

# 'It's an emergency.' Midwest towns scramble as drought threatens drinking water

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Credit: Pixabay/CC0 Public Domain

James Rainbolt typically can tackle most problems at his rural water plant with some extra time or money.

But he can't fix this.

"I just can't make it rain," he said.

Like others across Southeast Kansas, Rainbolt remains helpless as he watches a persistent drought dry up the local [water](#) supply. He runs a public wholesale water supply district that provides the drinking water for several cities and rural water districts. The lack of rain has been so severe that it's now threatening the water district's intake pipe, which brings water from a local lake to the treatment plant.

As lake levels fall, the angle at which the 8-inch pipe meets a floating pump station grows steeper and steeper, stressing the flexible joint. If the joint breaks, the consequences would be catastrophic, instantly cutting the water supply for thousands of people, businesses and schools across three counties.

"If we break it, we have no water. Period," said Jack Warren, the mayor of Sedan, Kansas, a county seat about 100 miles southeast of Wichita and the largest customer of the water district.

This part of Kansas is suffering what the U.S. Drought Monitor characterizes as exceptional drought, its most severe category. While droughts frequently wreak havoc on agriculture here, residents are facing unprecedented challenges with drinking water supplies. This corner of the state, which lacks the vast underground aquifers that sit below much of Kansas, is overly reliant on surface water such as lakes and rivers.

That means [small towns](#) and ranches face tough and expensive choices on where to draw water from, a problem likely to increase as climate change brings more extreme weather. And it's a quandary that stretches far beyond Kansas. Persistent drought is plaguing communities across the country's interior: The map created by the U.S. Drought Monitor

shows its deepest red pockets across Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska and Texas, among other states.

Lack of rain has hit crops hard: In Missouri, for example, 40% of the state's corn crop was classified as poor or very poor, according to the drought monitor. Iowa, the nation's top corn producer, is in the midst of its worst drought in a decade with about 80% of the state in some measure of drought.

Prolonged drought has even reached the banks of Lake Superior: Parts of Wisconsin have the most severe drought designation for the first time since the 1999 inception of the U.S. Drought Monitor, said Dennis Todey, director of the U.S. Department of Agriculture's Midwest Climate Hub.

"It's the severity of the drought and the length of the drought that are causing some confounding issues right now," he said.

In Southeast Kansas, locals have taken extraordinary measures to conserve the dwindling lake water supply.

The city pool closed in the middle of the summer. So did the town's only car wash.

Local schools shut off drinking fountains, furnishing bottled water instead.

A community of about 900 people, Sedan has banned residents from using tap water for plants or lawns, forcing some to get creative. The mayor, for one, has been collecting the water that drains off his basement air conditioning unit to keep outdoor plants alive. The local movie theater is doing the same, allowing locals to come pick up its air conditioning runoff.

"Word's kind of got around about the various places you can go and get water," Warren said.

Conservation efforts appear to be working: Warren said Sedan has cut its water usage by about 30% since entering a stage 3 water emergency in early August.

"Drive around and you won't see a green yard in town," he said.

The water district just began construction on an emergency fix to its intake equipment. The work will essentially extend the floating dock farther into the lake, allowing the pipe to fall deeper into the water as the lake drops.

Locals, who noted that the drought has been ongoing since last year, said they've never seen a situation this severe.

"It just doesn't rain," said Rainbolt, who has lived in the area for nearly two decades. "This is not normal."

A church sign outside the First Assembly of God in Independence, Kan., is pictured here. Southeast Kansas is suffering some of the most severe drought conditions in the nation after months of lower-than-normal rainfall. Kevin Hardy/Stateline

## **Signs of drought**

Sedan is surrounded by the foothills of the scenic Flint Hills, which contain the nation's largest concentration of remaining tallgrass prairie.

The sidewalks of the small downtown are an homage to "The Wizard of Oz": Sedan claims to be home to the world's largest Yellow Brick Road with more than 10,000 yellow bricks encircling the heart of town.

On average, the town sees nearly 40 inches of precipitation each year, according to National Weather Service data. But last year, Sedan reported only 28.32 inches. Through August of this year, the town has seen fewer than 18 inches.

Signs of drought are apparent throughout the region.

On the Red Buffalo Ranch outside of town, no water flows over the 14-foot Butcher Falls. Normally a scenic destination, visitors can now walk across dry boulders where water normally rolls.

At the edge of one nearby community, a church sign implores passers-by to "Pray for Rain." Inside another church, pews are filled with photocopies of a special prayer for rain.

After Sedan's public pool closed early this summer, the city allowed ranchers and farmers to pump out the remaining water. They've also allowed locals to pump water from a local fishing lake to bring water to dry farms.

"Where are you getting water? Wherever you can find it," said Jim Bell, a longtime farmer in the area who manages Sedan Farm Supply, which runs a small grain elevator and retail store selling feed, seed and other products.

This is the time of year farmers bring their combines out of the barn to reap the year's harvest. Bell said local corn yields aren't great but are better than people expected. Still, more than a year of lackluster precipitation and recent extreme heat has jeopardized many soybean crops.

