

NEW JERSEY • WATER UTILITIES • CAPITAL BRIEFING

Lead lines, PFAS, and aging sewers are all on the clock. Your capital plan has to keep up.

New Jersey utilities are replacing every lead service line in a decade, meeting some of the first PFAS standards in the country, and rebuilding combined sewers in the state's oldest cities — all while the BPU asks whether each dollar is justified. Every one of those forces reshuffles your project list. Invizion helps New Jersey utilities re-sequence a capital portfolio in a click — and defend every decision.

2.9M¹ People served by New Jersey American Water across 190+ communities — the state's largest water utility.	\$44.4B² Estimated 20-year wastewater infrastructure needs in New Jersey, on top of tens of billions in drinking-water needs.	18,000³ Lead service lines Newark replaced in under three years — the model for the statewide program.	\$721M⁴ WIFIA financing to the NJ Infrastructure Bank across two 2022 loans for pooled water & wastewater projects.
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THE NEW JERSEY LANDSCAPE

Four forces are moving your project list at once

None of these is theoretical, and none of them waits for your next budget cycle. Together they mean the capital plan you approved last year may already be the wrong plan.

COMPLIANCE — LEAD SERVICE LINES

Every lead line in the state, on a 10-year clock

Newark showed it can be done fast: the city replaced roughly 18,000 lead service lines in under three years, backed by \$120 million in bonds.³ Its success became the template for New Jersey's 2021 law, which requires water systems to inventory their lines and replace all lead (and galvanized) service lines statewide within roughly a decade.⁵

That mandate is now moving real capital: the state's SRF has closed dedicated lead-line loans such as \$19.9 million for Elizabeth and \$19 million for East Orange.⁶ For a CFO, the question is no longer whether to replace — it's how to sequence replacement against everything else.

COMPLIANCE — PFAS

First-in-the-nation PFAS rules mean treatment capital, now

New Jersey was among the first states in the country to set enforceable PFAS drinking-water standards. It adopted a maximum contaminant level for PFNA of 13 ppt in 2018 — the first PFAS MCL in the U.S. — and added standards of 14 ppt for PFOA and 13 ppt for PFOS in 2020.⁷

Meeting those limits means new treatment. The state's SRF is already financing it — for example, a \$2.7 million loan for PFAS treatment in Livingston.⁸ PFAS obligations don't replace the lead backlog; they stack on top of it.

AGING — COMBINED SEWERS

The oldest cities carry the oldest pipes

New Jersey's densest, oldest cities — Newark, Jersey City, Paterson, Bayonne and their neighbors — still run combined sewers that overflow in heavy rain. The Passaic Valley Sewerage Commission alone treats wastewater for about 1.6 million residents across 48 municipalities, with a design capacity of 330 million gallons per day.⁸

Long-term control of those overflows, plus routine renewal, is why New Jersey's 20-year wastewater needs run to roughly \$44.4 billion, with drinking-water needs on the order of \$32 billion more.

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RENEWAL — SCALE & AFFORDABILITY

Hundreds of systems, one shared cost pressure

New Jersey American Water invested more than \$520 million in 2024 alone to renew treatment and pipeline systems.¹ But the state is served by 500+ community water systems, many of them small, where the same mandates land without the same balance sheet.⁹

Renewal, lead, PFAS and CSO work all compete for the same rate dollars and the same crews. The sequencing between them — what to accelerate, what to stretch — is exactly what boards and the BPU fight over.

WHO RUNS NEW JERSEY’S WATER

Big investor-owned providers alongside dense municipal and regional systems

New Jersey is unusual in how much of its water is investor-owned: New Jersey American Water and Veolia (formerly SUEZ) serve millions between them. But the state’s oldest cities run their own systems, and large regional authorities handle much of the wastewater. The pressures are shared; the accountability path differs.

Municipal & regional systems

Rates set by councils & authority boards · capital approved locally

Passaic Valley Sewerage Commission	~1.6M residents · 48 municipalities · 330 MGDs
Newark Water & Sewer	Replaced ~18,000 lead lines in under 3 years
North Hudson Sewerage Authority	Regional wastewater · recent \$57.5M SRF loans
Passaic Valley Water Commission	Regional supplier — Paterson, Clifton, Passaic
Jersey City & municipal utilities	Dense urban systems, many with combined sewers

Investor-owned utilities

Rates & capital recovery regulated by the NJ BPU

New Jersey American Water	~2.9M served · 190+ communities · largest IOU
Veolia (formerly SUEZ)	2nd-largest IOU · northern NJ (Bergen, Hudson)
Middlesex Water Company	Central NJ · NASDAQ: MSEX · since 1897
Aqua New Jersey (Essential Utilities)	Suburban & smaller-system provider
Numerous small & rural systems	Where mandates hit hardest per customer

New Jersey American Water alone invested more than \$520 million in 2024 to renew its systems statewide.

