BAY AREA WATER SUPPLY AND CONSERVATION AGENCY
BOARD OF DIRECTORS MEETING

September 11, 2025

Correspondence and media coverage of interest between August 28, 2025 and September 11, 2025

Press Release:

Date: September 5, 2025
Source: Restore the Delta
Subject: Coalition urges legislation to reject Newsom's water power grab; Trailer bills Would gut CEQA, override courts, and fast-track $100 billion Delta tunnel

Date: September 5, 2025
Source: Maven for California Water for All
Subject: Landmark legislation to address California's water supply challenges heads to the Governor's desk

Date: September 3, 2025
Source: Imperial Irrigation District
Subject: Imperial irrigation District endorses Delta Conveyance Project as California's water fix

Water Supply Conditions:

Date: September 2, 2025
Source: Public Policy Institute
Article: California's Snowpack Is the State's Biggest Reservoir – and It's Declining

Date: September 2, 2025
Source: Water Online
Article: Megadroughts Are Here To Stay, And U.S. Water Utilities Need To Adapt

Water Policy:

Date: September 11, 2025
Source: Maven
Article: Newsom's bid to fast-track Delta tunnel stalls again

Date: September 9, 2025
Source: Maven
Article: Shaping the future of the Bay-Delta: The update to the Bay-Delta Water Quality Control Plan

Date: September 7, 2025
Source: Sierra Sun Times
Article: California Legislature Greenlights Senator Jerry McNerney's Bill to Help Drought Proof California by Boosting the Use of Recycled Water

Water Policy, cont'd.:

Date: September 5, 2025
Source: Maven
Article: Mirroring the Trump Playbook: Eliminating CEQA review for water quality Control plans would weaken California's democratic integrity

Date: August 29, 2025
Source: Valley Ag Voice
Article: State Unveils Bay-Delta Water Plan Updates for Public Comment

Date: August 29, 2025
Source: Valley Ag Voice
Article: Proposed Water Plan Impacts Supplies

Water Infrastructure

Date: August 28, 2025
Source: Sacramento Bee
Article: Housing abundance in California first requires water abundance

Water Use:

Date: September 2, 2025
Source: AGU
Article: Home toilets and showers make up the vast majority of household water use

Press release from Restore the Delta
September 5, 2025

Coalition urges legislature to reject Newsom's water power grab: Trailer bills would gut CEQA, override courts, and fast-track $100 billion Delta tunnel

A broad coalition of environmental justice organizations, Tribes, Delta advocates, and taxpayer groups today sent a letter to the California Leadership — President Pro Tem McGuire, Speaker Rivas, Senator Wiener, Assemblymember Gabriel, and Members of the Budget Committees — urging them to reject Governor Newsom's proposed Delta Conveyance Project (DCP) and Water Quality Control Plan CEQA Exemption trailer bills.

The letter, signed by 40 organizations, warns that the trailer bills would:

- Bypass CEQA to push forward the outdated Bay-Delta Plan without full environmental review.
- Override judicial oversight and hand the Department of Water Resources (DWR) unlimited bond authority for a project estimated to cost between $61 and $116 billion.
- Strip landowner protections by weakening constitutional rights to fair compensation.
- Silence public participation by restricting the ability of Tribes, Delta residents, and environmental justice communities to protest harmful water diversions.

Throughout the day, advocates learned that the State Water Contractors are advancing a strategy to secure CEQA exemptions for both the Bay-Delta Plan and the Delta Tunnel, with sunset clauses ending only when the projects are completed to their satisfaction. In effect, this strategy—backed by the Department of Water Resources (DWR) and the Governor's Office—would isolate Tribes and Delta residents from due process rights guaranteed under current law.

"These trailer bills are nothing more than a power grab to steamroll Californians and fast-track a multi-billion-dollar boondoggle that voters and courts have already rejected," said Barbara Barrigan-Parrilla, Executive Director of Restore the Delta. "Governor Newsom is

trying to override decades of public opposition, gut environmental protections, and hand a blank check to the Department of Water Resources at the expense of taxpayers, ratepayers, and Delta communities. The Legislature must stand firm in defense of democracy and reject these bills."

The coalition's letter underscores that the Bay-Delta Plan has not been updated since 1995, despite worsening ecological collapse in the estuary, including seven threatened or endangered fish species, toxic algal blooms, and a 26% decline in the Delta's tourism economy since 2012. Instead of allowing the State Water Resources Control Board to complete its lawful review process, the trailer bills would exempt the Board from CEQA and make it easier for DWR to impose voluntary agreements that favor water exporters.

Polling shows that 58% of California voters oppose the Delta Conveyance Project, which has been repackaged repeatedly since the Peripheral Canal was rejected by voters in 1981. Despite being branded as a "climate solution," opponents say the tunnel relies on rigid, outdated infrastructure that will not meet California's long-term water needs in the face of climate change.

"The Governor is trying to rush through a deeply flawed project that will further devastate the Bay-Delta and undermine public trust," Barrigan-Parrilla added. "True climate resilience requires restoring ecosystems and investing in equitable, sustainable water solutions—not pushing through a $100 billion tunnel behind closed doors."

The coalition calls on lawmakers to defend California's democratic processes, environmental safeguards, and fiscal integrity by rejecting both trailer bills in their entirety.

Click here for letter

# # #

Press release from California Water for All
Source: Maven
September 5, 2025

Landmark legislation to address California's water supply challenges heads to the Governor's desk

SB 72 (Caballero), critical water legislation to transform the state's water management approach, has passed the Assembly floor and is headed to the Governor's desk for signature. The bill addresses the state's lack of water with multiple strategies to codify water supply targets, enhance the existing California Water Plan to plan water needs by region, and legislate reporting collaboration among the water community and all stakeholders.

"I'm proud of my colleagues' support on SB 72 in both houses. This bill represents a clear opportunity for the Governor to reaffirm his climate leadership and embrace new and bold strategies to address water supply challenges. The Department of Water Resources' new State Water Project Adaptation Strategy underscores the urgency of this bill, which is a necessary next step to secure California's water future in the face of intensifying climate threats," said Senator Anna Caballero, bill author.

Backed by a broad coalition of water, environmental, business, public safety, and agricultural stakeholders, SB 72 is co-sponsored by the California Municipal Utilities Association (CMUA), the California State Association of Counties (CSAC), and the California Council for Environmental and Economic Balance (CCEEB), and would transform water management in California to:

- Establish necessary statewide water supply targets to capture and produce enough water for all uses.
- Require the State, water community, and stakeholders to work together to develop comprehensive, long-term water supply solutions.
- Enhance the California Water Plan to drought-proof the state
- Complement Governor Newsom's Water Supply Strategy to ensure water supply planning targets and action extend beyond any single administration.

"Water managers across the state agree, SB 72 is the next step we need to turn a scarcity mindset into a coordinated, climate-resilient strategy. It sets real goals and planning requirements to ensure water reliability for all – communities, farms, ecosystems – no matter what the climate throws at us," said Craig Miller, General Manager of Western Water. "We urge Governor Newsom's support of SB 72 as it will lock in California's commitment to meeting the water needs for all, demonstrating his unwavering dedication to addressing California's perpetual water supply challenges."

“As a proud co-sponsor of SB 72, we are encouraged by the overwhelming legislative support of the bill and are hopeful that Governor Newsom will also recognize the critical value and sense of urgency of signing this bill into law,” said Danielle Blacet-Hyden, Executive Director of CMUA and bill co-sponsor. “SB 72 will advance Governor Newsom’s climate and water resource objectives for California to deliver a drought-resilient, equitable water system. SB 72 codifies his vision into lasting law.”

“Our counties are the first responders when our communities run out of water, and we can’t plan for housing growth without it,” said Graham Knaus, CEO of CSAC and bill co-sponsor. “But the state’s current strategy dates back to the 1960s and lacks any clear, measurable goals. It’s time for California’s water policy to join the 21st century. Sen. Caballero’s common-sense, bipartisan bill gets it done.”

“On behalf of our coalition of business, labor and public leaders statewide, CCEEB has been proud to co-sponsor and partner with Senator Caballero and many organizations statewide to pass such transformative water legislation,” said Tim Carmichael, President of CCEEB and bill co-sponsor. “The passage of SB 72 is a critical step towards ensuring comprehensive, coordinated, and resilient water supply planning and development for California.”

Senator Caballero will host a press conference on Monday, September 8, at the Capitol Cactus Garden at 10 a.m. to discuss the importance of the Governor signing the bill into law.

