



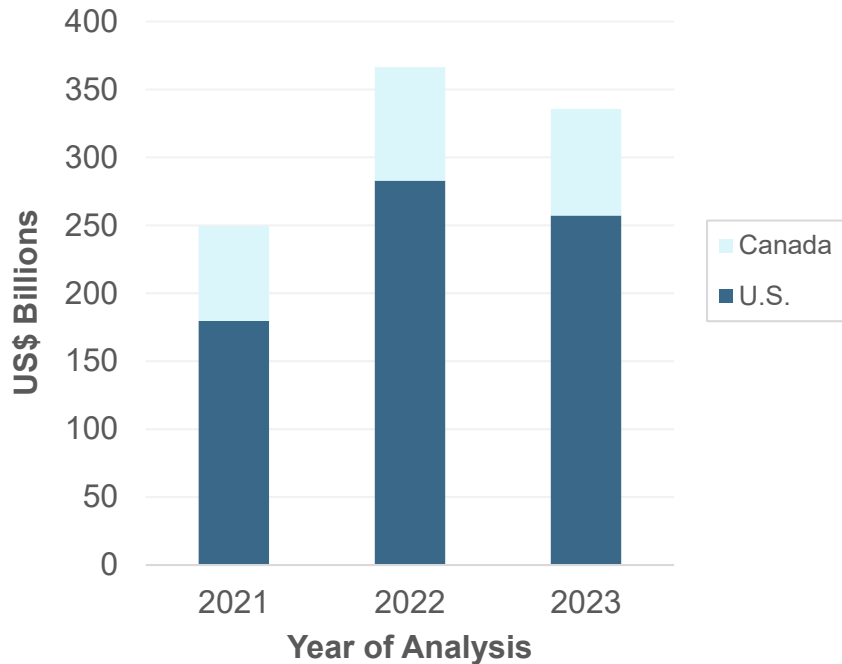
Bluefield's CIP data is available through our Municipal Water Corporate Subscription. [Contact us](#) to learn more or book a demo.

- Access data via Bluefield's online, interactive [Bluefield Navigator Platform](#)
- Data visualized with accessible filters and downloadable data options
- The number of CIPs tracked by Bluefield continues to grow based on client requests

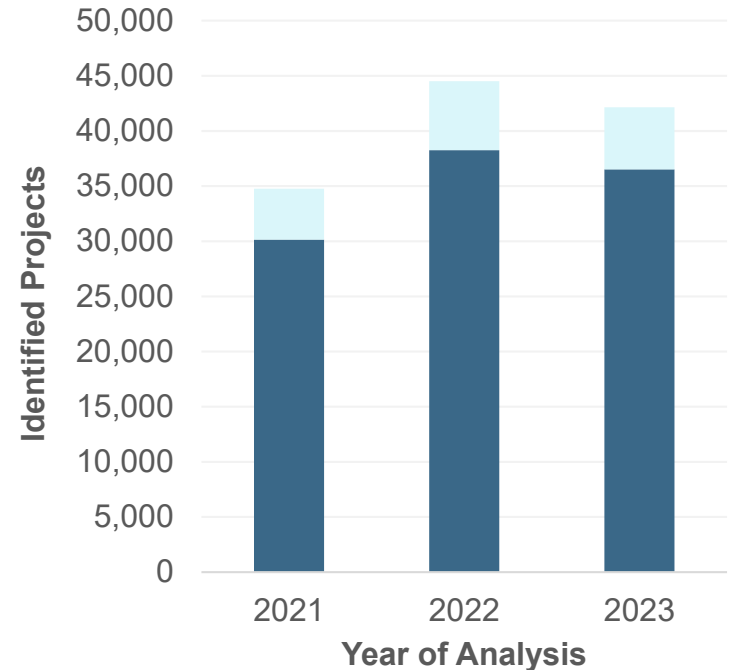
annual ANALYSIS

For three years running, Bluefield’s team of water experts has collected, cleaned, and analyzed published CIP data from more than 750 utilities across the U.S. and Canada.

