

---

# SENATE COMMITTEE ON NATURAL RESOURCES AND WATER

Senator Josh Becker, Chair

2025 - 2026 Regular

---

<b>Bill No:</b>	AB 2469	<b>Hearing Date:</b>	June 23, 2026
<b>Author:</b>	Papan		
<b>Version:</b>	June 15, 2026 Amended		
<b>Urgency:</b>	No	<b>Fiscal:</b>	Yes
<b>Consultant:</b>	Genevieve Wong		

**Subject:** Data centers: water use disclosures

## SUMMARY

This bill would prohibit a city, county, or city and county, from approving a discretionary or ministerial permit of a data center unless the applicant has provided a water supply assessment, a water use assessment if requested by the local jurisdiction, a water scarcity plan, projected water use and water efficiency measures, and disclosures regarding workforce needs associated with the project. The bill would also require the Department of Water Resources to conduct studies and investigations and recommend a commercial, industrial, and institutional water use classification system for users that qualify as large consumptive use facilities, including data centers.

## BACKGROUND AND EXISTING LAW

### ***Data centers.***

Data centers are buildings or facilities that “support servers, digital storage equipment, and network infrastructure for the purpose of large-scale data processing and data storage. Increasing demand for data creation, processing, and storage from existing and emerging technologies, such as online platforms/social media, video streaming, smart and connected infrastructure, autonomous vehicles, and artificial intelligence, has led to exponential growth in data center workloads and compute instances.”<sup>1</sup> There is increasing awareness of the energy and water demands (primarily related to cooling) associated with data centers as artificial intelligence (AI) and other technologies are being deployed.

While California has been home to data centers for decades, in recent years, developments in technology have increased the demand for large data centers capable of storing, processing, and serving huge amounts of data. California is a desirable destination for data center projects, with a highly skilled workforce, close proximity to computing demand, and access to large fiber optic connections around the world. Clusters of data centers exist in Silicon Valley, San Francisco, Los Angeles, and Sacramento, with other projects located around the state.

### ***Data Centers and Water Use.***

Although data centers are estimated to be among the top ten water consuming industries in the United States their water use and related impacts are understudied, and approaches for managing water use and impacts have not kept pace with the

---

<sup>1</sup> Md Abu Bakar Siddik, Arman Shehabi, and Landon Marston, “The Environmental Footprint of Data Centers in the United States,” *Environmental Research Letters*, 16 (2021).

industry's rapid growth.<sup>2</sup> According to a report by UC Berkeley Center for Law, Energy & the Environment California, *Regulating Data Center Water Use in California* (CLEE report), water use by data centers can strain local and regional water supplies and adversely impact ecosystems; it is estimated that about one-fifth of U.S. data centers used water from water-stressed watersheds in 2021, and an estimated two-thirds of the data centers built since 2022 are located in areas of high water stress. Some of the fastest-growing data center hubs in the United States are in semi-arid West – often in areas that experience frequent droughts or chronic water scarcity.

Data centers use a lot of water. A data center's on-site water use depends on its location, the cooling technologies it employs, its operational water usage efficiency, and more. Data centers produce tremendous heat that must be removed from the facility to maintain safety and performance. Estimates for direct-on-site water consumption vary by facility type and size. These estimates range from about 18,000 gallons per day for smaller wholesale and retail data centers to approximately 300,000 gallons per day for a mid-sized data center, and around 550,000 gallons per day for a hyperscale data center.

Not only do data centers use large volumes of water, the volume of water needed at any particular time can be irregular. Data centers use a variety of cooling technologies, either sequentially or depending on weather conditions and server load. Data center water use patterns can be irregular as a result of switching between these cooling technologies, including high demand peaks that water distribution infrastructure must be designed to accommodate, even if the average demand is far lower. Water infrastructure (both water delivery and wastewater) must be sized to accommodate these peaks in demand.

**Cooling technology and water demand.** Data centers can have substantial and sometimes irregular demand for cooling water. All computer chips produce heat as waste energy from the electricity flowing through them. While this heat is minimal in the context of a personal computer, data centers made up of thousands of servers produce an immense amount of heat that needs to be removed from the facility to maintain safety and performance. To manage this heat, data centers use a variety of cooling technologies, including:

- Air-based cooling. Chilled air is circulated through server racks using computer room air conditioners or air handlers to remove heat from equipment.
- Chilled water systems. Mechanical chillers produce chilled water that absorbs heat from servers through heat exchangers before the heat is rejected outdoors.
- Evaporative cooling systems. Cooling towers or evaporative coolers use the evaporation of water to remove heat, which can significantly reduce electricity use but increases water consumption.

