

A turbine from 1915 still drains New Orleans. Louisiana's capital plans can't wait either.

Century-old power at the Sewerage & Water Board, saltwater climbing the Mississippi, a coast that is sinking and shrinking, and small systems failing across the state — every one of those forces moves the projects on a Louisiana utility's list. Invizion helps finance and capital leaders re-sequence a capital portfolio in a click and defend every decision.

1915¹ Year the Sewerage & Water Board's Turbine 4 — still generating the 25-cycle power that runs New Orleans' drainage pumps — was installed.	2,000+ mi²² Coastal Louisiana land lost since the 1930s — an area roughly the size of Delaware, and still shrinking.	\$556M³ Federal State Revolving Fund water dollars to Louisiana since 2022 — about \$203M earmarked for lead lines.	1,200+⁴ Public water systems the Louisiana Department of Health oversees for safe-drinking-water compliance.
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THE LOUISIANA 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.

RELIABILITY — NEW ORLEANS

A drainage system running on 110-year-old power

The Sewerage & Water Board of New Orleans still runs about half of its east-bank drainage pumps on self-generated 25-cycle (25-Hz) power — a frequency the rest of the grid abandoned generations ago. Its workhorse, Turbine 4, was installed in 1915. In April 2023 so many machines were down at once that available 25-cycle capacity fell to 35.75 MW against the 42–52 MW needed in a heavy rainstorm; Turbine 4 alone tripped eleven times in 2022.¹

A \$300M Carrollton power complex tied into standard 60-cycle transmission is meant to end that dependence, but wasn't due online until late 2024 at the earliest.¹ Meanwhile the drainage system carries roughly \$800M in major capital needs against less than \$7M a year in available financing, and boil-water advisories still recur across the city's water side.⁵⁶

SUPPLY — SALTWATER INTRUSION

The Gulf climbing up the drinking-water source

Lower-river parishes draw drinking water straight from the Mississippi. When drought cuts the river's downstream flow, denser Gulf saltwater creeps upriver along the bottom as a wedge. In 2023 that wedge reached river mile 63.7 by late November, and the Army Corps augmented an underwater sill to slow it while agencies barged more than 110 million gallons of fresh water and deployed reverse-osmosis units to Boothville, Port Sulphur, and Pointe à la Hache.⁷

The 2023 event stopped short of New Orleans' intakes, but the exposure is structural: a low-flow year and a deep navigation channel can put the saltwater front within reach of intakes serving hundreds of thousands of people. For utilities on the lower river it is now a capital-planning input, not a footnote.

ENVIRONMENT — A SINKING COAST

Infrastructure on ground that is disappearing

Louisiana has lost more than 2,000 square miles of coastal land since the 1930s — roughly the size of Delaware — as sediment starved and subsidence took over; the lower Mississippi now carries more than 70% less sediment than it did in 1850, and land keeps sinking below sea level²

Nearly two million people live in the coastal zone this affects⁸ Subsidence, saltwater, and storm surge shorten the useful life of buried pipe, treatment plants, and pump stations — which means renewal timing in south Louisiana can't be set on a standard national depreciation curve.

COMPLIANCE — SMALL SYSTEMS, LEAD & PFAS

Distress at the small end, mandates for everyone

The Louisiana Department of Health oversees more than 1,200 public water systems, and monitors them for PFAS and lead⁴ Many of the smallest are in real distress: in Tallulah, the state issued an emergency order in 2024 and a private operator was placed in charge after years of outages and near-monthly boil advisories — a pattern echoing a national picture in which more than a third of small community systems fell out of compliance in a single year.⁹

On top of that, lead service line inventories were due to LDH by October 2024, and replacement is now a funded federal mandate.¹⁰ New obligations don't clear the old backlog — they stack on top of it, and something on the list has to move.

WHO RUNS LOUISIANA'S WATER

Big-city public utilities, a private core, and a long tail of small systems

Louisiana's larger cities run their own water, sewer, and drainage. Baton Rouge and much of the state's private service are investor-owned and rate-regulated by the Public Service Commission. Below both sits a long tail of small rural systems — where the compliance and funding gaps hit hardest.

