

Western Kansas is drawing down its aquifer. The whole state is running up a repair bill.

The Ogallala keeps falling in the west, a generation of pipe and plant is due for renewal statewide, and federal PFAS and lead mandates arrive on a fixed clock — all while metro systems like Wichita and Johnson County finance nine-figure projects. Every one of those forces reshuffles the list. Invizion helps Kansas water utilities re-sequence a capital portfolio in a click — and defend every decision.

1.66 ft/yr¹ Average annual High Plains aquifer decline in southwest Kansas (GMD 3) over the last 30 years — the state's fastest-depleting region.	\$11.2B² Kansas's 20-year drinking water & wastewater infrastructure needs — about \$7B for water, \$4.2B for wastewater.	\$420M² Federal State Revolving Fund water dollars to Kansas since 2022 — roughly \$146M of it earmarked for lead lines.	\$280M³ EPA WIFIA loan financing Wichita's new Northwest Water Treatment Facility.
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THE KANSAS LANDSCAPE

Four forces are moving your project list at once

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

SUPPLY — OGALLALA AQUIFER

A shrinking aquifer under the western half of the state

The High Plains (Ogallala) aquifer underlies roughly 30,500 square miles of Kansas and is the primary source of drinking, irrigation, and industrial water across the western half of the state.⁴ It is part of an eight-state aquifer covering about 174,000 square miles that supplies water to some 2.3 million people⁵

Statewide, water levels have fallen an average of about 0.57 feet a year over the last three decades, and in southwest Kansas (GMD 3) the 30-year average decline runs near 1.66 feet a year. Heavy 2025 rains produced the first statewide uptick since 2019, but the long-term trend is down.¹ In parts of west-central Kansas, up to a fifth of the irrigated farmland along a 100-mile swath has already gone dry — and in 2024 Kansas gave local water-management districts new authority to limit withdrawals.⁶

COMPLIANCE — AGING SYSTEMS

A renewal bill measured in billions

Kansas water and wastewater systems carry about \$11.2 billion in 20-year infrastructure needs — roughly \$7 billion for drinking water and \$4.2 billion for wastewater.²

Lead is already part of that bill: about \$146 million of the state's federal drinking-water funding since 2022 is dedicated to lead service line work.² Renewal, lead replacement, and growth all compete for the same dollars, and the sequencing between them is exactly what boards fight over.

COMPLIANCE — PFAS & CONTAMINANTS

New federal mandates on a fixed clock

EPA's federal PFAS drinking-water standard sets enforceable limits of 4.0 parts per trillion for PFOA and PFOS, with initial monitoring due by 2027 and treatment in place by 2029⁷ Any Kansas system that detects PFAS faces new capital — wells, blending, or treatment — on that timeline.

These obligations don't replace the renewal backlog; they stack on top of it, and something already on the list has to move²

STRUCTURE — A FRAGMENTED SYSTEM

A few big metros, hundreds of small systems

Kansas water is delivered by a handful of large metro utilities and hundreds of small municipal and rural systems. The Kansas Rural Water Association represents the rural water districts and small towns that make up most of the state's systems — the places where one main break or a single new mandate can swamp a budget.⁸

Scale cuts both ways: big systems like Wichita and Johnson County are financing capital with nine-figure WIFIA loans³ while small systems chase the same SRF dollars with far less capacity to plan. A defensible, comparable capital process matters at both ends.

WHO RUNS KANSAS’S WATER

Mostly municipal and rural-district owned — with a few large metro systems

Unlike many states, Kansas has no dominant investor-owned water provider. The vast majority of Kansans get water from city systems and rural water districts, whose rates are set locally rather than by a state commission.

Municipal & metro utilities

Rates set by city councils · capital approved by governing boards

City of Wichita Water Utilities Serves Wichita & wholesale customers · new Northwest Water Treatment Facility backed by a \$280M WIFIA loans

WaterOne (Water District No. 1 of Johnson County) Among the largest water utilities in Kansas · Kansas City metro

Kansas City, KS — Board of Public Utilities (BPU) 53,000 water customers · ~1,000 mi of mains

Johnson County Wastewater Nelson plant upgrade financed with a \$281M WIFIA loans

Topeka, Olathe, Lawrence Large municipal water systems

Rural districts & investor-owned systems

Rates set by elected district boards — or, for IOUs, the KCC

Rural water districts (RWDs) Hundreds statewide · elected boards set rates

Public wholesale water supply districts Regional wholesale suppliers to smaller systems

Small investor-owned water utilities Rate-regulated by the Kansas Corporation Commission

Small towns & systems Where funding and planning gaps hit hardest

Kansas has no large investor-owned water company on the scale of an American Water subsidiary; most systems are municipal or rural-district owned.

Every capital dollar has to be defensible — usually to a local board

In Kansas the accountability is unusually local. There is no statewide rate regulator for municipal or district water, which puts the burden of justification squarely on the utility and its governing body.

Local governing bodies set most water rates. City councils approve municipal utility rates and capital; rural water district rates are set by elected district boards. Kansas has no statewide rate regulator for municipal or district water.⁸

Kansas Corporation Commission (KCC) regulates the state's investor-owned utilities — electric, natural gas, and telecom — and the small investor-owned water and sewer companies; water is not one of its major regulated sectors.¹⁰

KDHE holds Safe Drinking Water Act primacy in Kansas — lead service line inventories, PFAS monitoring, and the compliance capital that follows the federal 4.0 ppt PFAS standard.⁷

Kansas Water Office & the Water Plan coordinate state water policy and the State Water Plan Fund that supports conservation and aquifer management.¹¹

The money is moving — can your plan absorb it?

Kansas utilities have more capital funding available than 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.

