

**LAS VEGAS VALLEY WATER DISTRICT
BOARD OF DIRECTORS MEETING
JULY 7, 2026
MINUTES**

CALL TO ORDER 9:00 a.m., Commission Chambers, Clark County Government Center,
500 South Grand Central Parkway, Las Vegas, Nevada

DIRECTORS PRESENT: Marilyn Kirkpatrick, President
Jim Gibson, Vice President
April Becker
Justin Jones
William McCurdy II
Michael Naft
Tick Segerblom

STAFF PRESENT: John Entsminger, Doa Ross, Colby Pellegrino, Greg Walch, Andy Belanger and
Paul Johnson

Unless otherwise indicated, all members present voted in the affirmative.

COMMENTS BY THE GENERAL PUBLIC

For full public comment, visit www.lvwd.com/apps/agenda/lvwd/index.cfm

Laura McSwain, representing the Water Fairness Coalition, provided comments on agenda items 3, 8, and 9. Regarding the septic conversion funding item, she questioned the use of ratepayer funds to replace privately owned infrastructure. She stated that the infrastructure being replaced was originally paid for by property owners and suggested an explanation be provided for why septic conversions are being prioritized over reducing financial burdens on customers. Regarding the bond issuances, Ms. McSwain referred to concerns she had previously raised about the use of bond proceeds, noting she found it difficult to determine exactly what the proposed bonds would finance. Ms. McSwain argued that members of the public should not have to conduct extensive research to understand financing decisions and urged greater transparency. A copy of her comments is attached to these minutes.

Eric King, Las Vegas, spoke on item 9. He acknowledged that he was not familiar with the details of the item but expressed appreciation for the District's efforts to protect the community's water resources. Mr. King encouraged the Board to consider groundwater and stormwater as valuable resources. He noted the work and investment that have gone into preventing flooding and protecting residents but suggested that future planning should focus on how water flowing into the valley can be captured and utilized. Mr. King expressed interest in collaborating with District staff to explore ways to maximize the value of groundwater and stormwater resources.

Diane Henry, 7525 Coley Ave., spoke about item 3, stating that she supports grants and other funding assistance for septic-to-sewer conversions. She described these conversions as important investments and noted that homeowners could find these costs prohibitive. Ms. Henry opposed the proposal's use of Excess Use Charges (EUC) as the funding source for the projects, citing Assembly Bill 104 during the 2025 Nevada legislative session. She explained that language proposed by the Southern Nevada Water Authority (SNWA) that identified approved uses for EUC revenues, including septic conversions, was ultimately removed from the bill. Based on this legislative history, Ms. Henry argued that significant questions remain regarding the fairness and appropriate use of EUC revenues.

ITEM NO.

1. Approval of Agenda & Minutes

FINAL ACTION: A motion was made by Vice President Gibson to approve the agenda and the minutes from the joint meeting of May 18, 2026. The motion was approved.

CONSENT AGENDA Items 2 – 5 are routine and can be taken in one motion unless a Director requests that an item be taken separately.

2. Approve and authorize the President to sign an interlocal agreement between Clark County and the District for the installation of water facilities for the New Fire Training Center Site & Improvement Plans Project.

3. **Approve and authorize the General Manager to sign an interlocal agreement between the Clark County Water Reclamation District and the Las Vegas Valley Water District to provide cost share funding in the amount of \$3,294,000 for Clark County Water Reclamation District's grant-funded septic conversion program.**
4. **Ratify approval of an interlocal agreement between the City of Las Vegas and the District for the construction of water facilities for the Flamingo Boulder Highway Charleston – Main/Maryland Project in an amount not to exceed \$69,000 and authorize a contingency amount not to exceed \$6,900.**
5. **Authorize the General Manager to approve renewal terms to the contract between Menichino Construction LLC and the District that provides for the installation of new backflow assemblies in the amount of \$4,416,534 per term.**

FINAL ACTION: A motion was made by Vice President Gibson to approve staff's recommendations. The motion was approved.

BUSINESS AGENDA

6. **Approve and authorize the General Manager to sign an agreement between Hazen and Sawyer and the District to provide professional design engineering services for the SNWA and LVVWD Facility Cooling Systems Assessment in an amount not to exceed \$6,000,000.**

Mr. Entsminger disclosed that two District employees have children employed by Hazen and Sawyer; however, neither employee nor their children were involved in this matter or in the contract selection process.

