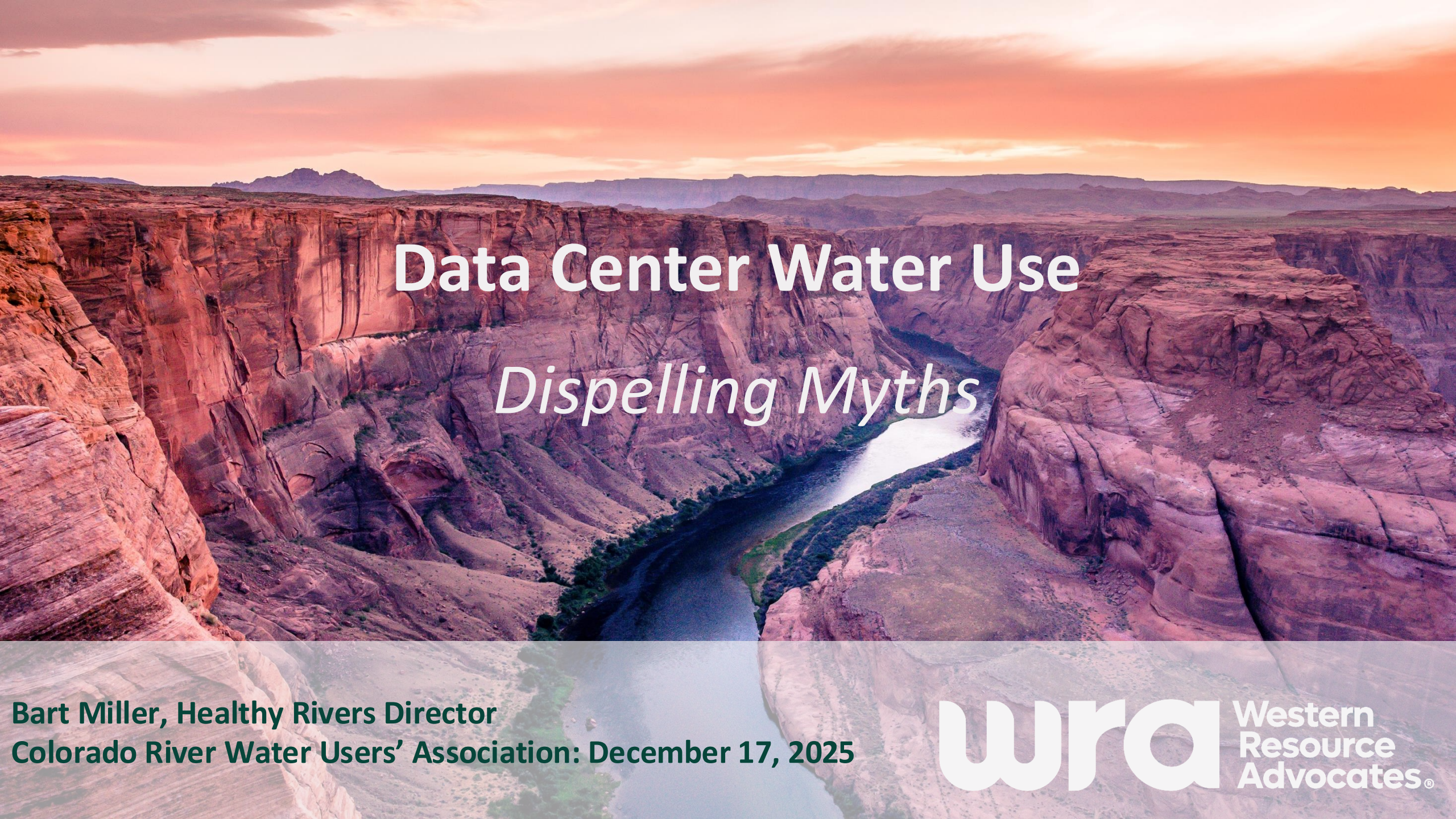


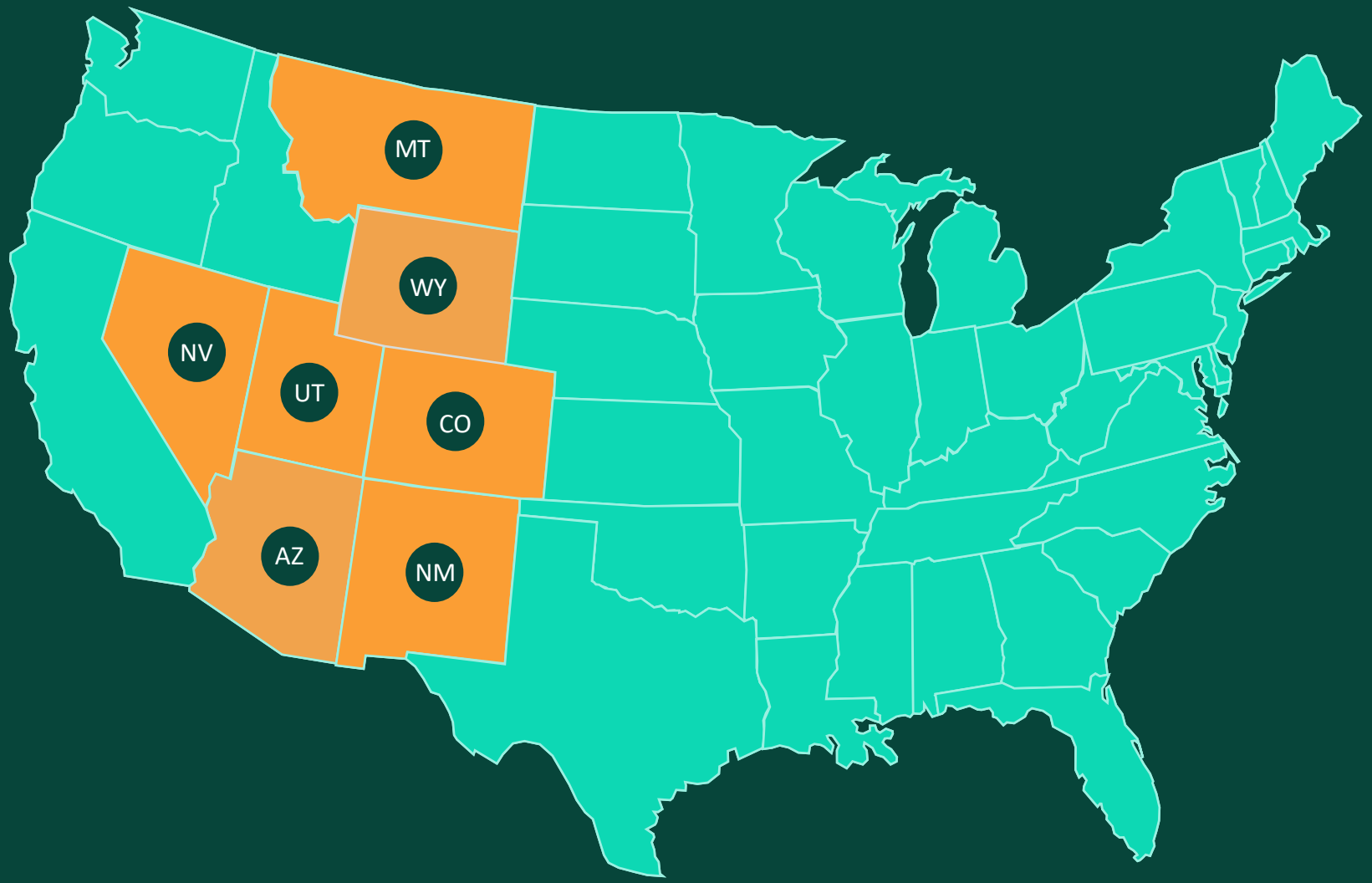
Data Center Water Use

Dispelling Myths

Bart Miller, Healthy Rivers Director

Colorado River Water Users' Association: December 17, 2025

Western Resource Advocates®



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.

Myth:

Data Centers recycle their water and won't impact water supplies.