Total Published Spend Identified per Reporting Year



Total Number of Projects Identified per Reporting Year

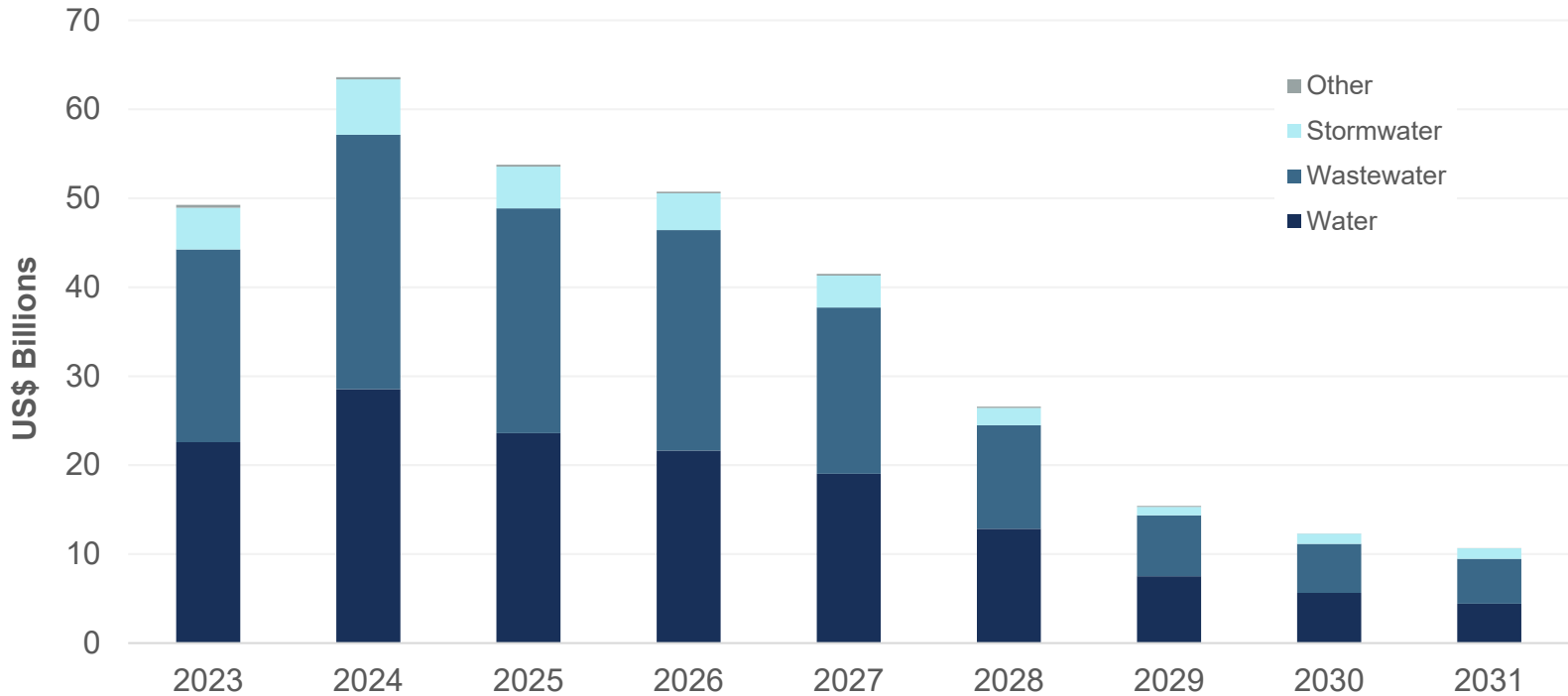


Note: US\$1.00 to CA\$1.3447 FX rate
Source: Bluefield Research

total SPEND

Published CIP data indicates an overall decline in anticipated expenditure after 2024. This is consistent with utility budget curves, as utilities' capital investment priorities, available funding is less certain further into the future.

