PACIFIC INSTITUTE

Advancing Corporate Water Stewardship: Insights from the California Experience

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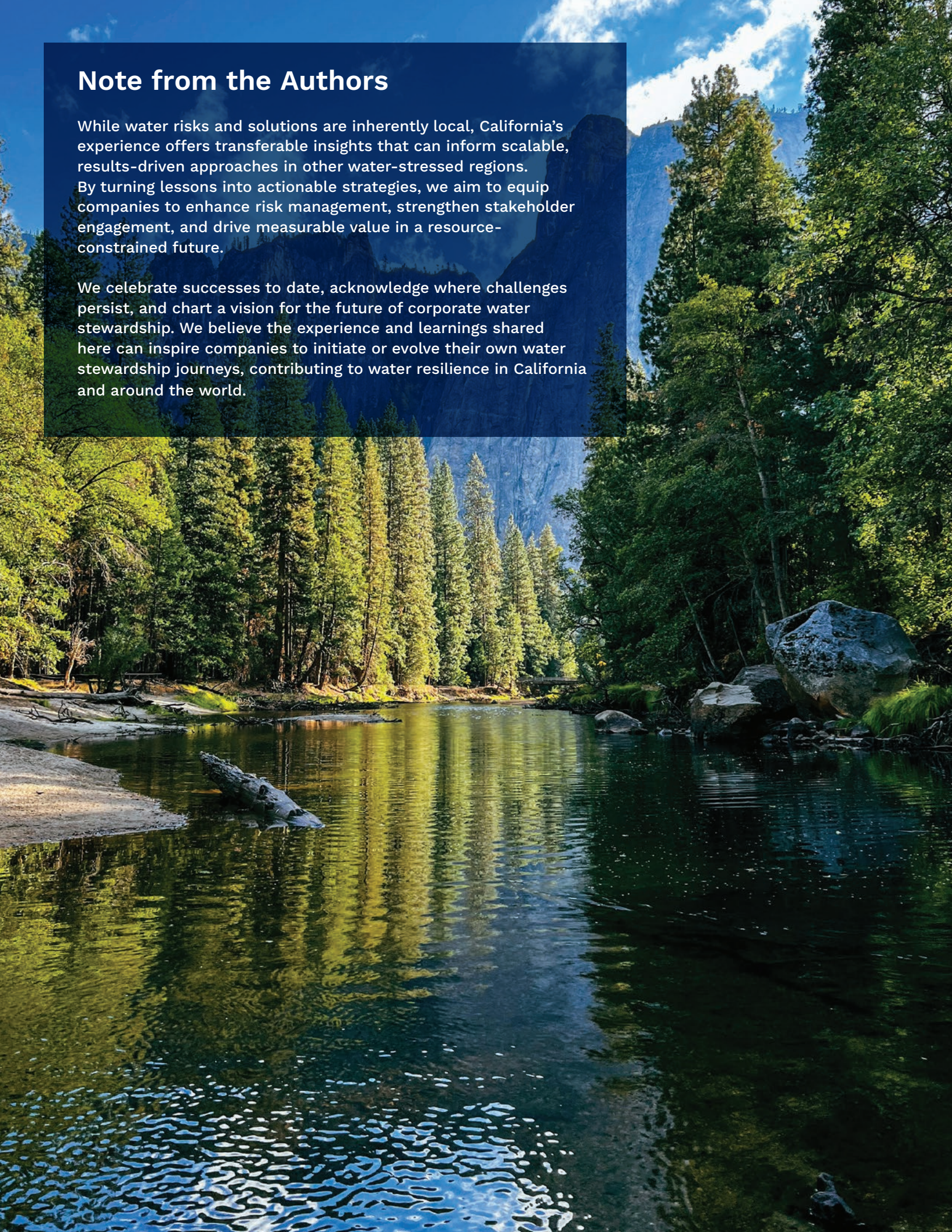

Note from the Authors

While water risks and solutions are inherently local, California's experience offers transferable insights that can inform scalable, results-driven approaches in other water-stressed regions. By turning lessons into actionable strategies, we aim to equip companies to enhance risk management, strengthen stakeholder engagement, and drive measurable value in a resource-constrained future.

We celebrate successes to date, acknowledge where challenges persist, and chart a vision for the future of corporate water stewardship. We believe the experience and learnings shared here can inspire companies to initiate or evolve their own water stewardship journeys, contributing to water resilience in California and around the world.

PACIFIC INSTITUTE

The Pacific Institute is a global water think tank that combines science-based thought leadership with active outreach to influence local, national, and international efforts to develop sustainable water policies. Since 1987, we have worked with everyone from Fortune 500 companies to disenfranchised communities to create and advance solutions to the world's most pressing water challenges. Identifying solutions and developing recommendations is not enough—we must also persuade decision makers to adopt these solutions. At every level, from the halls of Congress to international negotiating tables, we promote effective solutions based on research and analysis. Headquartered in Oakland, California, the Pacific Institute has been a leading voice in shaping a sustainable water future for California for the past four decades.