Municipal & public utilities

Rates set by boards & city councils · capital approved locally

Sewerage & Water Board of New Orleans Serves Orleans Parish · water, sewer & drainages

Jefferson Parish Water Department Largest suburban system in the metro

Lafayette Utilities System (LUS) Municipal water, sewer & power

City of Shreveport Water & Sewerage Largest system in north Louisiana

Numerous small & rural systems Where distress and funding gaps concentrates

The Sewerage & Water Board's governance and financing structure has itself been flagged as a threat to the long-term sustainability of the city's water, sewer, and drainage infrastructure.¹²

Investor-owned & regulated utilities

Rates & capital recovery regulated by the LPSC

Baton Rouge Water Company Large investor-owned system in the capital region

Louisiana Water Company Investor-owned systems across several parishes

Central States Water Resources (LA) Acquires & rehabilitates small distressed systems

Private operators under state order Stepping in where local systems fail⁹

Investor-owned water and sewer utilities in Louisiana answer to the Public Service Commission for rates and capital recovery.¹¹

Every capital dollar has to be defensible

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

Louisiana Public Service Commission (LPSC) regulates rates and capital recovery for investor-owned water and sewer utilities statewide.¹¹

Louisiana Department of Health (LDH) holds Safe Drinking Water Act primacy — the lead service line inventories, PFAS monitoring, and boil-water oversight that drive compliance capital.¹⁰

Louisiana DEQ administers the Clean Water and Drinking Water State Revolving Funds and solicits projects for funding each state fiscal year.³

Utility boards & city councils approve municipal capital plans and rates in public — and, in New Orleans, the S&WB's own governance is under active reform scrutiny.¹²

The money is moving — can your plan absorb it?

Louisiana utilities have more federal water capital available than in a generation, but it is a fraction of the need. 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.

~\$556M in federal SRF water funding has flowed to Louisiana since 2022 — about \$405M through the Drinking Water SRF and \$151M through the Clean Water SRF.³

~\$203M dedicated to lead line replacement delivered as roughly \$42M a year of Bipartisan Infrastructure Law funding (about 49% grants, 51% no-interest loans).¹⁰³

\$275M WIFIA loan to the Sewerage & Water Board of New Orleans for its Sewer System Evaluation and Rehabilitation Program.¹³

A ~\$36B, 20-year gap — about \$9B in drinking-water and \$26.9B in wastewater needs — with federal funding to date covering only about 1.6% of it.³

New Orleans drainage faces ~\$800M in major capital needs, with dedicated drainage taxes (about \$54M a year) set to expire by 2031 unless renewed.⁵

LOUISIANA WATER, IN BRIEF

Questions Louisiana utility leaders are asking

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

Why does New Orleans still run on 25-cycle power?

The Sewerage & Water Board's drainage pumps were built for 25-Hz power, so the utility self-generates it — still leaning on Turbine 4, installed in 1915. In April 2023, so many units were offline that available 25-cycle capacity dropped to 35.75 MW against the 42–52 MW needed in a heavy storm. A \$300M Carrollton power complex tied into standard 60-cycle transmission is meant to end that reliance²¹

How serious was the 2023 Mississippi River saltwater intrusion?

Low river flow let a Gulf saltwater wedge climb the bottom of the Mississippi to river mile 63.7 by late November 2023. The Army Corps augmented an underwater sill to slow it, and agencies barged more than 110 million gallons of fresh water and deployed reverse-osmosis units to intakes at Boothville, Port Sulphur, and Pointe à la Hache. It stopped short of New Orleans, but the structural exposure remains for lower-river systems²⁷

How much coastal land is Louisiana losing, and why does it matter to utilities?

Louisiana has lost more than 2,000 square miles of coast since the 1930s — about the size of Delaware — as sediment starved and subsidence took over. Nearly two million people live in the affected zone. Subsidence, saltwater, and surge shorten the service life of buried pipe and plants, so renewal timing in south Louisiana can't follow a standard national curve²⁸

What funding is available to Louisiana water utilities?

Louisiana has received about \$556M in federal SRF water funding since 2022 — roughly \$405M drinking-water and \$151M clean-water — including about \$203M for lead line replacement, administered by LDH and DEQ. The Sewerage & Water Board also closed a \$275M WIFIA loan. Even so, that federal support covers only about 1.6% of an estimated \$36B, 20-year need³¹³

Who sets water rates in Louisiana?

It depends on ownership. The Louisiana Public Service Commission regulates rates and capital recovery for investor-owned water and sewer utilities such as Baton Rouge Water Company. Municipal systems — New Orleans, Jefferson Parish, Lafayette, Shreveport — set rates through their own boards and city councils. Either way, capital spending has to be justified to a governing body and, increasingly, to ratepayers³¹

How does Invizion help Louisiana water utilities plan capital?

Invizion is scenario-based capital portfolio optimization for water utilities. It lets you model how a saltwater year, a power failure, a lead deadline, or a delayed SRF 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 LPSC, 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 Louisiana capital plan looks like — book a 20-minute first meeting.

Book your first meeting →