CA Water for All is a statewide effort seeking to educate policymakers about the urgent need for a legislative solution to address California’s ongoing water supply challenges. The effort is focused on bringing together the water community, policymakers, and stakeholders to collaborate on ensuring Californians have a sustainable and reliable water supply for all beneficial uses now and for future generations.

# # #

PRESS RELEASE
Source: Maven
September 3, 2025

Imperial Irrigation District endorses Delta Conveyance Project as California's water fix

In a significant and unusual endorsement, the Imperial Irrigation District (IID) — the largest irrigation district in the United States — has formally backed California's proposed Delta Conveyance Project, a plan to modernize the State Water Project and secure water supplies for seven out of ten Californians.

The IID Board of Directors adopted a resolution this week in support of the project, which faces key legislative votes in September.

IID's move is notable because Imperial County is the only county in Southern California that does not receive State Water Project water. The district draws exclusively from the Colorado River. Its endorsement underscores recognition that the state's two major water systems — the Bay-Delta and the Colorado River — are deeply connected, and that improving reliability in one provides relief to the other.

"A stronger Delta relieves pressure on the Colorado River, and that benefits us all," said IID Chairwoman Gina Dockstader.

The Delta Conveyance Project would add new Sacramento River intakes and construct a 45-mile tunnel to move water beneath the Delta. State officials say it is critical to capturing storm flows, reducing seismic and levee risks, and ensuring reliable supplies for 27 million people and 750,000 acres of farmland.

For Southern California, Delta reliability directly affects the Metropolitan Water District and the Coachella Valley Water District, both of which rely on the drought-stricken Colorado River, particularly when State Water Project deliveries falter. IID leaders said stabilizing the Delta helps ease that strain on a river already stressed by historic drought.

"When the Delta is stable, the Colorado River is stronger," said IID Director Alex Cardenas. "One system supports the other — and California needs both to succeed."

"Modernizing the Delta is an investment in a resilient water future for California and more certainty for the entire state," said IID General Manager Jamie Asbury.

The endorsement positions IID as an ally of the State and other agencies backing the project.

The resolution will be transmitted to Governor Gavin Newsom and legislative leaders in the coming weeks, underscoring a growing recognition that California’s water systems cannot be managed in isolation.

# # #

California's Snowpack Is the State's Biggest Reservoir—and It's Declining
Public Policy Institute of California | September 2, 2025 | Kyle Greenspan

When most Californians think about where their water comes from, they likely think of the state's dams and reservoirs—and they're largely correct. Most of the state's annual rainfall arrives in a narrow window between October 1st and April 1st; twelve large reservoirs and over a hundred smaller reservoirs (scattered throughout the state) capture and store this water to control floods and keep our taps running in the dry season. But another natural reservoir is also essential to the state: snowpack.

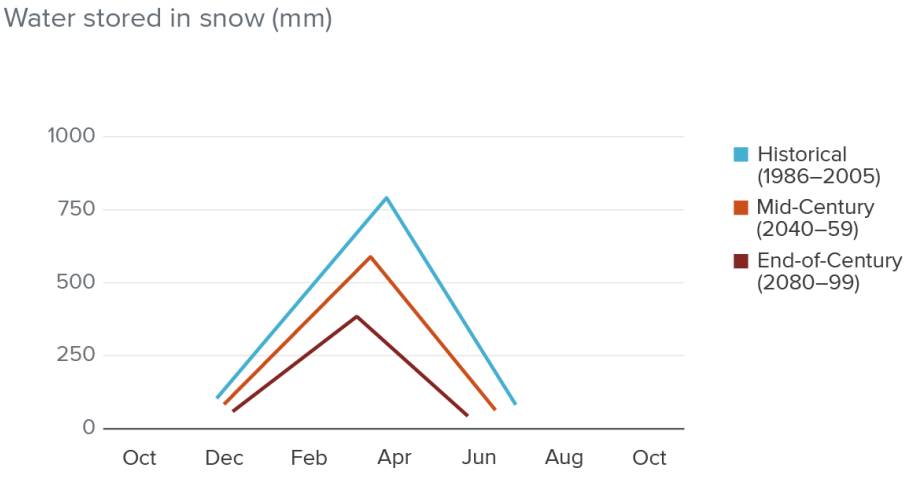
At the start of spring, California's snowpack has historically contained about 70% as much water, on average, as all the state's reservoirs combined. That's an astonishing service, provided completely free of charge. Snowpack water storage is critical for a variety of downstream needs.

In the wet season, snowpack helps reduce the chance of flooding by retaining winter and spring precipitation. As it melts, snow slowly replenishes reservoirs in the dry season. Snowmelt also helps keep our trees and other vegetation supplied with water through the dry season. This makes it harder for wildfires to start, and makes them less severe when they do occur. Snowpack also helps provide a steady flow of cool, clean water, which many aquatic wildlife species depend on to survive the summer.

Snowpack is expected to become less reliable

Surprisingly, average annual precipitation is not expected to decline as the climate changes. But warmer temperatures will result in more precipitation falling as rain instead of snow, and snowpack will melt earlier. As more water runs off our mountains—rather than being stored as snow—during the rainy season, floods become more difficult to control and those steady supplies of cool water during the hot summer season become less common.

Projected changes in southern Sierra Nevada snowpack water storage



SOURCE: Figure adapted from Greenspan et al. 2025, *Preparing for Uncertain Water Futures: An Analysis of Intrannual Snowpack Processes in the Southern Sierra Nevada Under Climate Change*.
NOTES: "Water stored in snow" refers to snow water equivalent values. The leftmost point of each line indicates the start of snowpack accumulation. The peak of each line indicates the peak of snowpack accumulation. The rightmost point of each line indicates complete snowmelt. For more details, see Greenspan et al. 2025.
FROM: PPIC Blog, September 2025.

What tools can help California prepare for changes in snowpack?

Climate models are among the most important tools we have to prepare for changes in snowpack water storage and other impacts of our changing climate. These are models that allow us to estimate what future conditions will look like.

However, outputs from global climate models are not that helpful to local and regional decisionmakers on their own. “Downscaling” is a process that translates global climate model data into a form that’s relevant to these decisionmakers. In recent years, these models have gotten better at capturing the actual physical processes occurring in the atmosphere at regional and local scales.

Researchers now have access to downscaled climate model data for California that checks both boxes—the scale of the data is relevant to local and regional decisionmakers and the models behind these data are highly physically realistic. These new data improve our ability to anticipate and prepare for the impacts of reduced snowpack water storage.

But are these models accurate? My coauthors and I asked this question in new research that examines how well these refined models are doing. By comparing model predictions to real-world measurements of snowpack in the southern Sierra Nevada mountains, we found that these models are good at capturing the timing of peak snowpack. However, less water is actually stored in snow than the models predict. And the snowmelt season is ending earlier than the models indicate.

These are important findings, since they can help water managers consider how to use model projections. Water managers need to understand the strengths and weaknesses in these data that may inform their decisions. Use of conservative estimates when planning is crucial to reduce the risk of impacts from extreme floods and droughts.

We also looked at future changes in California’s snowpack water storage, and our findings are in keeping with the consensus of scientific community: snowpack will store less water, and snowmelt seasons will be earlier and shorter. The good news is that we have strategies to adapt to these changes. Managing groundwater aquifers conjunctively with surface reservoirs and using forecast-informed reservoir operations can help maintain water supplies and reduce flood hazard. And these new-and-improved climate model outputs can help us prepare for what the future holds.

# # #

Megadroughts Are Here To Stay, And U.S. Water Utilities Need To Adapt
Water Online | September 2, 2025 | Christian Bonawandt

Historically, the West Coast has oscillated between intervals of wet and dry weather, with each lasting for several decades. However, new research from the University of Colorado Boulder shows that the current dry spell is not going anywhere any time soon. As a result, researchers warn that California and other states affected by megadroughts — periods of drought lasting 20+ years — will have to accept this as the new normal. That means rethinking the water cycle and finding new, more sustainable water sources.

'Accelerating The Natural Water Cycle'

Municipal leaders in these drought-stricken regions are looking for ways to expand water portfolios by tapping into new resources and using current ones more effectively. According to Dr. Adam Zachies, vice president and reuse practice lead at Brown and Caldwell, one way utilities aredoing the latter is by "accelerating the natural water cycle" is "by taking water that historically goes to the ocean in forms of wastewater effluent and capturing that water."

