



Illustration by Doug Chayka

CLIMATE

How San Antonio Became a National Water Conservation Model

Federal intervention empowered the Edwards Aquifer Authority to restrict water waste like no other area of the state.



By Forrest Wilder

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As Texas's population booms and the state grows hotter and drier, it's more important than ever to understand: Who's wasting our water?

Thanks to a blind salamander, San Antonio became a national leader in water conservation. The eyeless, five-inch-long mass of virtually unpigmented flesh lives in the watery caverns of the Edwards Aquifer. It's a **pathetic-looking critter** but no doubt a source of terror for the tiny snails and shrimp it feasts upon in its lightless subterranean home. The salamander and seven other species found nowhere else on earth depend on the health of the aquifer's ecosystem.

After the unregulated pumping of water threatened the salamander's survival, federal authorities listed the amphibian as endangered in 1967. That act set in motion four decades of high-stakes lawsuits and complex squabbling among cities, developers, environmentalists, and farmers over how to ensure that enough water remained underground to sustain the creature. In Texas, which treats groundwater as private property, land owners above the aquifer were accustomed to pumping as much as they wanted. San Antonio homeowners could enjoy green lawns even during terrible droughts. Agriculture and industry could expand as they saw fit.

The problem seemed insoluble until 1993, when the threat of federal intervention prompted the Texas Legislature to establish **the Edwards Aquifer Authority** and charge it with maintaining water flows sufficient to support the endangered species. For the first and only time, state lawmakers imposed a firm cap on the total amount of pumping allowed in an aquifer. The messy process of sorting out water permits—who gets how much—wasn't settled until 2013.

By then, the **San Antonio Water System**—the single largest user of Edwards Aquifer water—had transformed into a national model for conservation. “I would love to say we did it because we were good stewards of the environment and we knew it was a great thing to do, but frankly, it was a mandate,” said Robert Puente, the president and CEO of SAWS and a former

state representative who played a role in the formation of the EAA. The Legislature has demonstrated no appetite for setting strict limits on other aquifers to force communities to replicate San Antonio's success.

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To meet a required 40 percent reduction in pumping, SAWS paid businesses and homeowners to replace wasteful toilets and showerheads and to rip out Saint Augustine lawns and add drought-resistant plants instead. SAWS also built the largest wastewater-recycling system in the country.

Tiered pricing was another important tool. Under state law, utilities can't charge customers more for water than the costs of treating and delivering it, but they can impose steeper rates on water wasters. The idea is that customers who use reasonable amounts of water for basic needs should pay less than those who also use a lot more. Once a San Antonio customer exceeds 20,000 gallons, she's paying more than six times as much per gallon as she paid for her first 4,000 gallons. The result? Per capita use dropped from 225 gallons a day in 1982 to 120 gallons today.

Among Texas's big cities, SAWS charges some of the lowest water and wastewater rates in the state, which Puente attributes in part to its conservation-minded business model. Lower water use per capita allows the utility to avoid building expensive new infrastructure. "For us,

[conservation] is not only the right thing to do,” he said. “It’s a great financial tool.”

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