LIMNOTECH

LimnoTech, established in 1975, is an employee-owned water science and environmental engineering firm. We have a passion for clean, sustainable water and work alongside our clients and partners who share our vision for building thriving ecosystems and better places to live. LimnoTech's science-based body of work and contributions as thought leaders, including co-authoring Volumetric Water Benefit Accounting (VWBA), WASH benefit accounting, and Water Quality Benefit Accounting (WQBA) allow it to help guide corporations through every step of a water stewardship journey. We support our clients with basin diagnostics, water risk assessments and mapping, development of water stewardship strategies, goals and targets, project scoping, decision support tool development, water benefit accounting (VWBA, WQBA, WASH), tracking and reporting, Alliance for Water Stewardship Standard implementation, and CDP water disclosure. The foundation of our work is the common goal of helping to ensure availability and access to clean water for all, protect ecosystems, promote public health, support economic stability, adapt to climate impacts, and foster social equity.

BONNEVILLE ENVIRONMENTAL FOUNDATION

Bonneville Environmental Foundation (BEF) brings together partners across all sectors of society to co-create entrepreneurial solutions that address climate challenges by restoring freshwater ecosystems and catalyzing a renewable energy future for all. BEF's Business For Water Stewardship™ (BWS) program helps businesses work collaboratively with community and policy stakeholders to advance solutions that ensure people, wildlife, economies, and ecosystems have enough clean water to flourish. BWS is a trusted water partner for the world's biggest companies, innovative start-ups, mission-driven B Corps, family foundations, and nonprofit leaders. We provide deep expertise, strategic vision, connections to on-the-ground projects, and innovative solutions to address complex water challenges.

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Key Terms and Acronyms

Corporate water stewardship: An approach that allows companies to identify and manage water-related business risks, understand and mitigate adverse impacts on ecosystems and communities, and contribute to and help enable more sustainable management of shared freshwater resources.

California Water Action Collaborative (CWAC): A California-focused, membership-based collaborative that fosters a community of corporate water stewardship action through peer learning. Launched in 2015, the collaborative has 37 members, both corporations and nongovernmental organizations (NGOs).

California Water Resilience Initiative (CWRI): A time-bound initiative to achieve a quantitative goal through accelerated corporate engagement in California water projects and policy. Launched in 2023, the initiative's goal is to reduce, reuse, and restore 1 million acre-feet per year by 2030.

Net Positive Water Impact (NPWI): An enterprise-level ambition to ensure a water user's contributions toward a healthy basin exceed their impacts, building long-term resilience in water-stressed basins. It requires long-term commitment and input toward quantifiable outcomes. NPWI is structured into three pillars that help define the scale of activities for each site. Each pillar addresses three dimensions of water stress: availability, quality, and accessibility.

Volumetric Water Benefit Accounting (VWBA): A standardized approach for implementing, evaluating, and claiming volumetric water benefits of corporate water stewardship projects.

Volumetric Water Benefits (VWBs): The volume of water resulting from water stewardship activities, relative to a unit of time, that modifies the hydrology in a beneficial way and/or helps reduce shared water challenges.

Volumetric water target: An organizational goal or target to balance a volume of water—often, but not always, equal to or greater than what is consumed or withdrawn by the organization—through interventions in watersheds and communities outside the four walls of the organization. Commonly referred to as a water replenishment or water restoration target.
Water Access, Sanitation, and Hygiene (WASH)

Water Resilience Coalition (WRC): An industry-driven, CEO-led initiative to address the global water crisis. It aims to elevate action on mounting water stress and its connection to climate change to the top of the global corporate agenda. WRC members work to preserve the world's freshwater resources through collective action in water-stressed basins and through ambitious, quantifiable goals. The WRC is an initiative of the CEO Water Mandate between the UN Global Compact and the Pacific Institute.

Introduction

California is one of the most economically vital, socially vibrant, and ecologically diverse regions in the world. It is home to leaders in technological innovation and grows most of the world's nuts and a bounty of fresh produce that feeds millions of people. From its rocky coastlines to its fertile valleys and snowy Sierra peaks, California is renowned for its iconic natural areas. All this vibrancy is dependent on water. California's snowpack, rivers, lakes, and groundwater are critical for growing crops, producing commercial and industrial goods and services, sustaining ecosystems, and supporting domestic water needs for over 39 million residents. Yet, the long-term security of these supplies is at risk.

California has reached, and in many cases exceeded, the physical, economic, ecological, and social limits of traditional water supply options. Rivers are overtapped, and new reservoirs are expensive and offer only modest improvements in water supply. Likewise, groundwater is so severely overdrafted in parts of the state that the ground is sinking beneath our feet. Cities, farms, and ecosystems often compete for scarce water resources. Pressures from climate change, as well as the need to restore degraded ecosystems, have led to concerns over our ability to meet future water demands.

California has reached, and in many cases exceeded, the physical, economic, ecological, and social limits of traditional water supply options.