Southern California has been working on this for years, using advanced water purification (AWP) technology to treat wastewater so it can be injected back into aquifers and other water sources used for drinking. Also known as indirect reuse, this bypasses the need to wait for water to evaporate from the ocean and precipitate down to replenish drinking sources, effectively creating a new water cycle.

Guidelines for AWP are enshrined in California's updated Title 22 regulations. More recently, Arizona has adopted its own AWP rules, loosely modeled off of California's. In both cases, AWP is defined as a multi-barrier system that includes both pathogen and chemical removal. Typical treatment trains use microfiltration or ultrafiltration membranes, followed by reverse osmosis (RO), with UV advanced oxidation process (UV-AOP) on the backend. However, other types of AWP may use combination of granular activated carbon (GAC), ozone and other processes depending on the situation.

Beyond reuse, another critical strategy is to access water sources that may not have previously been considered viable. For example, water that is excessively turbid or brackish can be treated to meet drinking water standards using commonly available technologies. "Before maybe we

wouldn't use that water, but now we're trying to take advantage of all possible water supplies," Dr. Zachies said.

An Ocean Of Opportunity

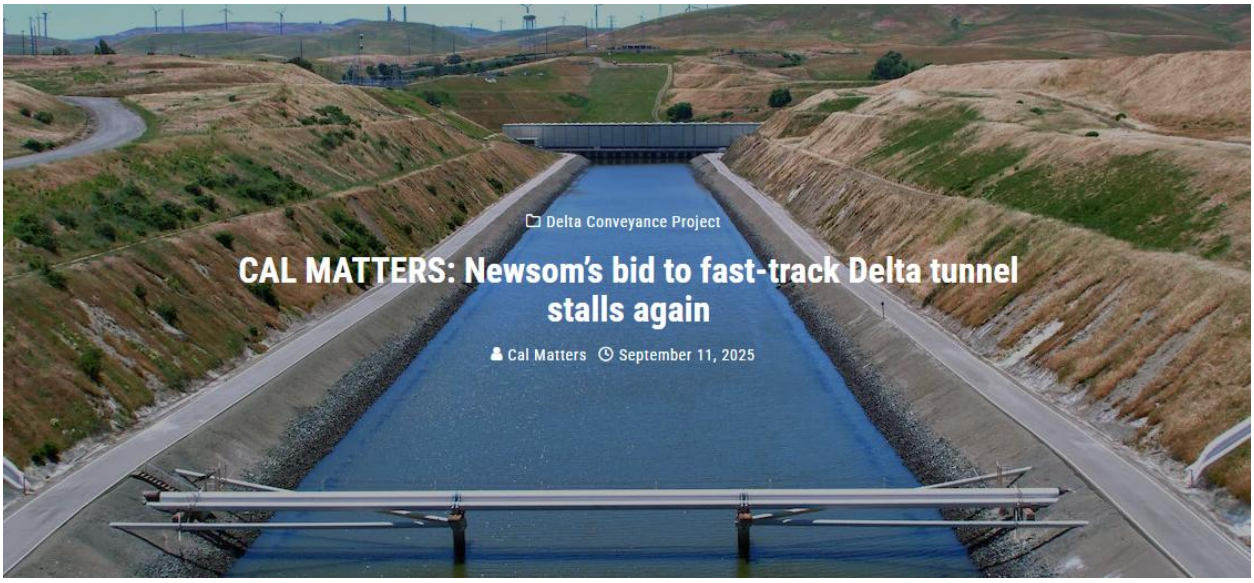
The prospect of another 20 years of drought conditions is also renewing conversation about the viability of desalinating seawater for drinking, particularly with RO. Ruben Munoz, lead practitioner of desalination at CDM Smith, notes that while many coastal cities have already begun to employ this technology, it is also being looked at by communities further inland, even if it means pumping water hundreds of miles. "Hopefully in the future you will see the cities located on the coastline building bigger capacity with plans to pump it inland to areas where the river or the groundwater is not sufficient," he said.

While the capital and pumping costs for such large-scale projects are significant, Munoz noted, the cost of inaction or the absence of water is far higher. In some places, such as Australia and the Middle East, the high energy consumption associated with RO and desalination remains is offset with solar and other renewable power sources. Other advancements have been aimed at mitigating costs, including modular solutions for construction, the development of higher-capacity energy recovery devices, and compact membrane designs that lessen the need for extensive infrastructure.

However, the long lead times for these projects — whether AWP or desalination — remain a considerable hurdle; some plants take up to 10 years to move from planning to operation. To make the process easier, Dr. Zachies advises relying on planning fundamentals, including clearly defining the size and benefits of the project. He added that projects like these often have a lot of groups involved in the outcome. "So, you have to do a lot of stakeholder engagement, understand what their needs, their roles will be on the program," he said.

# # #

Newsom’s bid to fast-track Delta tunnel stalls again
Maven | September 11, 2025 | Rachel Becker, Cal Matters



The Harvey O. Banks Delta Pumping Plant, located in Alameda County, which lifts water into the California Aqueduct. Photo by DWR.

Water wonks say the proposal to speed the multibillion Delta tunnel project could rise again. ‘This is the zombie offspring of the zombie project,’ one opponent said.

In a blow to Gov. Gavin Newsom’s ambitions to replumb the Delta, California lawmakers once again punted on his plan to fast-track a deeply controversial $20 billion tunnel project that would funnel more water to the south.

Multiple sources in the Legislature say the clock has run out on a sweeping measure that would overhaul permitting, financing and other road blocks to the Delta tunnel project. The news comes as lawmakers and Newsom race to reach a megadeal that encompasses carbon trading, wildfire funding, energy transmission, and refinery issues. The governor’s office did not respond to CalMatters’ inquiry.

While supporters acknowledge the tunnel bill has hit a dead end for now, this isn’t the first time Newsom has tried to fast track the project. And water watchers expect that it won’t be the last.

“Even if action is delayed this year, the need for modern delta conveyance has never been greater,” said Jennifer Pierre, general manager of the State Water Contractors, a staunch supporter of the bill, in a statement. “The need is urgent, the support is broad, and the time to move forward is now.”

Lawmakers representing Delta communities called the failure to fast-track the bill a relief. They have long said that building a tunnel to reroute water around the Delta would devastate communities, fish and local farms.

“It’s going to be incredibly disruptive to my communities,” state Sen. Jerry McNerney, a Democrat from Stockton, told CalMatters. “They made a good fight, but we just were too unified for them to have any progress.”

Assemblymember Lori Wilson, a Democrat from Suisun City, said no amount of compensation for Delta communities would make up for the project’s lasting harm.

“Once a short-sighted policy, always a short-sighted policy,” she said in a statement. “We will continue to stand strong and fight for the Delta and the communities who call it home.”

‘Let’s get this built’

The proposed tunnel, more formally known as the Delta Conveyance Project, would extend 45 miles from the Sacramento River to a reservoir near Livermore, bypassing the Sacramento-San Joaquin Delta, which serves as a critical hub for California’s water supply.

It’s the latest iteration of a decades-old plan to funnel water deliveries from Northern California around, rather than through, the Delta — with the goal of shoring up water supplies for 27 million Californians and 750,000 acres of agriculture largely in the central and southern parts of the state.

Planning for the project remains underway, though it is fiercely opposed by conservationists, Tribes, Delta cities and counties, and the fishing industry.

They fear the loss of water supplies, environmental degradation and years of construction that they say will make some towns uninhabitable. The state’s own analysis warned that a Delta tunnel would put salmon at risk.

Newsom introduced the streamlining bill earlier this spring as a budget add-on, a strategy he’s used before that bypasses more extensive input from lawmakers.

“We’re done with barriers — our state needs to complete this project as soon as possible, so that we can better store and manage water to prepare for a hotter, drier future,” Newsom said May. “Let’s get this built.”

Stalled, but not dead

The tunnel bill aimed to flatten roadblocks related to land acquisition, water rights decisions, funding and litigation. Delta lawmakers pushed back against it, as well as Newsom’s strategy of using the budget process to shortcut deliberations.

“Drying out the north just to water the south doesn’t make it better at all, and it doesn’t make it fair,” Assemblymember Stephanie Nguyen, a Democrat from Elk Grove, said in May.

Lawmakers tabled decisions on the bills until later in the session, and the Newsom administration continued to push for both the tunnel and the streamlining effort.

Pierre, with the State Water Contractors, told CalMatters that the failure to fast track the project didn’t reflect Legislative opposition to the tunnel itself.

“We had vote cards that demonstrated the majority in both houses,” Pierre told CalMatters. “This was not a function of a lack of support for the bill.”