FINAL ACTION: A motion was made by Vice President Gibson to approve staff's recommendations. The motion was approved.

7. **Approve and authorize the General Manager to sign, in substantially the same form as attached hereto, an agreement among Pioneer Americas LLC, a Delaware limited liability company, d/b/a Olin Chlor Alkali Products and Vinyls, the Southern Nevada Water Authority, and the District outlining the framework for permanent water service to Olin Corporation within the Black Mountain Industrial Complex and addressing the assignment of a portion of Olin Chlor Alkali Products and Vinyls' Colorado River water rights to the Southern Nevada Water Authority.**

Greg Walch, General Counsel, stated that Olin Chlor Alkali Products and Vinyls has been a responsible steward of water resources in the community and currently holds approximately 2,500 acre-feet of Colorado River water rights. He noted that the company has reduced its water consumption by 80 percent and has agreed to dedicate water to the SNWA while receiving water service from the City of Henderson. Of the original water rights, Olin retains approximately 2,100 acre-feet and has agreed to ensure that those rights are used in a manner consistent with SNWA's Colorado River conservation objectives.

FINAL ACTION: A motion was made by Vice President Gibson to approve staff's recommendations. The motion was approved.

8. **Adopt a resolution of intent proposing the issuance of the 2026C general obligation water bonds, additionally secured by pledged revenues, in the maximum aggregate principal amount of \$93,000,000, for the purpose of providing a determination that the pledged revenue will at least be sufficient to pay debt service on the bonds; authorizing publication of notices of the public hearing and of the District's intent to issue the bonds; and authorizing the Chief Financial Officer to arrange for the sale of the bonds.**

Mr. Entsminger explained that this item was reviewed and approved by the Debt Management Commission on May 7th. If approved today, it will be posted for a 90-day public notice period, followed by a public hearing and final determination. Upon completion of that process, authorization will be granted to proceed with the bond sale.

President Kirkpatrick noted that she, Commissioner Naft, and Commissioner Becker serve on the relevant committee and have consistently requested that they receive notification when bonds are issued. She emphasized that the current action is intended to prepare for a bond sale, allowing the District to proceed if market conditions are favorable.

FINAL ACTION: A motion was made by President Kirkpatrick to adopt the resolution. The motion was approved.

- 9. Adopt a resolution of intent proposing the issuance of the 2026D general obligation water bonds, additionally secured by Southern Nevada Water Authority pledged revenues, in the maximum aggregate principal amount of \$515,000,000, for the purpose of providing a determination that the pledged revenue will at least be sufficient to pay debt service on the bonds; authorizing publication of notices of the public hearing and of the District's intent to issue the bonds; and authorizing the Chief Financial Officer to arrange for the sale of the bonds.**

Mr. Entsminger noted that this item follows a timeline like that of item 8. President Kirkpatrick reiterated for the record the same comments she made regarding item 8.

FINAL ACTION: A motion was made by Vice President Gibson to approve staff's recommendations. The motion was approved.

COMMENTS BY THE GENERAL PUBLIC

Laura McSwain urged the board to consider water and energy impacts of data centers, arguing that current analyses may overlook the water required to cool these facilities. She reiterated her request for a forensic audit of the District. Ms. McSwain also raised concerns that existing water policies may be affecting economic development and competitiveness and stated that accounting metrics should not be confused with actual water conservation. She concluded by submitting her comments and an article, *"The \$3 Billion Blind Spot,"* for the record, which are attached to these minutes.

Stephanie Stefan, 2021 Grouse St., shared photos of trees along Town Center Drive in Las Vegas. She noted concern of tree health following grass conversions and urged the board to consider the impacts on trees, parks, neighborhoods, and quality of life.

Eric King encouraged District leadership to consider better ways to use stormwater to support the community and environment. He expressed concern about the loss of mature trees under current water conservation policies, emphasizing their importance for cooling, wildlife habitat, and public health as temperatures continue to rise.

Adjournment

There being no further business to come before the board, the meeting adjourned at 9:31 a.m.