U.S. & Canada Published CIP Spend by Area, 2023–2031

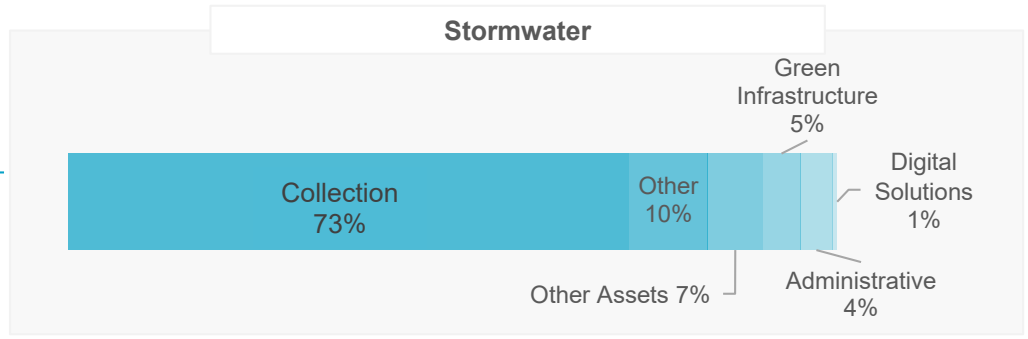
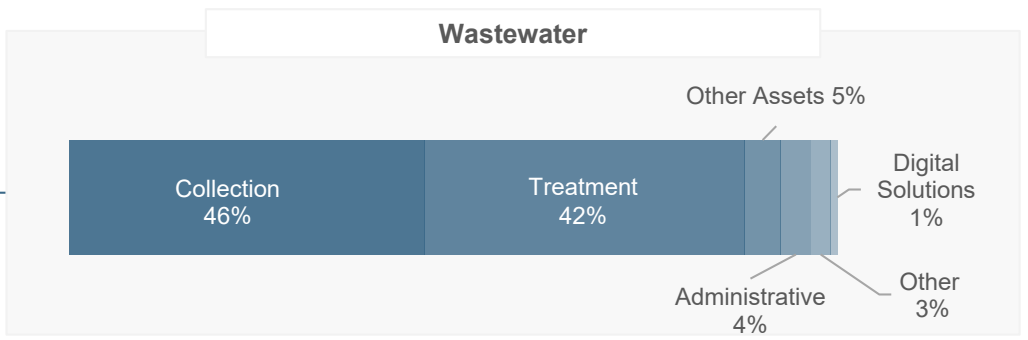
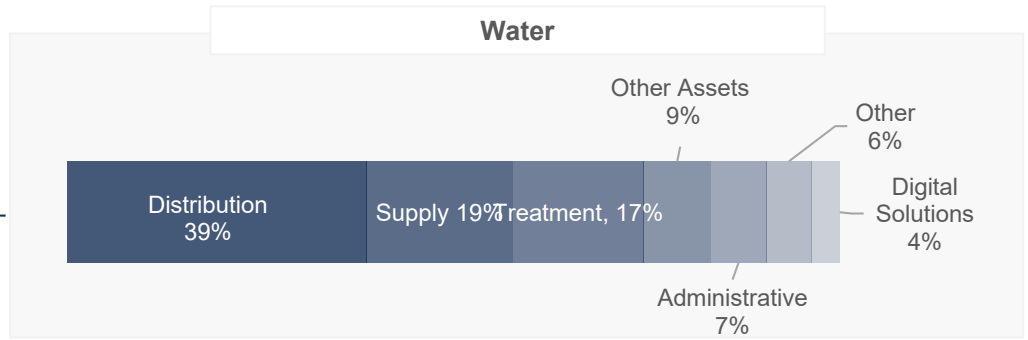
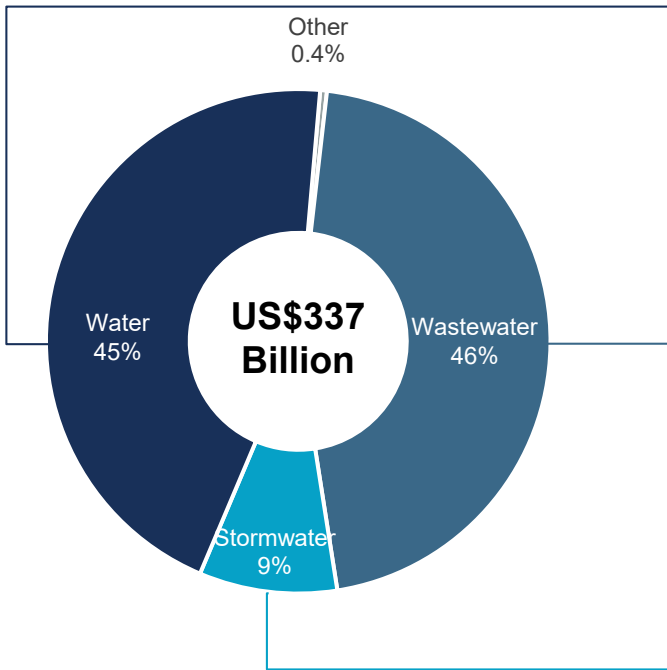


