

Political leaning influences city water policies as strongly as climate

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The study's lead author, Jonathan Gilligan, associate professor of earth and environmental sciences. Credit: John Russell/Vanderbilt University

Urban water conservation policies are reflecting the nation's political polarization, with a new report demonstrating that a city's water

ordinances can be as much related to whether it leans left or right as to whether the climate is wet or dry.

Vanderbilt University environmental researchers found Los Angeles ranks No. 1 for number and strength of policies, followed by six other left-leaning California cities along with Austin, Texas. It takes until San Antonio, Texas, at No. 8 to find a right-leaning city with strong [water conservation](#) policies—probably because the amount of [water](#) it can withdraw from the Edwards Aquifer is strictly limited, said the study's lead author, Jonathan Gilligan, associate professor of earth and environmental sciences.

"We were surprised by this finding. We had expected that [water conservation](#) would be a more neutral issue and less polarizing," said Gilligan, who is also an associate professor of civil and environmental engineering. "As populations continues to grow and demands on water supplies increase, this information will be important for planning."

For instance, less prosperous or more conservative cities may consider rebates to entice homeowners to install low-flow toilets and shower heads instead of requiring them, the team found.

"There's plenty of water if we don't waste it, and building aqueducts, pumps, desalination systems—all of those are huge, expensive, energy-intensive things," Gilligan said. "Water conservation is one of the best ways to make use of limited water supplies."

Their results were published online this month in the journal *Earth's Future* and will appear in a future print edition.

The team examined city water policies over the course of four years to create a database of water conservation policies. They also developed an associated index of the number of different categories of policies each

city adopted and gathered data on the climate, water sources, population, economy and political leanings of each [city](#) and its surrounding metropolitan statistical area—as reflected in the 2008 and 2012 presidential elections.

They created an interactive map where users can check to see where their own cities rank.

Here are the top 20 listed by number of water policies. Only three lean Republican, indicated in parentheses:

1. Los Angeles, CA
2. San Diego, CA
3. Santa Rosa, CA
4. Oxnard, CA
5. San Jose, CA
5. Santa Cruz, CA
7. Austin, TX
8. San Antonio, TX (R)
9. Albuquerque, NM
9. Riverside, CA (R)
11. Fresno, CA (R)

- 12. Denver, CO
- 13. San Francisco, CA
- 14. Las Vegas, NV
- 14. Salinas, CA
- 16. El Paso, TX
- 16. Miami, FL
- 18. Fort Collins, CO
- 18. Stockton, CA
- 20. New York, NY
- 20. Salt Lake City, UT
- 20. Tampa, FL
- 20. Vallejo, CA

They also compiled a list of cities whose conservation policies were much stronger or weaker than anticipated based on a statistical analysis of their politics, climate and economy. The table below ranks cities based on how far they were from expectations and then lists in parentheses whether they lean more Democratic or Republican than the national average, their rank for number of water conservation policies and their expected rank.)

- 1. San Antonio, TX (R, No. 8, expected No. 32)

2. McAllen, TX (D, No. 90, expected No. 29)
3. Oxnard, CA (D, No. 4, expected No. 18)
4. Austin, TX (D, No. 7, expected No. 23)
5. Santa Maria, CA (D, No. 49, expected No. 14)
6. San Diego, CA (D, No. 2, expected No. 7)
7. Santa Rosa, CA (D, No. 3, expected No. 10)
8. College Station, TX (R, No. 29, expected No. 76)
9. Phoenix, AZ (R, No. 57, expected No. 24)
10. Houston, TX (R, No. 71, expected No. 31)

More information: Jonathan M. Gilligan et al, Urban Water Conservation Policies in the United States, *Earth's Future* (2018). [DOI: 10.1029/2017EF000797](https://doi.org/10.1029/2017EF000797)

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