

From Birmingham's mains to Lowndes County's backyards, Alabama's water needs outrun its budgets.

Aging distribution systems, a rural sanitation crisis with few parallels in the country, PFAS treatment that no one has budgeted for, and a wave of federal money that has to be matched, spent, and defended. For a utility CFO or capital lead, every one of those forces reshuffles the projects on your list. Invizion helps Alabama utilities re-sequence a capital portfolio in a click — and defend every decision.

40–90% ¹	570 ²	~\$1.5B ³	\$171M ⁴
Of households in Lowndes County estimated to have inadequate or no wastewater system — the core of Alabama's Black Belt sanitation crisis.	Public water systems regulated in Alabama — most serve small, often rural communities with thin balance sheets.	Estimated federal water-infrastructure funding to Alabama, 2022–2026, against more than \$3B in documented needs.	EPA WIFIA loan Birmingham Water Works closed in 2024 for a system-wide repair and rehabilitation program.

THE ALABAMA 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.

WASTEWATER — THE BLACK BELT

A rural sanitation crisis with no easy fix

In Lowndes County and across Alabama's Black Belt, dense clay soils, deep poverty, and low density make conventional septic systems fail. The Alabama Department of Public Health has estimated that between 40% and 90% of households there have inadequate or no wastewater system — many rely on “straight-piping” raw sewage onto the ground¹

A 2023 U.S. Justice Department civil-rights settlement committed the state to a remediation plan; in April 2025 the federal government terminated that agreement, leaving the work reliant on state and local funding⁵ For utilities and counties, extending sewer or decentralized treatment into these communities is now a capital question with no revenue base behind it⁶

RENEWAL — AGING PIPE

Old mains, tightening budgets, and rate ceilings

Birmingham Water Works — Alabama's largest system, serving about 750,000 people across five counties over roughly 3,858 miles of main — is emblematic of the squeeze⁷ For its 2026 budget the utility cut capital spending 34%, from \$115.6M to \$75.8M, while approving no rate increase amid a contested 2025 restructuring of its governing board⁸

When capital is cut but renewal needs don't shrink, something on the list has to move. The question is which projects — and whether the sequencing can be defended to a board and to ratepayers.

COMPLIANCE — PFAS

Forever chemicals, and a 4-ppt clock

EPA's 2024 drinking-water rule set enforceable limits of 4 parts per trillion for PFOA and PFOS — down from a 70-ppt advisory. Multiple Alabama systems already exceed the old thresholds; Gadsden built a \$5M granular-activated-carbon plant, and West Morgan-East Lawrence won a \$35M settlement from 3M⁹

In 2026 Huntsville Utilities sued 3M, Daikin, and other manufacturers over PFAS in its Tennessee River supply, warning that treatment upgrades “shouldn't be on the backs of customers.”¹⁰ Either way, PFAS treatment is now a funded mandate stacked on top of the renewal backlog.

STRUCTURE — SMALL SYSTEMS

Hundreds of small systems, and a funding gap

Alabama has roughly 516 community water systems, and about 406 of them serve 10,000 people or fewer — small utilities that struggle with the financial capacity and application burden that federal funding requires¹¹

EPA puts the national 20-year drinking-water need at \$625B; Alabama's own documented needs top \$3B against roughly \$1.5B of incoming federal money¹⁶³ Lead service lines add to the load — Birmingham alone has drawn \$43.5M in federal lead-replacement funding⁷

WHO RUNS ALABAMA'S WATER

A public, municipal system with a long tail of small providers

Almost all of Alabama's water is delivered by city water boards, authorities, and rural districts — government-owned systems serve some 5.5 million people. A small set of investor-owned utilities is rate-regulated by the Public Service Commission. The pressures are shared; the accountability path differs.

Municipal & public systems

Rates set by water boards & city councils · capital approved by governing boards

Birmingham Water Works ~750,000 served · 5 counties · ~3,858 mi of main⁷

Mobile Area Water & Sewer System (MAWSS) ~2,200 mi of water line · ~41 MGD delivered¹²

Huntsville Utilities North Alabama's largest · Tennessee River supply · record 79.33 MGD pumped¹³

Montgomery Water Works & Sanitary Sewer Board Serves the capital region's water & sewer

Tuscaloosa, Decatur, Dothan, Auburn Mid-size municipal systems

Government-owned community water systems serve roughly 5.5 million Alabamians.¹¹

Investor-owned & small/rural systems

Private utility rates regulated by the Alabama PSC

Investor-owned community water systems ~17 private CWS · ~58,937 people served¹¹

Rural water authorities & districts The bulk of Alabama's ~570 public systems²

406 systems serving ≤10,000 Where funding gaps hit hardest¹¹

291 publicly owned treatment works 204 treat 1 MGD or less¹¹

The Alabama PSC regulates private water and wastewater utilities; municipal systems set their own rates.¹¹

Every capital dollar has to be defensible

Whether you answer to the Public Service Commission or a city water board, the question is the same: why this project, why now, why at this cost? In Alabama, oversight now reaches into sanitation itself.

