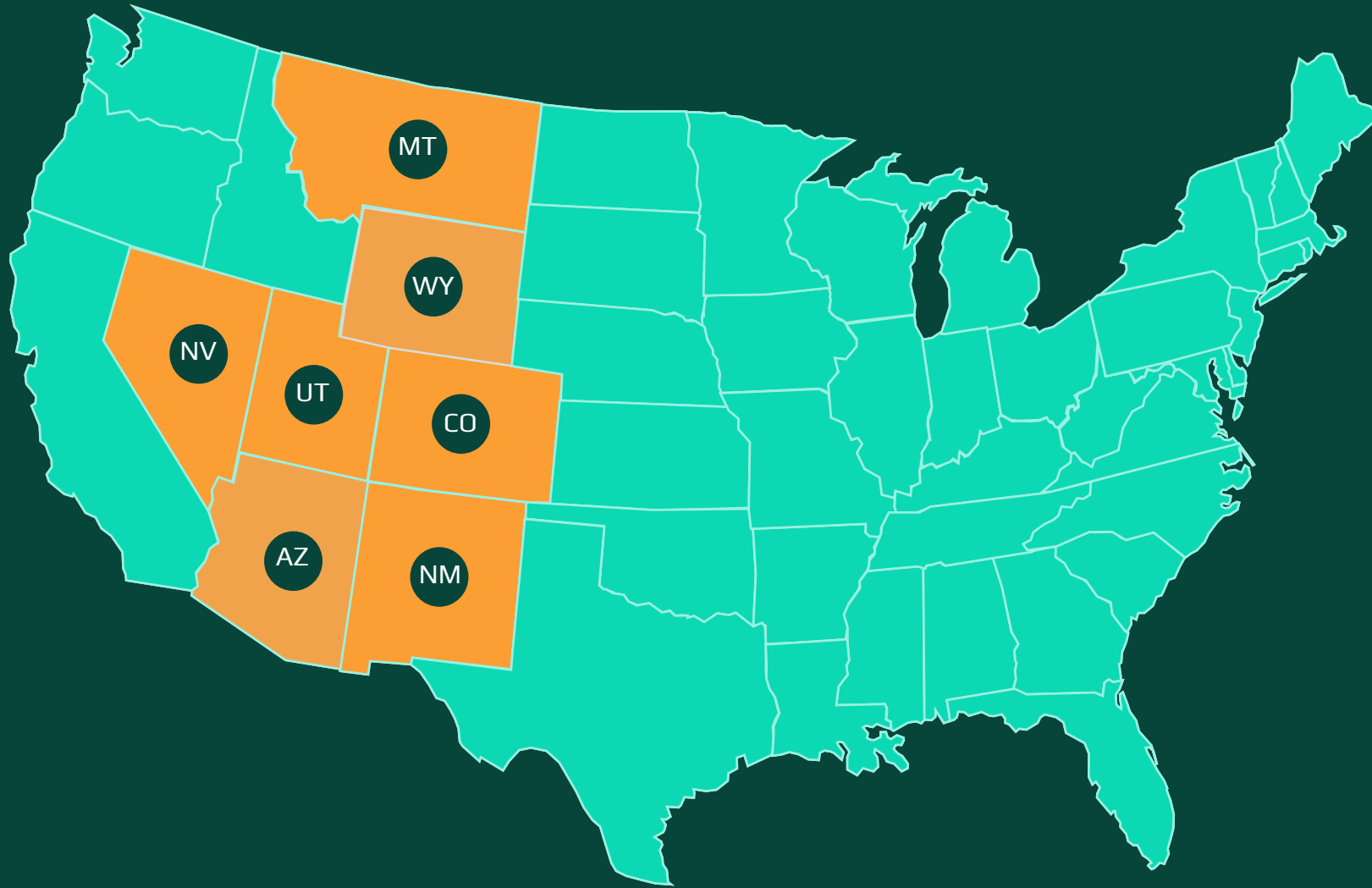


Water and Datacenters Impacts and Considerations

The background of the slide is a photograph of a cityscape, likely Santa Fe, New Mexico. A prominent feature is a tall, light-colored tower with a flag on top, situated in the middle ground. The city is surrounded by lush green trees, and the background shows rolling hills under a clear sky.

**Anjali Bean, Senior Policy Advisor, WRA
Courts Corrections and Justice Committee
October 6, 2026**

Western Resource Advocates



- Federal & Regional Collaboration
- State Legislatures
- State Agencies & Commissions
- Local Governments
- Electric Utilities
- Diverse Coalitions & Communities

WRA works across seven states in the Interior West to protect our climate, land, air, and water.



Hyperscale Data Centers



- Very large data centers designed to handle large-scale workloads, such as the demands from **generative AI**
- **Hyperscale data centers** are at least **10,000+ sq ft** and have peak demands of **more than 20-30 MW**





DATA CENTER IMPACTS IN THE WEST

Policy Solutions for Water and Energy Use

AUTHORS

Deborah Kapiloff | Policy Advisor
Lindsay Rogers | Policy Manager for Municipal Conservation
Stacy Tellinghuisen | Deputy Director of Policy Development



