A Water Renaissance for California

A New Vision for a Sustainable Water Future for Northern and Southern California

INTRODUCTION

California's urban water future is at a crossroads. Amidst growing affordability and climate crises, charting a path forward that provides water resilience and keeps rates as low as possible is essential so that California families do not drown in water debt or face shutoffs. California has historically overallocated water from wetter parts of the state to drier parts to foster the development of Southern California, the San Joaquin Valley, and Silicon Valley. However, importation of water has had high external costs that are growing in the face of climate change. Ecosystems are collapsing. Snowpack and precipitation patterns are becoming less predictable. In response, the same voices who profit from water development push for so-called "solutions" that burden ratepayers with higher costs that do not improve water supply reliability and instead increase water supply vulnerability and do less to restore and protect California's ecosystems. Instead, California's water should be managed in favor of reliable water for people and an environment that is healthy and equitable.

In contrast to outdated practices based solely on extraction, local supply practices, including conservation, efficiency, stormwater capture, wastewater recycling, and other ways of developing water supplies, have increased the resilience of many communities that rely on water imports, with improved affordability and sustainability. While fully ending the importation of water is not possible, in order to reduce and minimize the need for imported water supplies we need to develop and augment local, reliable water supplies across the state to create regional self-reliance.

Local urban water supplies produce many benefits for Southern California. In addition to benefits to water supply reliability and ecosystems, investing in local water supplies will prepare the state for potential disasters, improve health in communities through urban greening, improve air quality, and mitigate greenhouse gas emissions. Further, local water projects produce local jobs. The investments we propose would create 60,000 jobs that pay $18,000 a year over median salaries and increase economic investment in Southern California by $100B.

California policymakers now face a choice: continue to rely on broken methods and massive, extraordinarily expensive projects to take more water away from communities and ecosystems that cannot bear the impacts of further water extraction – or create reliable local water projects that improve water affordability and reliability, boost local economies, and foster environmental benefits.

Ratepayers cannot shoulder the costs of investing in both visions. We need a new approach for urban water that focuses on collaboration instead of division and support for local water supply reliability instead of water imports. This approach will save ratepayers money in the long run, reduce energy use, create local jobs, and improve the environment in a way that will help underserved communities and tribes, promoting greater equity.

EXECUTIVE SUMMARY

California must now create a new urban water renaissance: a new approach to prioritize local water and local communities in developing the reliable water supplies needed for the future. To accomplish this, California must choose to invest in local water supplies, reject sending billions of ratepayer dollars to take an ever-diminishing supply of water from the San Francisco Bay and Sacramento-San Joaquin Bay-Delta (Bay-Delta) and the Colorado River, and ensure adequate water to restore the Bay-Delta ecosystem and protect water quality. Following these improvements, interested parties must be brought together to work towards solutions to repair the aging levees in the Delta and the aging infrastructure of the State Water Project (SWP). Southern California and the Bay-Delta must move from conflict to collaboration to create a sustainable and reliable water supply for people and the environment.

Create Local Drought-Resistant Water Supplies and Create Resiliency

California's dependence on imported water is increasingly unreliable due to aging infrastructure, ecosystem stress, and climate change. Focus must shift to local water sources. By 2045, Southern California should plan to advance at least 1.8-2 million acre-feet (MAF) of drought-proof water through conservation, reuse, stormwater capture, groundwater cleanup, and storage projects – only a portion of the total water savings potential from pursuing these strategies. These initiatives, which build on plans like Metropolitan Water District of Southern California's (MWD) Climate Adaption Master Plan for Water (CAMP4Water) and Los Angeles' (LA) Green New Deal

	PROJECTED ANNUAL YIELD	ESTIMATED COST	ESTIMATED COST/AF[ii]
Conservation & Efficiency	500 TAF	>$1B	≈$348-1,610
Water Recycling	600-800 TAF	$40B	≈$2,400-$3,600
Stormwater Capture	600 TAF	$2B	≈$1,070-$3,600[iii]
Groundwater Cleanup	100 TAF	$700M	≈$2,300
Total Water Renaissance	**1.8-2 MAF**	**$44B**	
VS Delta Tunnel	0.4 MAF	$60-$100B[iv]	$5000-$8,300/AF

and LA County Water Plan, need state funding and policy support, especially for low-income communities. Local water projects provide a myriad of environmental and community benefits, ranging from reducing urban runoff pollution and improving ocean health by reducing nutrient loading from coastal wastewater treatment plants to all the benefits associated by nature-based stormwater projects including wildlife habitat, greater recreational opportunities, urban cooling, air quality improvements and better public and mental health outcomes.

Reject Costly New Imported Water Projects

California must also avoid expensive, unreliable imported water projects. For example, producing 1.8-2 MAF of local water by 2045 would yield much more supply than the Delta Tunnel's proposed 0.4 MAF or 400 thousand acre-feet (TAF) (in wet years) at a far lower cost to ratepayers than $60B-$100B (Delta Tunnel proponents claim the project will only cost $20B, but these figures are disputed by independent experts) and the $6-7 billion Sites Reservoir which would capture even more Sacramento River water for export through the Tunnel and existing Delta pumps.[i] Ratepayers cannot absorb higher bills for less reliable water, and outdated import strategies are unsustainable. The state should require transparency regarding costs and vulnerabilities and limit imported water projects to cases where they are the most affordable, reliable choice and do not cause environmental harm elsewhere. Imported water also consumes large amounts of energy that would otherwise be saved by prioritizing local water supply projects. By reducing future demand for electricity related to long-distance water transport, local water supplies can also help California's power grid adapt to and ameliorate risks from our changing climate.

Restore Bay-Delta Ecosystems

While California communities must reduce reliance on imported water that is increasingly risky due to longer periods of drought and aridification of soils, the rivers and Bay-Delta that are the heart of the existing system must also be protected. In addition to creating local supplies and returning the import water to rivers and other aquatic environments, we urge investment in protecting headwaters, restoring floodplains, and improving overall flow and water quality conditions in the Bay-Delta ecosystem to protect Bay-Delta communities.

Repair the Existing SWP and Delta Levees

Once the Bay-Delta is protected and legal conditions for science-based water exports are met, new rules and conditions for how the SWP should operate can be determined through collaboration with Bay-Delta communities, tribes, and other affected parties. The SWP facilities, including the California Aqueduct, are aging and impacted by subsidence from overpumping of groundwater in the San Joaquin Valley, which will dramatically limit their ability to transport water.[v] With adequate environmental protections and restored ecosystems in place, Bay-Delta communities, tribes, and the SWP Contractors can come together to work towards commons solutions for common problems, including repairing and upgrading Delta levees to protect communities from flooding and further water quality issues, and enhancing SWP repairs to stabilize the water delivery system.

Local Water Supplies Provide Numerous Benefits

Investment in local water is an investment in local communities. The water plan we propose would create 60,000 jobs in Southern California that pay an additional $18,000 a year over median salary. Local water projects would produce an overall economic investment in Southern California of roughly $100B, which is twice the investment presently slated for local infrastructure.

This represents a better value for ratepayers and property taxpayers than sending Southern California dollars out of the region to support environmentally damaging projects elsewhere.

Development of local water also supports community health. Stormwater capture supports green spaces in communities that improve air quality and counters the urban heat island effect by cooling urban spaces. Ensuring stormwater is captured can prevent localized flooding that would otherwise drown communities and displace families. Projects in communities can create more social, environmental, and economic equity, while relying on imported water reduces local benefits.

Local Urban Water Supply Reliability Projects Can Tap Multiple Sources of Funding

Local water supply projects can utilize existing state and federal programs or state bonds that offer grants and low-interest loans. This allows local water rates and other local funds to be paired with state and federal funding to reduce the overall impact on ratepayers. In contrast, imported water projects like the Delta Tunnel cannot always access these programs, meaning greater increases in water rates. Public funding has a role in supporting water supply reliability, but this must come with other sources of funding, such as from project beneficiaries.[vi]

Recommendations

To implement a water renaissance for California, including Southern California and the Bay-Delta, we propose that the next governor and policy makers lead on the following policy solutions:

- **Direct state agencies to end planning and advocacy for the Delta Tunnel** and instead adopt and enforce science-based instream flow protections for the Bay-Delta and its tributaries.
- **Consider pursuing an ambitious general obligation water bond** that focuses on modern local water supplies and does not include wasteful or environmentally damaging spending.
- **Develop best management practices** and regulatory standards to address harmful algal blooms.
- **Require the adoption of tribal beneficial uses** so that tribal uses are recognized and protected in permitting decisions.
- **Direct state officials to ensure Colorado River diversions are appropriately reduced** as part of a basin-wide plan to ensure long-term sustainability and protect the environment, tribes, and urban water users.
- **Create a framework for local businesses** to fund green infrastructure for stormwater capture.
- **Remove the cap on large water recycling projects for receiving loans from the State Revolving Fund** and allocate sufficient funds to the SRF to meaningfully support large-scale projects.
- **Reform Proposition 218** to allow for local water rate assistance programs and ensure aggressive conservation rates can be implemented.