Myth:

Data Centers *recycle their water and won't impact water supplies.*

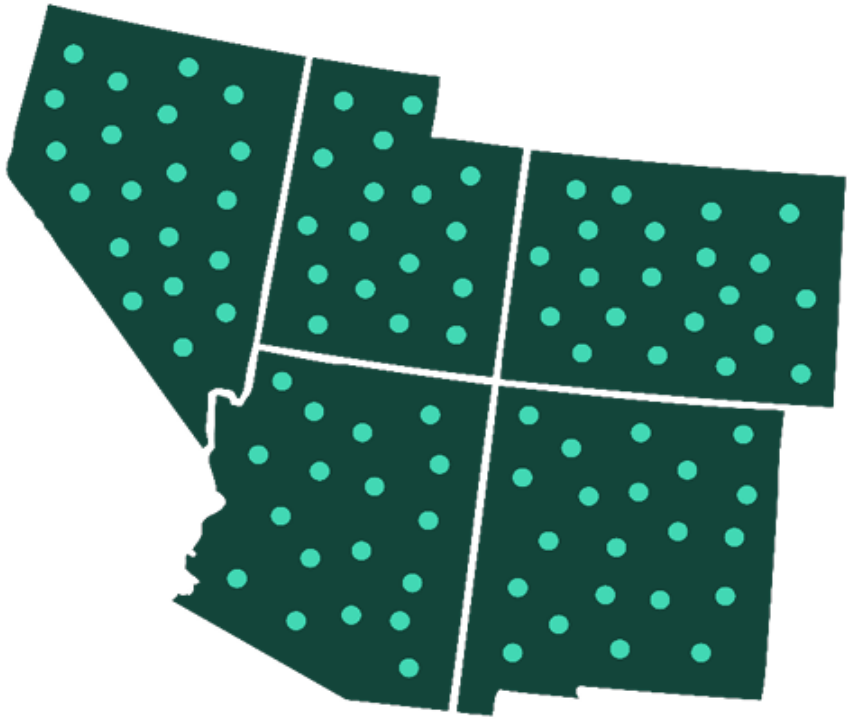
Myth:

*Data Centers **recycle their water** and won't impact water supplies.*

Download the report

Data Center Resource Use in the West

Estimated Water Use On-site



● Is equivalent to 2,000 people, representing 194,000 people in total.

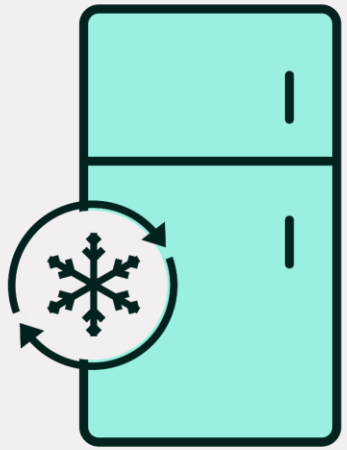
13.7K
estimated acre-feet of consumptive water use by 2030.

21.6K
estimated acre-feet of consumptive water use by 2035.

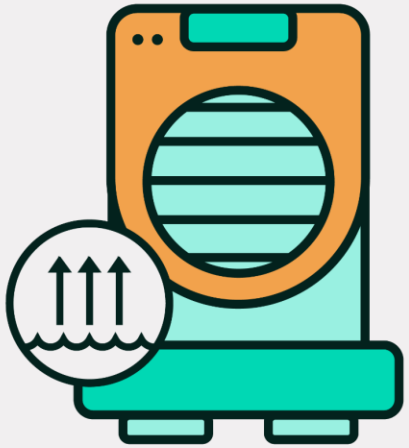
Water Impacts

- Water is used on-site for cooling
- Water use efficiency varies a lot based on cooling technology, local climate, and design
- Water also is needed off-site to generate electricity for the centers

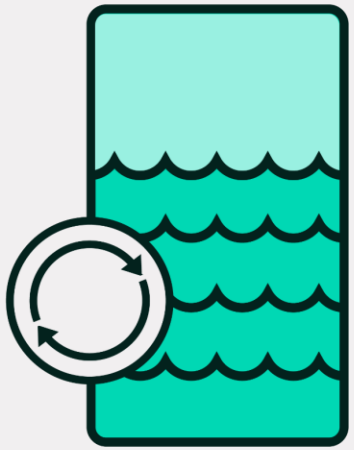
On-site Water vs. Energy Tradeoffs



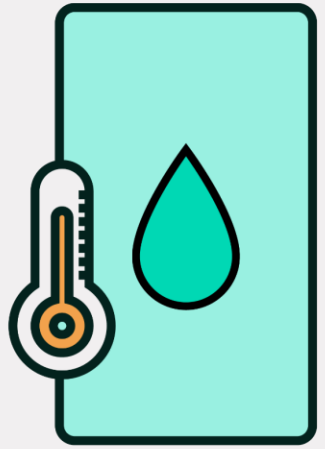
Refrigeration cooling systems use an air handler, circulate either cool air or water in the data center, and remove hot air.