Download the report

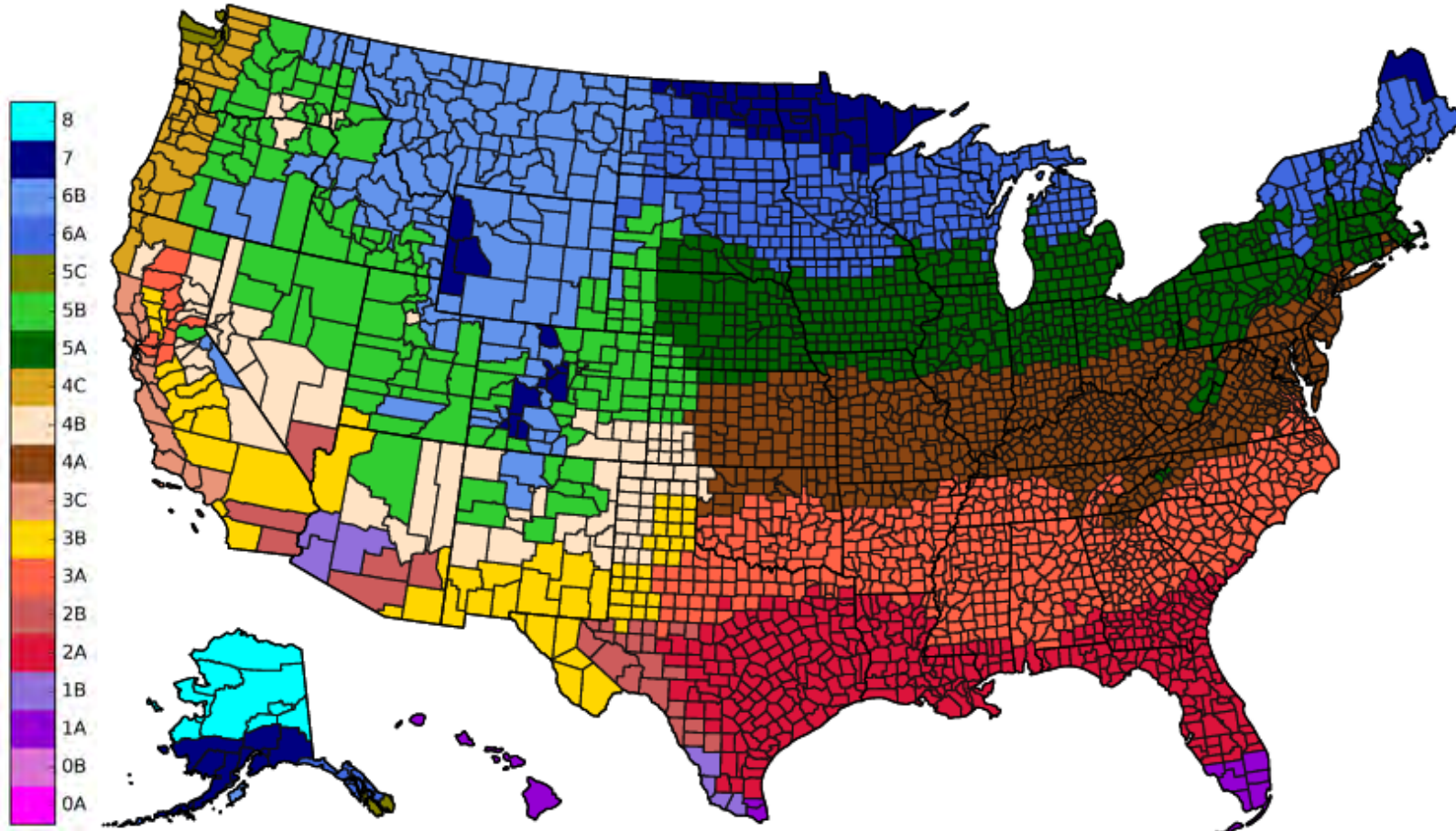
CLIMATE AND COMPUTING CAPACITY: KEY DRIVERS OF COOLING NEEDS



Easier to Cool



Harder to Cool



Source: Jim Fukuda et al., *Data Center Resource Effectiveness (DCRE) Metric*, Information Technology Industry Council, 2025, <https://www.thegreengrid.org/resources/library-and-tools/wp93-data-center-resource-effectiveness-dcre-metric>.

