

The nation's smallest state carries a multi-billion-dollar water bill. Your capital plan has to prove it.

An aging Providence Water system, roughly 36,000 lead service lines to pull by 2033, a combined-sewer tunnel program financed with hundreds of millions in federal loans, and a PUC that reviews nearly every rate. For a Rhode Island water or wastewater CFO, each of those forces reshuffles the projects on your list. Invizion helps utilities here re-sequence a capital portfolio in a click — and defend every decision.

~600K¹ Rhode Islanders served water by Providence Water, the state's largest system, across more than a dozen communities.	~36,000² Lead service lines — about 27,000 private and 9,000 public — Providence Water must replace, an estimated \$180M program due by 2033.	\$514M³ In federal WIFIA loans to the Narragansett Bay Commission for its CSO tunnel and treatment-plant resiliency work.	\$2.4B⁴ Clean Water SRF project demand Rhode Island could not fund in a single year — the gap between the priority list and the money.
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THE RHODE ISLAND LANDSCAPE

Four forces are moving your project list at once

Rhode Island is small, but its water infrastructure is old, its mandates are firm, and its funding is heavily oversubscribed. Together these mean the capital plan you approved last year may already be the wrong plan.

RENEWAL — AGING SYSTEM

A century-old system on a renewal clock

Providence Water has invested more than \$660 million in infrastructure and capital improvements since 1996, yet much of the network is still aging cast-iron main. In 2024 alone it replaced and relined roughly 13.5 miles of cast-iron main and has rehabilitated about 163 miles over recent years⁵

The largest item is still ahead: Providence Water estimates a new water purification facility could cost in excess of \$800 million⁵ A single project of that size dwarfs an annual capital budget and forces every other priority to be re-sequenced around it.

COMPLIANCE — LEAD LINES

36,000 lead lines, a hard 2033 deadline

Providence Water's service area holds roughly 36,000 lead service lines — about 27,000 on the private side and 9,000 public — and the full replacement effort is estimated at about \$180 million.² Rhode Island law and the EPA Lead and Copper Rule set the pace: Providence Water aims to replace every lead line in its service area by 2033.⁶

Progress is real but the runway is short — more than 3,020 private lead lines had been replaced since 2021, including over 1,100 in 2024 alone.⁵ Hitting 2033 means sustaining and accelerating that pace while renewal and treatment work compete for the same crews and dollars.

WASTEWATER — CSO

A combined-sewer tunnel that reshapes wastewater budgets

The Narragansett Bay Commission collects wastewater from roughly 360,000 people and 8,000 businesses and operates 64 active combined-sewer overflow points; its CSO abatement program already includes 4.19 miles of deep tunnel plus a tunnel pump station.⁷ Phase III of that program is under a 2019 consent agreement with RIDEM that stretched the schedule specifically to protect the affordability of NBC's ratepayers.⁸

The bill is federal-scale: NBC has closed roughly \$514 million in WIFIA loans — \$269M for CSO Phase III, \$190M for Bucklin Point resiliency, and \$55M for Field's Point.³ Debt of that magnitude has to be sequenced against every other obligation on the wastewater side.

QUALITY — PFAS & AFFORDABILITY

New contaminants, on top of the old backlog

Rhode Island adopted a drinking-water standard of 20 parts per trillion for the sum of six PFAS compounds, effective September 18, 2024 — a limit the state put in place ahead of final federal rules.⁹ Meeting it means monitoring, and in some systems treatment, that did not exist in last year's plan.

The state has begun funneling dedicated emerging-contaminant dollars into the SRF to help — \$7.64 million in the SFY2026 Drinking Water program alone.² But new obligations stack on top of lead and renewal; they don't replace them, and something on the list has to move.

WHO RUNS RHODE ISLAND'S WATER

Mostly public suppliers — but nearly all rate-regulated by the PUC

Rhode Island is unusual: its water is delivered largely by municipal and quasi-public suppliers, yet most of them — not just the lone investor-owned utility — answer to the Public Utilities Commission on rates. Wastewater is dominated by the Narragansett Bay Commission.

Municipal & quasi-public suppliers

Publicly owned · most rate-regulated by the RI PUC

Providence Water Supply Board ~600,000 served¹ · ~80,000 direct retail connections⁵

Kent County Water Authority Central RI — Warwick, Coventry, West Warwick & more¹⁰

Newport Water Aquidneck Island — Newport & Middletown¹⁰

Pawtucket Water Supply Board Pawtucket & northern communities¹⁰

Woonsocket Water Division Northern Rhode Island

Providence Water buys and wholesales the Scituate Reservoir supply to many of these systems — so its capital decisions ripple across the state.

Investor-owned & special authorities

Private supplier and wastewater authorities

Veolia Water Rhode Island The state's principal investor-owned water supplier¹⁰

Narragansett Bay Commission Wastewater for ~360,000 people & 8,000 businesses⁷

Warwick Sewer Authority Municipal wastewater — SRF borrower⁴

Numerous small community systems Where funding gaps hit hardest

Rhode Island has a small number of public water systems relative to larger states, which concentrates both the risk and the capital need in a handful of large utilities.