Further, California should consider adopting policy in 2026 and beyond to:

- **Fund projects in the Bay-Delta** to improve flood protection, limit subsidence, restore habitat, store blue carbon, and improve water supplies and water quality.
- **Limit water importation projects** unless they are demonstrated to be the most affordable and most reliable solution for a community while not causing environmental damage in other parts of the state.
- **Create a state program with Proposition 4 funds** for direct install programs for turf replacement and efficiency, prioritized for low-income Californians.
- **Create a low-income water rate assistance program**.
- **Create goals and planning requirements for maximizing use of water recycling** for areas reliant on imported water supplies.

California's Antiquated Water Delivery Systems are Crashing Ecosystems and Costing Ratepayers

Early California decision makers saw imported water, gained through stealing land and ignoring tribal water rights, and ignoring the needs of the environment, as the main way to support growth in the state. This led to massive public work projects that diverted water from the Eastern Sierra, Colorado River, and the Bay-Delta to fuel inflated demand growth in Southern California and elsewhere in the state. These projects were often developed prior to laws like the Endangered Species Act, the National Environmental Policy Act, and the California Environmental Quality Act, leaving many of the environmental impacts misunderstood, undisclosed, and unmitigated, despite local laws to protect local watersheds. As a result, worsening environmental conditions, combined with unrealistic yield expectations, eventually caused every major project to underdeliver water and produced higher than expected costs for ratepayers. Environmental leaders led successful challenges through litigation to protect the environment, leading to court orders requiring mitigation as projects struggled to address their environmental impacts.

The Los Angeles Aqueduct in the Eastern Sierra

The first major effort to transport large quantities of water into Southern California began with the construction of the Los Angeles Aqueduct to move water from the Owens River Valley in arid Inyo County to LA. Today, the LA Aqueduct can transfer 300 TAF per year and was intended to support a population of 390,000, with an assumption of 150 gallons per capita per day (GPCD) of use, and was completed in 1913.[vii] However, LA's population boomed between the inception and completion of the project, and more water was needed to sustain LA. To compensate, the LA Department of Water and Power (DWP) began to pump groundwater from the Owens River Valley into the LA Aqueduct, with rights from the LADWP's purchase of 95% of agricultural lands and 85% of town properties in the valley.[viii]

L.A. Aqueduct under construction (1908-1913)

In addition to acquiring water rights for groundwater, in 1934, LADWP applied for water rights from four streams in the Mono Basin and began to construct a tunnel to connect the Mono Basin to Owens Basin, which was completed in 1941.[ix] In 1963, LADWP began a second LA Aqueduct,


Mono Lake

completed in 1970, to maximize diversions from both basins.[x] In 1972, LADWP announced a plan to increase groundwater pumping and decrease irrigation in the Owens River Valley and increase diversions from the Mono Basin.[xi] [xii]

The impacts of these excessive water diversions continue to negatively affect Eastern Sierra environments and communities to this day. By 1924, in the Owens River Valley, the 110 square mile Owens Lake went completely dry, exposing toxic playa where dust particles are picked up by the wind and contribute to high air pollution in the region.[xiii] The lakebed emitted about 62,000 tons of particulate per year, causing health impacts in the nearby communities. Following decades of successful litigation and negotiation, LADWP is now required to provide significant amounts of water and money towards environmental mitigation in the Owens River Valley. Further, dust suppression on Owens Lake has cost LADWP ratepayers over $2.5B, and will require dedicated water in perpetuity.[xiv]

Similarly, LADWP's diversions from the Mono Basin dried up blue ribbon trout streams and drove Mono Lake water levels down to the brink of ecological collapse. Mono Lake is an ancient saline lake that serves as a critical stopover along the Pacific Flyway for millions of migratory and nesting birds.[xv] In less than 40 years, LADWP's diversions caused Mono Lake to drop over 45 feet, cut the lake's volume in half, doubled the lake's salinity, and brought the world's second largest California Gull nesting colony close to collapse. The exposure of over 15,000 acres of lake shore continues to produce the worst PM-10 air quality violations in the nation, exceeding the Owens Valley.[xvixviii] In 1994, landmark public trust protection litigation led to an historic unanimous State Water Board decision that required LADWP to restore Mono's diverted streams and to raise the lake to a higher, healthier water level. However, it has been over thirty years and Mono Lake has not reached the Board-ordered protection level, primarily due to LADWP's ongoing water diversions.

In March 2026, the State Water Board prioritized action on Mono Lake and is evaluating options for how to raise Mono Lake to the mandated protection level. The amount of water needed to raise Mono Lake is approximately 2% of LADWP's water use— 16,000 acre-feet per year.xviii Los Angeles leaders, including the former President of the Los Angeles Department of Water and Power, Richard Katz, recently proposed that LADWP pause its diversions while Mono Lake rises and rely upon the recently expanded Tillman Groundwater Replenishment Project to provide cost-effective replacement water supplies. This proposal for saving Mono Lake showcases how the development of local water supplies provides urban agencies with the flexibility they need to meet both their ecosystem protection and water resilience goals.

The Colorado River and Creation of the Metropolitan Water District of Southern California

After the LA Aqueduct was constructed, Southern California looked toward the Colorado River for water supplies. Colorado River water had previously been diverted for farming in the Imperial Valley. In 1905, Colorado River floodwaters burst from a canal to inadvertently create the Salton Sea, which was then continually fed by irrigation drainage from farming in the Imperial Valley. Later, the All-American Canal was constructed to become the sole method of diverting Colorado River water to the Imperial Valley, providing an average annual yield of about 3.1 MAF per year.[xx] In 1922, the Colorado River Basin states signed the Colorado River Compact, which assumed,

without the advantages of modern modeling and without accounting for tribal water claims and Mexico's water needs, that the annual amount of the Colorado River available for diversion in the United States was 15 MAF per year, with 7.5 MAF provided to the Upper Basin states of Colorado, Utah, Wyoming, and New Mexico and 7.5 MAF provided to the Lower Basin states of California, Arizona, and Nevada.[xxi] California's portion of that 7.5 MAF block of water was later determined to be 4.4 MAF per year.[xxii]

To develop water for urban uses, the California Legislature created MWD in 1927.[xxiii] MWD set out to construct the Colorado River Aqueduct, a series of canals, dams, and pumping stations to divert water from the Colorado River to Southern California with an annual yield of about 1.2 MAF per year, with the rest going to agriculture.[xxiv] The Federal government, through the Bureau of Reclamation (USBR), also developed a series of dams and other infrastructure on the Colorado River, including Lake Mead with Hoover Dam, and Lake Powell with Glen Canyon Dam.

More recently, San Diego County Water Authority (SDCWA) sought to diversify its supplies from MWD by transferring water from Imperial Irrigation District in what became known as 2003's Quantification Settlement Agreement (QSA). The QSA allowed for over 250 TAF per year to be transferred from IID to SDCWA by investing water in lining the All-American Canal to limit conveyance loss and investing in water efficiency for Imperial Valley farmers.[xxv]

Water resources development from the Colorado River has been fraught with conflict over the years as the various states, tribes, Mexico, and ecosystems are dependent on the water the river provides. The original Colorado River Compact did not reserve any water supplies for Mexico, which also depended on the river. Later agreements would provide Mexico with a commitment of 1.5 MAF per year but did not reduce water rights elsewhere.[xxvi] Additionally, native tribes were not provided with allocations and were forced to litigate to secure rights to water needed to survive.

Further complicating the situation was the reality that the Colorado River did not have nearly as much water as originally thought, averaging about 12.4 MAF per year over the past century, instead of the 15 MAF assumed available for diversion in the Colorado River Compact.[xxvii] Long-term drought over the past 25 years has reduced supplies even further, drastically lowering levels at Lake Mead and Lake Powell, reopening conflict between users. Climate change will continue to worsen the situation. Negotiations are underway to cut Colorado River use by one-third, but these agreements are still not complete and could lead to large cuts for California.[xxviii]


Salton Sea

In California, the Salton Sea has been declining for 30 years, leading to environmental and environmental justice impacts for the communities around it. The QSA to transfer water to San Diego led to less irrigation water reaching the Salton Sea, further degrading water quality and exposing toxic, pesticide-laced playa, which creates an air quality challenge for communities in the region. The Salton Sea lacks an outlet, so the water that feeds it evaporates, leaving salt and pesticides behind.[xxix] The worsening water quality leads to fish die-offs and limits the value of the Salton Sea as a critical stopping point on the Pacific Flyway.[xxx] While funds from the QSA and state and federal resources have been put towards Salton Sea mitigation, progress has been insufficient to halt impacts as the Salton Sea recedes faster.[xxxi]

The Central Valley Project and State Water Project, and the Crash of the San Francisco Bay and Sacramento-San Joaquin Bay-Delta

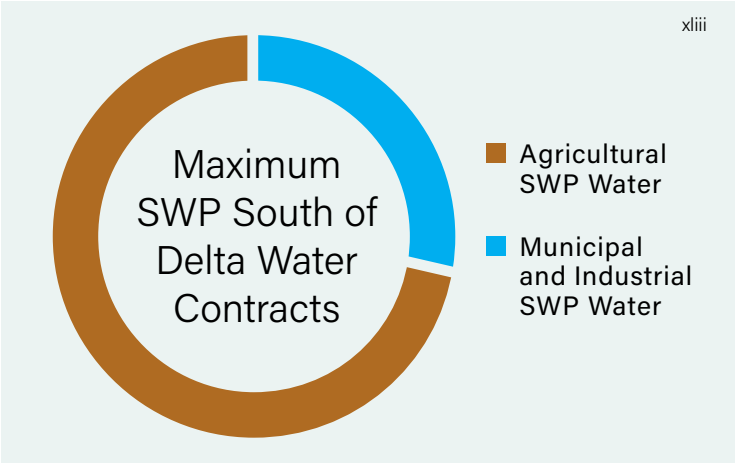
Two projects, the federal Central Valley Project (CVP) and State Water Project (SWP), move water

from the Sacramento and San Joaquin Rivers through the Delta for export, depriving the Bay-Delta of essential freshwater flows. Two-thirds of the SWP is urban water supply for Southern California, while the CVP, which delivers much larger volumes of water, is primarily an agricultural water supply.[xxxii] Overall, between 60 and 70% of water diversions from the Delta are delivered to agriculture.[xxxiii] Both projects are operated together in coordinated pumping and have joint impacts on the Bay-Delta.