But McNerney said he thought the political cost for the administration became too high.

“I think the governor realized that he’s got other battles to fight,” McNerney said. “It’s just not worth taking that battle to the wall.”

Jon Rosenfield, science director with the San Francisco Baykeeper, said he hoped this was the last effort by the Newsom administration to “grease the skids” for a Delta tunnel.

But, he added, “This is the zombie offspring of the zombie project … You understand if I don’t necessarily believe that this is the end.”

# # #

This article was originally published on CalMatters and was republished under the Creative Commons Attribution-NonCommercial-NoDerivatives license.

(This page was intentionally left blank)

MET IMPORTED WATER SUBCOMM: Shaping the future of the Bay-Delta: The update to the Bay-Delta Water Quality Control Plan
Maven | September 9, 2025

The goal of the Bay-Delta Water Quality Control Plan is to balance the needs of the environment, agriculture, and urban water users in the Sacramento-San Joaquin Delta, one of the state's most critical ecosystems. The State Water Board's update to the plan, in progress for over a decade, is considering changing how water quality standards are set and enforced, expanding responsibilities to a broader range of stakeholders through voluntary agreements.

In July, the State Water Board released a draft version of the updated plan for public comment and scheduled two days of public hearings at the end of September. With significant implications for water availability, environmental protection, and statewide resource management, the plan's progress and proposed changes were the focus of a recent update presented to Metropolitan's Imported Water Subcommittee. Rebecca Sheehan, an attorney with the Metropolitan Water District, gave the update.

The Bay-Delta Water Quality Control Plan update, initiated in 2009, is a two-phase effort aimed at establishing water quality objectives and standards for the Bay-Delta system. Phase one, which focused on the Lower San Joaquin River tributaries, was completed in 2018. Phase two, addressing the Sacramento River and Delta, has been underway since 2017.

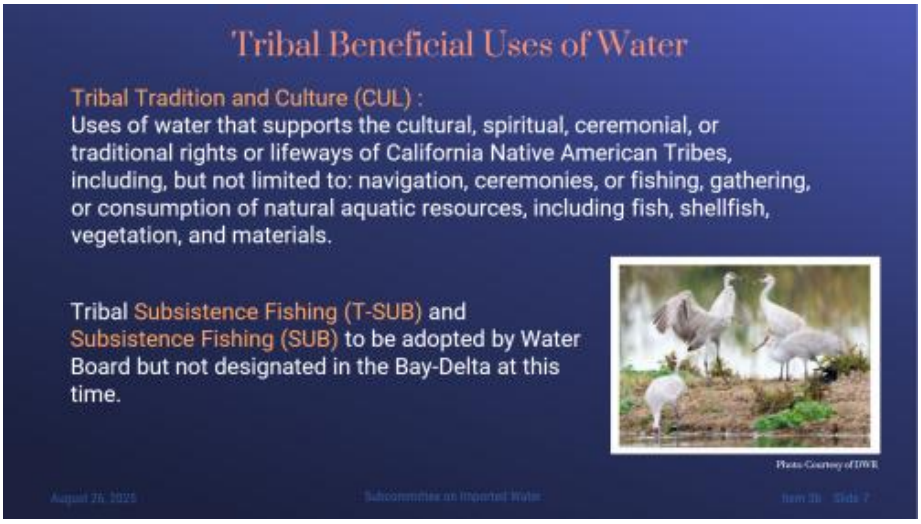
Currently, water quality standards are governed by the State Water Board's Water Rights Decision 1641 (D-1641), which has been in effect since the 1990s. Historically, these standards were tied to the water rights of the Central Valley Project and the State Water Project. However, the updated plan will expand responsibility for meeting these standards to a much broader group of stakeholders. This update is critical, as changes to the Water Quality Control Plan directly impact the availability of water for human use, carrying significant implications for statewide water management and resource allocation.

The July draft is an improvement over the previous draft, which was more of a menu of options for things that could be done. This update is more focused, and importantly, it includes the Healthy Rivers and Landscapes program as an implementation option. Ms. Sheehan said this is a new way to view compliance with regulatory programs as a more cooperative effort where the water community has a vested interest, as opposed to the top-down regulation approach.

Plan components: New beneficial uses, narrative objectives

All water quality control plans have basic components, including the designation of beneficial uses of water, such as agriculture or municipal use; water quality objectives to provide reasonable protection for those beneficial uses; and a program of implementation that includes monitoring and special studies to gauge compliance and effectiveness.

The update includes three new beneficial uses: Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing.



Tribal Tradition and Culture beneficial use is defined as, “Uses of water that supports the cultural, spiritual, ceremonial, or traditional rights or lifeways of California Native American Tribes, including, but not limited to: navigation, ceremonies, or fishing, gathering, or consumption of natural aquatic resources, including fish, shellfish, vegetation, and materials.” Of the three, only tribal tradition and culture beneficial use will be designated in the Bay Delta.

The Tribal Subsistence Fishing and Subsistence Fishing beneficial uses are to be adopted by the Water Board, but will not be designated in the Bay-Delta at this time. Ms. Sheehan said since there are already protections in D-1641 for fish and wildlife, the current update is very focused on adding new requirements for the protection of fish and wildlife, so while there won’t be a new objective targeting explicitly these new beneficial uses, it would be reasonably protected to the same extent through the existing and the proposed requirements.

Several new narrative water quality objectives are proposed for the protection of fish and wildlife. “A change in some of the narrative objectives is that it recognizes that flow is a way to meet them, but there’s also a way to meet the objectives through other actions. So there’s more flexibility ingrained in the language of some of the new objectives,” said Rebecca Sheehan.

Implementation pathways

There are two implementation pathways. One is the unimpaired flows approach, and the other is the Healthy Rivers and Landscapes program.

Unimpaired flows

The unimpaired flow approach is based on a percentage of the natural hydrograph—the theoretical volume of water that would flow through a specific point in a river or stream if the watershed were untouched by human-made dams, diversions, or other modifications. Ms. Sheehan pointed out that even in a completely natural, undeveloped environment, 100% of the hydrograph would not translate to outflow, as some water is naturally consumed by vegetation and lost to evaporation.

The State Water Board has set a target for unimpaired flow at 55%. However, during modeling for the 2024 draft, it became evident that this level of flow could compromise the reservoirs’ ability to maintain cold water, which is critical for salmon. In response, the Water Board has made adjustments to address these challenges while attempting to balance environmental and water management needs.

“One of those categories of adjustments is the water supply adjustments. And what they have done is taken the hydrograph and split it into thirds: the wettest, the middle, and the driest third, and assigned different percentages of unimpaired flow that are reduced under drier conditions. Some small watersheds could be off-ramped entirely to preserve cold water habitat.”

It’s unclear whether the water supply adjustments would be successful. “We looked at some of the preliminary modeling that came out last Friday, and there are still temperature impacts immediately downstream of major reservoirs with this approach, even with the adjustments,”

said Ms. Sheehan. There are other ways that this approach could be adjusted, but it's more of a negotiation going forward between different tributaries or individual water users and the water board, such as flow shaping, cooperative agreements, or future adaptive management. But we don't have a lot of information on what that would look like."

One of the new narrative objectives is the cold water habitat narrative objective to protect cold water immediately downstream of reservoirs. Under the unimpaired flow approach, there would be a new carryover storage requirement in September as well as some downstream temperature requirements. The carryover storage requirement has yet to be determined. The July draft includes a table with recommended starting points for discussion with reservoir operators, so adjustments to carryover storage and downstream temperature requirements are likely to be made.

Healthy Rivers and Landscapes

The alternative implementation option is the Healthy Rivers and Landscapes program, which is a comprehensive initiative that combines habitat restoration, new water flows, and a robust science-based monitoring and reporting framework.

The HRL program aims to provide up to 700,000 acre-feet of new water flows annually, with the exact amount varying based on the type of water year. Additionally, it includes 47,000 acres of new habitat restoration. Designed as an eight-year program, it also offers the flexibility of an extension if needed. To ensure transparency, the program includes annual and tri-annual reports, as well as public meetings to keep stakeholders informed.

Accountability to the State Water Board is a key component of the program. This includes flow accounting, where state and federal projects must demonstrate how the new HRL flows are provided in addition to the existing Decision 1641 flows. They are also required to report on actions taken to protect cold water habitats. The program incorporates physical habitat accounting, effectiveness monitoring, and a science program with rigorous monitoring to support and evaluate these efforts.