The Newsom administration has raised the alarm, confirming that California faces a 10 percent water supply gap by 2040 under business-as-usual conditions.[1] The economic cost of this water scarcity is estimated to be over $5 billion per year—and that does not account for indirect costs or the value of ecosystem services.[2] Beyond scarcity, California also contends with interrelated challenges of poor water quality, lack of access to safe drinking water, and freshwater ecosystem decline.

Because of the confluence of economic importance and water stress, California has emerged as a proving ground for corporate water stewardship practices that go beyond their own operations

1 California Natural Resources Agency. 2022. California's Water Supply Strategy. https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf. The projected 10 percent water supply gap is 6–9 million-acre feet, or approximately 2–3 trillion gallons, per year.

2 Lund, Jay, Alvar Escriva-Bou, and Josue Medellin-Azuara. 2025. "Inaction's Economic Cost for California's Water Supply Challenges." https://static1.squarespace.com/static/63ec007a3627f34928961f0e/t/6823d0be4555411ebf128b9d/1747177664250/Economic+Cost+of+Inaction+in+Managing+California+FINAL.pdf. Lund et. al. estimate the economic cost of water scarcity, under a "Likely Future" scenario, to be $858 per acre-foot per year. This includes direct impacts from reduced water supply to agricultural and urban uses. It does not account for the value of water for the environment.

to help address shared water challenges. Leading corporations contribute to projects that restore water for ecosystems and communities across California's diverse geographies. This paper sets out to capture the trajectory of corporate water stewardship, both as a global movement and as on-the-ground action in California.

The paper examines three phases of corporate water stewardship: past, present, and future:

"Past" (2000–2020)—focuses on the drivers and emergence of the corporate water stewardship movement and its early leaders and approaches. It covers the historic California drought that extended from 2012–2016 and spurred the creation of the California Water Action Collaborative (CWAC).

"Present" (2020–2030)—captures the growing momentum and maturity of corporate water stewardship and touches on the benefits and drawbacks of volume-focused goals. It highlights the increasing number of companies setting water targets and investing in projects in California, with growing attention to multibenefits and watershed-scale ambitions. It covers the founding of the California Water Resilience Initiative (CWRI) and its ties to the United Nations Global Compact.

"Future" (2030 and Beyond)—sets forth a positive water vision to strive for. It captures lessons learned from corporate strategies to date and offers three recommendations for how corporate water stewardship can grow and evolve to meet mounting challenges and improve water resilience for businesses, ecosystems, and communities.

The goal of this paper is to inform, inspire, and mobilize the corporate sector to deliver greater positive impact on water in California and beyond. This piece is not a comprehensive compendium of corporate water stewardship; rather, it aims to capture highlights and examples from California to characterize the movement and influence where we go from here.

Past (2000–2020)

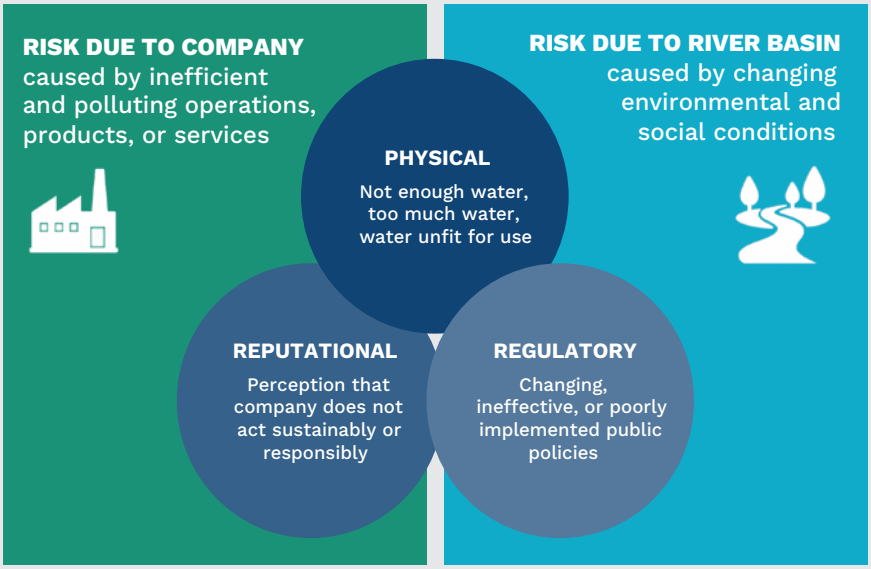
THE GLOBAL PERSPECTIVE: EVOLUTION OF CORPORATE WATER STEWARDSHIP

Leading companies have long recognized the importance of responsible water management in operations, and significant water and cost savings have been realized through enhanced monitoring, efficiency, recycling, and reuse. However, businesses face significant and growing water risks that cannot be resolved solely through operational water management because those risks exist beyond their operations. For this reason, water stewardship must extend beyond internal water management to include engagement outside the fence line through local and watershed-scale collaborative actions that address shared water challenges.

