# The Next Bottleneck in Land Use

## Water Rights, AI Infrastructure and California Development

## Water isn't a new battleground in California.

Some of the state's most consequential conflicts have begun with water, from Gold Rush miners staking claims to streams in the 1850s, to the California Supreme Court's decision in ***Lux v. Haggin*** affirming riparian rights, to the Progressive Era reforms that created the state's modern water-rights permitting system in 1914, and later to ***National Audubon Society v. Superior Court*** confirming that no water right is beyond public trust scrutiny.

Today, as California confronts persistent drought conditions, tightening conservation mandates and competing demands on limited water supplies, water rights issues are increasingly intersecting with land use, development and emerging technology infrastructure.

Here's what attorneys should know about how water availability and water-use regulations are evolving across the state, as well as how California water law may expand legal constraints on land use in the next decade.

### California Water Use

With a rich $61.2 billion agriculture economy, landscape-scale environmental protection projects "and the largest state population in the U.S., California consumes more water than any other state at **28,789 million gallons per day**. By 2030, the Bureau of Reclamation estimates that California will have a water supply-demand gap of **1.5 trillion gallons in an average year and 2 trillion gallons in a dry year**.

Frequent drought conditions further strain water availability across the state, prompting ongoing discussions about water use reduction. In 2024, the State Water Resource Control Board adopted the **Making Conservation a California Way of Life**, which aims to save 500,000 acre-feet of water annually by 2040. The regulation requires water suppliers to meet individualized water-use targets and conservation goals — **with some facing as much as 30% reduction targets**.

# What are California's most influential water regulations?

California water rights are deeply intertwined with planning law, environmental review and water quality regulation. Together, these factors determine both whether a user can access water and how projects are entitled, permitted and designed.

## The State Constitution

The state's water law begins with the California Constitution, which establishes the foundational principle that all water use must be both reasonable and beneficial to the public. Article X, Section 2 mandates that water resources be put to their fullest beneficial use, prohibits waste and unreasonable use, and limits all water rights (riparian and appropriative) to what is reasonably required for those purposes.

## Public Trust Obligations

Layered onto this foundation, California courts have clarified that water rights operate within an integrated system that includes both statutory allocation regimes and background public trust obligations. In *National Audubon Society v. Superior Court of Alpine County*, the California Supreme Court held that the public trust doctrine is not separate from the water rights system, but instead preserves the state's continuing authority and duty to consider and protect public trust uses when allocating water resources. As a result, water rights can be revisited if needed to prevent harm to those interests.

## California Water Code

California's statutory system builds on a foundational split between two types of surface water rights: riparian and appropriative rights. Riparian rights cover land adjacent to a water source and allow reasonable use of that water, shared among similarly situated landowners. Appropriative rights are based on diversion and operate under a "first in time, first in right" priority system, with continued use required to maintain the right.

This dual system was developed before the state created a centralized regulatory framework, and it continues to shape water allocation today. Appropriative rights are further divided into pre-1914 rights — established through diversion and use without formal administrative approval — and post-1914 rights, which must be obtained through a state permitting process.


The California Water Code organizes the state's system for allocating and regulating surface water. It provides the framework for permitting and licensing post-1914 appropriative rights and authorizes the State Water Resources Control Board to administer those rights, including reviewing applications, issuing permits and licenses, and enforcing against authorized diversions and curtailments. The board also plays a role in evaluating and, in some cases, investigating claimed water rights, but its authority is more limited with respect to pre-1914 appropriative rights and riparian rights, which are often less clearly defined and more difficult to administer.

This layered structure underpins California's uniquely complex water rights system and helps explain the ongoing uncertainty surrounding allocation and enforcement, particularly as water becomes scarcer. It also codifies the constitutional mandate that water be put to reasonable and beneficial use rather than wasted.

## Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act (SGMA) requires medium- and high-priority basins to move toward long-term "sustainability," with local groundwater sustainability agencies tasked with writing and implementing basin plans. Those plans increasingly govern who can pump, how much and under what conditions through allocations, metering requirements, extraction fees and well controls.

## Porter-Cologne Water Quality Control Act and Clean Water Act

Even where a user has a right to divert or pump water, the Porter-Cologne Water Quality Control Act and its federal counterpart, the Clean Water Act, define what can be discharged back to the system and on what terms. Porter-Cologne gives state and regional boards broad power to adopt basin plans, issue waste discharge requirements and condition activities to protect beneficial uses of both surface and groundwater. Layered on top are federal programs the state administers, such as National Pollutant Discharge Elimination System (NPDES) permits and water quality certifications.

## CEQA, urban planning and environmental review

Urban water management plans, water supply assessments and written verifications tie large developments to identified sources and long-term reliability analyses. Environmental review requires agencies to scrutinize whether a project has a reasonably reliable water supply over its life, accounting for dry-year scenarios and cumulative demands. The most prominent of these is the California Environmental Quality Act (CEQA), which requires state and local agencies to identify potentially significant environmental impacts of a project and take steps to mitigate them. Simultaneously, local conservation ordinances, water-efficient landscape requirements and drought contingency rules further shape what is approved and under what conditions.