“The really is a change from the current scenario where everything is really on the shoulders of the state and the federal projects,” said Ms. Sheehan. “This program brings together almost all the major water users in the watershed, working together to provide flow and build habitat. They are assessing charges per acre-foot to help fund the program, so they are putting some significant assets on the table.”

In year six of the program, the Water Board will evaluate all the data collected during the implementation period. This review will assess the number of assets developed, the types of habitats constructed, and the findings from monitoring efforts. Based on this evaluation, the Water Board will issue a determination using a traffic light system:

Green light: The program is on track and can proceed to year eight as planned.
Yellow light: Adjustments are required to address identified issues before continuing.
Red light: The program will be off-ramped, and the Water Board will make a new decision regarding how the HRL parties should implement the Water Quality Control Plan moving forward.
The Water Board retains full authority throughout the program and can off-ramp it earlier if significant issues arise. This could include failure to implement HRL commitments, risks to endangered species, or failure to protect beneficial uses of water.

Next steps

During the discussion period, Ms. Sheehan clarified what would happen if the State Water Board were to adopt the updated plan. “The water quality control plan isn’t immediately implementable until a second action is taken. The second action, historically, has always been a water rights proceeding, where the water board allocates responsibility for who in the watershed will reduce their diversions to meet the standards. It ultimately led to the State Water Project and the federal project stepping up as part of a larger plan that involved Cal Fed and other things. That was the step for how responsibilities were allocated.

“This time, I think what they envision doing is using their authority under waste and reasonable use, which they have been using more and more lately, to just do a regulation and allocate it to everybody in the watershed who’s not in the Healthy Rivers and Landscapes Program, and then have it based on water right priority.”

In conclusion

Ms. Sheehan concluded by noting that comments are due by September 29; two public hearing days are scheduled for September 24 and 25. If this schedule is maintained, she said the Water Board could adopt the updated plan by the end of this year.

DISCUSSION

A large portion of the discussion centered on the scope of authorities for the Regional Water Boards and the State Water Board, as well as the coordination of multiple plans. Chair Adan

Ortega asked how water quality violations, which contribute to impaired water quality in the Delta, are considered in the Bay Delta Water Quality Control Plan.

Ms. Sheehan explained that they are two separate 'buckets'. One bucket is the water quality permits that the regional board monitors; if a discharger is out of compliance, the regional board enforces. The other bucket is the water quality control plan, which sets standards, and the Water Board allocates responsibility for those standards.

Regarding water diversions and flows, "With the unimpaired hydrograph, the Water Board is still going to have to assess who is responsible for that and for how much," Ms. Sheehan said. "And in that context, for example, if they found somebody was not cutting diversions as ordered, the Water Board itself would go after them. So it's a dual process of enforcement, depending on what bucket you're in. Curtailments, as far as unlawful diversions, are also the responsibility of the Water Board. They have a process in place that they believe is the water right and priority, and how to order people to cease their diversions in times when there isn't enough supply."

Through the agreements, the Water Board would retain the same authority it has now regarding enforcement actions. "The water projects, because they can do the accounting, will be showing that the water showed up. So if that water didn't show up, we want to know where it went as well. There will be an assessment time period where we all work together to figure out what happened and why the water didn't show up. It will always actually show up in the accounting, because the projects will end up covering it. If it didn't show up, we would also want to know what happened and ensure that it doesn't happen again. So it is a situation. We're all in this together. It's not just the water board monitoring us. We're also a part of the accounting and a part of the reporting."

"This is a water quality control plan under the Clean Water Act and Porter Cologne," said Director Nancy Sutley. "It's not a water rights proceeding around diversions and the water rights sort of structure. It also will result in obligations that will translate down into permits that the Regional Board issues, whether it's NPDES permits, WDRs, or other things."

"None of this is simple. It's a complex set of moving parts, continued Director Sutley. "That question is what happens were the water board to adopt this by the end of the year. What are the real-world implications for permit limits? What does it mean for discharges in the Delta? How does it impact what water gets pushed south? Whether it's the flow regime or the or the Healthy Rivers and landscapes, what is it actually going to mean in the next 5-10, years as these pieces come up, because there are things that are going on right now that have an impact on the whole structure … what's going to end up being different if the water board adopts the plan sort of as it is, and adopts the Healthy Rivers and landscape as one of the implementation options? … "

"At the end of the day, all of this needs to accomplish the protection of the fish, and that's the bottom line here, Director Sutley said. "Because otherwise we're going to be back where we started from. And one of the reasons I think that we've been in this kind of hamster wheel for 30 years is because we're not getting there. … So I think it is incredibly important to understand the

implications of this in terms of the regulations. I think it is very much in Metropolitan's interest to ensure that whatever comes out is implemented, enforced, and monitored. However, at the end of the day, it must achieve the objective of protecting the fish, and we need to keep a close eye on that as well. It's not necessarily just Metropolitan's responsibility, but that's going to be the mark of success, or not."

Subcommittee Chair Mark Gold noted that those unfamiliar with the water board's work may be confused by the Water Quality Control Plan, which is essentially a flow management plan. "Read 1000 pages in and you're asking, where's the water quality, right? So, what's going to be the interplay with Region Five? It's a lot more in Region Five. It's Region Two as well. They have their individual basin plans that are very complicated. How do you manage the water quality to protect beneficial uses within each one of those basin plans? … Then on top of that, you have the state plans, the Inland Surface Waters, Enclosed Bays, and Estuaries Plan, and the Enclosed Bays and Estuaries Plan. Both are very critical to the health of the Bay Delta."

"What you don't have is integration across the entire Bay Delta complex of these plans, which is unconscionable in light of the fact that this has literally been discussed for 40 years," Director Gold continued. "It doesn't work the way that it's laid out. … Flow alone does not solve the problem in any way, shape, or form. And Region Two does not act the same as Region Five in any way, shape, or form when it comes to water quality. One region has a little bit of an enforcement history; the other one almost has no enforcement history. From the standpoint of everything we discuss here at Met, it's one system in the Bay Delta, and that is not how this is being managed. And I think it's really important for everybody to understand that going forward."

"Increasing habitat could help with flow, but it's not going to solve the nutrient problem," he said. "It's not going to solve the 6PD, PPD, quinone problem, and on and on … There's no other place in the state that is managed this insanely … nothing is nearly as big and as complicated as the Bay Delta, and as a result, we end up having the same sorts of debates for decades."

# # #

Click here to see report, *"July 2025 Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed"*

(This page was intentionally left blank)

California Legislature Greenlights Senator Jerry McNerney's Bill to Help Drought-Proof California by Boosting the Use of Recycled Water

Sierra Sun Times | September 7, 2025 |

Image by Jack Sellaire from Pixabay

September 7, 2025 - Last week, the California Legislature unanimously approved Senator Jerry McNerney's SB 31, legislation that is designed to help drought-proof California by boosting the use of recycled water. SB 31 would also enhance the state's fresh water supply by allowing businesses, homes, and agencies to expand their use of recycled water for irrigation and other uses, rather than relying on drinking water.

"Expanding the use of recycled water is exactly the type of commonsense proposal that will help solve our state's water issues," said Sen. McNerney, D-Pleasanton. "SB 31 is a pragmatic approach that will enhance our supplies of fresh water by expanding the use of recycled water for irrigation and commercial uses. It will also help protect the state during devastating droughts caused by climate change."

The state Senate unanimously approved SB 31 today after the Assembly gave the unanimous greenlight on Wednesday. The bill now goes to the governor's desk for consideration.

Water recycling, also known as water reuse or reclaimed water, is wastewater that has been treated to make it safe for instances where using potable (drinking) is unnecessary. It is commonly used in irrigation, groundwater recharge, and more.

Governor Gavin Newsom's Water Supply Strategy identifies water recycling as a key tool for drought-proofing communities. California currently uses more than 700,000 acre feet of recycled water a year. That saves the state roughly the equivalent of enough drinking water for 1.4 million households.

To meet the goal of recycling 1.8 million acre-feet per year by 2040, recycled water use in California needs to expand. SB 31 would boost the state's ability to meet its goal by:

- Enabling parks to expand their use of recycled water.
- Ensuring that using recycled water use in decorative bodies of water, such as a lake at a golf course, isn't deterred by overly burdensome regulations.
- Making sure that homeowners' associations won't have to install expensive and cumbersome new plumbing systems to use recycled water.
- Allowing food handling and processing facilities to use recycled water for toilet or urinal flushing or outdoor irrigation as long as the recycled water doesn't enter a room where food handling or processing occurs.

