

In 2014, Austin-area utilities lost 7 billion gallons of water

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One early Wednesday morning in Northwest Austin last year, RM 2222 just west of MoPac Boulevard collapsed, the consequence of a sudden flood of water pouring forth from a cracked 20-inch underground pipe, one that dated back to the 1950s.

Traffic would not return to normal till that Friday, and [officials estimated that 1.5 million gallons of water were lost](#) over two hours in the water main break, or roughly the amount used by 15 average Austin homes over an entire year.

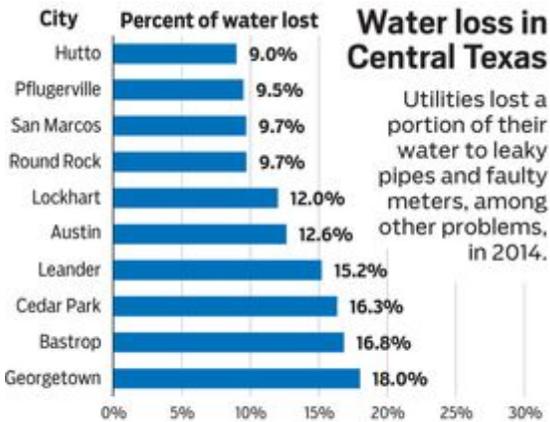


Austin Water crews work on a main break on RM 2222 between Parkcrest Drive and MoPac Boulevard on April 9, 2014.

In 2014, as Central Texas made its way through a debilitating drought, Central Texas communities lost more than 7 billion gallons of treated water, some from sudden spills like the MoPac mishap, or because water found its way out of leaky pipes or, due to faulty meters, was never properly accounted for.

Percentagewise, Georgetown led the way in water loss in 2014, with 18 percent water loss, according to interviews and data obtained by the American-Statesman from the state [Water Development Board](#). But other cities also saw a significant amount of their H2O go missing last year.

Austin lost nearly 13 percent of its water, or enough to meet the needs of about 45,000 Austin households; Bastrop, 17 percent; Cedar Park, 16 percent; and Leander, 15 percent.



Utilities lost a portion of their water to leaky pipes and faulty meters, among other problems, in 2014.

Source: Texas Water Development Board, City of Georgetown

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Water loss in Central Texas

These losses did not come cheap.

The 4.5 billion gallons Austin lost, chiefly because of leaky pipes and faulty meters, was worth \$6.8 million in production costs and retail value, according to information the city submitted to the state; for Cedar Park, its 513 million gallons lost amounted to \$786,000. For a smaller system like Bastrop's, its water loss of 75 million gallons amounted to about \$70,000.

Those figures are in keeping with losses generally experienced by utilities across the country, with national figures hovering around 15 percent.

Water loss calculations are part science, part art. No utility can account for every drop that leaves the treatment plant as it travels along a superhighway of underground pipes before spilling out of a kitchen sink or showerhead.

One report funded by the Texas Water Development Board found that reporting utilities — which at the time served as much as 84 percent of the state's population — lost enough water each year to meet the demands of at least 1.3 million Texans.

The board estimated the value of that lost water at \$152 million to \$513 million, a span that demonstrates how difficult calculating water loss is.

“You're always going to have some loss,” said John Sutton, team lead for municipal conservation at the state Water Development Board. “There's always going to be some you lose, no matter how tight a system you have. ... It's an ongoing challenge for utilities.”

Even cities on the lower end of the spectrum, such as Round Rock, Pflugerville, Hutto and San Marcos, clocked about 10 percent water loss.

All told, the 4.5 billion gallons Austin lost in the most recent fiscal year were actually an improvement from a decade ago, when the Austin utility lost 6.77 billion gallons of water, worth at least \$8.9 million in production costs and retail value.

Georgetown lost about 850 million gallons last year, worth about \$1 million. City Utility Director Glenn Dishong blamed the water loss on a rash of meter problems — older meters tend to undercount the amount of water used by households and businesses. He said Georgetown is experiencing about 12 percent water loss this year.

While the costs of water loss are daunting, utilities say pipe and meter replacement can be even more expensive.

Austin has 3,700 miles of pipe, and replacing pipe runs around \$200 per foot, said Austin Water Utility spokesman Jason Hill.

The city is in the midst of a \$90 million program to replace aging pipes.

“Unless you replace all your pipes and get rid of all your connections, you’re always going to have some background leakage,” said Rick Coronado, assistant director over pipeline operations.

The trick, he said, is to manage the system as smartly as possible to keep water loss down by targeting especially vulnerable pipes for replacement and leaning on technology to scour the system for possible underground, invisible leaks.

The self-reported statistics are collected by the Texas Water Development Board as part of a 2003 law meant to encourage utilities to be mindful of their water loss. But the statistics are not reviewed by a third party.

By another metric, the cities evened out in performance: Austin, Bastrop, Cedar Park, Pflugerville, Round Rock and San Marcos all lost 50 to 60 gallons per day, per connection, to leaks.

(Because of snags in Georgetown’s self-reporting, that data isn’t available.)

Hutto lost 10 gallons per connection per day, or an overall water loss of 9 percent of its total, amounting to about 17 million gallons of water, costing \$156,000.

Officials in the city of Hutto, which is about 7 miles east of Round Rock, were “happy to see that our leakage rate was one of the lowest,” said Christina Kane-Gibson, the city’s spokeswoman. “Leakage is an inevitable occurrence, but we credit our ‘newish’ infrastructure (less than 15 years old in most areas) for helping keep our loss rates low,” she said. “Another positive is not having overly high pressure in our water system, which can lead to leaks.”

To help cut down on water loss, Hutto's water department opens its fire hydrants every month to let the water flow through the pipes, Kane-Gibson said. This process flushes sediment from the main lines and helps find weaknesses in the water system, among other things.

Last year's water losses had added poignancy, coming as they did amid a historic drought.

With lakes Travis and Buchanan, the chief reservoirs of Central Texas, at only 36 percent of their capacity in late May of 2014, utilities pressed customers to conserve, ordering them to hold fast to water restrictions.

But below ground, water was trickling — and in some cases gushing — out.

The seemingly intractable water loss problem continues — even as utilities are looking into suddenly rising bills this year. While residents complained that they were being billed for way more water than they could have possibly used, officials say they've ruled out possibilities of a systemwide failure, such as by checking billing software and making sure the volume of water pumped matches the volume billed.

So inevitable are water losses that the Water Development Board's data form includes a category called "unavoidable annual real losses in gallons" — these are the losses that happen as two pipes come to a T, or at a joint as a pipe zigzags underfoot.

"You're always going to lose something," said Sutton.

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