DATA CENTER GROWTH AND WATERSHED STRESS

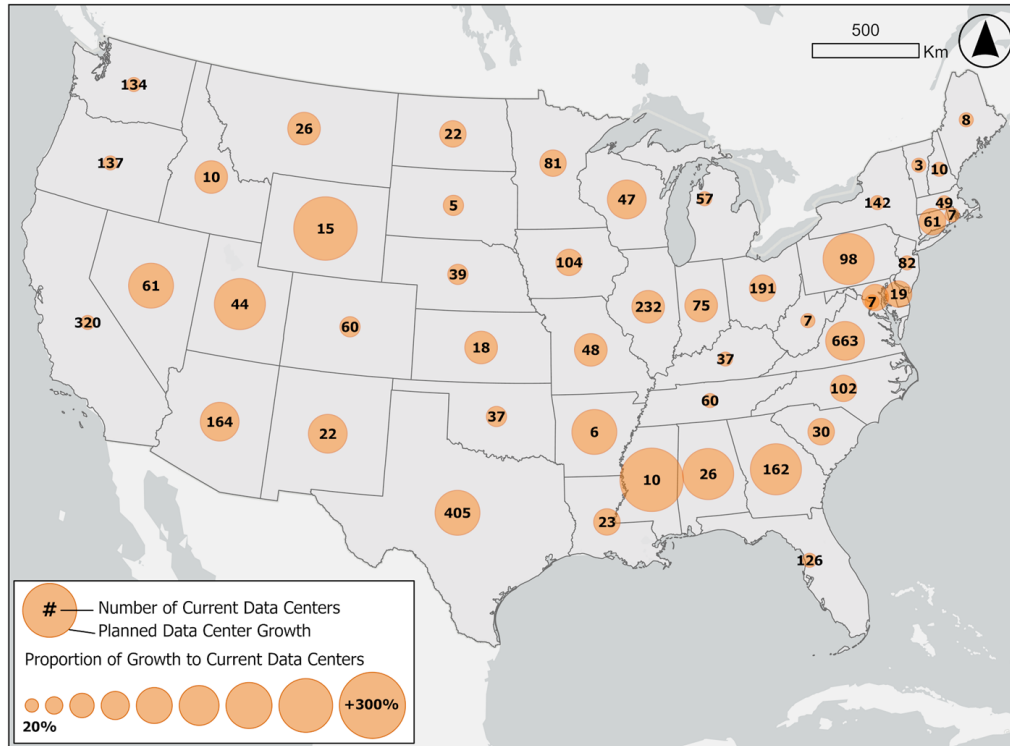


Figure 2: Data Center Locations and Projected Growth

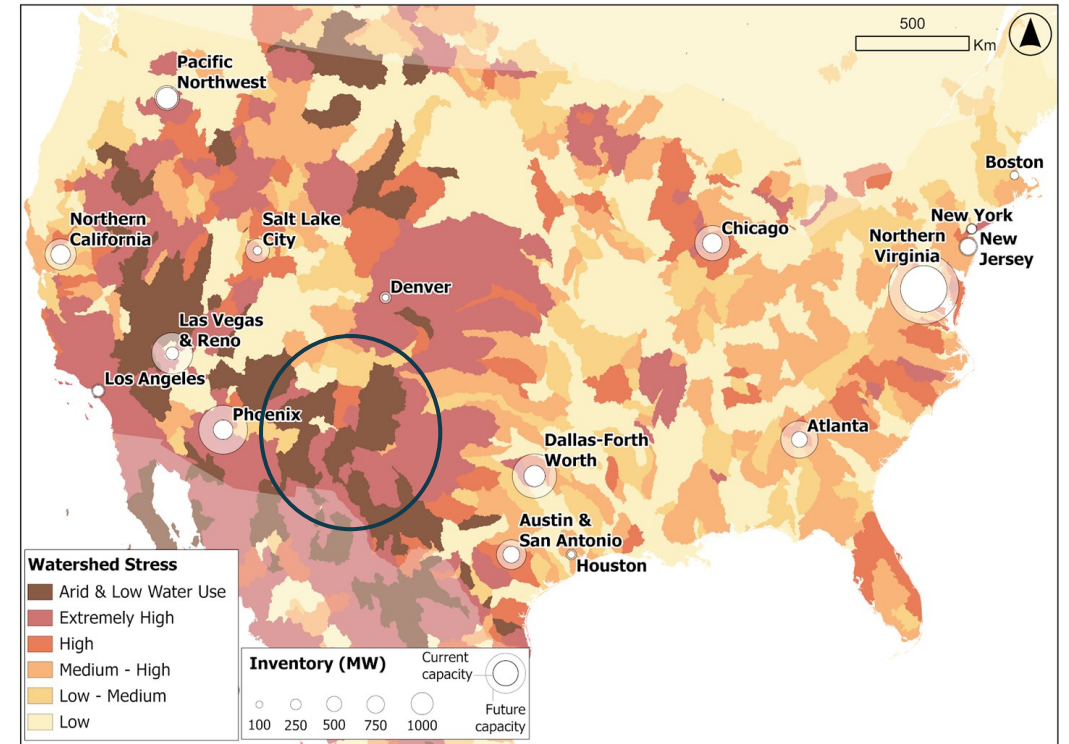
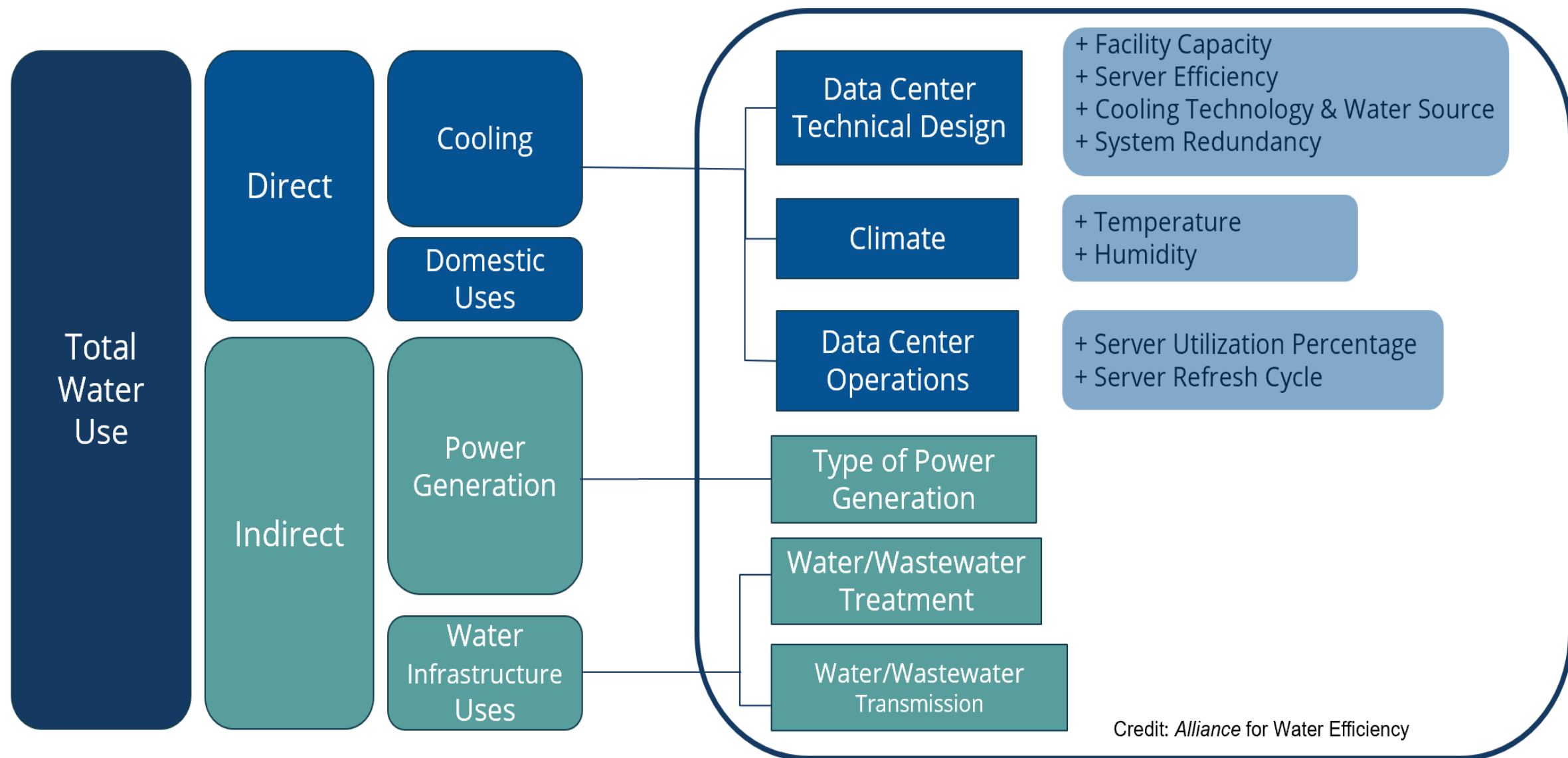