The CVP was initially conceived as a state project in 1933 but pursued as a federal project through the USBR to deliver Northern California water to Sacramento and San Joaquin Valley farmers, who had already depleted surface and groundwater supplies in the San Joaquin Valley, causing significant land subsidence.[xxxiv] On the San Joaquin River, Friant Dam was built north of Fresno to divert its flow out of the watershed via the Friant-Kern Canal towards Kern County and Bakersfield.[xxxv] The Sacramento River was dammed at what is now Shasta Reservoir, with water conveyed downstream through the Sacramento River to the Bay-Delta to the C.W. Bill Jones Pumping Plant, where it is pumped into the Delta-Mendota Canal.[xxxvi] The San Luis Reservoir is an off-stream reservoir south of the Bay-Delta, where CVP and SWP water can be stored for later releases.[xxxvii] The CVP has contracts for 9.5 MAF per year of deliveries, although average deliveries are closer to 7 MAF per year.[xxxviii]

CVP South of Delta Exports

The SWP was constructed by the Department of Water Resources (DWR) after voters approved a bond in 1960. The SWP constructed Oroville Dam on the Feather River, a tributary of the Sacramento River.[xxxix] Water is pumped out of the Bay-Delta at the Banks Pumping Plant and into the Clifton Court Forebay. Water is then moved through the California Aqueduct, which goes all the way to Southern California, with the Edmonston Pumping Plant pushing water over the Tehachapi Mountains and out of the Central Valley.[xl] The California Aqueduct is also able to move water into the San Luis Reservoir for storage.[xli] The original intent of the SWP was to yield 4.2 MAF of water per year.[xlii] As with the Colorado River System, reliable annual yields were overestimated, and the state assumed that North Coast rivers would be a major source of water supply. Instead, many of those rivers were subsequently protected by Wild and Scenic River designation.



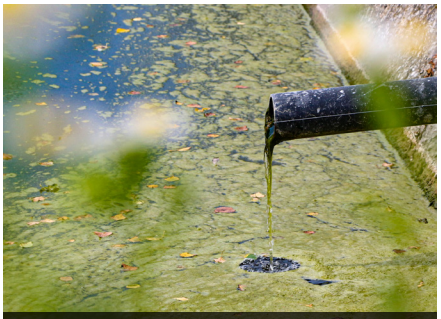
The Delta, before water diversions upstream and pumping at the SWP and CVP pumps, was primarily a freshwater area within the estuary, with water becoming more brackish in the upper reaches of San Francisco Bay and saltier in the San Francisco Bay's lower reaches. Fish, plants, and later farming and water economies evolved to match the transitioning water quality within the Bay-Delta estuary. Water quality standards are supposed to ensure freshwater flows to push back against


Salmon migration

saline water entering the region from the San Francisco Bay from the ocean.[xliv] However, excess diversions can reduce freshwater and increase overall Bay-Delta salinity. The operations of the CVP and SWP must meet salinity requirements to ensure that Bay-Delta water quality meets all beneficial uses for humans, fisheries, and wildlife in the Bay-Delta, not just the demands of the CVP and SWP contractors. Water quality control for the entire Bay-Delta watershed, from the Sierra to the sea, is regulated by the State Water Resources Control Board (State Water Board). The State Water Board is currently updating the Water Quality Control Plan for the Bay-Delta.[xlv]

The Bay-Delta supports robust economic activity over $7B annually, including agriculture, commercial salmon fishing, and recreation.[xlvi] This number does not account for related upstream river recreation or the socio-economic value of clean San Francisco Bay waters for the tourism economy, all of which are at risk of harm if Bay-Delta water quality is not maintained.

The development and operation of the CVP and SWP have caused numerous impacts on the environment and water-adjacent communities. The first impacts were on the Winnemem Wintu Tribe, who had traditional homelands around the McCloud River that were flooded by the damming of the Sacramento River and creation of Shasta Reservoir.[xlvii] SWP and CVP dams blocked salmon and steelhead from native spawning grounds, leading to impacts to salmon populations that California Tribes depended on for food, spiritual, and cultural practices.[xlviii] Salmon need cool water and gravelly streambeds to spawn.[xlix] Many of the dams, canals, and pumps of the SWP, CVP, and other water development projects across California relegated salmon to warmer waters with less suitable habitat.[l] Furthermore, the pumping of water in the Bay-Delta disturbed natural habitats and reduced water flows to imperil species from the tiny Delta Smelt to the giant White Sturgeon.[li] Presently, most native fish species are in decline, and seven species are listed as endangered or threatened under state or federal law.


Harmful algal blooms (HAB)

Over time, and in response to environmental laws created in the 1960s and 1970's, operation of the CVP and SWP was altered by the State Water Board and Department of Fish and Wildlife, but conditions have only worsened for species because even the minimal protections currently required are not adequately enforced. During droughts, waivers of water quality requirements have maintained water exports beyond sustainable levels, to the detriment of water quality within the Bay-Delta.[lii] Increasing temperatures and worsening water quality have increased the number of harmful algal blooms (HABs), which can expose the public and wildlife to toxins through contaminated water and air, echoing the genesis of the catastrophe at Owens Valley, all to support pumping water to MWD and irrigated agriculture.[liii]

California has failed for decades to protect its rivers and the Bay-Delta estuary from overextraction of water from river and groundwater systems. Climate change impacts are pushing California water management into a precarious position. Unless sustainability and strong local water management efforts are set in place that heal river, estuary, and groundwater systems, the Bay-Delta's future is dire.

Climate Change Leaves Water Delivery Systems Struggling to Adapt

Most large water importation projects have delivered less water than intended, a trend that will escalate as climate change impacts California and the West's hydrology. Diminishing snowpack, intense storms and droughts, and greater variability in rainfall from year to year and within years make reliance on water imports riskier. Further, reduced runoff and the aridification of soils are reducing surface water availability through the Delta.[liv] Warmer temperatures are increasing evaporation from surface water bodies, including reservoirs, and making it more difficult to maintain the water quality needed for communities and species reliant on a healthy Bay-Delta ecosystem.[lv] Given these uncertainties, investing in imported water supply projects modeled on the past is, at best, gambling with ratepayer funds.

California's Water Affordability Crisis

California is also facing a water affordability crisis. Due to decades of federal and state underinvestment in local and regional water infrastructure, water rates have been the main way for local agencies to build out new projects and cover rising costs for operations and maintenance. Water agency investment in projects that rely on moving water from distant watersheds has also contributed to decades of high-dollar spending in infrastructure. As a result, water rates continue to rise faster than inflation.[lvi] The Luskin Center at UCLA recently found that between 2015 and 2025, water rates in LA rose 60%, much faster than inflation.[lvii] In San Diego County overbuilding of infrastructure for water supply that was not needed by the community led to rates increasing 61%, adding $700 per year to the average water bill.[lviii] In 2012, California recognized that there is a human right to clean, safe, and affordable water.[lix] However, to date, little has been done to ameliorate high water bills that prevent the human right to water from becoming a reality.

A major obstacle to supporting low-income Californians with their water bills is **Proposition 218 (1996)**.