Note: US\$1 to CA\$1.3447 FX rate
 Source: Bluefield Research

budget BREAKDOWN

The 763 utilities captured in Bluefield’s CIP analysis account for a combined US\$337 billion in planned and projected spend between 2023 and 2031, with 45% earmarked for water infrastructure, 46% for wastewater, and 9% for stormwater.

Planned Spend by Area 2023–2031

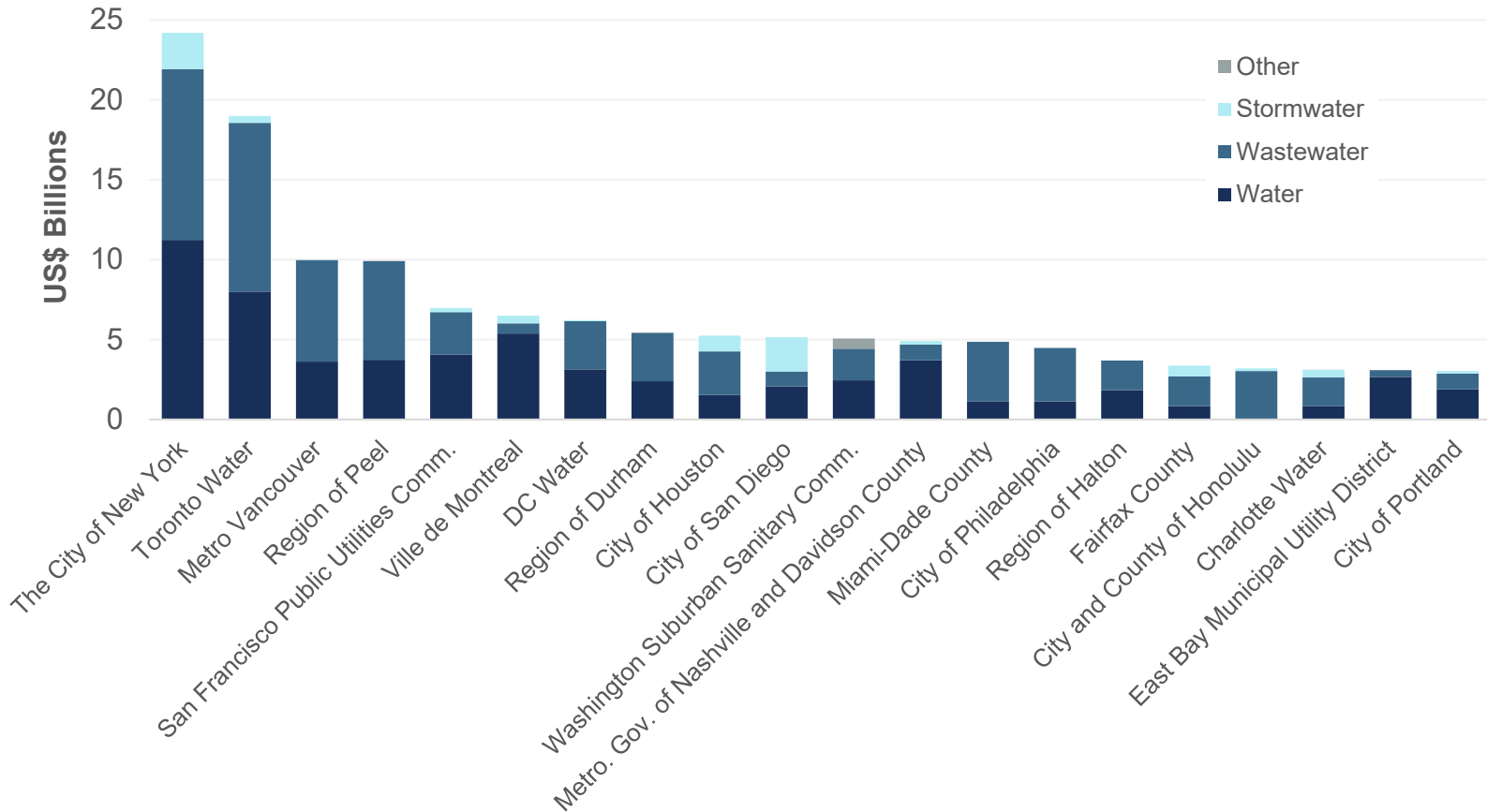


Note: US\$1 to CA\$1.3447 FX rate
Source: Utilities, Bluefield Research

biggest SPENDERS

The top 20 utilities account for a combined US\$137.4 billion in planned and projected capital investment between 2023 and 2031, led by New York City with over US\$24 billion in anticipated spending.