Copies of all original agenda items and minutes, including all attachments, are on file in the General Manager's office at the Las Vegas Valley Water District, 1001 South Valley View Boulevard, Las Vegas, Nevada.



July 7, 2026

LVVWD Meeting – Public Comment Agenda Items 3, 8, 9

Agenda Item 3 – Septic Conversion Funding

This agenda item is not simply about a \$3.294 million expenditure.

It is about the stewardship of ratepayer money.

For generations, Las Vegas Valley Water District customers have invested billions of dollars building one of the most reliable urban water systems in America. They paid for treatment plants, reservoirs, pipelines, wastewater return systems, and the infrastructure that has made Southern Nevada a national leader in water management.

Today, many of those same ratepayers are being told they must accept higher rates, Excessive Use Charges, mandatory landscape changes, and policies that are steadily eroding the quality of life they spent decades building.

Yet today, the District is asking those same ratepayers to finance Clark County Water Reclamation District's grant match with **\$3.294 million** of District funds.

The final paragraph cites **NRS 277.180** and **Section 1.6 of the Las Vegas Valley Water District Act** as authority to enter into this agreement.

Those provisions may authorize the District to enter into an interlocal agreement.

But they do not explain why replacing privately owned infrastructure has become an appropriate use of water ratepayer revenues.

Because this program is not replacing District infrastructure.

It is replacing infrastructure that property owners have already paid for.

If the District believes that is an appropriate use of ratepayer money, then I believe the ratepayers deserve a clear explanation of why that priority comes ahead of reducing the financial burdens already being imposed on the customers who built this system.

Agenda Items 8 & 9 General Bond obligations

I have spoken previously about bond issuances before this Board, and when I asked questions regarding the use of the proceeds, I was referred to the Clark County Debt Management Commission. And Madam Chair, thank you for providing the relevant documents. According to the County website, the most recent meeting was August 27, 2025.

I reviewed those materials. Yet once again I find myself trying to piece together information from multiple agencies, multiple meetings, and multiple sets of documents simply to understand one decision. Also, I did not find information related to proposing 2026 C or 2026D. If there is something else available please point me in that direction.

If a member of the public wants to know what these bonds are financing, they should not have to become a forensic accountant.

Why isn't there a simple attachment to this agenda identifying the projects being financed, the estimated cost of each project, and the amount of bond proceeds proposed to be allocated to each? Combined these two items total over \$600 Million.

Respectfully submitted,

WATER FAIRNESS COALITION, INC

A handwritten signature in blue ink, appearing to read "Laura McSwain", with a stylized flourish at the end.

Laura McSwain, President



July 7, 2026

LVVWD Meeting – 2nd Public Comment

Chair Kirkpatrick, members of the Board.

Chair Kirkpatrick, several years ago you and I spoke about the importance of keeping people employed and the difficult balance between economic growth and landscape standards. I respect that because I understand what it means to make payroll, keep the lights on, and make difficult decisions during challenging times.

I have stated often that I believe this agency is in need of a full forensic audit; hopefully the conversation about data centers will finally inspire such action.

Whenever the subject of data centers has come up, the response has been that the issue has been solved through air cooling and closed-loop systems. You have said it. Mr. Entsminger has said it. And in SNWA's recent *Tap the Truth* video, Deputy Manager of Resources Colby Pellegrino stated, *"We have taken steps to make sure data centers are not impacting the community's water supply."*

But the graphic before you suggests a closer look is needed.

The chart on the left measures only the water used inside a data center. The chart on the right includes the water required to generate the additional electricity needed to cool that same facility.

If this research is correct, it suggests that we have traded efficient and inexpensive cooling systems for something much more costly in both energy use and water demand.

As the need for advancing technology increases, could a closer look on anything be more important?

Sources say that these policies have also affected approximately \$16 billion in proposed development and have raised concerns about competitiveness in what gets developed. Whether that figure ultimately proves accurate or not, it deserves to be examined.

Chair Kirkpatrick, you've said publicly that you're tired of taking it on the chin over water policy.

Respectfully, as President of both the Southern Nevada Water Authority and the Las Vegas Valley Water District, your responsibility is not simply to defend existing policies. It is to challenge them when new information suggests they deserve another look.

Wouldn't it be a tragedy if, in the name of protecting our water future and supporting continued growth, we adopted policies that ultimately place even greater stress on the very water resources we are trying to protect? How much more should residents have to absorb? How much more can our environment handle?