Proposition 218 limits how local agencies can structure their water rates. Water rates must be strictly proportional to the service provided to that property, meaning that local agencies cannot use ratepayer funds to support low-income rate assistance, unlike energy and gas utilities.[lx] Some water agencies have created rate assistance programs, but they are funded by other sources, such as cell phone tower leases, and often do not fully meet the needs of the community. LADWP has a low-income rate assistance program, but it was successfully challenged in the courts by a ratepayer in 2019, creating a massive bill hike for low-income ratepayers.[lxi]

This has also made it challenging for local utilities to design rate structures to promote conservation, which decreases water use, or to charge higher rates or tiered rates for those who use more water. Half of residential water supplies are used for landscaping. Generally, low-income Californians have smaller homes and lots, requiring less water than higher-income Californians, and progressive agencies have sought to tie more expensive sources of water to higher usage, which can help drive conservation efforts and prevent low-income customers from paying for costlier water projects they might not benefit from.[lxii] However, a recent court decision in 2025 sent mixed messages about how local agencies can set conservation rates.[lxii]

Doubling Down on Past Mistakes: Colorado River Negotiations, Delta Conveyance, and "Healthy Rivers and Landscapes"

Despite the limitations of imported water and the devastating effects of taking too much water from ecosystems, California is pursuing more of the same on the Colorado River and the Bay-Delta. Talks are underway to renegotiate allocations on the Colorado River considering the continued decline of water supplies. Also, the Delta Conveyance Project (DCP), a massive project to install a gigantic tunnel underneath the Delta to move water south before it can enter the Delta, has applied for permits. Further, the "Healthy Rivers and Landscapes" proposal (HRL), a set of voluntary agreements between the state and water agencies, is being proposed as a replacement to adequate, science-based water quality standards under the Clean Water Act and Porter-Cologne Act to protect the Bay-Delta and its watershed.

Colorado River Negotiations

The Colorado River negotiations are seeking to reduce allocations amongst the Colorado River Basin states as the Colorado River continues to decline.[lxiv] A sustainable Colorado River requires sufficient flow for the environment.[lxv] California should also prioritize tribes that are dependent on the Colorado River and disadvantaged communities. This means ensuring sufficient water for tribal communities and beneficial uses in all the Colorado River states, prioritizing water for urban communities, and ensuring sufficient water supplies to preserve the Salton Sea or funding to mitigate the impacts of the Salton Sea declining.

Delta Conveyance Project

The massive and massively expensive DCP proposes a new series of intakes on the Sacramento River and a new tunnel under the Delta to deliver water to the existing State Water Project pumps.[lxvi] The Delta Tunnel is entirely additive to existing infrastructure and contrary to assertions by DWR, does not propose to modernize, remove, or replace any existing, aging SWP infrastructure, which will continue to be used. The Delta Tunnel will only increase SWP yield by about 400 thousand acre-feet per year.[lxvii] The Delta Tunnel is projected by DWR to cost $20B, but cost overruns are expected and independent analyses indicate may cost over $100B.[lxviii] The cost of any new Delta Tunnel to be funded mostly by water rates, with some increases in property taxes as well.[lxix] This means that the Delta Tunnel will necessarily increase water bills across urban areas in California with sizable, disadvantaged communities, and will likely make agricultural water for Kern County Water Agency and other SWP agricultural water districts cost prohibitive. However, the courts have recently rejected DWR's attempts to issue revenue bonds to fund the project, leaving DWR with no plan to fund the Delta Tunnel.[lxx] No finance plan or cost analysis to show what ratepayers may face has been produced to date.

Potential Delta Tunnel Cost	MWD Portion of the Delta Tunnel Cost (assuming 45% of the Project)	Cost/Acre-foot (assuming 180 TAF average yield for MWD and a 30-year life cycle)
$20B	$9B	$1,667/AF
$60B	$27B	$5,000/AF
$100B	$45B	$8,333/AF

The Delta Tunnel is being sold as a climate adaptation project. However, it seeks to simply keep taking water to expand exports that is otherwise needed to make the Bay-Delta resilient to climate change. Its chief proponents, which include the DWR, Southern California's MWD, Santa Clara Valley Water District, and certain politically influential agricultural interests, fail to analyze adequately what the impacts will be on the millions of Californians who will be impacted by drought and flood in the Bay-Delta watershed. The Delta Tunnel represents more of the same failed policies, not true climate adaptation. Decision makers must consider whether California families will be willing and able to shoulder the cost for such a large project that delivers so little water.

Furthermore, because it takes water far upstream of the existing intakes, the Delta Tunnel could incentivize further weakening of water quality standards, which control salinity at the existing intakes, and allow for the conditions in the Bay-Delta to worsen as climate change impacts, including sea level rise, increase.

"Healthy Rivers and Landscapes"

Under the federal Clean Water Act and California's Porter-Cologne Act, the state must regularly review water quality standards for impaired water bodies, like the Delta.[lxxi] In 2009, the State Water Board began the process of updating the Bay-Delta Plan and recognized the need to increase unimpaired freshwater flows through the Delta.[lxxii] In 2018, in Phase I of the review process, the Water Board adopted water quality objectives for the three lower tributaries of the San Joaquin River.[lxxiii] However, these new requirements are yet to be implemented and adoption of proposed new standards for the rest of the watershed (Phase II) have been blocked by water users and the Governor, who were negotiating voluntary agreements as an alternative to stronger water quality standards.[lxxiv] Negotiation of these voluntary deals, now labelled the Healthy Rivers and Landscapes (HRL) program, deliberately excluded tribes, disadvantaged communities, the fishing industry, and independent environmental scientists.[lxxv] HRL lacks sufficient flows into the Delta, fails to protect existing flows, reduces species protection, ignores biologically-based species targets, and ultimately will lead to worse outcomes for species, fisheries, and water quality across the Bay-Delta estuary and its watershed.[lxxvi] However, HRL maximizes water exports, and, as DWR commented, these deals are necessary to allow the Delta Tunnel to export more water than would be allowed under the previously contemplated Phase II standards. This backroom alternative to science-backed water quality protections must be rejected.

A New and Better Vision for California's Water Supply

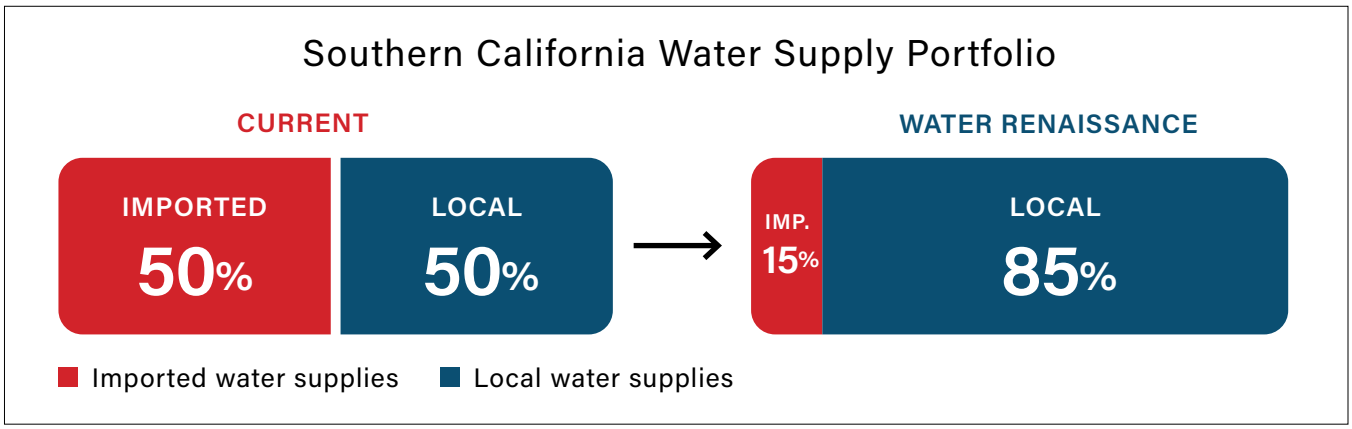
Given the historical challenges, underperformance, and ecological devastation of relying on massive, imported water projects, decision-makers must understand the alternatives available. While Southern California will likely always require some imported water, it needs to develop its self-reliance to the greatest extent possible so that water managers have the flexibility necessary to face the changing climate and the need for ecosystem restoration in California.

The old method of water supplies looks to conveyance from faraway places to bring water to Southern California. Those methods have resulted in less water than promised, high energy demand, and ecological devastation that leaves ratepayers on the hook to pay for disasters that California tribes and environmental justice communities disproportionately bear. Ratepayers are already struggling to pay their bills and should not be asked to pay for more broken promises and environmental injustice. Focusing ratepayer resources on local projects can provide demonstrated water supplies, tailored to what communities need and want; while minimizing environmental impacts, the risks associated with distant and unreliable water supplies, and providing environmental benefits. All of this can occur while creating good-paying local jobs in both construction and the long-term operation and maintenance of projects.

It is not just advocacy groups pushing for this transition. LA County has established a goal of moving from 40% local water to 80% by 2045.[lxxviii] The City of LA has committed to going to 70% local water by 2035.[lxxix] MWD, an agency literally formed to import water, has indicated that resiliency and co-benefits should be prioritized in future water decisions, including through its recently-created CAMP4W.[lxxx]

A Right-Sized Approach to Southern California's Water Supply

Our vision is not to fully replace imported water; imported water will likely always play some role in the water supply. Instead, our goal is to reduce per-capita water use and increase local supplies as much as possible in the most cost-effective manner. Currently, Southern California imports around 50% of its water, or over 2.5 MAF of water per year from the Delta, Colorado River, and LA Aqueduct.[lxxxi] We set a target of 1.8-2 MAF of new local supplies to allow Southern California to reduce demand for imported water. Southern California water agencies have already identified



more than 2 MAF in potential local water projects and conservation goals throughout the region; while we recognize some of these projects may not be completed, their existence demonstrates that 1.8-2 MAF is a viable target. These projects provide water managers with flexibility to manage supplies impacted by climate change; to allow for more water to be left instream to protect river and estuary ecosystems from collapse; and to increase the capture of excess local floodwater for storage for future droughts and drier conditions. Further, while climate-driven extended droughts would reduce or eliminate imported water supplies, tools like water recycling and efficiency are far more climate-resilient. They will continue producing water supplies even in extended droughts.