---

<sup>2</sup> *Regulating Data Center Water Use in California*, UC Berkeley Center for Law, Energy, & the Environment, February 2026

- Liquid cooling. Coolant is delivered directly to server components or through cold plates and immersion systems, allowing heat to be removed more efficiently than with air cooling.
- Economization technologies. Air-side or water-side economizers take advantage of cool outdoor air or water temperatures to reduce the need for mechanical cooling when environmental conditions allow.

Many data centers combine several technologies either sequentially or depending on weather conditions and server load. The blend of possible technologies introduces tradeoffs between electricity and water use (and between onsite and offsite water use).

***Irregular water demand and peak use.*** Data center water use patterns can be irregular as a result of switching between cooling technologies. Research shows that the “peaking factor” (the factor of the peak use over average use) for data centers can be double or more the peaking factor for other large users.<sup>3</sup> These high peaks occur because data centers need to shift to evaporative cooling technologies to exhaust waste heat during hot and dry weather conditions, or use more water to remove more heat. Shifting between cooling technologies can result in large surges in demand that need to be accommodated by water distribution infrastructure, even if the average demand is far lower.

***Consumptive water use.*** Evaporative cooling systems, like those sometimes used in data centers, are consumptive uses of water. This bill would require data center operators to distinguish their consumptive and nonconsumptive water uses. Consumptive water uses refers to water that is withdrawn or diverted from the environment that is made unavailable for future use because it has evaporated, transpired, been incorporated into products or crops, or otherwise been made unavailable for immediate use. In contrast, non-consumptive uses of water quickly return to the environment. Examples of non-consumptive use include recreation, hydroelectric power generation, or instream flow.

***Scale of potential demand.*** Existing and proposed data centers range from relatively small “edge” or collocated facilities to huge “hyperscalers,” including a proposed \$10 billion, 330 MW project in Imperial County that could use as much as 750,000 gallons of water per day. As data centers continue to surge in growth, concerns about data center water use are driving discussions around sustainability, evaluations of appropriate location siting, and available supply.

***Implications for water infrastructure.*** Data centers need a reliable water supply. Due to the reliability requirement to deliver the demanded water, water infrastructure (both water delivery and wastewater) must be sized to accommodate the peaks in demand. Local water suppliers are then required to build capacity well in excess of average need and potentially may build capacity in excess of any need that materializes, especially if they are building based on limited information about projected water demand.

---

<sup>3</sup> Yuelin Han, Pengfei Li, Adam Wierman, and Shaolei Ren, “Small Bottle, Big Pipe: Quantifying and Addressing the Impact of Data Centers on Public Water Systems,” *arXiv preprint*, doi:10.48550/arXiv.2603.02705 (2026).

Absent reliable information about expected usage, water infrastructure decisions are based on estimates and projections that may or may not be borne out. In practice, this limited visibility compounds the general trend across California water agencies to project (and build for) higher water use than is actually realized.<sup>4</sup> In addition to overbuilding for capacity, local water suppliers risk stranded assets if data center projects either do not materialize or close. In an industry characterized by many proposed projects with fewer constructed projects and rapid obsolescence of cutting-edge technology, these risks are meaningful and may exacerbate concerns over water affordability.

**Improving planning and coordination.** Better data about water use, whether during the water supply assessment process (if required, see discussion below) or based on research data from across the sector, would assist local water agencies in planning for actual need. Local water utilities could also work with data centers to understand options for the times of highest demand and collaborate on strategies to deliver water supply reliability.<sup>5</sup> The risk of stranded or overbuilt assets can be mitigated by requiring new large customers to pay for necessary infrastructure upgrades as part of the connection process, potentially extending beyond traditional connection fees to include upgrades to mains, pumping stations, and other infrastructure as needed.

**CII water use.** Water use by data centers falls under the CII classification, but is not calculated under the urban water use objective (“Making Conservation A Way of Life”) intended to increase water use efficiency in California’s urban areas. However, as required by the legislative package to enact Making Conservation a Way of Life, DWR conducted a study (completed in 2022) on CII water use and recommended performance measures to the State Water Board that would improve water use efficiency in the CII sector. One of the study’s recommendations was to require urban retail water suppliers to classify their CII users by one of 19 user types (e.g., manufacturing/industrial, technology/science). The State Water Board incorporated this recommendation into the final Making Conservation a Way of Life regulations by requiring urban retail water suppliers to classify CII users into one of 22 categories by June 30, 2027; the categories are based on the ENERGY STAR Portfolio Manager categories. This bill requires DWR to develop a separate classification for CII users that qualify as large consumptive use facilities, including data centers, by June 30, 2028.