\$420 million in federal SRF water funding has flowed to Kansas since 2022 — about \$309 million through the Drinking Water SRF (including \$146 million for lead lines) and \$111 million through the Clean Water SRF.²

WIFIA loans are financing Kansas's largest projects: \$280M for Wichita's Northwest Water Treatment Facility (2020), \$191M for Wichita wastewater nutrient-removal upgrades (2023), and \$281M for Johnson County's Nelson wastewater plant (2022).³

EPA's WIFIA program lends up to 49% of eligible project costs at near-Treasury rates — well suited to Kansas's metro systems.¹²

State Water Plan Fund — Kansas's dedicated state fund for water projects, conservation, and aquifer management, administered through the Kansas Water Office and Water Authority.¹¹

Federal PFAS & emerging-contaminant funds — the federal infrastructure law dedicated roughly \$1 billion nationally to help systems address PFAS, a pool Kansas systems can draw on.⁷

KANSAS WATER, IN BRIEF

Questions Kansas utility leaders are asking

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

How fast is Kansas's Ogallala aquifer declining?

Statewide, High Plains aquifer levels have dropped about 0.57 feet a year over the last three decades, and in southwest Kansas (GMD 3) the 30-year average is near 1.66 feet a year. Unusually wet weather produced a small statewide rebound in 2025 — the first increase since 2019 — but the long-term trend is downward, and the aquifer is the primary water source for the western half of the state.¹⁴

How much capital do Kansas water systems need?

Kansas water and wastewater systems carry roughly \$11.2 billion in 20-year infrastructure needs — about \$7 billion for drinking water and \$4.2 billion for wastewater — with about \$146 million of recent federal drinking-water funding dedicated to lead service line replacement.¹²

Who sets water rates in Kansas?

Most rates are set locally: city councils approve municipal utility rates, and rural water districts set theirs through elected boards. The Kansas Corporation Commission regulates investor-owned utilities — mainly electric, gas, and telecom, plus small investor-owned water and sewer companies — but there is no statewide rate regulator for municipal or district water.¹⁰

What funding is available to Kansas water utilities?

Kansas has received about \$420 million in federal SRF water funding since 2022, and its largest systems are using EPA WIFIA loans — \$280M for Wichita's new drinking-water plant, \$281M for Johnson County's Nelson wastewater plant, and more. The State Water Plan Fund adds dedicated state support for conservation and aquifer management.²³¹¹

What are Kansas systems' PFAS obligations?

Under EPA's federal PFAS drinking-water standard, PFOA and PFOS are limited to 4.0 parts per trillion, with initial monitoring due by 2027 and treatment in place by 2029. Systems that detect PFAS will need new capital, and roughly \$1 billion in national infrastructure-law funding is available to help.⁷

How does Invizion help Kansas water utilities plan capital?

Invizion is scenario-based capital portfolio optimization for water utilities. It lets you model how a falling aquifer, a PFAS deadline, a lead mandate, or a WIFIA 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 your council, your district board, or a lender. 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.

1. Kansas Geological Survey — Kansas High Plains aquifer 2025 water-level report: statewide long-term decline -0.57 ft/yr (1996–2025), southwest Kansas (GMD 3) -1.66 ft/yr, first statewide increase since 2019, ~1,400 wells measured, 2025. kgs.ku.edu
2. Water Program Portal — “Kansas Federal Water Funding” fact sheet: \$11.2B in 20-year needs (\$7B drinking water, \$4.2B wastewater); ~\$420M federal SRF since 2022 (\$309M DWSRF incl. \$146M for lead lines, \$111M CWSRF), 2026. waterprogramportal.org
3. U.S. EPA — WIFIA closed loans: City of Wichita Northwest Water Treatment Facility \$280M (2020) and wastewater biological-nutrient-removal upgrades \$191M (2023); Johnson County Nelson Wastewater Treatment Plant \$281M (2022). epa.gov
4. Kansas Geological Survey — High Plains Aquifer Atlas, aquifer basics: the aquifer covers ~30,500 sq mi of Kansas and is the primary water source for western Kansas, 2024. kgs.ku.edu
5. U.S. Geological Survey — High Plains aquifer: ~174,000 sq mi across eight states, providing drinking water for ~2.3 million people. usgs.gov
6. Wikipedia — Ogallala Aquifer: ~3 million acres irrigated in Kansas; up to one-fifth of irrigated farmland along a 100-mile swath of west-central Kansas already dry; in 2024 Kansas gave local water-management districts authority to limit withdrawals in drought. en.wikipedia.org
7. U.S. EPA — Per- and Polyfluoroalkyl Substances (PFAS) National Primary Drinking Water Regulation: 4.0 ppt limits for PFOA and PFOS, monitoring by 2027 and treatment by 2029, ~\$1B in IJA support, 2024. epa.gov
8. Kansas Rural Water Association — represents Kansas’s rural water districts and small municipal water and wastewater systems, 2025. krwa.net
9. Board of Public Utilities (Kansas City, KS) — Fast Facts: 53,000 water and 67,000 electric customers, ~161,000 residents, ~1,000 miles of water main across Wyandotte County, 2025. bpu.com
10. Kansas Corporation Commission — regulates the state’s investor-owned electric, natural gas, oil & gas, telecom and transportation utilities; municipal and rural-district water rates are set locally, 2025. kcc.ks.gov
11. Kansas Water Office — the Kansas Water Plan and the State Water Plan Fund supporting water projects, conservation, and aquifer management, 2025. kwo.ks.gov
12. U.S. EPA — WIFIA program: low-interest federal loans of up to 49% of eligible costs for large water and wastewater projects, 2025. epa.gov

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 Kansas capital plan looks like — book a 20-minute first meeting.

Book your first meeting →