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# The intersection of water, development and land use

Skyrocketing demand for water-intensive AI and cloud computing infrastructure has amplified scrutiny into the intersection of water use and land development. According to a 2025 Environmental and Energy Study Institute (EESI) review, "Larger data centers can each 'drink' up to 5 million gallons per day, or about 1.8 billion annually, usage equivalent to a town of 10,000 to 50,000 people."

In California, regulations are evolving as legislators and communities tackle the best path to manage an increasingly strained resource:

- **Senate Bill 72** — Known as "The California Water Plan," SB 72 creates the first statewide water-supply target, directing California to develop nine million acre-feet of new water supply by 2040.
- **California Assembly Bill 1572** — Aimed at conserving water, AB 1572 restricts potable water use on nonfunctional turf irrigation in commercial, industrial, multifamily and institutional and municipal settings.
- **California Assembly Bill 2619** — With the goal of increasing transparency and accountability, AB 2619 would require data centers to disclose projected and actual water use to water suppliers and local agencies, while directing state agencies to develop efficiency guidelines and requiring water planners to incorporate data center demand into supply and drought planning.
- **California Assembly Bill 2469** — This bill blocks the approval of data centers unless developers demonstrate water availability, provide detailed water use and drought planning analyses, and avoid critically overdrafted groundwater basins.

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# What's next for land use counsel?

In the next decade, California water law is poised to become a more central constraint on development, even outside traditional water rights adjudications. As conservation mandates tighten and water agencies play a larger role in decisions, questions about water supply, reliability and use are top of mind for both private entities and local communities. Land use attorneys will need to shift their approach to water matters accordingly, integrating it into immediate legal strategies and long-term risk planning.

## Risk analysis in entitlement strategy

Aligning entitlement documentation with conservation goals will be important as water agency involvement increases in entitlement reviews.

Attorneys should work with clients on scenario-based risk analysis, testing entitlement strategies against different water futures to identify vulnerabilities. Conditions of approval and development agreements should address conservation measures, build in flexibility for future regulatory tightening and clearly allocate risk between public agencies and private parties.

## Water supply documentation

Agencies and courts will continue to scrutinize the adequacy of water supply assessments, written verifications and related analyses. Clear, credible documentation and contingency planning will be essential in permitting and compliance, especially as California narrows in on its 2040 supply-demand targets.

Attorneys should coordinate early with technical consultants to ensure assumptions are consistent across CEQA, planning and utility documents. Also, they should stress-test the record for drought scenarios, alternative supplies and backup plans that can withstand litigation.

## Potable water restrictions

Regardless of the specific regulatory path, pressure will increase to reserve potable water for priority uses and to shift discretionary or industrial demands to alternative sources where feasible.

Attorneys can help clients evaluate the legal and contractual pathways to access recycled or non-potable supplies, negotiate service conditions with water agencies and structure project phasing or technology choices to stay ahead of tightening potable-use limits.

## Integration with environmental review

Environmental documents will face closer examination on water issues, including cumulative impacts and consistency with conservation and climate resilience goals.

When shaping the water sections in CEQA and National Environmental Policy Act (NEPA) documents, attorneys should ensure demand estimates, baseline conditions and climate assumptions are defensible and aligned with adopted plans. They can also help design mitigation and monitoring frameworks that are realistic to implement, legally adequate and coordinated with parallel commitments in permits, entitlements and water supply agreements.

## Local jurisdictions and AI-related water demand

Local governments are already on the front lines of managing the water impacts of AI-driven data center growth, and their approaches are beginning to shape permitting expectations statewide. In places like Santa Clara and San José, jurisdictions are using zoning, utility policies and development review processes to push heavy users toward recycled water, require detailed infrastructure and demand analyses, and condition service on compliance with conservation rules.

As AI-related demand accelerates, more proactive approaches (such as shifting industrial cooling loads off portable systems and tying approvals to infrastructure capacity) are likely to expand across California, giving local agencies greater leverage in entitlement decisions.

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## Looking to the future

California water law will continue to evolve as competing demands, climate pressures and emerging technologies reshape how water is allocated and managed. Increasingly, that evolution will be driven not only by statewide legislation, but by local jurisdictions taking a proactive role in conditioning large-scale water use through permitting, pricing and infrastructure requirements.

At the same time, broader structural tensions remain. California's water supply is shaped in part by the federal Central Valley Project and the State Water Project, which operate under different authorities and priorities. Recent federal actions to increase Delta diversions highlight how these systems can move in different directions, potentially constraining state-managed supplies and introducing uncertainty into long-term planning.

These pressures are likely to intensify competition among water users. In agriculture, large-scale operations have already begun to reshape local water demand and raise concerns among smaller users, a dynamic that may reemerge as water-intensive technologies expand.

For land use lawyers, understanding the legal overlays and policy motivations driving today's water rights debates is essential to helping clients secure entitlements and permits, as well as to protect the long-term viability of their projects and operations.