Sen. Jerry McNerney is chair of the Senate Revenue and Taxation Committee and his 5th Senate District includes all of San Joaquin County and Alameda County's Tri-Valley.

# # #

Mirroring the Trump Playbook: Eliminating CEQA review for water quality control plans would weaken California's democratic integrity

Maven | September 5, 2025 | Max Gomberg, California Water Impact Network

An aerial view show the two canals North and Victoria, located in San Joaquin County, California, with part of the State Water Project Clifton Court Forebay located in Contra Costa County, in the forground. The SWP facility is a shallow reservoir at the head of the California Aqueduct and provides storage and regulation of water flows into the Banks Pumping Plant. Photo taken August 28, 2025. Ken James / California Department of Water Resources

In California we are fortunate to have both state and federal law to protect our rivers, streams, lakes, and bays. It might seem redundant, then, to subject our water quality control plans to environmental review under the California Environmental Quality Act (CEQA).

But CEQA is the mechanism that provides for the transparent assessment of the tradeoffs involved in water quality regulations. Only through responsible analysis can we understand how rules for river flows, wastewater treatment, stormwater management and forest management affect communities, industries, and the environment. Without CEQA, water quality rules could be proposed and adopted without an assessment of whether they protect communities located near contaminated water bodies; whether they balance the needs for urban housing with the necessity of reducing urban stormwater pollution; and whether river flows would create substantive fish population improvements to benefit tribes, disadvantaged communities, and the commercial fishing industry.

In October 2023, the State Water Board released a detailed CEQA analysis of proposed water quality standards, including river flow volumes, for the Sacramento River and Bay-Delta watershed. The Board's analysis is essential for evaluating impacts to ecosystems, agricultural economies, and future water supplies to Silicon Valley and Southern California.

This analysis relied on peer-reviewed science to ascertain river flows necessary to improve populations of fish and other organisms and estimated the water supply and economic impacts of prescribing those flows. It also demonstrated that the "Voluntary Agreements" championed by

water districts and the Governor would not provide the same level of freshwater flows into the Delta – a level needed to keep the estuary ecologically viable.

The Governor and his allies are pushing for the Voluntary Agreements to ensure water districts won't have to provide more water for our rivers and the Delta, thereby enabling the proposed Delta Conveyance Project (DCP) to deliver promised volumes of water to Kern County agriculture and Southern California cities.

In fact, Newsom's Department of Water Resources has stated in writing that if more freshwater flows are dedicated for the Delta, the volume of water the DCP could deliver would be reduced by 55 percent.

Without the Board's CEQA analysis, none of this information would have been available to the public. Undoubtedly, that's why the Governor is now pushing for a last-minute bill to create a CEQA-exemption for water quality control plans. Such a change, however, would create consequences much more significant than other CEQA exemptions for sports stadiums and certain housing development projects.

What's going on with CEQA mirrors similar attacks on our national polity now underway in Washington. At the national level, civil rights, voting rights, environmental and public health protections, an independent judiciary, and other critical elements that underpin democratic governance are under attack. The Governor and the legislature have taken important steps to push back against authoritarian rule. Nevertheless, when it comes to water, the Governor is advocating for bills that would eliminate judicial review, environmental review, and other democratic checks and balances. The legislature should spurn his entreaties. The voices of Californians who demand a more equitable water system must not be silenced. California's democracy is robust enough to handle a transparent and thorough evaluation of water management options.

The views and opinions expressed in this commentary are those of the author and do not necessarily reflect the official policy or position of Maven's Notebook.

# # #

Max Gomberg C-WIN Secretary and Lead Policy Advisor
The former Climate and Conservation Manager for the State Water Resources Control Board, C-WIN board member and senior advisor Max Gomberg is a well-known expert on state and federal water policy. His particular areas of concern include equitable water access and distribution.

The California Water Impact Network is a state-wide organization that advocates for the equitable and sustainable use of California's freshwater resources for all Californians.

State Unveils Bay-Delta Water Plan Updates for Public Comment
Valley Ag Voice | August 29, 2025 | Natalie Willis

(Photo: State Water Resources Control Board)
By, Reporter, Valley Ag Voice

On July 24, the State Water Resources Control Board released proposed updates to the Bay-Delta Water Quality Control Plan and opened it for public review and comments. Proposed changes focus on portions of the Plan relevant to the Sacramento River watershed, Delta eastside tributaries, and Delta for the “reasonable protection of fish and wildlife beneficial uses.”

The San Francisco Bay/Sacramento-San Joaquin Delta watershed — Bay-Delta — encompasses the Sacramento and San Joaquin Rivers, as well as numerous other tributaries to those rivers, the Delta and tributaries, Suisun Marsh, and San Francisco Bay.

The State Water Board has previously adopted water quality control plans and policies regarding the uses of the Bay-Delta and periodically reviews this plan to ensure it provides reasonable protection for the designated beneficial uses.

In the 2024 draft, it identified the possible inclusion of Voluntary Agreements — otherwise known as the Healthy Rivers and Landscapes Program — which are deals made between the government and water users to increase flows for the benefit of fish habitats, among other environmental goals. The 2024 draft proposed that if these agreements don't happen, then new state regulations would apply to everyone who uses water.

However, the State Water Board's newly revised plan officially includes two paths. For those participating in a Voluntary Agreement, they can move forward with the plan they voluntarily agreed upon, but water users who are not part of a VA will be subject to stricter state rules. Both pathways will create legally enforceable requirements.

Simply stated, California is giving water users a Hobson's choice: work with them through Voluntary Agreements to protect rivers or follow stricter, one-size-fits-all state water rules.

Under the Regulatory Pathway, flow requirements adjust depending on whether the year is wet, normal or dry. In dry years, for example, 35% of natural flow may need to stay in the river, but in wet years it could be 55%.

The VA pathway is a more cooperative approach wherein users agree to release extra water for fish and restore habitats instead of being told exactly what to do by regulation. These agreements include specific flow commitments, habitat restoration projects, and regular monitoring to ensure effectiveness. The state still checks and approves the plans with the ability to update them as needed.

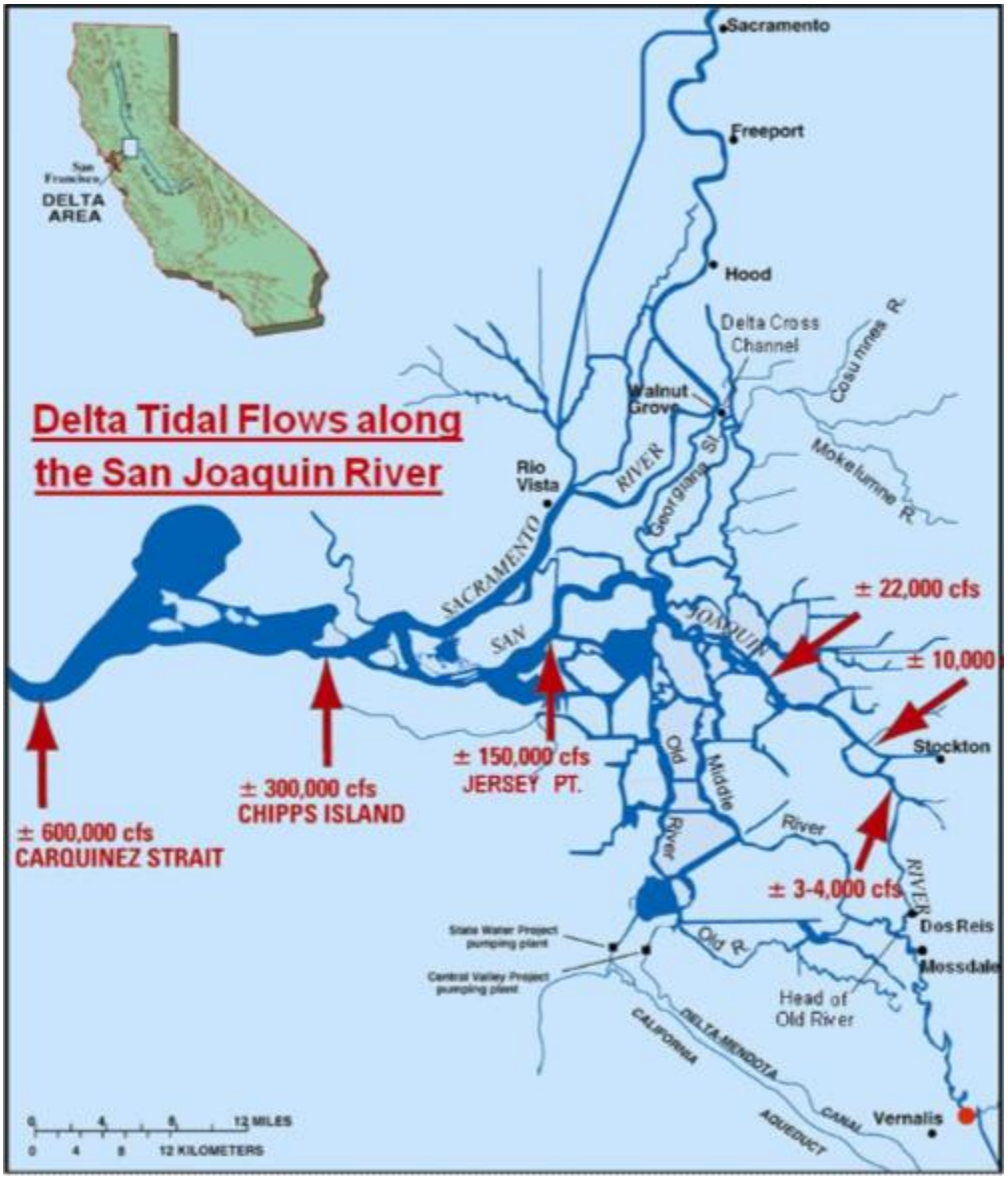
However, if any VA party fails to adhere to flow and habitat commitments, or if the benefits are deemed insufficient after eight years, the Board can initiate a process to "compel compliance" via the regulatory pathway.