Top 20 Utilities with Highest Planned Capital Investment, 2023–2031

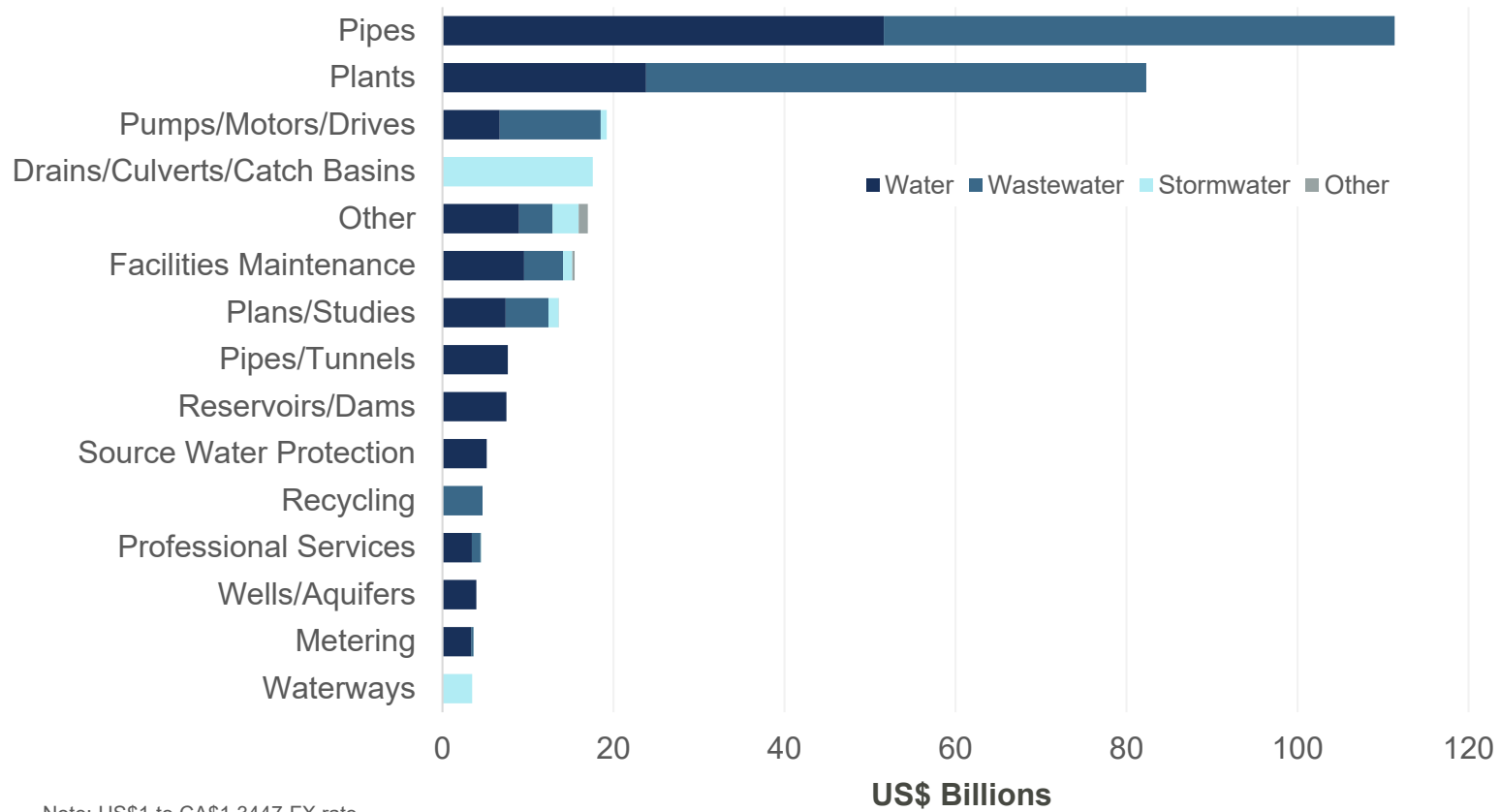


Note: US\$1 to CA\$1.3447 FX rate
Source: Utilities, Bluefield Research

top SEGMENTS

Distribution and collection pipe networks constitute the largest budget segment with US\$111 billion in planned spend between 2023 and 2031, followed by water and wastewater treatment plants with US\$82 billion.