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



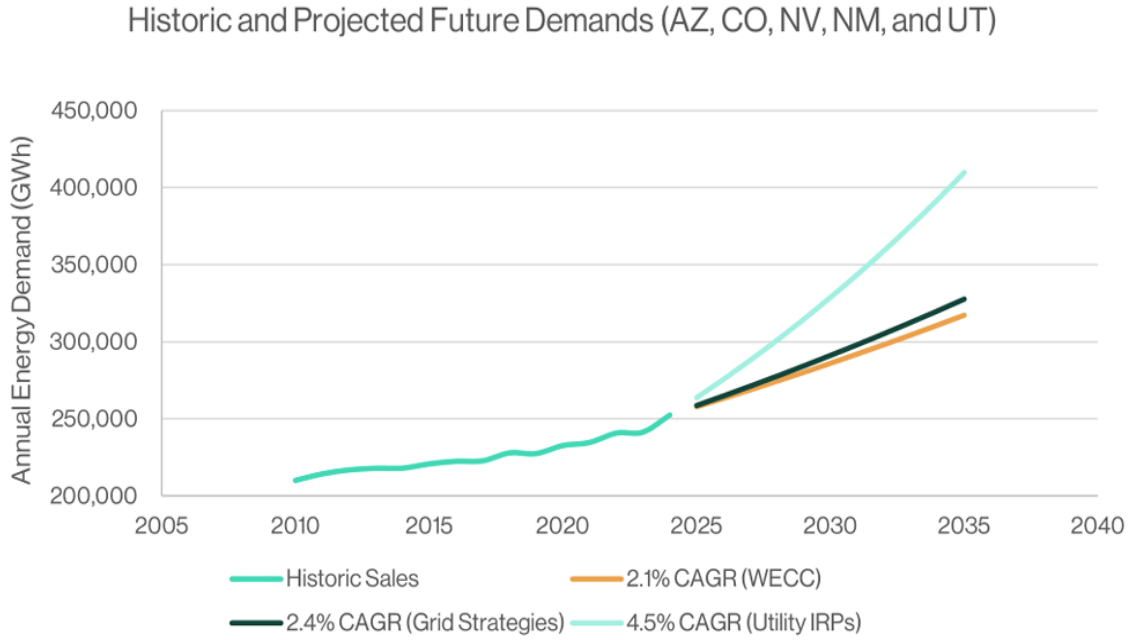
Free-cooling systems take advantage of outdoor ambient air or water temperatures to cool the air that is circulated in a data center.