Paper water savings have become a central focus of policy. But physics wins every time. Paper water may satisfy an accounting metric. Physics determines whether we've actually conserved water.

Respectfully submitted,

WATER FAIRNESS COALITION, INC

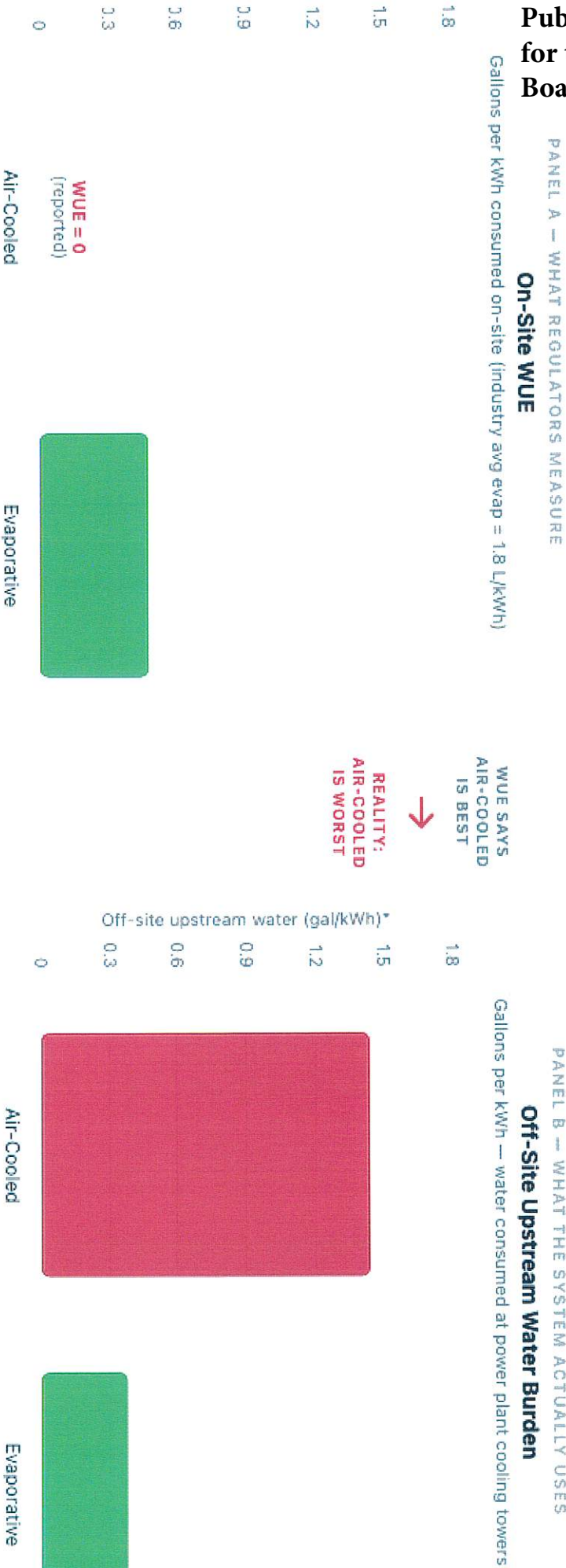


Laura McSwain, President

The WUE Blind Spot: Air Cooling Flips from Best to Worst

On-site WUE makes air-cooled look like zero water use. Off-site upstream accounting reveals it as the highest consumer.

■ Air-Cooled Chiller (Reported WUE: 0) ■ Evaporative Cooling Tower (Industry avg)



cooled chillers report zero on-site water use — the WUE metric looks no further. Including the water consumed at power plants generating that electricity, air cooling imposes 1.44 gal/kWh on upstream cooling towers: nearly 4x the upstream burden of an evaporative tower system.

Sources: Lawrence Berkeley National Laboratory 2024 U.S. Data Center Energy Usage Report, /x24 Exchange Rocky Mountain Chapter; industry WUE benchmarks (Google, Microsoft, upstream burden for air cooled derived from LBNL 1.2 gal/kWh national average grid water intensity adjusted for Nevada's natural gas heavy grid) ~1.44 gal/kWh; Panel B values reflect upstream/off-site and A captures the on-site portion. Upstream burden measurement is not required by any current regulatory framework.

