



Data centers can place serious pressure on local water supplies, especially in drought-prone or water-stressed regions. These massive industrial facilities are being approved at great scale without transparency, enforceable limits, or proof that local drinking water, wells, farms, and ecosystems will be protected.

KEY FACTS

- 1. U.S. data centers directly consumed about 17.4 billion gallons of water in 2023, or roughly 48 million gallons per day.** Operating data centers produces enormous amounts of heat, requiring large volumes of water for cooling, equipment protection, and fire suppression. **Many facilities** also use **potable drinking water** for cooling instead of **treated wastewater** or other **lower-impact sources**, which are often more costly to implement.
- 2. Much of the water used for data center cooling is lost to evaporation rather than returning to the local water system.** Evaporative cooling, one of the most common cooling methods used by large modern data centers, is energy-efficient but directly consumes water, often from municipal supplies. A **2026 study** on data center impacts on public water systems found that data centers can evaporate roughly **70 to 90 percent** of the water they withdraw, compared with about **5 to 15 percent** for residential users. As AI data centers expand, evaporation-based cooling is expected to remain a major concern, especially during periods of extreme heat.
- 3. Most data center water use may happen beyond the facility itself.** According to the International Energy Agency, an average 100 MW hyperscale data center in the United States consumes about two million liters of water per day in total, with more than 60 percent coming from indirect water use. This includes water tied to the energy supply and semiconductor manufacturing needed to keep data centers operating.
- 4. Water use reporting remains deeply inconsistent across the data center industry.** Uptime Institute's 2021 Global Data Center Survey found that only 51 percent of respondents measured water use in some way, and that this was done mainly at the individual site level instead of across an entire portfolio of facilities.
- 5. The water burden is local, even when the technology is used globally.** People around the world may rely on the services powered by a data center, but the water withdrawals, evaporation, and watershed impacts are concentrated in the community where the facility is built. The Lincoln Institute of Land Policy explains that even when data centers use reclaimed or recycled water, that water may no longer return to the rivers and streams local communities depend on.
- 6. Data center siting often forces a trade-off between water use and electricity use.** Lawrence Berkeley National Laboratory explains that water-cooled and evaporation-based cooling systems are generally more energy-efficient, while air-cooled or waterless systems use little to no onsite water but require more electricity. In other words, a data center can often reduce water use by using more power, or reduce power use by consuming more water.

QUESTIONS FOR LOCAL OFFICIALS

- Has the community been given an independent water impact study before approval?
- How much water will this project use each day and each year at full buildout?
- Will the facility use potable drinking water, groundwater, surface water, recycled wastewater, stormwater, or another source?
- Will the project use evaporative cooling, air cooling, liquid cooling, or another cooling method?
- How much water will evaporate and be permanently lost from the local watershed?
- Will water use increase during heat waves or drought conditions?
- Could the project lower private wells, reduce streamflow, or affect nearby farms, wetlands, rivers, or aquatic ecosystems?
- Will the developer be required to publicly report water use on a monthly or quarterly basis?
- What happens if drought restrictions are declared? Will residents, farmers, or the data center be cut back first?

Cautionary Example

Mesa, Arizona shows what can happen when major data center growth moves into an already water-stressed region. Meta, Google, and Microsoft all have data center projects in Maricopa County, while Arizona has already revoked permits for new homes in the area because of groundwater shortages. Google's Mesa data center was permitted to use 5.5 million cubic meters of water per year, equal to the water use of about 23,000 residents. This raises a serious question for dry communities: if there is not enough groundwater for new homes, why are large data centers still being approved?



Community Win

The Southern Environmental Law Center pushed back in South Carolina after Google planned to use more than 500 million gallons of water per year in an already water-stressed county. As a result, Google agreed to limit groundwater withdrawals. The company can now withdraw groundwater only as a last resort, when other water supplies are exhausted or when maintenance is needed on its well. Google must also develop alternative water sources and publicly report groundwater use quarterly rather than only once a year.



Recommended Call To Action

Demand a local pause or moratorium on data center approvals until enforceable water protections require developers to disclose total water demand, use non-potable or recycled water whenever possible, publicly report water use, and prove the project will not threaten drinking water, private wells, agriculture, or local ecosystems.