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

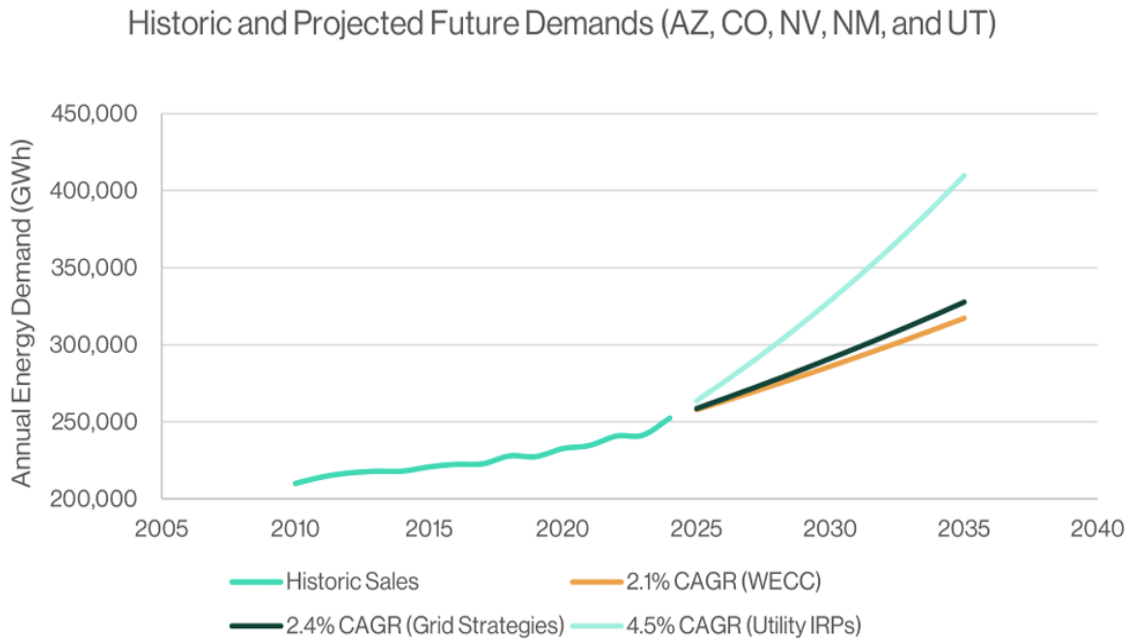
Data Center Resource Use in the West

Energy Demand

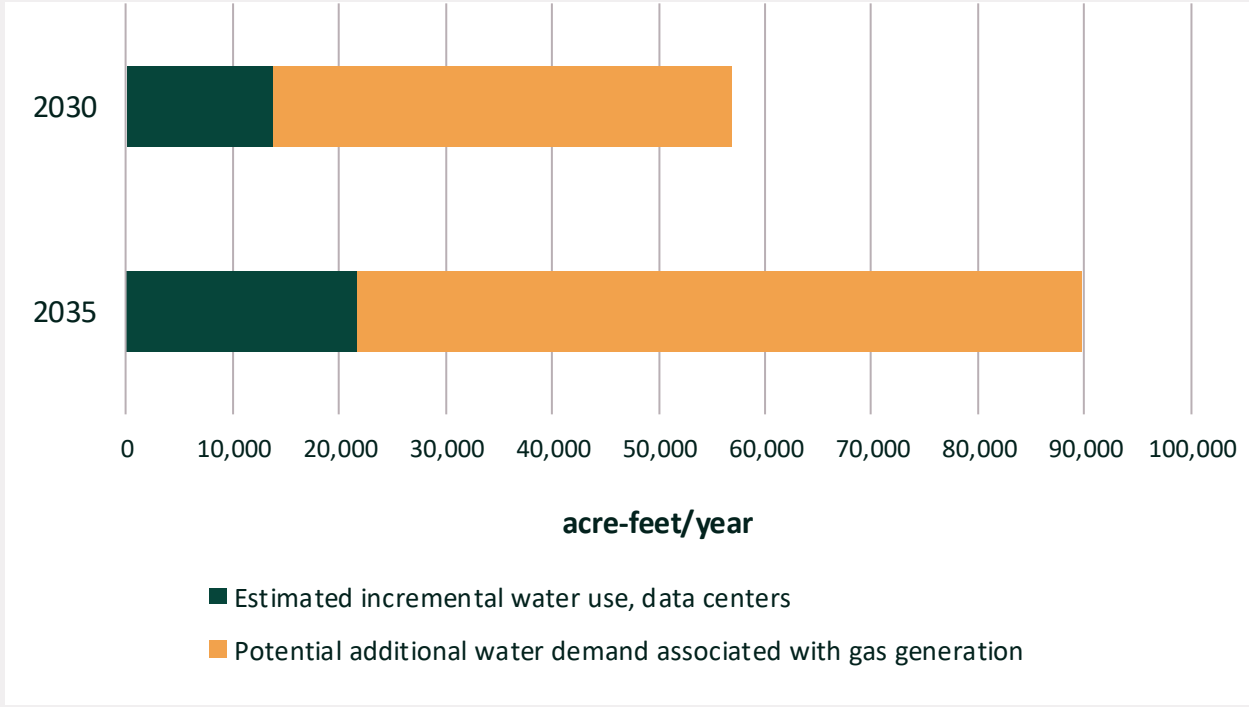


Data Center Resource Use in the West

Energy Demand



Water Use



Water Demands Depend on the Energy Source

Myth:

Data Centers recycle their water *and won't* ***impact water supplies****.*

Navigating Water Demands

1. Consistent, transparent water use reporting

2. Technical best management practices for on-site water management

3. Large water users policies

Water authority moves to conserve on cooling systems in Southern Nevada

High-consumption evaporative systems banned in new commercial buildings amid drought