This perspective on corporate water stewardship seems self-evident today, but 20 years ago companies were only beginning to recognize water as a business risk. An early trigger was a major controversy in the early 2000s over water use by a large beverage company in India, where droughts and friction over scarce water resources led to high-profile boycotts and plant closures. During this period, there was growing awareness of global water challenges as population growth, global development, and a changing climate contributed to increased competition for freshwater around the world. By 2015, the World Economic Forum ranked water crises as the top global risk to industry and society over the next decade.

Corporate water stewardship gained significant momentum in the late 2000s and early 2010s, as water scarcity affected corporate operations in key operational and supply-chain regions, regulatory and investor pressures increased, and companies sought to better understand their water-related risks. Numerous organizations developed water accounting and water risk assessment tools, disclosure platforms, a water stewardship standard, and guidance for developing water stewardship strategies and targets. These tools, resources, and platforms helped businesses evaluate water-related risks, develop water strategies, and move toward broader engagement.[3]

3 For a comprehensive summary of corporate water stewardship, see Sojamo, Suvi, and Therese Rudebeck. 2024. "Corporate Engagement in Water Policy and Governance: A Literature Review on Water Stewardship and Water Security." https://www.water-alternatives.org/index.php/alldoc/articles/vol17/v17issue2/757-a17-2-15/file For a searchable database of corporate water stewardship tools and resources, see the CEO Water Mandate's Water Stewardship Toolbox. https://ceowatermandate.org/toolbox/library/



- Water risk includes three categories: physical, reputational, and regulatory (existing regulations, weak regulations, and future regulations).
- Companies can be as effective as possible at managing water within their fence line but still experience water risk due to river basin conditions.
- To address water risks driven by basin conditions, companies cannot act alone. They must act in coordination and collaboration with other water users, water managers, and stakeholders in the basin to solve shared water challenges. Without such collaboration, companies cannot successfully mitigate all three dimensions of risk to their business.

Through greater disclosure and time-bound targets, companies began to make public-facing commitments on water. In 2008, The Coca-Cola Company emerged as the first company to make a global water commitment to "safely return to nature an amount of water equivalent to what we use in all of our beverages and their production."[4] In the ensuing decade, many other companies followed suit, announcing corporate water stewardship strategies and targets.

While there has been diversity in the water stewardship strategies developed by companies, a popular paradigm emerged that focuses on (1) improving operational water management and (2) balancing their water footprint by supporting projects that deliver water benefits in their local and source watersheds. Some companies refer to these volumetric water targets as "water balance" or "replenish" targets; they are typically time-bound, often with a target date of 2030.

By the end of 2020, over 25 corporations across sectors were dedicating significant human and financial resources to support implementation of water stewardship projects around the world.

Companies deliver on these targets by financially supporting, for example, watershed restoration, water efficiency, drinking water access, and groundwater recharge projects.[5] In exchange for these financial contributions, companies claim or report the

4 The Coca-Cola Company. 2008. 2007/2008 Sustainability Review. https://ddd.uab.cat/pub/infsos/47108/isCOCACOLAa2007-08ieng.pdf

5 This is not a full list of projects that qualify for volumetric water benefits (VWBs). For the full list, see the water stewardship activity classifications and examples in Table 1 of Volumetric Water Benefit Accounting 2.0, accessible at https://www.wri.org/research/volumetric-water-benefit-accounting-2-0

resulting volumetric water benefits (VWBs). This concept was formalized in 2019 in the Volumetric Water Benefit Accounting (VWBA) methodology, which has become the go-to guidance for quantifying and claiming VWBs toward corporate targets.

By the end of 2020, over 25 corporations across sectors—including food and beverage, consumer goods, technology, agricultural, pharmaceuticals, energy, and textiles—were dedicating significant human and financial resources to support implementation of water stewardship projects around the world. These companies recognize that their businesses are exposed to risks deriving from watershed conditions outside their direct control. By setting public goals and supporting projects that deliver water benefits, these companies are demonstrating leadership in addressing shared water challenges, which supports their social license to operate and brand value.

Source: © LimnoTech

THE CALIFORNIA STORY: EARLY ACTION SPARKED BY HISTORIC DROUGHT

From 2012 to 2016, a historic drought gripped California, reaching crisis levels in 2014. This was compounded by a long-term drought in the Colorado River Basin, a critical water source for Southern California. The governor declared a state of emergency in 2014, which received global attention and increased scrutiny on large water users. Corporations with a water footprint in California sought ways to address this physical and reputational water risk, sparking the founding of the California Water Action Collaborative (CWAC) in 2015. CWAC brings together corporations and NGOs to pursue projects that improve water security for people, businesses, agriculture, and nature, with support from Ag Innovations, a third-party facilitator. This collaborative recognized water security as a shared challenge requiring a coordinated response.