**Water supply assessments.** A water supply assessment is required for a proposed project (CII or otherwise) with a water use that exceeds certain thresholds and is completed as part of the CEQA process. The water use thresholds that trigger a water supply assessment are as follows (Water Code § 10912):

- A proposed residential development of more than 500 dwelling units;

---

<sup>4</sup> Johanna A. Capone and Landon T. Marston, “Water Demand Projection Accuracy and Demand Management Trends in California Cities,” *Water Resources Research* 61, no. 11 (2025).

<sup>5</sup> Marie Grimm, Nell Green Nysten, and Michael Kiparsky, *Regulating Data Center Water Use in California*, (Center for Law, Energy & the Environment, UC Berkeley School of Law, Berkeley, CA: 2026), 40-43. See <https://www.law.berkeley.edu/data-center-water-use>.

- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 25,000 square feet of floor space;
- A proposed hotel or motel that has more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A proposed mixed-use project that includes one or more of the above; and
- A proposed project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

To complete the water supply assessment, the project proponent must provide information to municipal planning decisionmakers about the expected water use. The water supply assessment process provides the primary opportunity for public input and awareness of water use by a proposed CII (or other) water user.

### ***Planning and Approving New Development.***

Planning and approving new development is mainly a local responsibility. The California Constitution allows cities and counties to “make and enforce within its limits, all local, police, sanitary and other ordinances and regulations not in conflict with general laws.” It is from this fundamental power (commonly called the police power) that cities and counties derive their authority to regulate behavior to preserve the health, safety, and welfare of the public – including land use authority. Cities and counties enforce this land use authority through zoning regulations, as well as through an “entitlement process” for obtaining discretionary as well as ministerial approvals.

The scale of the proposed development and the existing environmental setting determine the degree of local review that occurs. For larger developments, the local entitlement process commonly requires multiple discretionary decisions regarding the subdivision of land, environmental review pursuant to the California Environmental Quality Act (CEQA), design review, and project review by the local agency’s legislative body (city council or county board) or by a planning commission delegated by the legislative body.

### ***Existing law:***

- 1) Requires DWR, in coordination with the State Water Board, to conduct studies and investigations to develop recommendations for efficient water use by commercial, industrial, and institutional (CII) water users by October 1, 2021. The State Water Board shall adopt performance measures for CII water use based on these recommendations by June 30, 2022 (Water Code § 10609.10).

- 2) Requires a water supplier to prepare a water supply assessment for a residential, commercial, or industrial project that must undergo review under CEQA) and will use more than a specified amount of water (see discussion under Background, above). The water supply assessment must contain information regarding the project's water use and the ability of the water supplier to meet the project's water demands (Water Code § 10910 *et seq.*).
- 3) Allows cities and counties to "make and enforce within its limits, all local, police, sanitary and other ordinances and regulations not in conflict with general laws." It is from this fundamental power (commonly called the police power) that cities and counties derive their authority to regulate behavior to preserve the health, safety, and welfare of the public, including land use authority (California Constitution, Article XI, § 7).
- 4) Establishes the California Energy Commission with various responsibilities with respect to developing and implementing the state's energy policies (Public Resources Code § 25000 *et seq.*).
- 5) Requires the state to achieve a 20% reduction in urban per capita water use by December 31, 2020 (20x2020 target) and requires each urban retail water supplier to establish their own target to contribute towards achieving the statewide 20% reduction goal (Water Code §§ 10608.16, 10608.20) (SB 7x 7).
- 6) Requires the DWR, in coordination with the State Water Board, to conduct studies and investigations to develop recommendations for efficient water use by commercial, industrial, and institutional (CII) water users by October 1, 2021. The State Water Board shall adopt performance measures for CII water use based on these recommendations by June 30, 2022 (Water Code § 10609.10).

## PROPOSED LAW

This bill would:

- 1) Prohibit a city, county, or city and county from approving a discretionary or ministerial permit or other entitlement that would result in the construction, or expansion that increases the maximum peak water use, of a data center unless the following conditions are met:
  - a) The applicant has provided the city, county, or city and county with all of the following:
    - i) A water supply assessment, as described.
    - ii) Upon request of the city, county, or city and county, a water use assessment, as defined by the bill.
    - iii) Commencing January 1, 2028, a water scarcity plan, as defined by the bill.
    - iv) Projected water use and water efficiency measures.

