

The lowest-lying state in America is planning water capital against a rising sea.

Saltwater creeping into coastal aquifers, PFAS limits with a 2029 clock, aging combined sewers in Wilmington, and nutrient pressure on the Inland Bays — every one of those forces reshuffles the projects on a Delaware utility's list. Invizion helps Delaware water and wastewater utilities re-sequence a capital portfolio in a click — and defend every decision to the PSC, a city council, or ratepayers.

\$1.81B¹ Delaware's estimated 20-year drinking water infrastructure need in EPA's 7th needs survey (January 2021 dollars).	60 ft² Delaware's mean elevation — the lowest of any U.S. state, and the backdrop to sea-level rise and saltwater intrusion.	454³ Public water systems under state drinking-water oversight in Delaware.	\$174.9M⁴ Federal Bipartisan Infrastructure Law water dollars directed to Delaware since 2022.
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THE DELAWARE 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. In a state this flat and this coastal, the capital plan you approved last year may already be the wrong plan.

SUPPLY — COAST & AQUIFERS

A rising sea, and salt moving into the wells

Delaware has the lowest mean elevation of any U.S. state, about 60 feet, and sea level along its coast has risen roughly 13 inches over the past century — at Bowers Beach, faster than anywhere else on the Atlantic coast.² Sea level at the mouth of Delaware Bay has climbed about 7 inches in just the last 30 years, compounded by land subsidence across the Delmarva Peninsula.⁵

The capital consequence is saltwater intrusion. A 2025 assessment found salt water had reached irrigation ponds and a monitoring well near Dover, and the City of Dover already switches between aquifers seasonally to protect fresh supply.⁶ As one state hydrogeologist put it, once salt water moves in, it is very hard to get back out — so where the next well or source comes from is now a capital question.

COMPLIANCE — PFAS

A 4-ppt limit with a 2029 clock

EPA's national drinking-water rule sets a 4 parts-per-trillion limit for PFOA and PFOS, with compliance required by 2029. In 2023–2024 sampling, about 6% of Delaware public-water samples contained PFAS and roughly 2.5% exceeded the concerning 14–21 ppt range — including detections at Suez/Veolia's Stanton plant and an Artesian well, while New Castle's system had already installed treatment.⁷

Filtration is not cheap: utilities have filed funding requests ranging from \$200,000 to \$90 million. Litigation is offsetting some of it — Artesian has received about \$7.2 million from a 3M settlement and is crediting roughly \$73 to each active Delaware customer — but the capital still has to be built and sequenced.⁸

RENEWAL — AGING SYSTEMS & LEAD

Old pipe, combined sewers, and lead lines on the same clock

Wilmington runs a roughly 120-year-old collection system — about 300 miles of pipe, some 90% of it combined — so heavy storms send stormwater and sewage overflowing into the Brandywine and Christina Rivers.⁹ Statewide, EPA pegs Delaware's 20-year drinking water need near \$1.81 billion.¹

On top of renewal, lead service line inventory and replacement is now a funded mandate flowing through the state's drinking-water program.³ New obligations don't replace the old backlog — they stack on it, and something on the list has to move.

WATER QUALITY — INLAND BAYS

Nutrient pressure on Sussex County's waters

Delaware's Inland Bays — Rehoboth, Indian River, and Little Assawoman — remain among the most nutrient-enriched estuaries in the country, driven by nitrogen and phosphorus from wastewater, septic systems, and runoff. DNREC's Pollution Control Strategy pushes systems and developments toward advanced treatment and reduced loading.¹⁰

For utilities in fast-growing coastal Sussex, that means wastewater capacity, treatment upgrades, and sewer extensions to retire septs — capital that competes directly with drinking-water renewal for the same dollars.

WHO RUNS DELAWARE’S WATER

A small state where investor-owned utilities carry a large share

Unlike most states, Delaware’s water is delivered heavily by regulated private companies alongside a handful of municipal systems. Artesian and Tidewater (a Middlesex Water subsidiary) answer to the Public Service Commission; Wilmington, Dover, and Newark answer to their councils.

Municipal utilities

Rates set by city council · capital approved by governing bodies

City of Wilmington Water & Sewer ~300 mi of combined sewers, ~120 yrs old

City of Dover ~40,000 residents · seasonal aquifer switchings

New Castle Municipal Services Commission Installed PFAS treatment since 2014

City of Newark University-town municipal system

Small towns & sanitary districts Kent & Sussex — where funding gaps hit hardest

Investor-owned utilities

Rates & capital recovery regulated by the Delaware PSC

Artesian Water Company 80,100 metered customers · ~1,491 mi of main

Tidewater Utilities (Middlesex Water) ~60,000 retail customers, 3 counties

Veolia / Suez Water Delaware Stanton-area treatment & PFAS response

White Marsh Environmental Systems ~4,500 customers, Kent & Sussex

Artesian invested roughly \$40.5 million in water and wastewater infrastructure in the first nine months of 2025 alone

Every capital dollar has to be defensible

Whether you answer to the Public Service Commission or a city council, the question is the same: why this project, why now, why at this cost? Delaware's oversight bodies are asking it harder than ever.