One of the first tasks of CWAC was to help companies learn about California's water system, understand key water challenges and solutions, and identify and vet projects to support. A key role of CWAC was to help build partnerships and provide a facilitated platform where companies seeking projects could connect with implementing organizations that had projects in need of funding. Early examples included dairy nutrient management and drip irrigation, invasive plant removal, and restoration of hydrologic function in headwater regions of the state.[6] As of 2025, CWAC members have collaborated on over 50 projects across the state, delivering VWBs alongside a range of co-benefits such as ecosystem health, water quality, and community well-being. Beyond on-the-ground projects, California has also been a place to pilot new frameworks and approaches. For example, in 2019, contextual water targets[7]—a precursor to approaches such as Net-Positive Water Impact (NPWI) and Science-based Targets for Freshwater—were pilot-tested in Southern California.[8]

CWAC brings together corporations and NGOs to pursue projects that improve water security for people, businesses, agriculture, and nature, with support from Ag Innovations, a third-party facilitator.

As corporate water stewardship was growing, this was also an important period for public water policy in California. Recognizing the growing scope and scale of water challenges, the state legislature passed a series of bills between 2010 and 2020 aimed at improving long-term water resilience, including the formal recognition of the Human Right to Water in 2012, passage of the Sustainable Groundwater Management Act (SGMA) in 2014, and the "Water Conservation as a California Way of Life" legislation in 2018. These water policy changes were supported by environmental NGOs, both in legislative advocacy and in developing projects to achieve those policy goals.

6 For more detailed information about past and current CWAC projects, visit https://cawateraction.org/projects

7 UN Global Compact CEO Water Mandate, Pacific Institute, CDP, The Nature Conservancy, World Resources Institute, WWF, UNEPDHI Partnership Centre for Water and Environment. 2019. Setting Site Water Targets Informed by Catchment Context: A Guide for Companies. https://ceowatermandate.org/site-water-targets

8 Kammeyer, Cora, Sonali Abraham, and Tien Shiao. 2019. Setting Site Water Targets Informed by Catchment Context, Case Study: Santa Ana River Watershed, California. UN Global Compact CEO Water Mandate and Pacific Institute. https://ceowatermandate.org/site-water-targets/tools/

During this time, Connect the Drops, a program run by Ceres, brought together 35 companies from multiple sectors to promote sustainable water policies.[9] The program facilitated direct corporate engagement in policy through advocacy tools including face-to-face meetings, press conferences, op-eds, sign-on letters of support, and other approaches. Through groups such as CWAC, NGOs had a platform to educate and share on-the-ground project opportunities with companies that aligned with these policy priorities, establishing a pathway for companies to indirectly support water policy goals. Although the Ceres program ended in 2020, both groups helped set the stage for future public-private alignment and collaboration.

These early efforts demonstrated that concerted multi-stakeholder efforts—built on a shared understanding of water challenges and supported by third-party facilitation—deliver measurable environmental and business benefits that help advance corporate water stewardship strategies.

9 Pacific Institute. 2020. "Ceres Connect the Drops Initiative." https://pacinst.org/wp-content/uploads/2020/04/Ceres-Connect-The-Drops.pdf

Present (2020–2030)

THE GLOBAL PERSPECTIVE: GROWING ADOPTION OF VOLUMETRIC WATER TARGETS

In 2020, the world shifted. The coronavirus pandemic brought disruption, exposed vulnerabilities in our economic structures, supply chains, and healthcare systems, and had devastating impacts on millions of people around the world. Yet it also highlighted the importance of working together to solve complex challenges, and water was no exception. In particular, COVID-19 highlighted the criticality of clean water for sanitation and hygiene and reminded many of the importance of nature for their health and well-being.

Climate impacts on water continue to accelerate and drive heightened risks to businesses around the world—droughts, floods, and wildfires increasingly make headlines. Leading companies recognize that the corporate water stewardship movement needs to grow, with more companies committing to impactful goals and building cross-sector collaborations that deliver meaningful impact on water challenges. With this recognition, the Water Resilience Coalition (WRC) was launched in 2020, with ambitious 2030 goals to elevate water on the corporate agenda, deliver water access, sanitation, and hygiene (WASH) to 300 million people, and achieve positive water impact in 100 water-stressed basins around the world.[10]

The early 2020s saw a near doubling in companies setting public water goals, with 21 new companies announcing water stewardship strategies between 2021 and 2024. Most of these strategies are anchored in achieving a volumetric water target by 2030 through action in high-water-stress regions. In pursuit of these targets, we see companies supporting projects to improve water management around the world—from invasive plant removal in South Africa,[11] to leak reduction in Mexico,[12] to improving access to clean water and sanitation services in India,[13] and many others.