Steven Lewis, general manager for the a/c company Ambient shop in Henderson, Nevada. Thursday, September 14, 2023

By Rhiannon Saegert

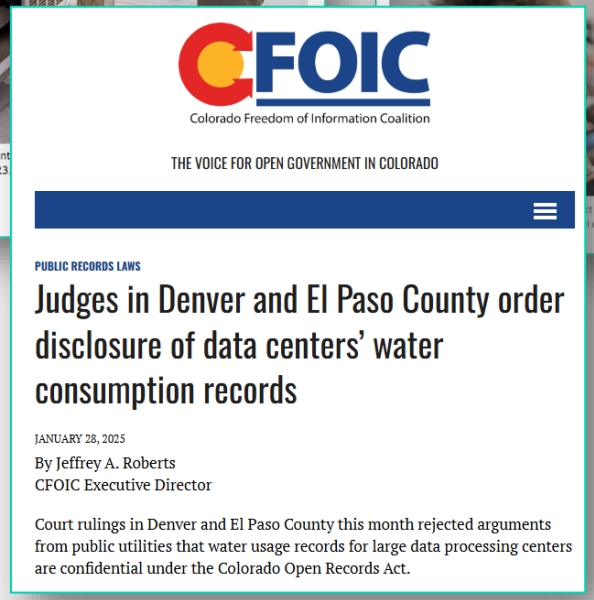
Monday, Sept. 25, 2023 | 2 a.m.

After Project Blue outcry, Tucson adopts rules for large water users

New ordinance adds oversight and transparency for companies seeking millions of gallons from the city system

by Yana Kunichoff
August 20, 2025

Email Bluesky X Facebook



CFOIC
Colorado Freedom of Information Coalition

THE VOICE FOR OPEN GOVERNMENT IN COLORADO

PUBLIC RECORDS LAWS

Judges in Denver and El Paso County order disclosure of data centers' water consumption records

JANUARY 28, 2025

By Jeffrey A. Roberts
CFOIC Executive Director

Court rulings in Denver and El Paso County this month rejected arguments from public utilities that water usage records for large data processing centers are confidential under the Colorado Open Records Act.

Large Water Users Policy Options

- Large water users restrictions
- Water demand offset policy
- Conservation-oriented tap fees
- Water allocation policy
- Industrial water efficiency requirements

Volumetric Use (Avg gal/acre/day)	Non-Recoverable Use: ≤25%	26% - 50%	51% - 75%	76% - 100%
≤600	Allowed - Low Volumetric Use Low Non-Recoverable	Allowed - Low Volumetric Use Low Non-Recoverable	Allowed - Low Volumetric Use/ Moderate Non-Recoverable	Allowed - Low Volumetric Use/ High Non-Recoverable
601-1,000	Allowed - Low Volumetric Use Low Non-Recoverable	Allowed - Low Volumetric Use Low Non-Recoverable	Allowed - Low Volumetric Use/ Moderate Non-Recoverable	Allowed - Low Volumetric Use/ High Non-Recoverable
1,001 - 2,000	Allowed - Avg Volumetric Use/ Low Non-Recoverable	Allowed - Avg Volumetric Use/ Low Non-Recoverable	Allowed - Avg Volumetric Use/ Moderate Non-Recoverable	Allowed - Avg Volumetric Use/ High Non-Recoverable
2,001 - 2,500	Allowed - Avg Volumetric Use/ Low Non-Recoverable	Allowed - Avg Volumetric Use/ Low Non-Recoverable	Allowed - Avg Volumetric Use/ Moderate Non-Recoverable	Allowed Under Exemption Only
2,501 - 3,000	Allowed - High Volumetric Use/ Low Non-Recoverable	Allowed - High Volumetric Use/ Low Non-Recoverable	Allowed Under Exemption Only	Not Allowed
3,001 - 3,500	Allowed Under Exemption Only	Allowed Under Exemption Only	Not Allowed	Not Allowed
3,501+	Allowed Under Exemption Only	Not Allowed	Not Allowed	Not Allowed

Aurora, CO, Water Large Water Users Guide

Energy/water connection

Fact Check

Reality: Data centers use large quantities of water and will affect water supplies. We need policies to mitigate this impact.

Myth: ~~Data centers recycle their water and won't impact water supplies.~~

Western Resource Advocates

wra

Bart.miller@westernresources.org