Alabama Public Service Commission (APSC) regulates rates for investor-owned water and wastewater utilities; municipal boards and city councils set their own rates without APSC review¹¹

ADEM holds Safe Drinking Water Act primacy in Alabama — lead & copper service-line inventories, PFAS monitoring, and the compliance capital that follows, across roughly 570 public water systems.²

EPA's 2024 PFAS rule — 4 ppt for PFOA and PFOS — is now a funded compliance driver forcing treatment decisions at systems from Gadsden to Huntsville.⁹

Civil-rights & sanitation enforcement — the 2023 Lowndes County DOJ settlement, and its 2025 federal termination, put rural wastewater squarely on the state's agenda as a legal question, not just a capital one.⁵

The money is moving — can your plan absorb it?

Alabama 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 SRF (FY2025) opened with a \$43.96M federal capitalization grant and about \$210.3M in total funds available, with at least \$21.5M — 49% of the grant — required as principal forgiveness for disadvantaged systems¹⁴

Clean Water SRF (FY2024) drew a \$9.13M federal capitalization grant against roughly \$129.5M in total available funds for wastewater and water-quality projects.¹⁵

~\$1.5B in combined BIL and ARPA water funding is estimated to flow to Alabama between 2022 and 2026 — including an \$88.04M FY2023 Bipartisan Infrastructure Law drinking-water allotment³¹⁶

\$171M EPA WIFIA loan closed for Birmingham Water Works in 2024 for a system-wide infrastructure repair and rehabilitation program⁴

USDA Rural Development & state grants underwrite Black Belt sanitation — \$10M for Hayneville's system, plus \$2.2M USDA and \$2.1M ARPA for unincorporated wastewater projects⁶

ALABAMA WATER, IN BRIEF

Questions Alabama utility leaders are asking

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

How severe is Alabama's rural wastewater problem?

In Lowndes County and the wider Black Belt, the Alabama Department of Public Health has estimated 40% to 90% of households have inadequate or no wastewater treatment, with many straight-piping raw sewage onto the ground. A 2023 DOJ civil-rights settlement set a remediation path, but the federal government terminated that agreement in April 2025, leaving the work dependent on state, local, and USDA funding⁵

Who sets water rates in Alabama?

It depends on ownership. The Alabama Public Service Commission regulates rates for investor-owned water and wastewater utilities. But almost all Alabama water is delivered by municipal water boards, authorities, and rural districts, which set their own rates through their governing boards — roughly 570 public water systems in all¹²

What is happening at Birmingham Water Works?

Birmingham Water Works, the state's largest system at about 750,000 people across five counties, cut its 2026 capital budget 34% — from \$115.6M to \$75.8M — while approving no rate increase, all amid a contested 2025 state law that restructured its board. It is also repaying a \$171M EPA WIFIA loan for system-wide repairs.⁸⁴

How is PFAS affecting Alabama utilities?

EPA's 2024 rule caps PFOA and PFOS at 4 parts per trillion, and several Alabama systems already exceed prior thresholds. Gadsden built a \$5M carbon-filtration plant, West Morgan-East Lawrence won a \$35M settlement from 3M, and in 2026 Huntsville Utilities sued 3M and Daikin over PFAS in its Tennessee River supply.⁹¹⁰

How much water funding is available to Alabama utilities?

An estimated \$1.5B in combined Bipartisan Infrastructure Law and ARPA funding is flowing to Alabama between 2022 and 2026. The FY2025 Drinking Water SRF alone had about \$210.3M in total funds available with at least \$21.5M in mandatory principal forgiveness, and Alabama's FY2023 BIL drinking-water allotment was \$88.04M — against national 20-year needs EPA estimates at \$625B¹⁴³¹⁶

How does Invizion help Alabama water utilities plan capital?

Invizion is scenario-based capital portfolio optimization for water utilities. It lets you model how a PFAS deadline, a capital budget cut, a WIFIA loan, or a new SRF award reshuffles your whole project list, re-sequence the portfolio automatically against your constraints, and keep a defensible record of every trade-off for the PSC, 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 Alabama capital plan looks like — book a 20-minute first meeting.

Book your first meeting →