As companies gain experience executing their water stewardship programs, there is a growing interest in adopting more integrated approaches, recognizing that water touches everything we care about—from human health, to biodiversity, to energy, and more. In partnership with leading companies, NGOs and consultants are developing new resources that broaden corporate water stewardship approaches. This includes, for example, the WRC's Net-Positive Water Impact (NPWI) ambition across

10 https://ceowatermandate.org/resilience

11 www.nature.org/en-us/about-us/where-we-work/africa/stories-in-africa/nature-based-solutions-could-protect-cape-town-s-water-supply/

12 www.xylem.com/ko-kr/about-xylem/newsroom/press-releases/xylem-and-amazon-partner-on-smart-water-upgrades-to-save-more-than-1.3-billion-liters-annually-in-mexico/

13 www.wateraid.org/us/women-water-collaborative

water quantity, quality, and WASH;[14] Benefit Accounting of Nature-Based Solutions for Watersheds;[15] updated VWBA guidance;[16] Water Quality Benefit Accounting (WQBA); and—soon—Biodiversity Benefit Accounting.[17] These tools and frameworks are being leveraged, even in their draft forms, as companies scope, develop, and execute their corporate water stewardship programs.

> As companies gain experience executing their water stewardship programs, there is a growing interest in adopting more integrated approaches, recognizing that water touches everything we care about—from human health, to biodiversity, to energy, and more.

The expansion of corporate water stewardship goals and programs has led to positive outcomes and projects worth celebrating. At the same time, the strong focus on volumetric water targets within a limited (that is, 2030) time horizon has shown some limitations and unintended consequences. This focus may lead to the prioritization of short-term, transactional interventions that deliver predictable, incremental benefits. Companies are, at present, not well-incentivized to support critical non-volumetric activities, and projects with small volumetric water benefits but significant co-benefits (such as social good and ecosystem health) struggle to compete against "low cost per drop" projects. Global volumetric targets were developed and widely adopted because they provide a simple, single metric to represent a company's commitment to water stewardship. Now, there is growing recognition of the need to support interventions that enable long-term, large-scale positive impact, such as policy engagement, capacity building, early project development, project financing, and bringing together cross-sector partners to generate transformational water solutions.

THE CALIFORNIA STORY: ACCELERATING AMBITIONS AND MATURING COLLABORATIVES

More than 25 corporations with material interests in California are now identifying and supporting a wide range of projects that generate water benefits throughout the state and in other key source watersheds (for example, the Colorado River). Through their engagement, these companies have come to recognize and appreciate the interconnectedness of California's water system. In response, they are expanding the partners they engage with (including Tribes, water utilities, and start-ups) and the types of projects they support. Examples of recent projects include forest and meadow restoration in the Sierra Nevada mountains, floodplain and wetland restoration in the Sacramento Valley, irrigation efficiency and groundwater recharge in the San Joaquin Valley, urban water efficiency in the San Francisco Bay Area and Los Angeles metropolitan area, and irrigation modernization on Tribal farmlands along the lower Colorado River. CWAC, now celebrating its 10-year anniversary with over 30 members, continues to be an important hub for peer learning, cross-sector networking, and project matchmaking. Since 2015, CWAC members have supported more than 50 projects with $11 million in direct and in-kind contributions.[18]

14 https://ceowatermandate.org/resilience/net-positive-water-impact/
15 https://ceowatermandate.org/nbs/
16 https://www.wri.org/research/volumetric-water-benefit-accounting-2-0
17 https://ceowatermandate.org/biodiversity/
18 Snyder, Cora and Chris Hancock. 2025. "California Water Action Collaborative Celebrates 10 Years of Impact." Pacific Institute. pacinst.org/california-water-action-collaborative-celebrates-10-years-of-impact/

URBAN WATER EFFICIENCY WITH SOCIAL IMPACT

The Challenge: Many cities in California have made impressive strides in water conservation and efficiency, helping them meet the demands of residents and businesses in the face of droughts and long-term declines in water availability. However, there remains significant untapped potential for water efficiency, and many cities—such as Los Angeles—have set goals to improve local supply reliability and decrease reliance on imported water. While most water efficiency investments are cost-effective, upfront funding can be a barrier—especially in affordable housing.

Corporate Water Stewardship Solution: To help improve water efficiency for low-income residents, Pacific Institute and BEF developed a project that installed leak-detection technology in over a dozen affordable housing properties across Southern California between 2021 and 2023. BEF facilitated funding from seven companies to make the project possible. The solution reduced water demands at these properties by approximately 11 percent, saving water and reducing utility bills for nonprofit affordable-housing providers. This was one of the first corporate water stewardship projects focused on urban water-use efficiency in California. Due to its success, additional pilots are now underway in Arizona, Texas, and New York.

Learn more: Saving Water, Time, and Money by Fixing Leaks in Affordable Housing

TACKLING LONG-TERM DROUGHT IN THE COLORADO RIVER BASIN WITH TRIBAL PARTNERS

The Challenge: The Colorado River provides critical water supplies for the western United States, and California is its largest user. The river is in a state of crisis, both hydrologically and politically, as aridification and long-term drought shrink available water supplies. This presents a serious risk to businesses with a footprint in southern California in particular.