"Soybeans are burning up in the field, the grass is burning up on the prairie. And water's becoming a bigger and bigger issue," he said.



"Something needs to happen pretty quick."

The drought has threatened hay production, a necessity to keep livestock fed through cold Kansas winters. Bell said many ranchers, including himself, have culled their herds because of limited water and hay.

The five ponds on his family farm long ago went dry, forcing him to haul water he buys from the local water district. In nearly 50 years on the property, he said he's never seen things this dry.

"I've got one pond that I had no idea how deep it was until I saw the bottom of it this year," Bell said.

Luckily, the lake that supplies the area's [drinking water](#) hasn't totally dried up, though Rainbolt estimates water levels have dropped 8 or 9 feet below normal.

"Typically, there should be water right where we're standing," he said, perched atop dry rocks on a metal gangway that leads to the floating pumphouse.

The lake is so small locals don't even agree on its name: Some call it Murray Gill Lake. Others call it Quivira Lake or Boy Scout Lake, because of the regional Boy Scout council that owns the lake and runs the Quivira Scout Ranch on its banks each summer.

Whatever it's called, locals agree that the lake is a crucial, but threatened, lifeline. Through its various customers, the water district supplies treated water for some 7,000 residents, Rainbolt said.

Lake levels dropped so low that boat ramps and docks are unusable at the summer camp.

The water district has some reserve funds it will rely on and will also seek state and federal emergency funds to cover construction costs of upgrading and protecting the water intake structure, Rainbolt said.

"That's what this is: It's an emergency," he said.

Officials with the Kansas Water Office say they are well aware of the drought conditions in Southeast Kansas.

The state has encouraged communities to secure secondary sources of water, but that's easier said than done, according to Nathan Westrup, manager of the Kansas Water Office's public water supply programs.

That's especially true in Southeast Kansas, which is typically the wettest corner of the Sunflower State. Many water providers rely on a single river, lake or stream.

"It's more common than I would like," he said. "I'd say it's more common than not."

He noted that the GOP-controlled legislature made an extra \$35 million available to protect water resources in a bill Democratic Gov. Laura Kelly signed into law in April. The legislation makes grants available to communities both for technical assistance and for major water projects.

"That's, in my opinion, just a start and a recognition that the state might be needed," Westrup said, "and is willing to assist these small, small communities."

### **'It is not going to be a cheap fix'**

About 30 miles away, the small city of Caney, Kansas, has for decades relied on the Little Caney River, a small waterway, to feed its water

treatment plant.

But that river's flow has been compromised for months. Water currently doesn't even fall over the concrete dam.

Kelley Zellner, city manager for the community of about 1,600 people on the Oklahoma border, blames the problem on a mix of environmental factors and previous decisions by city leaders.

Caney resisted previous regional efforts to consolidate water sourcing and treatment. It runs its own municipal water plant that relies on a singular—and relatively precarious—water supply. Last year, county crews had to bring excavators to break up a logjam decades in the making that clogged water flow and accelerated evaporation.

Aside from the source issues, Zellner said the city is also struggling with an inefficient water plant and water lines. The plant was improperly designed for treating river water, he said. And a patchwork of duplicative, leaky city pipes causes the city to lose about 40% to 45% of its treated water.

Since last summer, city leaders have explored alternative water sources.

An attempt to connect with a water treatment plant in nearby Copan, Oklahoma, was unsuccessful. While the town is only about 9 miles away, moving water across state lines proved politically complicated and overly expensive.

Now, the city is eyeing a new water pipeline to connect to Coffeyville, a town of about 9,000 that sits along the Verdigris River. A tributary of the Arkansas River, the 310-mile Verdigris is replenished by several dams and reservoirs maintained by the U.S. Army Corps of Engineers.



But building a pipeline isn't easy or cheap.

Last week, engineers told the Caney City Council it would cost nearly \$22 million to fix water infrastructure in town and construct a new pipeline to Coffeyville.

"You guys have quite the interesting predicament," Danny Coltrane, the owner of Midwest Engineering Group, told the council. "Unfortunately it is not going to be a cheap fix."

Coltrane said the city's crisis would likely help it compete for state and federal funding. That's because the city would tackle dual problems: the ongoing drought and the replacement of lead in its pipes, a major priority of the federal government.

Plus, some direct allocations could be made available through current congressional negotiations to reauthorize the farm bill, the omnibus bill that's expected to top \$1 trillion for the first time.

"If you're related to a senator or representative, now would be the time to call them," Coltrane said.

The city just made its first formal proposal to connect to Coffeyville's water plant. The cost of running an 8-inch pipe over 14 miles is expected to top \$7.6 million—when the city's total annual budget is about \$7.2 million.

"So, \$21 million is pretty big," Zellner said. "We're kind of at the mercy of the funding. I hate to say it that way, but we are."

After a presentation on Caney's water problems, the Coffeyville City Commission Tuesday evening expressed support for a new pipeline and voted to begin planning.

"We don't have a lot of options," Zellner told the commission. " ... We're not on our prayer bones yet but we could be."

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