Southern California water demand is also not growing at a pace to justify new imported supplies. The California Department of Finance's Demographic Research Unit predicted in September 2025 that Southern California population will stay relatively flat through 2070.[lxxxii] If so, commitment to large, imported water supply projects would lead to stranded assets and massive rate increases without any benefit. Based on the evidence that demand is not growing at previously estimated rates, Southern California must instead increase overall water supply reliability to ensure durable water supplies in the face of climate change. Local sourcing of 1.8-2 MAF of water allows will increase water supply reliability with the lowest impact to water rates for decades to come.

Conservation and Efficiency

Water conservation and water use efficiency lower the overall demand for water through reducing water use or installing more water-efficient appliances. Water conservation and water use efficiency are the most cost-effective methods for creating new water. Past conservation and efficiency actions have allowed Southern California to add millions of people without overall demand increasing per capita consumption is down 45% since 1990.[lxxxiii] The Pacific Institute found that the total South Coast Region could create an additional 1.05-1.67 MAF of water through increased conservation and efficiency.[lxxxiv] We propose a target of 500 TAF per year of water conservation and efficiency by 2045, a target that can be met for under $1B. This effort would improve the equity of water efficiency programs by investing directly in low and middle-income and multifamily households.

Conservation and efficiency save ratepayers money as they do not use as much water and energy, while reducing wastewater treatment expenses. The Pacific Institute found that a home that installed a high-efficiency toilet, showerhead and clothes washer, while replacing turf with low-water landscaping would save the average homeowner over $400 per year.[lxxxv] Agencies and ratepayers also continue to save as agencies avoid needing to develop other water supplies that would raise rates. Conservation and efficiency in LADWP between 1990 and 2016 are estimated to have saved ratepayers over $11B, while preventing a water rate increase of as much 27%.[lxxxvi] Wastewater savings were similarly significant.[lxxxvii]

Statewide policy driving conservation expanded during the 2011-2017 drought, with Governor Brown calling for a 25% reduction in urban water use in 2015.[lxxxviii] In 2018, following lessons learned from implementing that order, the Legislature passed AB 1668 (Friedman) and SB 606 (Hertzberg), a package that included measures to create water use objectives for water agencies, based on a combination of reducing indoor use, reducing outdoor use, and removing leaks in the distribution system. SB 1157 (Hertzberg) passed in 2021 to further reduce the indoor objectives to 47 gallons per capita daily from 2025-2030 and 42 gallons per capita daily after 2030,.[lxxxix] Inefficient appliances and waste in homes, unnecessary or overly thirsty landscaping, and leaky infrastructure, such as water main breaks that flood communities, are all wasteful practices that must end.

In 2024 the State Water Board finalized the Making Conservation a California Way of Life regulations to implement AB 1688 and SBs 606 and 1157 to create an overall objective from conservation metrics, while local agencies have discretion as to how to meet the overall objective.[xc] Unfortunately, the final regulations developed by the State Water Board created too many delays, loopholes, and giveaways for industry. For example, 31 percent of water agencies will not need to act to meet the 2040 targets, limiting the effect of law beyond what was intended.[xci] Stronger regulation and more local agency leadership are needed to conserve, improve efficiency, replace landscapes, and limit leaks.

Local agencies can incentivize water conservation and water use efficiency in through rebates and direct installation programs to reach low-income families and more multifamily properties. Traditionally, rebates were used to distribute incentives for conservation and efficiency, which required ratepayers to pay a water bill and have the upfront resources to replace appliances or landscaping.[xcii] California must invest in vouchers, instead of rebates, and in programs where installers can provide the upfront costs to ratepayers that help low-income Californians save money while California saves water. Third-party providers can ensure that even small water systems can use these services, and outreach and engagement can be prioritized to culturally connect with communities. Resources should be provided to fund these programs across California, particularly where small water agencies lack in-house resources to create them.

Wastewater Recycling

Wastewater recycling involves purifying water that has already been "used" by the public through a multi-pronged treatment train so that it can be beneficially used again, rather than discharged into the ocean. The Pacific Institute found that over 1 MAF of wastewater effluent in the South Coast Region could be reused per year.[xciii] Just over 500 TAF of water reuse is already in various stages of planning and development for projects that will cost around $30B, with recycling and other water system upgrades. Further potable reuse can cost can range from $2,400 to $3,600 per acre foot, meaning our proposed target of 600-800 TAF of water reuse in Southern California could be completed or in advanced stages of planning for about $40B by 2045.[xciv] Californians should provide existing water recycling projects with more support, while maximizing recycled water with future grants and loans. The cost per AF from recycling would be under half of the cost of water delivered by the Delta Tunnel, and the recycled water is completely reliable, regardless of weather patterns. Water recycling also reduces environmental harms and benefits local economies.

A Selection of Existing Proposed Water Recycling Projects[xcv]	Projected Increase in Water Supply (Rounded to nearest TAF)
Pure Water Los Angeles /Los Angeles Groundwater Replenishment Project	245,000 AF/year
Pure Water Southern California	168,000 AF/year
Pure Water San Diego	93,000 AF/year
Chino Basin Program	15,000 AF/year
VenturaWaterPure	5,000 AF/year
TOTAL	**526,000 AF/year**

Water reuse for irrigation and landscaping has been implemented for over a century, but potable reuse has only more recently been allowed and implemented as drought pushed California to identify stable sources of water, and public opinion on the use of recycled water has improved. Initially, recycled water for potable use was limited to indirect potable reuse (IPR), whereby wastewater was treated to a high level, then blended with other sources of water, such as by injection into an aquifer or augmenting surface water supplies by pumping the recycled water into a reservoir.[xcvi] In both instances, the water would undergo another round of treatment before being provided as drinking water.[xcvii] The State Water Board initially crafted a Recycled Water Policy in 2009 to promote recycled water and set a statewide goal for producing recycled water of 1 MAF per year between 2009 and 2020 and 2 MAF from 2020 to 2030.[xcviii] The next year, Governor Brown signed SB 918 (Pavley, 2010) to adopt uniform water recycling criteria for IPR using groundwater replenishment and surface water augmentation.[xcix] These regulations were developed in 2014 and 2018, respectively.

California was behind in its water recycling goals when Governor Newsom signed AB 574 (Quirk, 2017) to require the State Water Board to draft regulations to allow for direct potable reuse (DPR).[c] DPR allows wastewater to be treated and provided immediately into a drinking water system, while ensuring the strongest possible protections and redundancies to protect public health, creating more operational efficiency in a program and allowing communities that lack groundwater storage or surface water reservoirs to recycle water.[ci] The regulations for DPR went into effect on October 1, 2024, creating an opportunity to push for more water recycling, and possibly more cost-effective, than ever before.[cii]

Southern California is rapidly developing projects for more water recycling. MWD is developing Pure Water Southern California, which would produce almost 170 TAF per year while creating 47,000 new jobs.[ciii] Pure Water LA and the San Fernando Valley Groundwater Replenishment Project are joint DWP and LA Sanitation projects to create 245 TAF per year.[civ] Pure Water SD is a two-phase project to allow San Diego to increase its local supplies. Phase 1 of Pure Water SD was a $1.5B project to produce over 33 TAF per year.[cv] Phase 2, which is currently in planning, will produce another 59 TAF per year. California should continue to expand water reuse and plan to maximize the amount of water that can be recycled.[cvi] These and other projects around the state will continue to help move California towards local resilience.

Stormwater Capture

Stormwater capture projects, which harvest and clean rainfall that would otherwise flow into storm drains, represents a significant opportunity to improve local water. In urban areas like Southern California, most stormwater runs off impervious surfaces into collection systems that move it, eventually, to the Pacific Ocean. Municipal stormwater may transport pollutants like heavy metals and excess nutrients into the environment.[cvii] Traditional stormwater projects are primarily focused on flood control and water quality benefits, with water supply as an ancillary benefit, making per-acre-foot costs unreliable. However, existing programs and funding should provide capture capacity of 300 TAF of capacity by 2045 in LA County alone.[cviii] Still, more could be done to improve existing programs and replicate elsewhere what has been successful in LA County has been successful elsewhere to maximize stormwater capture. Other counties should match LA's leadership and create their own local measures to fund stormwater capture, and the state must continue to provide financial resources. Up to 1.4 MAF of stormwater capture is available in the South Coast region, and those numbers may go up as precipitation patterns change with climate change, as evidenced by storms in November 2025.[cix]

We believe a target of 600 TAF of new stormwater capture by 2045 is viable.