- v) Disclosures regarding workforce needs associated with the project, as specified.
  - b) The applicant assumes responsibility for the full cost of any required water conveyance, treatment or storage, or distribution infrastructure improvements necessary to serve the project, as determined by DWR or the applicable water supplier.
- 2) Require DWR, in coordination with the State Water Resources Control Board (State Water Board) to conduct necessary studies and investigations and recommend, no later than June 30, 2028, a CII water use classification system for users that qualify as large consumptive use facilities, including data centers. The classification system is required to be separate and distinct from classifications applicable to other CII water use.
- 3) Require the State Water Board, in coordination with DWR, to adopt the classification for CII water use by December 31, 2029.
- a) Require each urban retail water supplier to implement the above-described classification adopted by the State Water Board.

### **ARGUMENTS IN SUPPORT**

According to the author, “California’s finite water supplies are under growing stress from climate change, prolonged drought, and the expansion of large consumptive water users. While the Legislature has long recognized the importance of coordinating land use decisions with available water supplies, the rapid growth of data centers has exposed gaps in existing law. Data centers represent a new kind of development that can impose significant, highly concentrated water demands on local systems.”

“This gap is particularly important because data centers operate continuously and can drive substantial peak-day demand, often requiring new treatment, storage, or distribution infrastructure. Without timely and standardized information during the entitlement process, municipalities and water retailers may lack clear visibility into a project’s water needs and the leverage to ensure that adequate supplies, infrastructure capacity, and conservation measures are in place before service commitments are made.”

“AB 2469 directly addresses this problem. The bill requires meaningful water planning before local approval and directs state agencies to better identify and manage large consumptive water users. In doing so, AB 2469 gives local governments and water suppliers the information they need to evaluate data center water demand before irreversible siting and infrastructure decisions are made.”

### **ARGUMENTS IN OPPOSITION**

A coalition letter representing groups such as TechNet and Silicon Valley Leadership Group, among others, argue that “data centers are the backbone of [the] digital economy.” The coalition argues that the bill would “single out data centers for additional levels of reporting to include site-specific operational details as part of ... a ‘water use assessment,’ which is not otherwise required of other CII sectors and end users with similar water demands.” The coalition also questions why separate and distinct CII

water use classification is needed for “large consumptive use facilities” when data centers are “not an outlier when it comes to water use among CII sectors.” The coalition also argues that the “proposed water reporting requirements could force businesses to disclose sensitive trade secrets, harm their competitive edge, and risk creating safety and security vulnerabilities.”

In addition to the arguments above, California Chamber of Commerce (CalChamber) argues that the “new CII classification for ‘large consumptive use facilities’ is redundant of existing reporting requirements” and does not think that “further classification will bring further focus on water efficiency from those users.”

## COMMENTS

***This bill is double referred.*** This bill is double referred with the Senate Local Government Committee, with this committee being the committee of first referral. Elements of this bill under the jurisdiction of the Senate Local Government Committee are included here for context and completeness only and will be discussed before that Committee.

***Having a full picture of water usage is essential to smart planning.*** This bill requires data centers to have submitted certain information to the city or county before the city or county can issue an entitlement for the project. This information includes a water supply assessment, a water use assessment (if requested by the city or county), a water scarcity plan, and certain disclosures regarding workforce needs of the project. The opposition questions why data centers should be required to submit such information, when other CII sectors or other end users with similar water demands. During a time when water supply is limited, it is important for water suppliers and local jurisdictions to know how this finite resource is being used. As pointed out by the CLEE Report, “understanding water use and consumption..., its impact on water resources and communities, and mitigation options is important, especially in drier regions. This includes understanding in what local contexts data center water use is likely to have the most- and least-impacts.” When local jurisdictions have access to this information, they can make fully informed decisions when deciding whether to approve a particular project.

***Opponents view the reporting requirements under the bill as punitive towards data centers.*** It has been argued by requiring data centers to submit a water scarcity plan is punitive because it forces them to demonstrate how they will “shutter operations” during various drought conditions. They have argued that other businesses are not being required to do this. However, if the state is in an abnormally dry year, shouldn’t every one pitch in to help the state be more efficient with its water? It is worth noting while data centers, under the bill, are the only ones required to do a water scarcity plan, there may be similar requirements imposed on other industries – just not in the form of a “water scarcity plan.”

There are various examples of different industries cutting back on water usage during times of drought or in order to help conserve the state’s water uses. For example, the Sustainable Groundwater Management Act requires sustainable groundwater agencies to develop a plan to sustainably manage its groundwater supplies. For some, that plan has required groundwater users to pump less water out of the ground. Agricultural

water suppliers are required to adopt agricultural management plans which include, among other requirements, a drought plan for periods of limited water supply describing the actions of the supplier for drought preparedness and management of water supplies and allocations during drought years.