Written public comments on the revised draft are open through September 10, 2025. Comments can be emailed to SacDeltaComments@waterboards.ca.gov with the subject line: "Comment Letter – Revised Draft Sacramento/Delta BayDelta Plan Updates."

Verbal comments can be given at public hearings on September 8 and 9. More information on how to participate is available on the Water Board's website.

# # #

Proposed Water Plan Impacts Supplies
Valley Ag Voice | August 29, 2025 | Soctt Hamilton



Source: San Joaquin River Group Authority, The Vernalis Adaptive Management Program Report of the 2010 Review Panel.

The California State Water Resources Control Board distributed a draft of a plan to update regulations relating to flows and water quality in the Sacramento-San Joaquin Delta and the watersheds that feed into it. That is, the plan proposes regulations for the entire Sacramento and San Joaquin River watersheds.

State Board staff believe there are insufficient in-stream flows to sustain native fish populations in the rivers, their tributaries, and in the Delta itself. Efforts to increase populations of native fish, particularly salmon, in the Central Valley have not been successful. State Board staff

initially proposed that 40% of the unimpaired flow stay in the rivers to bolster flow from February through June. That would divert water from water rights holders to environmental uses.

However, the State Constitution includes the following language: “the water resources of the State be put to beneficial use to the fullest extent of which they are capable,” and “(t)he right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served.” That is, it is unconstitutional to use more water to benefit fish than is necessary.

The State Board’s draft plan also defies a recent executive order from Governor Newsom requiring beneficial use of surplus water to the maximum extent possible.

What is needed for the recovery of salmon populations in the Central Valley? Salmon populations have been declining for decades. Their recovery faces countless obstacles. Reservoirs on all of the major rivers prevent migratory salmon from reaching the cold headwaters where they once spawned, and lower spawning areas are not as productive. While some people would like to see the reservoirs removed, they are necessary for flood protection. Reservoir removal is not an option. Salmon hatchery and harvest management are also in conflict with restoration of native fish populations. Contaminants in water supplies, including harmful algal blooms can kill fish. Additionally, the small ocean-bound salmon must pass through the Delta that teams with record numbers of non-native predators. In decades past, survival through the Delta could be improved by providing pulse flows to push the salmon smolts out faster. In recent years, that strategy has no longer worked — predation pressure is simply too high.

Creative alternatives exist to the State Board staff proposal. Years of study have resulted in the development of the concept of “functional flows” – recognizing when and where fish need additional water and enhancing habitat to make the most use of the additional flow. That concept, which is consistent with the State Constitution, is vastly different from the concept of letting more water flow to the ocean and hoping for the best. Water users and other stakeholders collaborated to develop an alternative, more comprehensive water management program for the Central Valley. That program, previously referred to as Voluntary Agreements, but are now called Healthy Rivers and Landscapes, has several elements. It includes functional flows for fish and habitat restoration. Under the program, State Water Project and Central Valley Project deliveries from the Delta are reduced by an average of 73,250-acre feet per year. The Friant Division would forgo 26,500-acre feet per year of recirculation water. And water users would purchase an additional 150,000-acre feet per year, on average, to supplement in-stream flows. All of those quantities were negotiated by stakeholders involved in the Healthy Rivers and Landscape program.

Still unclear under the State Board draft plan is the ability to access the additional in-stream flows. Water users on the Merced, Stanislaus, and Tuolumne rivers initially decided to not participate in the Voluntary Agreements, instead seeking a judicial remedy that was ultimately

unsuccessful. Those tributaries are now pursuing their own voluntary agreements, given the incentive that if they do not, they will lose a substantial portion of their water.

Regardless, embedded in the state's draft plan is the provision that the new flows cannot be used to increase exports. That results in a potential waste of more than 100,000-acre feet per year. Why is it a waste? While functional flows represent a science-based approach to providing increased flows for fish when they need it, the benefits of those flows to fish in the Delta are not so clear. Many environmental organizations claim the Delta ecosystem is in crisis and more outflow is needed to fix it.

The reality is that the Delta is highly modified from what it was 150 years ago. Some introduced species are thriving such as large mouth bass and striped bass, inland silversides, numerous species of clams, invasive water weed, and some species of tiny crustaceans. The delta ecosystem is not in crisis – it has been intentionally and unintentionally modified over decades to the detriment of native species. With so many introduced species preying on native species and competing with them for food, more flows is not the answer. Flows through the Delta are not a factor limiting recovery of native fish.

And hydraulically, San Joaquin River flows are lost in the tidal portion of the Delta. The average flow on the San Joaquin River entering the Delta from February through June is around 6,500 cfs. The lower San Joaquin River has tidal influences are 10,000 cfs north of Stockton increasing to 150,000 cfs at Jersey Point. The State Board plan already has regulations providing minimum Delta outflows to protect fish. The scientific basis for additional San Joaquin River flows past the pumps and through the Delta, beyond the already established minimum outflows requirements, has not been established, leaving in question whether the State Board would really be putting the additional San Joaquin River flow to its fullest beneficial use, as the State Constitution requires.

# # #

(This page was intentionally left blank)

Housing abundance in California first requires water abundance
Sacramento Bee | August 28, 2025 | Jim Wunderman, Opinion

Drone file photo of Shasta Lake in Shasta County, California on Thursday, April 10, 2025. The lake is part of the Central Valley Project and provides water to the Sacramento Valley and as far south as Bakersfield. Myung J. Chun TNS

California's housing goals could be threatened by a lack of water. The state has a housing crisis, and to make any progress on building more housing, we need to concurrently make progress on water.

Here are four commonsense steps that Sacramento leaders can take to make ensure that water supply doesn't become a barrier to our housing supply goals:

Protect the water we already have

California's largest freshwater system, the State Water Project, is threatened both by catastrophic collapse from earthquakes in the Sacramento-San Joaquin Delta, as well as long-term decline from saltwater intrusion into existing pumps from rising sea levels. Without action the project will fail, with consequences too devastating to contemplate for 25 million Californians from the Bay to San Diego.

The Delta Conveyance Project — which would connect existing aqueducts to a new, safer freshwater diversion point farther upstream from the Bay via an underground tunnel — has been studied for over 40 years at the expense of hundreds of millions of dollars and is simply the most cost-effective solution to this problem. Gov. Gavin Newsom has proposed common sense

administrative streamlining for the project to reduce costs and save ratepayers money. The legislature should pass it.

Capture and create more water

Scientists estimate that climate change could reduce California's water supply by about 10% by the year 2040. Just as concerning, our warming climate is resulting in more rain and less snow, overwhelming a system designed to capture gradual snowmelt — not sudden deluges.

Senate Bill 72, authored by Senator Anna Caballero, D-Merced, addresses this challenge by requiring the state to establish specific long-term water supply targets for additional storage, recycling, desalination and conservation.

Consider California's housing needs

We must also make sure state environmental agencies do a better job incorporating housing needs into regulatory decision making. For example, Foster City was forced to adopt its water-neutrality ordinance after the State Water Board curtailed the city's primary water supply to boost water available for rivers and streams. While the board is required by state law to analyze the impacts of such decisions on housing production, in practice, the board dedicated just three sentences to the matter in its otherwise thousands of pages of analysis, concluding without evidence there would be no impacts.