Delaware Public Service Commission (PSC) regulates rates and capital recovery for investor-owned utilities. Artesian's 2023 case — its first rate request in nine years — opened at 23%, ran through interim rates, and settled at a 15% increase approved in June 2024¹⁴

The Division of the Public Advocate negotiates on behalf of ratepayers — it shaped the Artesian settlement and reviewed the PFAS-settlement customer credit before the PSC approved it⁸

DNREC and the DHSS Office of Drinking Water hold Safe Drinking Water Act primacy — PFAS monitoring, lead service line inventories, and the compliance capital that follows³

City councils & boards approve municipal capital plans in public, in front of ratepayers — Wilmington's combined-sewer and Clean Waterways program among them⁹

The money is moving — can your plan absorb it?

Delaware utilities have more capital funding 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.

Drinking Water State Revolving Fund (FFY25) — a \$10.9M base capitalization grant plus roughly \$24.9M in IJA supplemental funds and \$7.9M dedicated to emerging contaminants such as PFAS³

\$62.28M in IJA drinking-water funding was allotted to Delaware in 2023 for lead line replacement, PFAS, and system upgrades¹⁵

\$20.9M announced for FY25 — more than \$12.2M through the Clean Water SRF and more than \$7.6M for drinking-water emerging contaminants.¹⁶

\$174.9M in total BIL water dollars has flowed to Delaware since 2022, including a February 2024 tranche of more than \$42M across drinking water, wastewater, and stormwater⁴

DELAWARE WATER, IN BRIEF

Questions Delaware utility leaders are asking

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

Is Delaware really the state most exposed to sea-level rise?

By elevation, yes — Delaware has the lowest mean elevation of any U.S. state, about 60 feet, and state assessments project 8–11% of its land could be inundated by 2100 depending on the scenario. Sea level at the mouth of Delaware Bay has risen roughly 7 inches in 30 years, and at Bowers Beach the rate is the fastest on the Atlantic coast. For utilities, that translates directly into saltwater-intrusion risk for coastal wells²⁵

What does the PFAS rule mean for Delaware utilities' capital plans?

EPA's rule caps PFOA and PFOS at 4 parts per trillion with compliance due by 2029. About 6% of Delaware samples in 2023–2024 contained PFAS and roughly 2.5% exceeded the concerning range, with detections at systems including Suez/Veolia and Artesian. Treatment cost estimates have ranged from \$200,000 to \$90 million per utility, and settlement dollars — such as Artesian's ~\$7.2M from 3M — offset only part of it²⁸

Who sets my utility's water rates in Delaware?

The Delaware Public Service Commission regulates rates and capital recovery for investor-owned utilities such as Artesian Water and Tidewater Utilities, with the Division of the Public Advocate representing ratepayers. Municipal systems — Wilmington, Dover, Newark — set rates through their own councils. Artesian's most recent case settled at a 15% increase approved in June 2024, its first in nine years³⁴

How much funding is available to Delaware water utilities?

A lot, by historical standards. Delaware's FFY25 Drinking Water SRF carried a ~\$10.9M base grant, ~\$24.9M in IJA supplemental funds, and ~\$7.9M for emerging contaminants; a separate 2023 IJA allotment totaled \$62.28M; and about \$174.9M in total BIL water dollars has reached the state since 2022. The gating factor is project readiness and eligibility, not the availability of dollars³¹⁵⁴

What's happening with saltwater intrusion?

A 2025 assessment found salt water reaching irrigation ponds and a monitoring well near Dover, though deeper aquifers remained largely protected. The City of Dover already shifts between aquifers seasonally to protect fresh supply during the growing season, and the Delaware Geological Survey is expanding monitoring. For utilities, it makes long-term source planning — new wells, treatment, interconnections — a live capital decision rather than a distant one.⁶

How does Invizion help Delaware water utilities plan capital?

Invizion is scenario-based capital portfolio optimization for water utilities. It lets you model how a PFAS deadline, a saltwater-intrusion source project, a new SRF award, or a PSC rate outcome 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 PSC, your council, the Public Advocate, 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 Delaware capital plan looks like — book a 20-minute first meeting.

Book your first meeting →