Almost every capital dollar goes through the PUC

Unlike most states, where only investor-owned utilities face a commission, Rhode Island's PUC reviews rates for its major public water suppliers too. The question is always the same: why this project, why now, why at this cost?

RI Public Utilities Commission (PUC) regulates rates for the state's major water suppliers — Providence Water, Kent County Water Authority, Newport Water, Pawtucket, and Woonsocket — as well as investor-owned Veolia Water Rhode Island¹⁰

RI Department of Health (RIDOH) holds Safe Drinking Water Act primacy and set the 20-ppt six-PFAS drinking-water standard effective September 2024, alongside lead service line inventory and replacement requirements.⁹

RI Department of Environmental Management (RIDEM) administers Clean Water Act permits and the 2019 CSO consent agreement that governs the Narragansett Bay Commission's Phase III schedule⁸

Lead line mandate — state law and the federal Lead & Copper Rule require full lead service line replacement, with Providence Water targeting completion by 2033.⁶

Rate pressure is constant — Providence Water's current retail commodity rate is about \$3.993 per hundred cubic feet, and every capital program eventually shows up in a filing¹¹

The money is moving — but demand runs billions ahead of it

Rhode Island utilities have historic federal support flowing through the Infrastructure Bank and WIFIA. The constraint isn't only dollars — it's that the priority lists dwarf what's available, so which projects are ready, and when, decides who gets funded.

RI Infrastructure Bank administers the Clean Water and Drinking Water State Revolving Funds, subsidizing interest ~33% below market on Clean Water loans and ~25% on Drinking Water loans¹³¹⁴

~\$257.6M available through the SFY2026 Drinking Water SRF including \$28.65M dedicated to lead service line replacement, \$24.9M in IJA general supplemental funds, and \$7.64M for emerging contaminants — with \$26.2M slated for Providence Water lead work²

Clean Water SRF expected to issue about \$63M in SFY2026 loans (including ~\$50M to the Narragansett Bay Commission), backed by a \$16.5M IJA general supplemental grant⁴

~\$514M in federal WIFIA loans to the Narragansett Bay Commission — \$269M for CSO Phase III, \$190M for Bucklin Point, and \$55M for Field's Point.³

Demand far exceeds supply — the SFY2026 Clean Water priority list showed roughly a \$2.4B funding gap and the Drinking Water list about \$1.18B, against a national 20-year drinking-water need of \$625B.⁴²¹²

RHODE ISLAND WATER, IN BRIEF

Questions Rhode Island 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 Rhode Island?

Providence Water is the state's largest system, serving roughly 600,000 Rhode Islanders across more than a dozen communities, with about 80,000 direct retail service connections in Providence, North Providence, Cranston, Johnston, and Smithfield. It also wholesales Scituate Reservoir water to many other suppliers.¹⁵

How many lead service lines does Providence Water have, and when must they be replaced?

Providence Water's service area holds roughly 36,000 lead service lines — about 27,000 private and 9,000 public — and full replacement is estimated at around \$180 million. The utility aims to replace all lead lines by 2033, in line with Rhode Island law and the federal Lead and Copper Rule. More than 3,020 private lines had been replaced since 2021.²⁶⁵

Does the Rhode Island PUC set water rates?

Yes — and unusually broadly. The RI Public Utilities Commission regulates rates not only for investor-owned Veolia Water Rhode Island but also for major public suppliers including Providence Water, Kent County Water Authority, Newport Water, Pawtucket, and Woonsocket. Capital spending must be justified to the Commission.¹⁰

What is Rhode Island's PFAS standard for drinking water?

Rhode Island set a maximum contaminant level of 20 parts per trillion for the sum of six PFAS compounds (PFOA, PFOS, PFHxS, PFNA, PFHpA, and PFDA), effective September 18, 2024 — a limit adopted ahead of final federal rules. The state's SRF now dedicates emerging-contaminant funds toward compliance.⁹²

What funding is available for Rhode Island water projects?

The RI Infrastructure Bank runs the Clean Water and Drinking Water SRFs — about \$257.6M available through the SFY2026 Drinking Water program (including \$28.65M for lead lines) and roughly \$63M in Clean Water loans, plus IJA supplemental grants. The Narragansett Bay Commission has also closed about \$514M in WIFIA loans. But priority-list demand runs billions of dollars ahead of what can be funded in any year.²⁴³

How does Invizion help Rhode Island water utilities plan capital?

Invizion is scenario-based capital portfolio optimization for water and wastewater utilities. It lets you model how a lead-line deadline, a PFAS treatment requirement, an \$800M purification plant, or a delayed SRF loan reshuffles your whole project list; re-sequence the portfolio automatically against your constraints; and keep a defensible record of every trade-off for the PUC, your board, and 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 Rhode Island capital plan looks like — book a 20-minute first meeting.

Book your first meeting →