Corporate Water Stewardship Solution: Between 2019 and 2021, under the leadership of BEF, over a dozen corporations came together to contribute millions of dollars to help shore up water levels in Lake Mead through water-saving agreements with the Colorado River Indian Tribes (CRIT), a major part of Arizona's interstate commitments under the Drought Contingency Plan. This was one of the first corporate water stewardship projects focused on the Colorado River as a source watershed for southern California. This early action has since grown, with CRIT and additional Tribes leveraging corporate support to scale and implement myriad projects on the lower Colorado River, which are on track to conserve tens of thousands of acre-feet, support economic development, and restore resilience to Tribal lands and ecosystems.

Learn more: Major Corporations and Foundations Commit Final Funding to Close Gap in Landmark Colorado River Water Conservation Deal

Despite over a decade of corporate action, communities, ecosystems, and businesses in California still face significant—and growing—water-related risks. Why is this? There are many interconnected reasons, but three central issues stand out:

1. First, **the pace and scale of many water challenges have expanded** more than anticipated. Climate change impacts once expected to emerge later this century are appearing now—record-breaking drought, catastrophic floods, million-acre wildfire complexes, and years with near-nonexistent snowpack. The state government projects that California will face a 10 percent water supply deficit (6–9 million acre-feet per year) by 2040—a mere 15 years away.

2. Second, while a growing movement, **corporate water stewardship remains a drop in the bucket** compared to the scale of expanding water challenges. To date, dozens of companies from a handful of sectors have contributed millions of dollars, generating noteworthy benefits and helping to alleviate some challenges. But improving water resilience for the state and effectively mitigating business risk will require many more companies contributing to strategic, catalytic, and coordinated efforts.

3. Third, achieving **water resilience requires systemic change,** for which progress is often slow and nonlinear. A key lever of systemic change is government action, particularly through public policy. Corporate water stewardship strategies have not typically included policy advocacy or engagement with government agencies on water.

In recognition of this fundamental mismatch between the pace and scale of California's water crisis and the pace and scale of corporate action, the Pacific Institute, Ecolab, and LimnoTech launched the California Water Resilience Initiative (CWRI) in 2023.[19] CWRI was sparked by Governor Newsom's warning of a looming statewide water supply gap and by the ambitions of the WRC to catalyze collective action in 100 Priority Basins, including California.[20, 21]

In recognition of this fundamental mismatch between the pace and scale of California's water crisis and the pace and scale of corporate action, the Pacific Institute, Ecolab, and LimnoTech launched the California Water Resilience Initiative (CWRI) in 2023.

The initiative has set a bold target to reduce, reuse, and restore 1 million acre-feet of water per year by 2030—enough to meet the annual water needs of about three million California households. This target was established by evaluating the 2022 California Water Supply Strategy, which projects a 10 percent water supply gap by 2040 due to hotter, drier conditions driven by climate change. The Strategy lays out priority

19 https://wateractionhub.org/basin-collaborative/california-water/

20 Becker, Rachel. "Newsom unveils long-term strategy to bolster California water supply." CalMatters. August 11. https://calmatters.org/environment/2022/08/newsom-strategy-california-water-supply/

21 CWRI was the first initiative to organize out of the WRC's 100 Basins ambition and is informing the creation of other collaboratives around the world. The official basin on the WRC list is the North Pacific – Sacramento / San Joaquin; CWRI's scope is statewide given the interconnectedness of California's water systems.

actions to adapt and protect water supplies, including water efficiency and conservation, water reuse, and groundwater recharge and storage. CWRI's target is based on the proportion of water used by corporations in California. It represents a collective ambition for the corporate community to do its part in addressing California's shared water challenges.

One of CWRI's first efforts was to calculate progress to date against its 2030 target, tallying the cumulative VWBs of corporate contributions to water projects in California. Between 2022 and 2025, over 400,000 acre-feet of annual VWBs have been achieved through 70 projects supported by 26 companies across the state. Many of these projects are funded through a combination of private and public sources. The estimated volume attributable to corporations —based on their cost-share—is an estimated 33,458 acre-feet per year, just 3 percent of the way toward the 2030 target.

It is clear that CWRI's 2030 target will not be achieved under the current corporate water stewardship model alone—real progress on this goal will require orders of magnitude more innovation, investment, and cross-sector engagement. This is what CWRI seeks to unlock. CWRI is founded on the premise that coordinated action across sectors is needed to achieve water resilience in the face of climate change. While individual actions are important, the complexity of the state's water challenges requires aligning diverse partners to achieve greater impact. To reduce business risk and improve water resilience, we need to increase the pace, scale, and coordination of corporate water stewardship actions, recruit more companies to the movement, and invest in work that can enable systemic change with tenfold leaps in progress.

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Future (2030 and Beyond)

The evidence of a mounting global water crisis is clear, with hotspots located in economically critical regions such as California. Laudable action from a subset of corporations over the past two decades demonstrates a viable and essential pathway to expand and deliver impact. However, businesses cannot be successful if their customers' and employees' taps run dry, if they cannot source crops or minerals due to drought, or if their water supplies are compromised by fire, flood, or aridification. In short, California businesses require—and will thrive on—a predictable, long-term water supply. The authors do not claim to know how to ensure a long-term water supply for California, but as we look to the future, lessons from the field can help companies establish, adapt, and improve programs and contribute to solutions.