Centralized or regional stormwater projects are larger projects that divert floodwater and stormwater through channels to basins to spread out the water and allow it to infiltrate the underlying aquifer.[cx] Decentralized stormwater projects are smaller-scale projects designed to capture water to prevent localized flooding and recharge groundwater, including rain barrels and permeable pavement, and green infrastructure like bioswales and rain gardens.[cxi] These can range from more parcel-based projects at homes or businesses to larger "neighborhood-scale" projects that would include parks or schools that convert significant parts of their land to stormwater capture, often with massive underground cisterns for storage

Los Angeles County is a leader in stormwater management through the Safe Clean Water Program, funded through Measure W. Measure W was an LA County measure, adopted in 2018, to levy a 2.5-cent per square foot of impermeable surface area on a property to raise almost $300M annually.[cxii] Funds flow through nine Watershed Committees, which provide funds to project applicants.[cxiii] Measure W has funded numerous projects and made significant improvements, including creating 58 TAF per year of water supply and the development of 4 TAF of storage capacity between 2019 and 2023.[cxiv] The Safe Clean Water Program needs to continue to adapt to improve multi-benefit outcomes and increase capacity for more community-driven planning and projects, but it has been a good start to locally funded stormwater capture.

Groundwater Cleanup and Storage

The aquifers under our feet provide long-term storage and supply of water for communities. Aquifers are the state's main supply of stored water– and Southern California is no exception. But many aquifers are too contaminated to use and must be cleaned. Thankfully, projects are already underway to create almost 100 TAF of groundwater supply in Southern California. Groundwater storage goals of 500 TAF are already being set through MWD's CAMP4Water and should be supported to ensure dry year supplies for Southern California. More funding should be dedicated to piloting partnerships with Southern California agencies and San Joaquin Valley communities to explore how to support drinking water access while storing water for dry years. Overall, we believe a target of 100 TAF in groundwater cleanup and additional storage by 2045 is viable.

Southern California has many aquifers that are unusable or limited in their use for drinking water due to decades of contamination from industries such as aerospace and dry cleaning.[cxv] These contaminated water supplies require funding for projects to bring them back into use for drinking water. LA is currently undergoing a remediation project for the San Fernando Basin, which was contaminated with toxic and carcinogenic industrial and dry-cleaning chemicals.[cxvi] This $600M project will allow the San Fernando Basin to supply up to 87 TAF.[cxvii] Other projects are underway to restore LA's other groundwater basins, including Central Basin and the West Coast Basin, which is suffering from seawater intrusion.[cxvii] Once complete, these projects should allow for an increase over 100 TAF, providing a low-cost, stable supply for Los Angeles.

Groundwater storage can also be implemented to better utilize imported supplies. If Southern California could maximize local supplies, there could be excess water from imports, particularly during wet years, even after accounting for stronger environmental protections for the Bay-Delta. Long-term storage could help Southern California become drought-proof. Long-term storage is best provided through groundwater storage, both in Southern California and elsewhere. For example, the San Joaquin Valley has a significant amount of storage capacity due to years of overpumping of groundwater. Southern California could focus on local supplies and moving

SWP water supplies into storage for long-term future droughts, potentially providing benefits to disadvantaged communities in the San Joaquin Valley and contributing to groundwater sustainability when appropriate to do – that is, after meeting environmental needs in the Bay-Delta and generally diverting water only in wet years. More research and collaboration should be invested in pilot projects and agreements to determine how to create multibenefit groundwater storage projects that can help both the San Joaquin Valley and Southern California.

Protect and Restore the Delta, Headwaters, and Other Ecosystems

Environmental restoration can also help support water supplies by improving the environment's ability to store water and the Bay-Delta's ability to support itself. Environmental restoration should be conducted alongside tribes, based on tribal ecological knowledge, to help restore California's ecosystems, based on the experience of those who know best.

In-Delta Flood Control and Floodplain and Habitat Restoration

The Delta remains at risk of massive flooding events due to storms or other disasters damaging levees. The modern Delta consists of many islands surrounded by levees that do not meet the standards of the Army Corps of Engineers for flood control.[cxix] The Delta's islands consist of peat soil, which breaks down when in contact with oxygen, subsiding the land and releasing tremendous volumes of carbon dioxide.[cxx] Subsidence worsens the flood control situation, increasing the flood risk and damaging levees.[cxxi] Levee restoration in the Bay-Delta has the potential to protect the Bay-Delta ecosystem and communities from seismic and flood risk.[cxxii] Pairing levee projects with in-Delta rice farming, floodplain and wetland restoration can improve water quality, groundwater recharge, and "blue carbon" capture. Levee upgrades themselves, including MWD's Freshwater Pathways Project and other projects, would cost over $4B, far less than what a disaster could potentially cost Californians.[cxxiii]


Aerial view of the Delta

A critical failure of the levee system in the Delta could be a massive disaster for California, putting many communities, including the city of Stockton, at risk of flooding. Sediment and other contaminants in the water following a disaster could reach the intakes for the CVP and SWP, making Delta water exports impossible. A recent United States Geological Service report looked at the possibility of a series of atmospheric rivers impacting California, similar to 1861-62, and found that flooding up to 20 feet was possible in California and that levees throughout the Central Valley should be strengthened to a 500-year flood standard.[cxxiv] There is a combined need to protect and invest in Delta levee restoration to prevent a dual disaster of flooding in Delta communities and insufficient water for communities in Southern California, which are overly reliant on Delta water exports. Levee investments protect communities and can ensure a steady supply of Delta exports, while also saving California from a loss of life, massive property damage, and lost economic activity. The Delta Tunnel will do nothing to protect Bay-Delta communities from harm in event of a disaster.

Restoration on the Delta islands could also limit subsidence and carbon dioxide emissions by preventing peat soils from being exposed to oxygen.[cxxv] Several islands should be converted into wetland habitats, integrated with rice farming, to keep the peat soil wet and rebuild that long-term carbon sink, while creating habitat for fish and migratory birds.[cxxvi] Farming practices in the Bay-Delta could also be shifted towards crops that can be flooded, such as rice.[cxxvii]

Strong Science -Based Instream Flow Protections for Natural, Functional Flows

Higher flows that follow a more natural flow pattern from the Central Valley rivers through the Delta and San Francisco Bay are necessary to protect water quality in the Bay-Delta and reverse declining salmon populations that tribes and the fishing community depend upon. River flow regimes that are tethered to natural hydrology and the needs of the Bay-Delta's unique native fish and wildlife communities better replicate the natural timing and volumes of California rivers before they were reengineered for human purposes.[cxxviii] As a result, improved flows that mimic natural flow regimes better support natural species, limit invasive species, and improve water quality, including by reducing the conditions that create harmful algal blooms.[cxxix] The State Water Board initially proposed increasing flows to the estuary using unimpaired flow approach for the Bay-Delta and its tributaries as part of the update to the Bay-Delta Water Quality Control Plan, but under pressure from the Newsom Administration and powerful water districts has since shifted towards the Healthy Riveres and Landscapes approach, which is insufficient to protect salmon fisheries, native fish and wildlife, and water quality in the Bay-Delta. HRL should be rejected, and the State Water Board should instead comply with the federal and state Clean Water Acts and protect the Bay-Delta through a science-based unimpaired flow requirement. A strong and durable standard for Bay-Delta flows would protect the area while creating a durable regulatory baseline for water supply management for exporters.

Mountain Meadow Restoration

Healthy mountain meadows store water during the spring, which creates more flow in rivers and streams during critical summer months. Natural filtration of water also occurs as it passes through the meadow, improving water quality and creating habitat.[cxxx] Mountain meadows are also part of the tribal eco-cultural landscape and have connections to tribes ceremonially and spiritually, which should be restored.[cxxxi] Mountain meadow restoration also provides public benefits of carbon capture, fire breaks, flood control, and biodiversity. Meadow restoration acreage could increase by two to threefold from current projects, supporting a healthy Sierra Nevada and creating more water supply.[cxxxii]

Create a Collaborative Approach to Repair and Improve the SWP

Once the Delta Tunnel is stopped and a strong Bay-Delta Water Quality Control Plan is in place, the next governor should pull parties together to collaborate on how to manage exports reliably in order to protect the environment. The existing California Aqueduct of the SWP is suffering from a loss in capacity due to aging infrastructure and land subsidence and could lose 87% of capacity by 2043 from a current loss of 44% today.[cxxxiii] The San Luis Canal has experienced a loss of capacity of 44%.[cxxxiv] This represents a significant loss of water availability and should be repaired to increase the reliability of water supplies and efficient use of diversions. Rules to avoid over-diversion should be part of the conditions for restoring conveyance capacity, which should not exceed original design capacity. Projects that produce net environmental benefits to the Bay-Delta estuary's aquatic ecosystem should be prioritized, and such benefits should be considered as a condition for restoring conveyance capacity.

Public funding might be appropriate to help support repairs without charging ratepayers for subsidence they did not cause, while recovering between **100 and 300 TAF/ year** of water supply.

Matching investments from San Joaquin Valley pumpers who contributed to subsidence would also be appropriate. Other measures could be explored collaboratively to improve the operation of the SWP and improve environmental outcomes with buy in from Bay-Delta and tribal communities.