That must change.

Prevent the weaponization of water scarcity

Finally, we need to prevent cities from weaponizing water scarcity as an anti-development tool. Cities currently have broad discretion to impose moratoria, neutrality ordinances or other water-related restrictions on development. As California restrains the ability of cities to abuse tools like zoning or the California Environmental Quality Act to block housing, some may be tempted to embrace an artificial form of water scarcity.

The state should make sure such restrictions are justified by real resource constraints, not just NIMBY obstructionism.

By protecting existing water supplies, expanding the amount of water we capture and create and ensuring fair statewide oversight, state leaders can help ensure California has the abundant water supply needed to match its ambitious housing production goals.

Jim Wunderman is President and CEO of the Bay Area Council, a San Francisco-based nonprofit public policy organization.

# # #

Home toilets and showers make up the vast majority of household water use

Homes in California use less water than other states, according to a new study of a subset of US cities.

American Geophysical Union | September 2, 2025 | Liza Lester

New study finds toilets and showers make up more than 70% of indoor water usage across all measured cities. Credit: Geoffrey Fairchild

Quick facts:

- Toilets and showers flush down more than 70% of indoor water consumption.
- Homes built around 1968 had better water usage on average compared to newer homes like those built around 1994.
- Home size and value weren't significant.
- Of represented cities, homes in California used the least water per capita in the study.

WASHINGTON — A new study on water usage inside U.S. homes found toilets led the way for the highest water use, followed closely by showers, while dishwashers used the least.

The new research also comes with some surprises, including the strong association of humidifiers to high water usage, while other findings may be less surprising, such as that heavily regulated cities in California having the lowest water usage in the study.

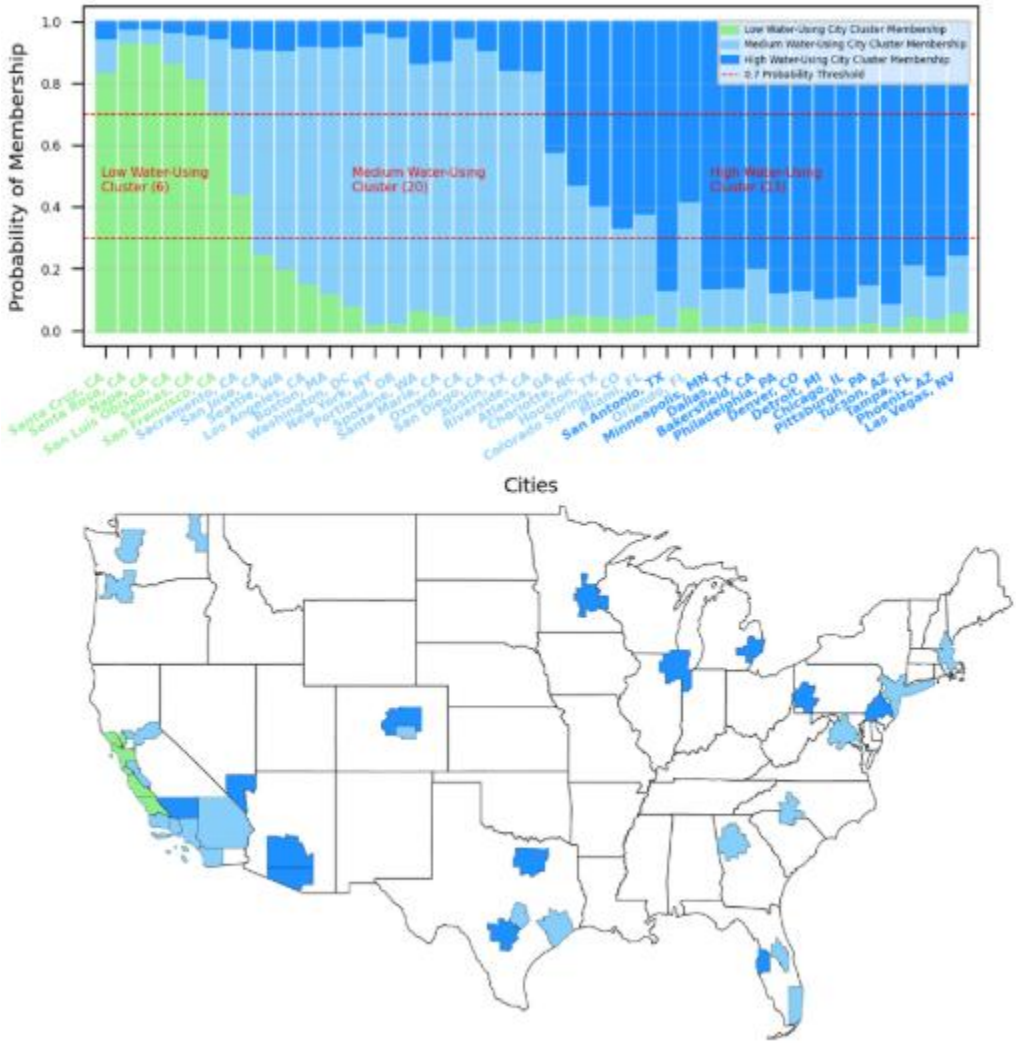
With data from more than 26,000 single-family homes across 39 cities, the study had a larger data pool than previous research. It is one of the first and largest snapshots of how households in the United States use water inside their home, with previous research not distinguishing between indoor and outdoor water use.

This study was published in Earth's Future, AGU's journal for interdisciplinary research on the past, present and future of our planet and its inhabitants. Landon Marston, an author on the study, said research into indoor water use was difficult before this study.

"We didn't have a great understanding of how much water was being used or how it was being used inside homes," said Marston, a researcher at Virginia Tech. "So, we kind of relied on these crude estimates to pinpoint that, and it's not that precise."

The data was provided by Flume, a company that sells sensors that can help detect water leaks in homes. The sensor monitors water usage and uses machine learning to identify which appliance is using the water. The result is then confirmed by the people in the household.

Marston and his team focused on the cold winter months of December and January. "In the summer, you might have some misclassification of water use, for example, outdoor water use mistakenly classified as indoor or vice versa," Marston said.



New study showed water usage in 39 cities, ranked from lowest in green to highest in dark blue. Bottom map shows low water usage cities in green, medium in light blue, and high in dark blue. Cities are ordered, from left to right on graph, in order of least usage to most.
Credit: Naseri, Bernosky, Mayer and Marston Earth's Future.
https://doi.org/10.1029/2024EF005467

Las Vegas, Phoenix and Tampa ranked the highest cities for water usage while the lowest cities all fell in California. Marston and his team speculated in the research that California may rank that low due to state water conservation regulations. On average, cities with low water usage tended to be warmer and wetter compared to cities with high water usage that were cold and dry. In drier cities, indoor features like humidifiers were more common.

“What was really a driving factor was toilet events and showers,” said Marston. “We now look at this across the nation and find a similar pattern. That’s really a driving force.”

The researchers hope the information could help communities adapt water usage plans to better fit. “Conservation efforts focused on reducing indoor residential water use can be most effective if they target these two end uses,” said Yunus Naseri, lead author of the study.

Toilets used around 40% of all indoor water in all household types. Showers followed toilets, using about 30% of water. Faucets and other miscellaneous objects made up the rest.

Homes built before 1985 were found to be associated with lower water usage compared to homes built later. Cities with low water use often had a higher number of these older homes. Homes built after 1985 were more likely to use humidifiers, which were more common in high use cities and were associated with an increase in water usage in the homes they were found in.

Marston noted there are limitations to the study. The sensors were self-bought by consumers, some with rebate incentives. The data was collected by Flume for internal use but provided to researchers for the purpose of the study. This process could have influenced the outcome, while still providing a large dataset with which to build off. However, this research serves as a good pilot program to open more questions on how Americans use water, Marston said.

# # #

AGU (www.agu.org) is a global community supporting more than half a million advocates and professionals in Earth and space sciences. Through broad and inclusive partnerships, AGU aims to advance discovery and solution science that accelerate knowledge and create solutions that are ethical, unbiased and respectful of communities and their values. Our programs include serving as a scholarly publisher, convening virtual and in-person events and providing career support. We live our values in everything we do, such as our net zero energy renovated building in Washington, D.C. and our Ethics and Equity Center, which fosters a diverse and inclusive geoscience community to ensure responsible conduct.