Figure 11: Data Center Inventory and Watershed Stress

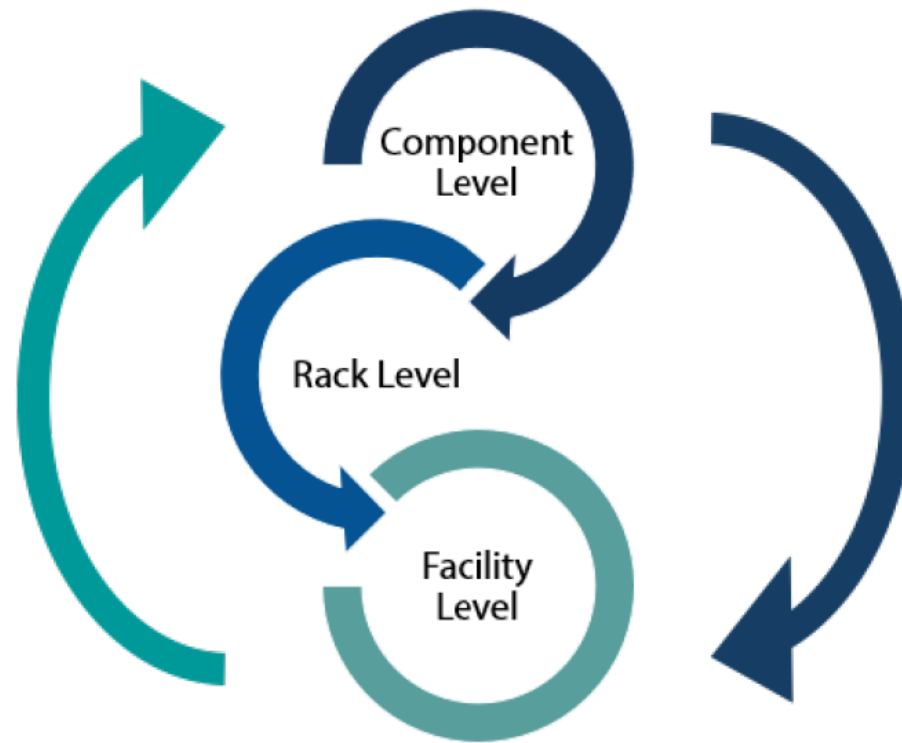
DATA CENTER WATER USE



Credit: *Alliance for Water Efficiency*

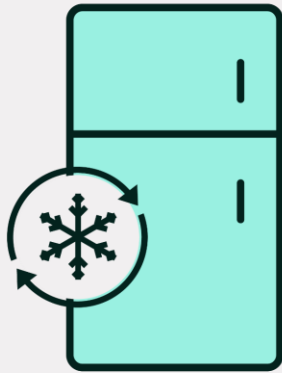
Direct Use: Cooling

Figure 5. Conceptual Illustration of Data Center Cooling Loops



Credit: Alliance for Water Efficiency

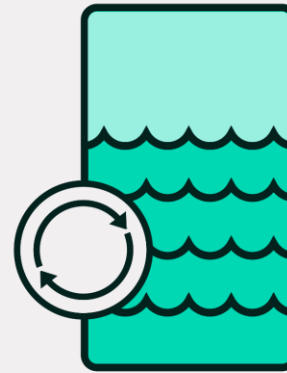
Cooling Technologies and Tradeoffs



Refrigeration cooling systems use an air handler, circulate either cool air or water in the data center, and remove hot air.