***Is the new CII classification redundant of existing law?*** According to CalChamber, requiring DWR and the State Water Board to develop and adopt a specific classification system for “large consumptive use facilities” will add little value above what is already required by existing law. Pursuant to the Making Conservation a California Way of Life regulations urban retail water suppliers are already required to classify every CII customer based on the customer’s end use of water and are required to identify and classify the top 2.5% of overall CII users and the top 20% in each category. Additionally, the urban retail water suppliers are required to implement conservation programs for inefficient water users, applying best management practices and specifically tailored conservation actions for each category. Thus, according to CalChamber large consumptive users will already be identified for water efficiency measures under the existing regulations.

In response, the author’s office argues that it is not redundant, but rather looking at users based on their “consumptive use,” which is different than other uses, even within the CII sector. Under “consumptive use,” water withdrawals are not returned to the local environment and are instead evaporated, transpired, or incorporated into products or crops. As such, a data center is a consumptive user. According to information provided by the author, approximately 80% of the water used by data centers evaporates.<sup>6</sup> While CII classifications are broken down by sector, there hasn’t been an evaluation of the *type* (consumptive/non-consumptive) of use within those sectors.

Finally, the author argues the need for this additional classification type is because the Making Conservation Way of Life regulations exempt “process water” from efficiency targets and reporting. “Process water” is “water used by industrial water users for producing a product or product content or water used for research and development. Process water includes, but is not limited to, continuous manufacturing processes, and water used for testing, cleaning, and maintaining equipment. Water used to cool machinery or buildings used in the manufacturing process or necessary to maintain product quality or chemical characteristics for product manufacturing or control rooms, data centers, laboratories, clean rooms, and other industrial facility units that are integral to the manufacturing or research and development process is process water. Water used in the manufacturing process that is necessary for complying with local, state, and federal health and safety laws, and is not incidental water, is process water. Process water does not mean incidental water uses” (WAT. §10608.12(y)). The author acknowledges that it is unclear what percentage of CII water use can be attributed to process water, but the definition appears to include a vast majority of indoor industrial water uses, except incidental water uses.

---

<sup>6</sup> Li, P., Yang, J., Islam, M., Ren, S.; *Making AI Less “Thirsty”: Uncovering and Addressing the Secret Water Footprint of AI Models*, March 2025.

The author argues that the exemption of process water in state water efficiency frameworks means that CII water users did not have to reduce their use of process water by 20% under SB 7x7 and that process water is not calculated as part of the urban water use objectives.

### ***Related legislation***

AB 2619 (Papan), of the current legislative session, would require data centers, when applying for a business license, to provide their expected water use to their water supplier and to the appropriate city or county; and when renewing a license, to report their annual water use to the appropriate city or county. This bill would require Department of Water Resources (DWR) and State Energy Resources Conservation and Development Commission (Energy Commission or CEC) to develop guidelines and best practices to maximize the efficient use of natural resources to address developing and emerging needs of technology, and would require DWR to develop guidance that cities and counties may use for assessing projected water use, water efficiency measures, and cumulative water resources impacts of proposed data centers. This bill is pending before this Committee.

AB 93 (Papan, 2025) was similar to AB 2619. AB 93 was vetoed.

AB 755 (Papan, Chapter 542, Statutes of 2023) requires a public entity to conduct a water usage demand analysis, before completing, or as part of, a cost-of-service analysis conducted to set fees and charges for water service.

**SUGGESTED AMENDMENTS: Discussions are underway to potentially address concerns of stakeholder groups.**

### **SUPPORT**

7th Generation Advisors  
California Coastal Protection Network  
California Coastkeeper Alliance  
California Environmental Voters  
Center for Biological Diversity  
Center for Public Environmental Oversight  
Clean Water Action  
Cleaneearth4kids.org  
Community Alliance With Family Farmers  
Fix the World Consulting, LLC  
Los Angeles Waterkeeper  
Planning and Conservation League  
Resource Renewal Institute  
Sierra Club California

### **OPPOSITION**

Bay Area Council  
Building Owners and Managers Association of California  
CalAsian Chamber of Commerce  
California African American Chamber of Commerce

California Broadband & Video Association (unless amended)  
California Business Properties Association  
California Chamber of Commerce  
California Hispanic Chamber of Commerce  
California State Association of Counties (unless amended)  
Data Center Coalition  
League of California Cities (unless amended)  
NAIOP California  
Rural County Representatives of California (unless amended)  
Silicon Valley Leadership Group (SVLG)  
TechCA  
TechNet

**-- END --**