A Water Renaissance for Silicon Valley

While not the main focus of this report, many of the local supply strategies could be employed in Silicon Valley as well. Silicon Valley currently imports 40% of its water supply from both the CVP and SWP, about 140 TAF/year. Santa Clara Valley Water District's 2050 Master Plan identified a local control pathway that should be followed, which includes 126 TAF of water conservation, 32 TAF of water reuse, and creating groundwater storage and banking by 2050 for $4.5B.[cxxxv] This would allow Silicon Valley to reduce imported water by over 50%/year and still allow for population and economic growth.

Financing A Water Renaissance

Another advantage of investing in local projects is that there are more options available for financing projects besides just raising water bills. State and federal programs exist to provide grants and low-interest loans for a variety of projects.

State Revolving Funds

The main sources of funding for water infrastructure in the United States are the Clean Water State Revolving Fund and Drinking Water State Revolving Fund (collectively SRFs). These funds are provided annually to each state in capitalization grants from the Federal Government for low-interest loans and grants for projects.[cxxxvi] The loans are consistently paid back into the fund, creating a steady source of funding year over year.[cxxxvii]

Every year, the State Water Board provides an Intended Use Plan (IUP), which sets out the rules for how the funds will be used and which projects are on a fundable list.[cxxxviii] The amount of funding available through the SRFs varies throughout the years, depending on Congress, with the large annual increases from the Bipartisan Infrastructure Law ending in 2026.[cxxxix] Further, Congress has diminished how much of authorized funding that has gone into state capitalization grants through the earmark process.[cxl]

Eligible Clean Water SRF Projects include wastewater treatment projects, demand reduction for wastewater treatment through conservation and efficiency, stormwater capture and reuse, water reuse, and projects that reduce contamination to surface or groundwater.[cxli]

California also provides state infrastructure funds through this process to create a one-stop shop for infrastructure funding. This includes any project funding from bonds, the general fund, and other programs. For example, the most recent Drinking Water SRF IUP includes funding from the base SRF program, separate Bipartisan Infrastructure Law increases, Propositions 1 (2014), 68 (2018), and 4 (2024), general fund, and the Greenhouse Gas Reduction Fund for drinking water.[cxlii] Similarly, the Clean Water SRF includes federal funds and state bonds, and the general fund, including funding for recycled water.[cxliii] The 2025-26 IUPs proposed to spend over $1.6B in the Clean Water SRF and almost $900M in the Drinking Water SRF.[cxliv] These numbers are likely to decrease in the coming years as federal investment declines.

Overall, the SRFs allow agencies to upgrade their systems and create new water supplies with less need for rate increases. Any funding received through grants can reduce the planning and capital costs of projects, though the agency must still pay for operations and maintenance. Loans under the SRFs are benchmarked under regular market rates, providing significant savings for agencies to implement projects. In 2024, the Drinking Water SRF loan percentages averaged 2.2% under market rates.[cxlv] In the 2025-26 Clean Water SRF IUP, the Pure Water Las Virgenes-Triunfo Project is projected to receive a grant of $15M and a low-interest loan of over $57M, saving ratepayers $5.38 per month.[cxlvi]

Water Infrastructure Finance and Innovation Act

The Water Infrastructure Finance and Innovation Act (WIFIA) is another federal program that offers low-interest loans for all types of water and wastewater projects, including stormwater capture and water recycling.[cxlvii] WIFIA typically lends to large projects, providing up to 49% of the total cost of a project of at least $20M. WIFIA funding paired with other programs, like SRF, can reduce the total costs that ratepayers pay for water infrastructure. For example, Pure Water San Diego combined WIFIA and SRF loans for over $1.5B at rates ranging from as low as 0.8% to 1.82%, which is much lower than municipal bond rates.[cxlviii]

Bureau of Reclamation Programs

The Bureau of Reclamation also has funding to support water projects throughout California, including storage funding, water recycling, watershed restoration, and other projects, often in the form of grants. The Bipartisan Infrastructure Law authorized the Bureau to spend $8.3B on programs, including over $1B for water storage, including groundwater, $1B for water recycling, and $300M for Colorado River conservation projects.[cxlix] While much of this funding will be spent over the coming years, future increases are possible, with even more grants able to contribute to local projects and lower water rates.

State General Fund and Bond Funds

California has also consistently funded water infrastructure projects through general fund and bond funds. During the previous budget surplus, California created a Water and Drought Resilience Package that included $1.3B for drinking water and wastewater projects, $222M for water recycling and groundwater cleanup, and $20M for urban streams.[cl]

General obligation bonds have also provided significant funding for water infrastructure. Proposition 1 in 2014 provided $7.5B for water infrastructure, including $520M for clean drinking water and wastewater, $100M for urban creeks, $725M for water recycling, and $900M for groundwater cleanup.[cli] 2018's Proposition 68 was a $7.5B bond that included $250M for clean drinking water, $80M for groundwater cleanup, and $290M for groundwater investments that include stormwater capture and water recycling. 2024's Proposition 4 included $610M for clean drinking water, $386M for groundwater projects, $386M for recycling, $75M for water conservation and efficiency, and $110M for stormwater management.[clii] As noted above, state funding is often paired with federal loans to fully fund projects to save ratepayers money while delivering safe drinking water. The bond we propose could help fund the next phase of projects.

Local Measures

Local measures can also fund water infrastructure. A good example is Measure W in Los Angeles County, which created an almost $300M a year fund based on property size. This is a more progressive funding structure than bill increases, which cannot subsidize low-income customers due to Proposition 218. Other local measures and fees can be adopted to invest in water supplies as a method to offset rates or reach beyond the geographic scope of a single water agency.

Responsible Parties

Polluters also can and should pay for cleanup for the damage they cause. Several environmental laws, like the Comprehensive Environmental Response, Compensation, and Liability Act, assign liability and require polluters to clean up contamination. For example, the San Fernando Valley Groundwater Basin is partially paid for by responsible parties, including Honeywell, which is contributing $57M for construction and $8-12M for

operations and maintenance of facilities, and Lockheed Martin, which settled to contribute to the remediation project as well.[cliii] Regulators should continue to hold polluters accountable, rather than subsidize their crimes with ratepayer funds.

Other Benefits of a Water Renaissance

In addition to a drought-proof and stable water supply and more affordable water rates, a Water Renaissance promises multiple other benefits to Southern California Communities.

Disaster Preparedness

California is used to experiencing drought, but investing in local, sustainable water supplies can help drought-proof Southern California. Water saved by conservation and efficiency, or water reused, is entirely drought-proof. Stormwater and imports and stored in clean aquifers for later use can provide any other necessary supplies to ensure droughts can be weathered by Southern California communities.

Flooding would be overall reduced by water resilience. Ecosystem and floodplain restoration in headwaters and the Delta will reduce flooding impacts in those parts of California. Stormwater capture projects will help Southern California reduce local flooding. Releasing ecological flows will also improve flood control by increasing capacity for flood storage.

A common concern is how an earthquake in key parts of the state could cut off imported water supplies. Investing in local supplies would allow Southern California to have sufficient water, should a calamitous earthquake occur, allowing leaders to focus on the communities harmed by the earthquake and not having to address an additional crisis of Southern California without water.

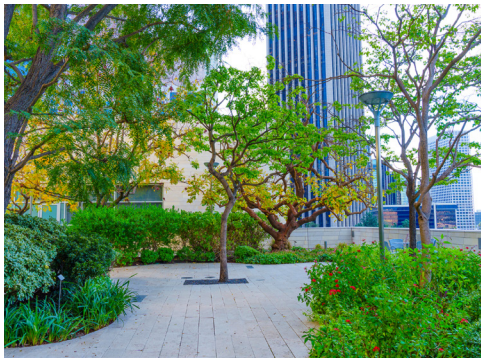
Local Jobs for Local Communities

Local water projects produce local jobs in Southern California communities, including jobs in construction, operation, and maintenance of facilities. In contrast, imported water projects send ratepayer funds to support mainly temporary construction jobs far outside the Southern California region. The Value of Water Campaign found that every $1M of water spent on water infrastructure creates 10 jobs and $1.4M in economic value. Jobs in the water sector pay, on average, $18,537 per year higher than other jobs.[cliv] This means a Water Renaissance could create 60,000 high-paying jobs and over $100B in economic value in Southern California.[clv]

Conservation and efficiency also have significant opportunities for job creation, particularly if direct install programs are created. Creating 1MAF of efficiency would require upgrades to thousands of homes and apartments. Further, local agencies can follow the work of LADWP's energy direct install program, which creates an apprenticeship program whereby installers receive education and training necessary to support more advanced work in the water sector.