The \$3 Billion Blind Spot: How Nevada's Cooling Tower Ban Is Shifting 100 Million Gallons of Hidden Water Consumption to Power Plants

The data center industry already knows that "air-cooled" means water-free only on paper — policy hasn't caught up yet



CHRISTOPHER JOHNSON

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In February 2024, the Southern Nevada Water Authority (SNWA) enacted the most aggressive data center water policy in the United States: an outright ban on evaporative cooling in all new commercial construction across Las Vegas, Henderson, and the surrounding valley. The rationale was sound. Twenty-three Southern Nevada data centers consumed 716 million gallons of water in 2024, every drop permanently lost from the Colorado River system.⁷ Google's Henderson campus alone accounted

352 million gallons — water that cannot be returned to Lake Mead, cannot earn return-flow credits, and cannot be recovered for the 40 million people downstream who depend on the river.^{7,19}

The SNWA's instinct was correct. Its accounting was incomplete.

Air-cooled data centers report a Water Usage Effectiveness (WUE) of zero — the industry metric that regulators, sustainability officers, and ESG analysts treat as meaning “water-free.”²³ It means nothing of the sort. Air-cooled chillers consume 2-3 times more electricity than evaporative-cooled equivalents for the same information technology load. That electricity must come from somewhere. In Nevada, it comes primarily from natural gas combined-cycle (NGCC) power plants — plants that cool their condensers with water. When a data center switches from evaporative cooling to air cooling, its WUE drops to zero. Its upstream water burden rises by millions of gallons per year. The water does not disappear. It moves — from a visible cooling tower on the data center's property to an invisible cooling tower at a power plant, somewhere else, outside the accounting boundary of every current regulatory framework.

This is not a fringe claim. At the ASHRAE Winter Conference held in Las Vegas in February 2026 — two miles from SNWA headquarters — three independent presentations reached the same conclusion. Ken Mortensen of SPX Cooling Technologies told a room of engineers and operators that “when power generation is considered, all cooling technologies consume both energy and water resources.”³ The industry already knows. Policy does not yet require measuring it.

The Stakes: \$600 Billion in Capital and 6 Gigawatts of New Demand

Nevada is not a corner case. It is the test case for how water-stressed jurisdictions manage data center growth across the entire Sun Belt — and the magnitude of what at stake makes the accounting gap consequential at a scale that demands attention.

The “big five” hyperscalers — Amazon, Alphabet/Google, Microsoft, Meta, and Oracle — are forecast to commit more than \$600 billion in capital expenditure in 2026 along with a 36% increase from 2025.²⁵ Amazon alone committed \$200 billion for 2026 — a figure that stunned markets when disclosed during Q4 2024 earnings.²⁵ Every dollar of that capex produces a data center that will consume electricity for 20 to 30 years.

Nevada has become a premier destination for that spending. Microsoft, Google, Apple, Switch, EdgeCore, and Novva have all committed to the Nevada market.¹³ Vantage Data Centers announced a \$3 billion, 224 megawatt (MW) campus in Storey County; its first building opens in Q2 2026.⁹ Northern Nevada data center projects have collectively requested nearly 6 gigawatts (GW) of electricity capacity over the next decade.¹⁰ NV Energy’s chief executive has stated publicly that Northern Nevada’s grid could quadruple. That grid expansion requires power plants. Power plants require water. The feedback loop runs in the wrong direction from SNWA’s stated goal.

U.S. data center electricity consumption reached approximately 176 terawatt-hours (TWh) in 2023, representing 4.4% of total U.S. electricity demand.¹ Lawrence Berkeley National Laboratory (LBNL) projects this will reach 325 to 580 TWh by 2028 — a potential tripling in five years. The global hyperscale data center market stands at \$150 billion in 2026 and is projected to reach \$596 billion by 2031 at a 23.7% compound annual growth rate (CAGR).¹¹ S&P Global’s Sustainable1 unit finds that 43% of data centers globally are already exposed to high water stress.²⁶ Nevada is simply the first jurisdiction to convert that stress into an equipment ban — making it the policy laboratory for an experiment that will repeat in Arizona, Texas, and California with this decade. As we documented in [our analysis of how hyperscaler self-generation shifts costs to residential ratepayers](#), the hidden system-level consequences of large infrastructure decisions rarely appear in the policy accounting that governs them.