Adiabatic- or direct-evaporative-cooling systems use water to cool air that is circulated in the data center.



Free-cooling systems take advantage of outdoor ambient air or water temperatures to cool the air that is circulated in a data center.



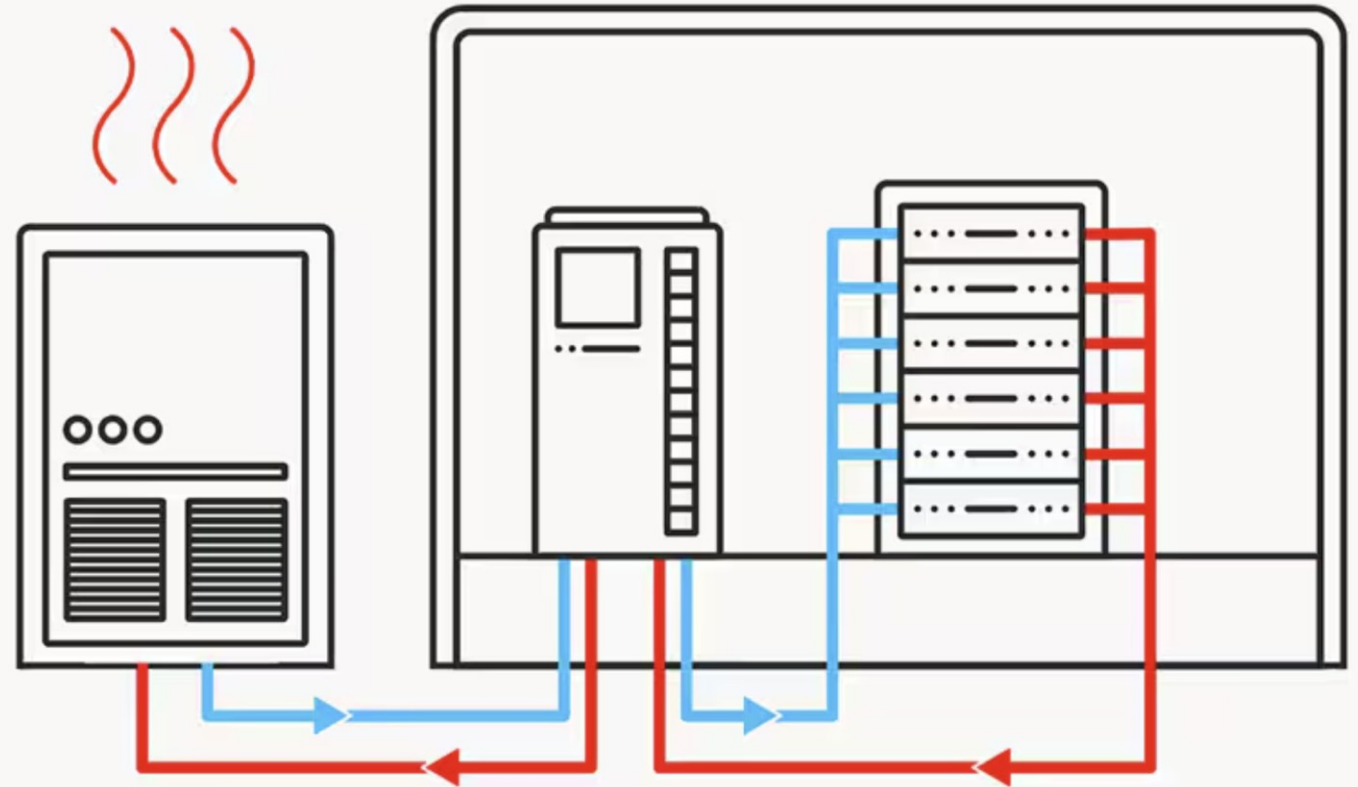
Liquid-cooling systems directly absorb heat from computer components, rather than cooling the air around the computers.

“Closed Loop” Systems

- “Closed loop” is **not** a specific technology – it simply describes how heat is removed from servers
- Closed loop systems don’t necessarily lead to low water consumption
- Each component of the cooling process can be closed or open

Closed Loop Continued

- Liquid (water, glycol or other) is circulated past the servers in a sealed pipe
- Liquid absorbs the heat and moves it away from the racks
- Liquid is cooled and recirculated



Source: Oracle, Closed-loop cooling in Oracle AI data centers, 2026

“Closed Loop” Systems

- How the liquid is cooled is critical
- There will **always** be a tradeoff between water and energy use when choosing cooling technologies