Every capital dollar has to be defensible

Whether you answer to the Board of Public Utilities or an authority board, the question is the same: why this project, why now, why at this cost? New Jersey's oversight bodies are asking it harder than ever.

NJ Board of Public Utilities (BPU) regulates rates and capital recovery for investor-owned water and wastewater utilities. Its Division of Water reviews Infrastructure Investment Program (IIP), Distribution System Improvement Charge (DSIC) and Wastewater System Improvement Charge (WSIC) filings — the surcharge mechanisms that let utilities recover pipe and main replacement between full rate cases.¹⁰

NJDEP holds Safe Drinking Water Act primacy and enforces the 2021 lead service line law — mandatory inventories and full replacement of lead and galvanized lines statewide within roughly a decades⁵

PFAS standards among the first in the nation — NJDEP's MCLs for PFNA (13 ppt), PFOA (14 ppt) and PFOS (13 ppt) drive treatment capital across the state.⁷

Municipal councils & authority boards set rates and approve capital for public systems in public, in front of ratepayers — a different forum, the same burden of proof.

The money is moving — can your plan absorb it?

New Jersey utilities have more low-cost capital available than they've had in a generation. The constraint is no longer only dollars — it's readiness: which projects are shovel-ready, which qualify, and how the timing lines up with everything else on the list.

NJ Water Bank (NJ I-Bank + NJDEP) administers the Clean Water and Drinking Water State Revolving Funds, offering low-cost financing statewide.¹² Recent closings include \$57.5M for the North Hudson Sewerage Authority, \$19.9M for Elizabeth and \$19M for East Orange lead lines, and \$2.7M for PFAS treatment in Livingston.⁶

\$721M in WIFIA financing to the NJ Infrastructure Bank across two 2022 loans (\$500M and \$221M) for pooled water and wastewater projects.⁴

Dedicated lead & PFAS financing — the SRF now carries line items specifically for lead service line replacement and emerging-contaminant treatment, not just general renewals.⁶

500+ eligible community water systems compete for that funding — readiness and a defensible project queue increasingly decide who gets it.⁹

NEW JERSEY WATER, IN BRIEF

Questions New Jersey utility leaders are asking

Short, sourced answers — the same facts we'll dig into on a call, in the context of your system.

Who is the largest water utility in New Jersey?

New Jersey American Water is the state's largest, serving approximately 2.9 million people across more than 190 communities and investing over \$520 million in 2024. Veolia (formerly SUEZ) is the second-largest investor-owned provider, concentrated in northern New Jersey.

What does New Jersey's lead service line law require?

The 2021 law requires water systems to inventory their service lines and replace all lead and galvanized lines statewide within roughly a decade. Newark's replacement of about 18,000 lines in under three years, backed by \$120 million in bonds, is the model — and the state SRF is now financing city programs such as Elizabeth (\$19.9M) and East Orange (\$19M).

How does New Jersey regulate PFAS in drinking water?

New Jersey was among the first states in the country to set enforceable PFAS standards, adopting an MCL for PFNA of 13 ppt in 2018 and standards of 14 ppt for PFOA and 13 ppt for PFOS in 2020. Meeting those limits means new treatment capital, which the state SRF is now helping fund.

Who sets my utility's water rates in New Jersey?

The Board of Public Utilities regulates rates and capital recovery for investor-owned utilities such as New Jersey American Water, Veolia, and Middlesex Water — including DSIC and WSIC infrastructure surcharges that recover pipe replacement between full rate cases. Municipal and authority systems set rates through their own boards. Either way, capital has to be justified.

What funding is available for New Jersey water infrastructure?

The NJ Water Bank administers the Clean Water and Drinking Water State Revolving Funds, with recent closings ranging from a \$57.5M wastewater loan to dedicated lead-line and PFAS-treatment loans. On top of that, the NJ Infrastructure Bank has drawn \$721 million in WIFIA financing across two 2022 loans.

How does Invizion help New Jersey water utilities plan capital?

Invizion is scenario-based capital portfolio optimization for water utilities. It lets you model how a lead-line deadline, a PFAS treatment requirement, a CSO control order, or a funding award reshuffles your whole project list, re-sequence the portfolio automatically against the constraints you set, and keep a defensible record of every trade-off for the BPU, your board, or ratepayers. The best next step is a short first meeting to look at it against your own program.

REFERENCES

Sources

Every figure in this briefing is tied to a primary or authoritative source.

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ABOUT INVIZION

Capital program optimization for utilities

Invizion is a purpose-built capital lifecycle management platform for water and wastewater utilities. It integrates budgeting, CIP, scenario analysis, and funding-source tracking in one system — so utilities can re-sequence a capital portfolio in a click and demonstrate audit-ready, defensible decisions to regulators, boards, and rating agencies.

See what a defensible New Jersey capital plan looks like — book a 20-minute first meeting.

Book your first meeting →