What WUE Actually Measures (and What It Doesn't)

Water Usage Effectiveness — defined as annual site water usage divided by IT equipment energy — is the data center industry's primary water metric. Industry average WUE is 1.8 liters per kilowatt-hour (L/kWh). Best-in-class facilities achieve low as 0.26 L/kWh.²³ Air-cooled facilities report 0 L/kWh. That figure is treated as proof of water efficiency.

It is a measurement of on-site water performance. Nothing more.

The European Union implemented the world's most advanced mandatory data center water policy framework in September 2024, requiring annual WUE reporting for large facilities under the Energy Efficiency Directive.²² The EU's own framework documentation acknowledges what its metric cannot see: WUE “does not include water embedded in purchased electricity.”²² The world's most sophisticated water regulator has named the problem. No regulator has yet required measuring it.

When a data center switches from evaporative cooling to air cooling, its WUE drops to zero — and its electricity consumption simultaneously rises by a factor of two to three. The WUE metric records a perfect score. The physical system consumes more water. These two facts are not in contradiction; they are a consequence of WUE measuring only one accounting boundary. The industry term for this is an efficiency metric with an incomplete system boundary. The practical consequence: SNWA's ban, designed to eliminate data center water consumption, is increasing it.

On-site WUE makes air-cooled look like zero water use. Off-site upstream accounting reveals it as the highest consumer.

On-site WUE makes air-cooled look like zero water use. Off-site upstream accounting reveals it as the highest consumer.

Panel A – What Regulators Measure

On-Site WUE
Gallons per kWh consumed on-site (industry avg evap = 1.8 L/kWh)

Cooling System	On-site WUE (gal/kWh)
Air-Cooled	WUE = 0 (reported)
Evaporative	~0.45

Panel B – Off-Site Upstream Water Burden
Gallons per kWh – water consumed at power plant cooling towers

Cooling System	Off-site upstream water (gal/kWh)*
Air-Cooled	~1.45
Evaporative	~0.35

WUE SAYS AIR-COOLED IS BEST
→
REALITY: AIR-COOLED IS WORST



The ASHRAE Winter Conference in Las Vegas in early February 2026 produced the clearest documented evidence that the cooling equipment industry, legal advisors, and academic researchers have independently internalized the systems-level accounting problem — while regulators have not.

Seminar 6, titled “Evaporative Cooling in the Southwest,” brought together three presenters who each arrived at the same thesis from different directions.³ Mortensen of SPX Cooling Technologies framed the issue in terms of what the industry had historically missed: cooling tower bans reduce visible water use at the cost of dramatically increased electricity consumption, which imposes its own water burden on the grid. His learning objective for conference attendees was to “Acknowledge the Water/Energy Resource Balance inherent in cooling technologies” — language that signals an industry consensus forming around what regulators have not yet required anyone to report.

Michael Nerozzi of Baltimore Air Coil took the policy critique further, flagging that Nevada's ordinance definitions are "overly broad and do not properly account for the water use and associated benefits of varying forms of evaporative cooling equipment available."³ Adam Green of Baker Donelson, representing building owners and operators navigating compliance, characterized the systems mandated by the ban as "exponentially less efficient" and documented the practical impacts on operators adapting to the new regulatory regime.³

Separately — presented in Milano III/IV at Caesars Palace on February 4, 2026, two miles from the SNWA offices enforcing the ban — Pooya Navid of Nortek Data Center Cooling Solutions presented ASHRAE Paper LV-26-C185: the first peer-reviewed simulation framework explicitly modeling energy-water tradeoffs for artificial intelligence (AI)-driven data centers across U.S. climate zones.⁴ The paper compares air-cooled chillers, water-cooled chillers, evaporative systems, hybrid coolers, and direct coolers across the full range of U.S. climate conditions. Its explicit learning objective: "Compare energy-water trade-offs across climates and supply-water setpoints."⁴

This is the industry publishing its homework. The SNWA ordinance was enacted without this analysis. Navid's paper demonstrates what a systems-level evaluation would have shown.

The Upstream Water Math: Doing What Regulators Won't



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