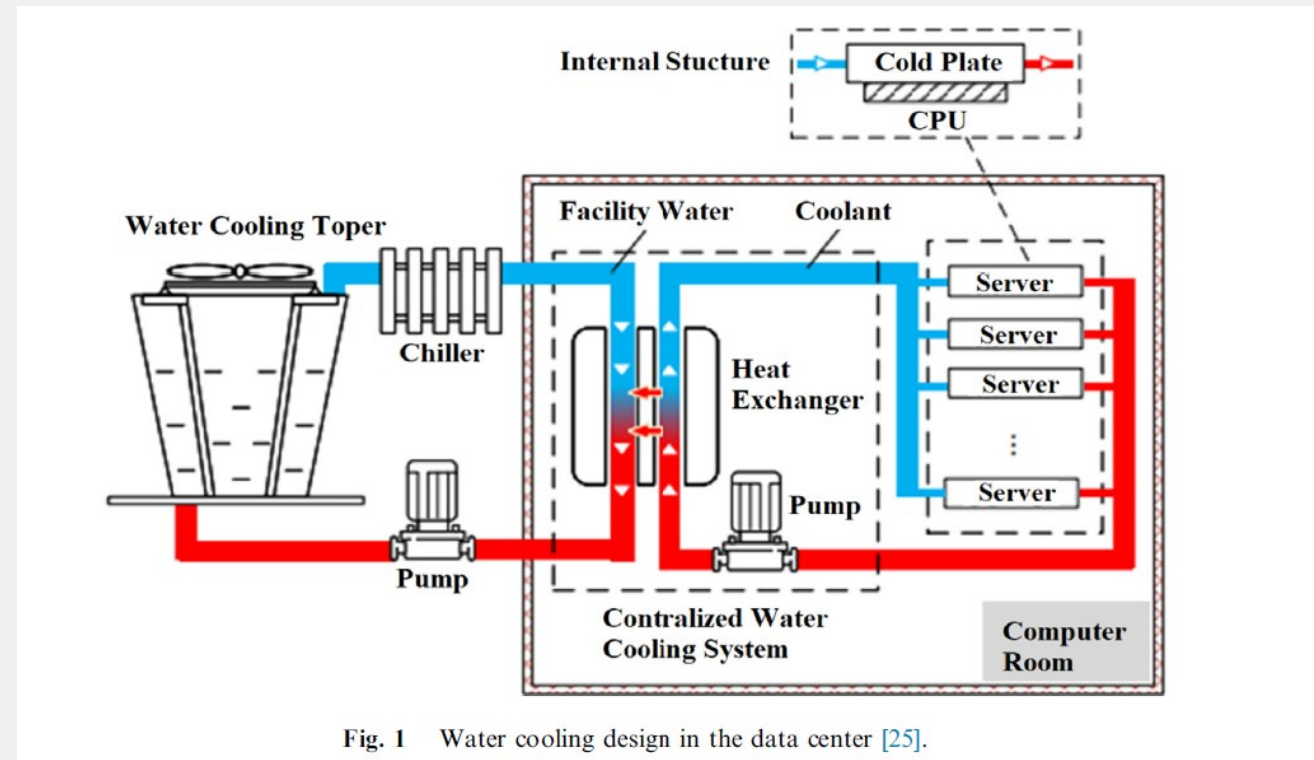
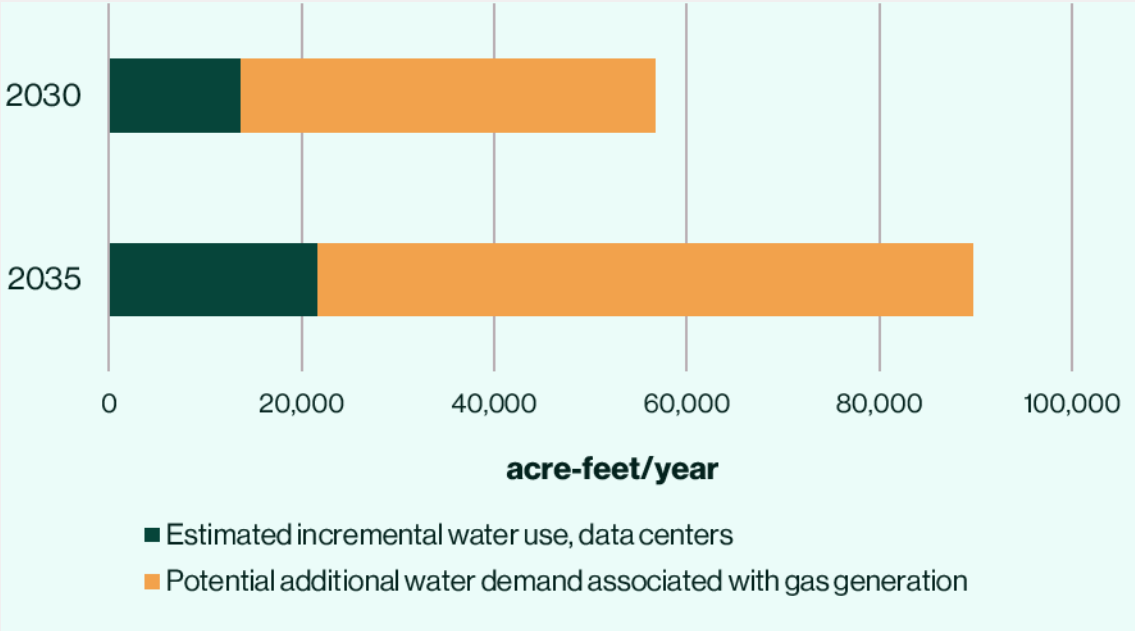


Fig. 1 Water cooling design in the data center [25].