Urban Greening and Improved Community Health

Stormwater capture projects provide urban greening benefits that include habitat, aesthetic, recreation, extreme heat mitigation, and even vector control. Small stormwater projects, like bioswales, can replace concrete or other hard surfaces with plants to help green urban spaces. Stormwater capture projects also capture water that would otherwise pool and create mosquito habitat and allow it to quickly infiltrate into the aquifer. Larger projects, like spreading basins, can



and are being designed with community needs in mind by including features like habitat for species and recreational trails for the community to use. Adding more green spaces throughout Southern California, particularly in park-poor communities, can help reduce the urban heat island effect, whereby concrete and other paved surfaces contribute to higher local temperatures.[clvi]

This can help mitigate the effects of extreme heat, which is a driver of harm to communities, particularly low-income and disadvantaged communities, as temperatures rise with climate change.[clvii] In fact, a 2023 UCLA study found that urban greening could add nearly 1 million years of life expectancy to residents in park-poor communities, helping to address the 13-year life expectancy gap between affluent and frontline communities.[clviii] Urban greening, when designed well, can also help improve air quality and reduce noise pollution, particularly in heavily urbanized areas. Greening of schools can offers many benefits as living schoolyards can provide all the benefits identified above, while also being associated with enhanced student performance, mental health, and unique educational opportunities.

Reduced Pollution, Improved Ecological Health, and Greenhouse Gas Mitigation

Urban and stormwater runoff – which carries oils, herbicides and pesticides, heavy metals, bacteria, trash and a host of other toxins untreated to inland and coastal waters – is a leading source of pollution to urban California's waterways. Capturing that runoff so that it can be treated and recharge our aquifers or otherwise reused can greatly enhance the health of our rivers, creeks and ocean. At the same time, large wastewater plants that discharge massive amounts of nutrients into the ocean have been associated with a myriad of negative impacts, including creating habitat compression zones and potentially contributing to HABs and other outbreaks dangerous to wildlife. Treating that wastewater to higher standards to reuse it will reduce overall wastewater discharges, as well as overall nutrient loading, to the ocean.

Further, many components of this plan contribute to greenhouse gas emission mitigation, helping California in its fight against climate change. Peat soils in the Bay-Delta are a significant source of emissions, and preventing oxidation can help prevent those emissions. More local water supplies are generally less energy-intensive than imported water, lowering emissions related to energy consumption. And reducing the heat island effect and increasing urban greening can reduce the need for air conditioning.

Adaptability

Another advantage of focusing resources on local projects and implementation is that it does not lock ratepayers into sinking billions and billions of dollars into one project. Focusing on several methods and projects to create a water supply allows local agencies to tailor solutions to the needs of that agency, without committing to one single project that would likely face cost overruns or oversizing water projects beyond what a community could afford. Water supplies could also come online much faster than projects like Delta Conveyance, allowing for community needs to be met as soon as possible, without waiting for a small increase in imported supplies to become available sometime after 2045, if they are to materialize at all.

Policy Recommendations to Implement a Water Renaissance for California

To implement the vision, the next governor and decision makers must act to empower Southern California to choose local supplies over imported water.

The next governor should:

- **Direct state agencies to end the DCP and enforce instream flow protections for the Delta and its tributaries.**
  The DCP and HRL represent a doubling down on antiquated water supply methods of the past that Californians cannot afford. The next governor must direct DWR to stop work on the DCP and request that the State Water Board reject the HRL approach and return to unimpaired instream flow requirements for the Delta.

- **Consider funding local Water Projects through a large-scale general obligation bond**
  Such a water bond would dramatically improve urban water supply reliability and adaptation to climate change through conservation, efficiency, water recycling, stormwater capture, and groundwater cleanup and storage. The next water bond must also reject wasteful spending on environmentally harmful projects, such as surface storage or other imported water projects.

- **Develop best management practices and regulatory standards to address HABs**
  There is currently no standardized approach or regulatory standard for addressing HABs. The next governor should work to require the State Water Board to develop these practices and standards to protect communities.

- **Require the development of tribal beneficial uses so that tribal uses are recognized and protected in permitting decisions**
  The next Governor should work to direct the State Water Board to develop and designate which tribal beneficial uses, such as subsistence fishing and cultural practices, must be protected and given priority when developing water quality control plans or considering water rights decisions and implement protection of tribal beneficial uses in consultation with tribes.

- **Create a framework for local businesses to fund green infrastructure for stormwater capture**
  Current law requires new development to limit stormwater runoff on a property. However, it may be more efficient to rely on mitigation funds from private developers to build green infrastructure for more regional solutions. The State Water Board should explore pathways to create such projects.

- **Remove the cap on large water recycling projects for receiving loans from the State Revolving Fund**
  Currently, the State Revolving Fund is capped for large projects. This cap should be waived for large water recycling projects that are of critical importance to the state.

- **Direct state officials to ensure Colorado River diversions are appropriately reduced to protect the environment and tribes, and urban water users**
  Currently, there is no established legislative policy and direction to the Colorado River Board as to how to approach Colorado River reductions needed to restore the river. The next governor should direct the Colorado River Board to prioritize environmental sustainability, tribal water rights, protecting disadvantaged communities, and the Salton Sea, to protect the most sustainable and equitable solution for the Colorado River for California communities as reliance on the Colorado is decreased.

- **Reform Proposition 218**
  Proposition 218 is currently a barrier to creating ratepayer assistance programs and tiered rates to support water conservation. The next governor should develop and champion an initiative to empower local agencies to tackle affordability and conservation.

This year, decision makers should also act to support a Water Renaissance for California by supporting policy that would:

- **Fund projects in the Delta to improve flood protection, limit subsidence, restore habitat, and improve water supplies and water quality**
  We need resources to fund common-sense projects that can provide multiple benefits within the Delta and State Water Project to protect communities, adapt to climate change, and save ratepayers from further bill increases.

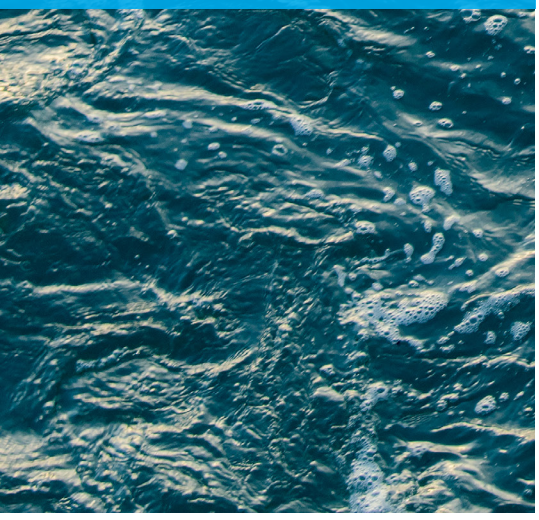
- **Limit water importation projects unless they are demonstrated to be the most affordable and environmentally sustainable solution for a community**
  Local agencies should disclose the ratepayer impacts of large water importation projects before committing that community to that project. Require local agencies to consider local alternatives and limit participation to situations where importation is the most cost-effective and environmentally sustainable solution.

- **Create a state program with Proposition 4 funds to fund direct install programs for efficiency for low-income Californians**
  Proposition 4 included $75M for conservation and requirements to provide direct and meaningful benefits to disadvantaged communities. DWR should be required to set up a grant program for direct install programs with this pot of funds to support small systems serving disadvantaged communities. This should include direct technical assistance to install new appliances, perform leak audits, and turf replacement.

- **Create a low-income water rate assistance program**
  Low-income California families lack ratepayer assistance for water, like there is for other utilities. California must create a fund to help low-income families pay their water bills.

- **Create goals and planning requirements for maximizing use of water recycling for areas reliant on imported water supplies**
  Previous legislation sought to create a goal for maximizing recycled water but failed to make it through the Legislature. This issue should be revived to ensure agencies discharging wastewater into the ocean that rely on imported water are actively planning to recycle all they feasibly can.

A Water Renaissance for California is both feasible and necessary.



Conclusion

The path forward for California's water future is clear: the state must pivot from its antiquated, ecologically damaging, and financially burdensome reliance on massive water import projects and embrace resilient water, focused on local, sustainable, and affordable water supply. For too long, the pursuit of distant water sources—from Mono Lake and the Owens Valley to the Colorado River to the Bay-Delta—has led to environmental collapse, disproportionately impacted disadvantaged communities, and left ratepayers footing ever-increasing bills for diminishing returns.

A Water Renaissance for California is feasible. By committing to 1.8 to 2 MAF of local supply creation in Southern California by 2045, through aggressive conservation, water reuse, stormwater capture, and groundwater cleanup, the region can secure a drought-proof future while dramatically reducing its reliance on vulnerable imported supplies. This shift provides flexibility in the face of climate uncertainty, enables critical ecosystem restoration in the Delta and headwaters, and improves the sustainability and affordability of water for all communities.

Furthermore, investing in resilient water projects generates local, high-skilled jobs, promotes urban greening, and enhances disaster preparedness. By leveraging state and federal funding streams like SRFs, WIFIA, general obligation bonds, and demanding that polluters pay their share, California can finance this transition without placing the full burden solely on ratepayers.

Decision makers must facilitate a Water Renaissance by incentivizing the transition, providing funding, including considering an aggressive water bond, and passing laws to address community needs to improve environmental sustainability, environmental justice, and water affordability.

California has a choice: a future defined by scarcity, debt, and ecological crisis under the old paradigm, or a future of resilience and equity. By making the necessary investments and enacting these key policy reforms, California can secure clean, safe, environmentally sustainable, and affordable water for many generations to come.

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