Texas State aims to cut water use in half, as student enrollment spikes

By Maci Gambrell

Qds15@txstate.edu

As Texas State's student population continues to climb, so does the need for water in an increasingly drought-prone area of Texas.

The number of students housed on campus has risen over one-third, over the past ten years.

With San Marcos currently under Stage 3 drought restrictions, Texas State must reduce its ground water pumping by 35%, according to the Edwards Aquifer Authority.

Glass bottom boat tour, at Texas State owned, Meadow Center for Water and the Environment, in front of campus Thursday, Oct. 3, 2025 photo by Maci Gambrell

This is large undertaking as the campus uses roughly one million gallons of water a day said Robert Mace, Texas State professor and executive director for Meadow Center for Water and the Environment.

"What I have noticed with the increased student enrollment, the university is starting to bump up against the cap on groundwater production from the Edwards Aquifer," Mace said. "And then because of that, I'm seeing more focus [from] the University on water conservation."

Groundwater pumping takes water directly from the Edwards Aquifer but without enough rain, the aquifer is being drained faster than it can be refilled.

When San Marcos entered a stage five drought Texas State was asked to cut its water pumping nearly in half and it created an ideal standard for the university, said Andee Chamberlain, energy and water conservation manager for Texas State Utilities.

"[This summer] was the first time that we'd been asked to reduce by 44%," Chamberlain said. "It was only for a short amount of time, but what I'm trying to do is work towards is we could always meet that 44% reduction standard. That's kind of the goal."

Texas State Utilities aims to do this by implementing technologies in new buildings around campus to monitor and limit water use in systems from irrigation to air conditioning.

The increasing number of freshmen has created a need for more dorms and, Chamberlain said, she sees this new growth as an opportunity for improvement.

"All of these new buildings that are coming online year after year, those are a lot more efficient, both in energy and water than the buildings that were built in the 1950s," Chamberlain said.

It’s been years since the San Marcos River was full enough to reach the steps at the Meadows Center and part of that is due to the university's water pumping, Mace said.

“There's also a direct connection of your campus usage of Edwards Aquifer water and the spring flow [at Spring Lake], because we're right on top of the spring,” Mace said. “If you're taking a long shower on campus, that means there's less flow coming out of the spring here and there's less flow heading downstream.”

Part of this water use comes from housing as Texas State has nearly 10,000 first-year students enrolled this fall semester. This leads to more water use. During COVID, when the freshman population was half that, the university used 100 million less gallons of water a year than it does now.

However, these new students can learn about ways to conserve water in the future, if the university takes steps towards educating them.

“I remember mostly thinking my university seminar class was useless,” Maggie Matthews, wildlife biology sophomore, said. “But if we talked about how important the environment is to the culture of the Texas State and that it starts at the river, and that conservation starts with you, I probably would have paid attention a little more and would have had something tangible to use.”

San Marcos is likely to experience a Stage 5 drought soon, Chamberlain said, so it is crucial to prepare now.

The university continues to implement technology to better conserve water but faculty members said it needs to combine efforts with students, and that starts with education on water use.

“People may be doing things without realizing it has a direct impact on the flow coming out of the springs and how deep the river's going to be when you graduate,” Mace said.