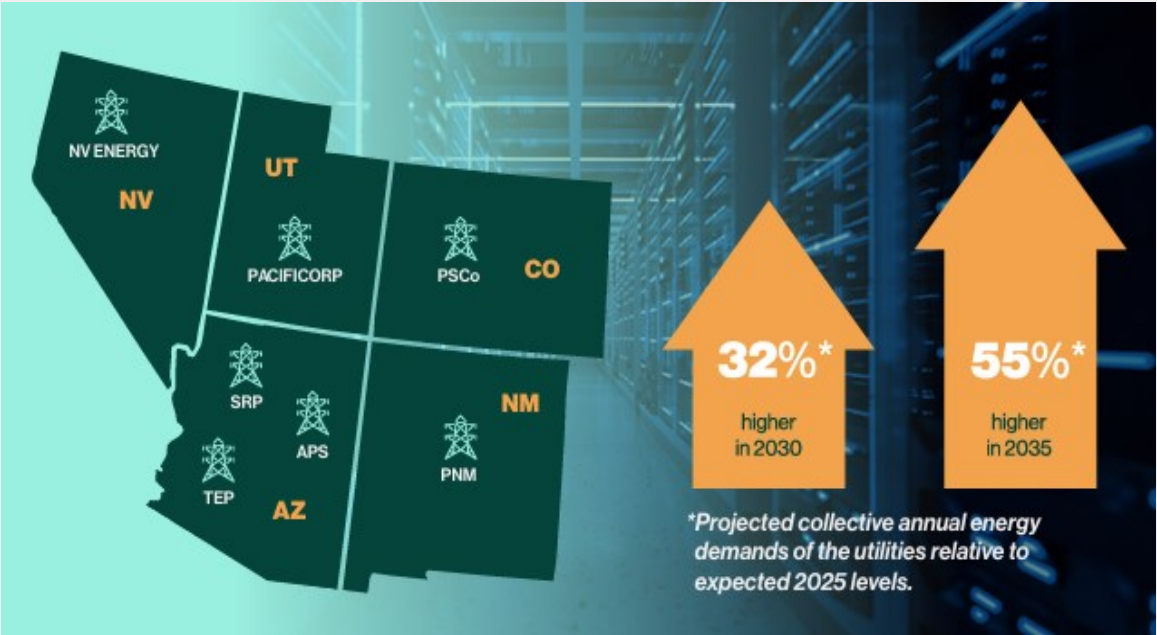
Data Center Resource Use in the West



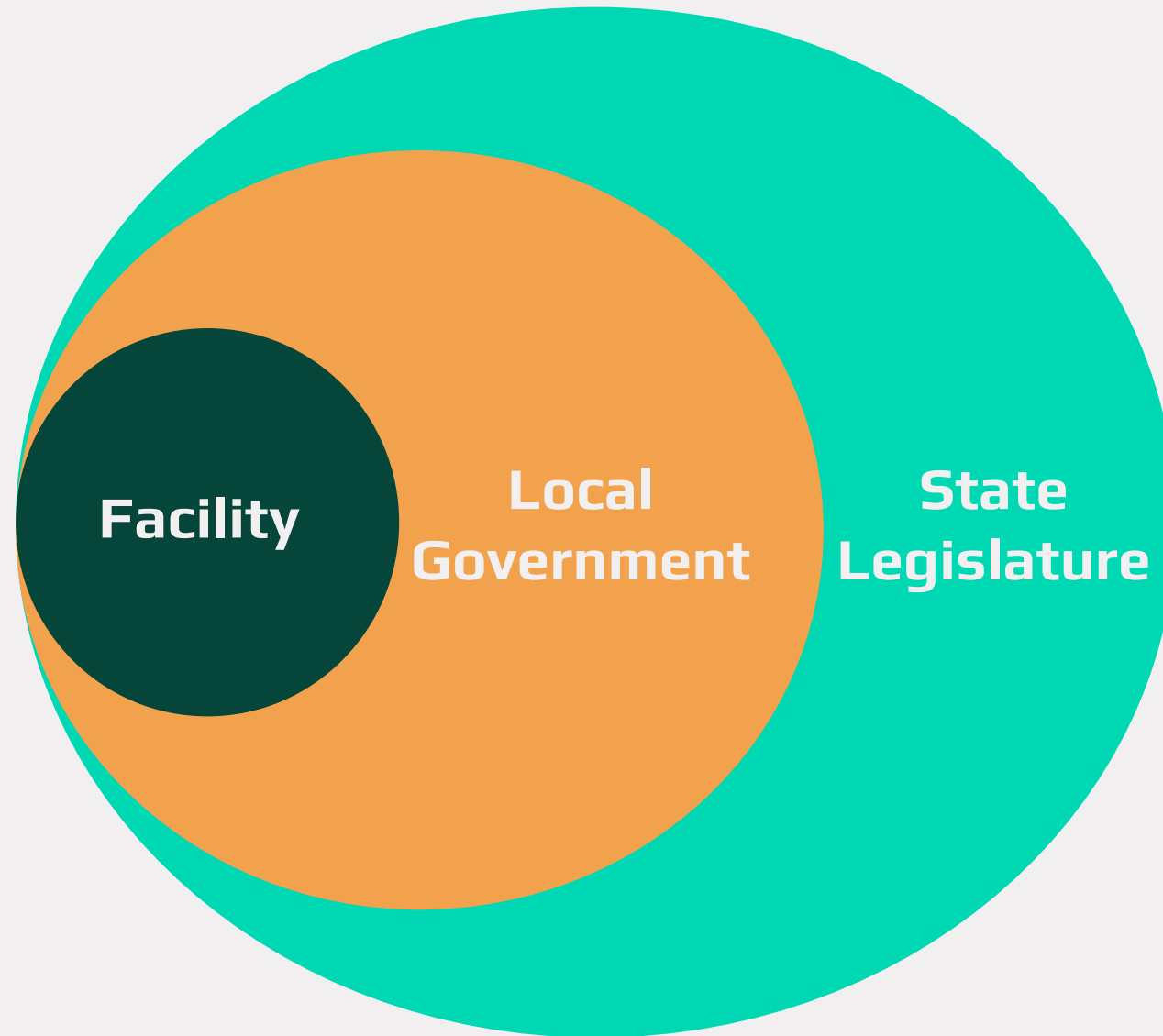
Water Use



Energy Use



Water Policy Levers Across Scales



Facility Scale

- Cooling technology choices & shift towards low water cooling (performance-based approach for water use effectiveness - L/kWh)
- Avoid siting in **water-stressed basins**
- **Water stewardship** investments
- Build within water service areas with robust **large water user policies and processes**