Top 15 Budget Segments with Highest Planned Capital Investment, 2023–2031

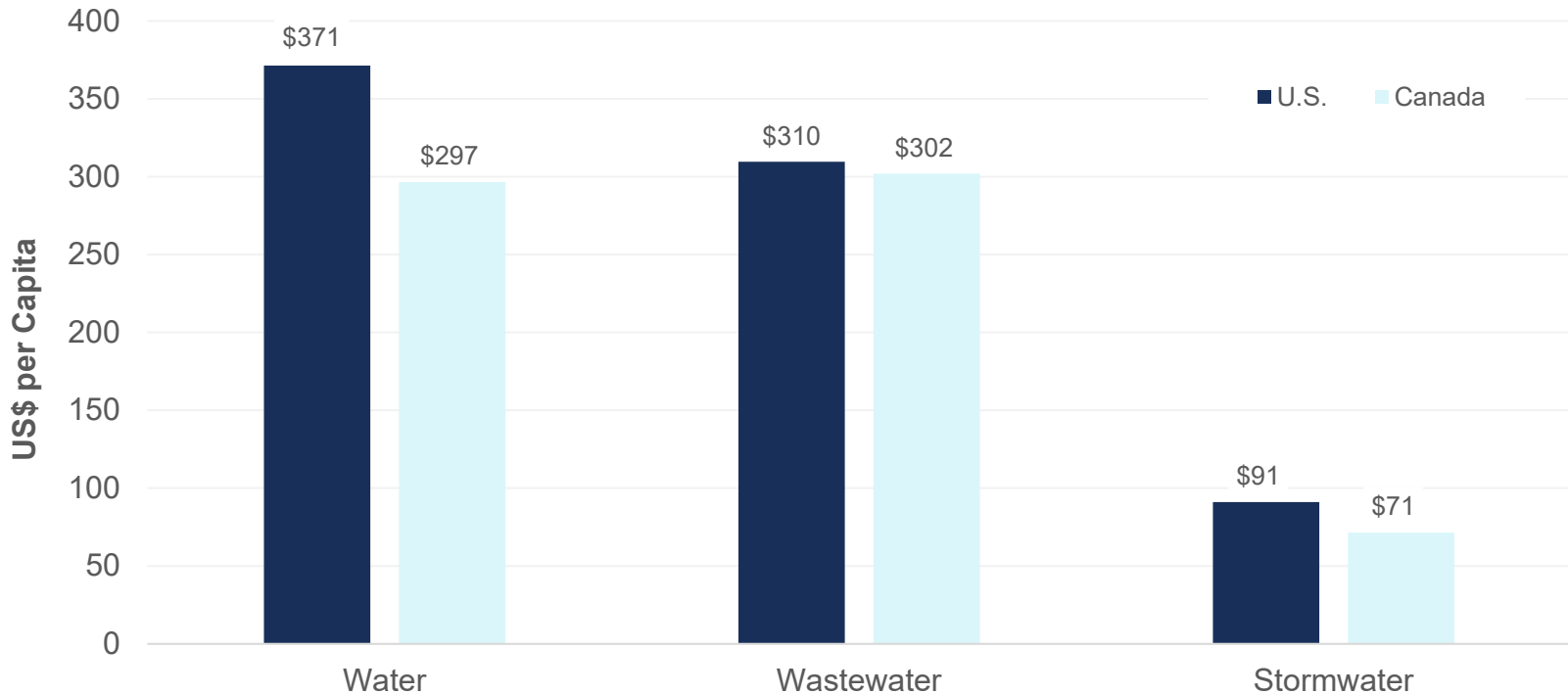


Note: US\$1 to CA\$1.3447 FX rate
Source: Utilities, Bluefield Research

spend PER CAPITA

Annual per capita investment averages US\$361 for water, US\$309 for wastewater, and US\$88 for stormwater, though yearly per capita spend can exceed US\$600 for utilities planning significant infrastructure upgrades.

2023–2031 Average Annual Per Capita Spend by Country & Area



Note: US\$1 to CA\$1.3447 FX rate
Source: Utilities, Bluefield Research

datapoints of INTEREST

Project-level analysis of utility CIPs reveals notable insights into utility priorities, spending habits, and financial strategies.

CIP Insights & Takeaways

UTILITY BUDGETS

- ▶ 11 utilities have plans to spend over US\$5 billion on capital improvement projects between 2023 and 2031, with another 53 utilities projected to spend between US\$1 billion and US\$5 billion over this period.
- ▶ 67% of utilities provide one- to five-year capital improvement plans, while 33% budget six to ten years out.
- ▶ Durham, Ontario, tops all utilities evaluated with 755 individual projects in its CIP, followed by the Massachusetts Water Resources Authority (506), and Austin, Texas (472).
- ▶ Between FY2023 and FY2031, Toronto Water in Ontario, Canada, plans to spend an average of US\$294 million per year on basement flooding relief due to sewer overflow during storms.

FUNDING CATEGORIES

- ▶ 703 utilities have earmarked funds for the “Pipes” subcategory, while just 7 utilities allocate funds for the “PFAS” subcategory. This will likely change as the PFAS policy landscape continues to develop across state and federal levels.
- ▶ 215 utilities include power generation projects in their CIPs, representing a combined US\$2 billion in planned investment between 2023 and 2031. This is a 337% increase from planned spending between 2021 and 2029.
- ▶ 52 utilities include lead service line remediation projects in their CIPs, including seven utilities in Illinois and six utilities in Michigan. By October 2024, utilities across the country are expected to comply with revised Lead & Copper Rule regulations.
- ▶ 16 utilities plan to spend a combined US\$513 million on desalination projects between 2023 and 2031. Fourteen of these utilities are in California. The other two utilities are in Texas and make up 45% of reported desalination investments.
- ▶ 474 utilities include investments in plans or studies, totaling to US\$13.6 billion between 2023 and 2031. 40% of all expenditures under the “Plans/Studies” category over this period are from Florida, California, and Texas.

Source: Utilities, Bluefield Research



bluefield
RESEARCH

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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