Local Government Scale



Large water user policy

mechanisms:

- Large water user restrictions & efficiency requirements
- Water demand offset policies
- Water allocation policies
- Tap fees & rates
- Community benefit agreements
- Zoning codes – no use-by-right
- Robust & transparent public process

Socorro County approves data center moratorium amid opposition

County Commission unanimously votes to pause data center development for one year, form committee to study community concerns over water, land and scientific resources



Socorro County citizens hold signs in protest of the proposed data center project in Socorro. Jessica Carranza Pino



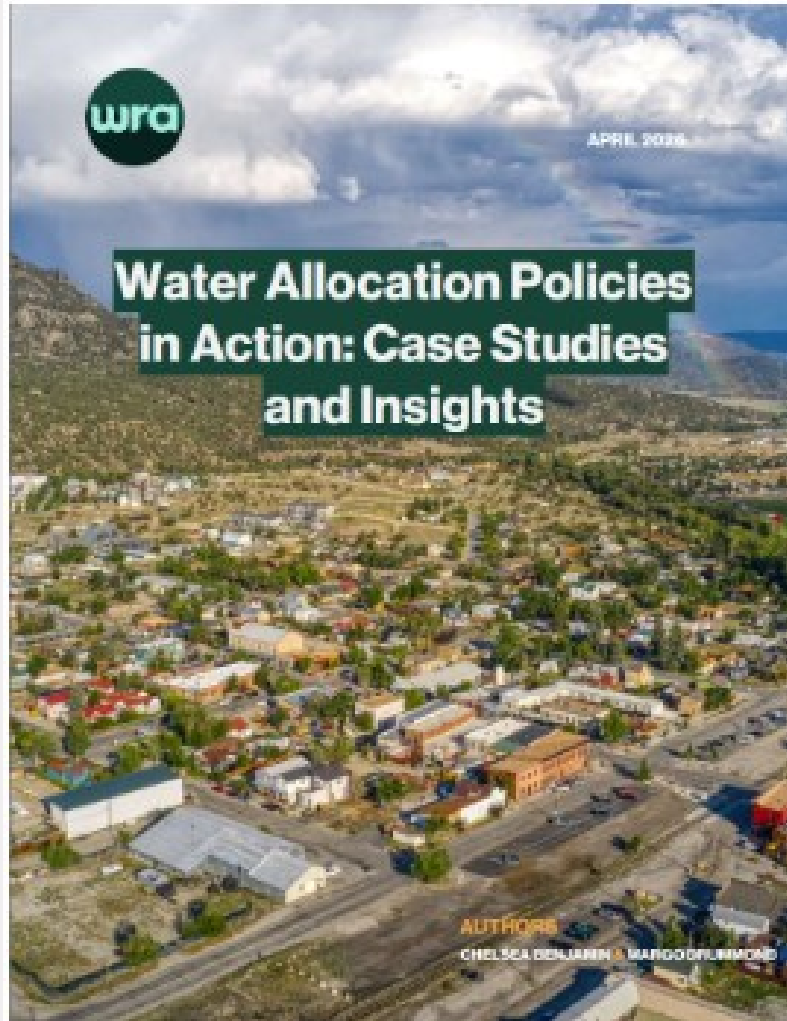
Jessica Carranza Pino

EL DEFENSOR CHIEFTAIN EDITOR/PUBLISHER

PUBLISHED June 10, 2026 - 10:37 a.m.

SOCORRO — After more than two months of public opposition to the proposed Green Data Center project, the Socorro County Commission unanimously approved a one-year moratorium on data centers and related infrastructure.

Water Allocation Policies



New Mexico Local Government Action

- Bernalillo County Resolution
 - Focus on publicly funded projects
 - 100% offsets of all on-site water use
 - Mandatory water use reporting
- County Moratoriums
 - Santa Fe and Socorro: 1-year moratoriums
 - Raton: considered and rejected



State Legislature Scale: Utah HB 76



- Pre-Development transparency:
 - Expected water use
 - Water treatment and discharge plans including impacts to water temperature
 - Water reuse plans
- Annual Reporting and publishing of:
 - Actual water use
 - Water conservation and environmental protection efforts



State Legislature Scale: California

CA AB 2619 and AB 2469



- Pre-Development or expansion transparency:
 - Expected water use – max daily and average
 - Water efficiency measures
 - Water scarcity plan
 - Utility level reporting and planning



State Legislature Scale: Colorado HB26-102



- Performance-based water use effectiveness metric (**0.4 L/kWh**)
- Requirements for load growth to be powered with **clean energy**
- No use-by-right zoning
- Water use reporting in aggregate

Did not pass





Thank You!

anjali.bean@westernresources.org