A POSITIVE WATER VISION

The authors envision a future where all humans have ready access to clean freshwater, ecosystems thrive in harmony with the built environment, and long-term water supplies meet the needs of businesses and communities. In this future, corporate water stewardship serves as a key driving force that helps achieve and maintain these outcomes.

THE GLOBAL PERSPECTIVE: CHARTING A PATH FORWARD

Below, we offer three recommendations to accelerate the pace and scale of corporate water stewardship actions in pursuit of a water-resilient future:

- **Grow the movement** to include more companies across diverse industries.
- **Evolve strategies** to include more flexible and catalytic approaches.
- **Deepen and expand partnerships** to unlock new opportunities that drive greater impact.

Grow the Movement

There are still many companies with impacts and dependencies on water that are not yet engaged in corporate water stewardship. They may be unaware of this work, uncertain about the business value of taking action on water, or unfamiliar with opportunities to get involved. But water intersects with the business interests of every industry, and participation from a broader and more diverse set of companies is needed to address complex, entrenched, and large-scale water challenges. Over the past decade, a group of first movers has shown what is possible with corporate water stewardship.

Now a second wave of adopters is needed to show that this is not just a passing fad—it is imperative for business.

To grow the movement, more companies need to understand how the global water crisis impacts their business and how they can take action that mitigates risks and contributes to long-term resilience. Some companies will join the movement on their own as they learn from their peers or experience water risk firsthand, and individual champions within industry sectors will spur action. Others will require new resources to enable their engagement, such as accessible entry points, access to expertise and peers, and ways to engage that leverage their core skills and networks.

Evolve Strategies

As companies implement water stewardship programs and gain a better understanding of how water intersects with their business, an evolution toward more contextual and locally relevant approaches is expected. Revitalizing corporate water stewardship strategies to expand the scope of ambition and engagement can provide companies with more flexibility to participate in longer-term, more complex, or early-phase actions (for example, planning, outreach, and financing). Over time, goals and targets should evolve to include more transformative actions that catalyze larger solutions and demonstrate progress.

These evolutions would unlock greater support for:

- **Projects and engagement that drive positive outcomes beyond water quantity—**such as water quality, biodiversity, recreation and cultural resources—that recognize the interconnectedness of water systems and include an enhanced focus on urban projects, which are typically more costly to implement.
- **Targets and funding commitments with longer time horizons** (for example, the 2050 commitment undertaken by WRC members), which would enable greater and more predictable resourcing for water resilience.
- **More robust integration of corporate value chains** (particularly agricultural supply chains) into water stewardship strategies, including supply-chain-specific water targets and the incorporation of water considerations into existing supply chain sustainability and transparency efforts (for example, carbon, human rights, fair labor, and commodity-specific sustainability).
- **Catalytic activities** such as policy engagement and advocacy; customer influence; project development, planning, and design; coalition building and facilitation; and the development of new tools, guidance and resources.
- **Innovative funding and finance models** that increase available capital for water resilience efforts by an order of magnitude, such as market-rate investment funds, impact investing, revolving funds, and coordinated public-private co-funding.[22]

Companies that adapt strategies in these ways will be well-positioned to drive systemic change toward water resilience. These companies can generate greater social and business value, emerge as leaders in the corporate water stewardship space, and influence the next phase of corporate water stewardship.

22 World Resources Institute. 2020. Achieving Abundance: Understanding the Cost of a Sustainable Water Future. https://www.wri.org/research/achieving-abundance-understanding-cost-sustainable-water-future. The report estimates the costs of delivering sustainable water management globally at $1.04 trillion annually from 2015 to 2030.

Deepen and Expand Partnerships

Coordinated action in pursuit of shared goals across sectors is needed to address complex water challenges, leveraging the strengths and influences of different voices and perspectives. Whether it is working bilaterally with solution providers and consultants, collaborating and sharing ideas informally with peers, or participating in structured collaboratives, partnerships are important vehicles for meaningful change. The systemic nature of water challenges, and the reality of water as a shared resource, means that long-term collaboration and coordinated action are necessary to achieve resilience.

Companies are well-positioned to drive action across a diverse set of partners. They can:

- **Nurture and grow existing water-related partnerships** by leveraging existing groups as vehicles for coordinating action, education, and peer learning; enable diverse stakeholders to come together and scale interventions; and build long-term relationships with local, regional and global implementation partners to develop a project pipeline that delivers meaningful impact.
- **Develop or expand partnerships with key groups** by prioritizing relationships with stakeholders central to water management beyond environmental NGOs—including urban water utilities, irrigation districts, tribes, community organizations, local and state government agencies, solution providers, and financial institutions; and build new collaboratives to support action in key sectors or geographies where more support is needed.
- **Elevate water in other partnerships** by incorporating water as a theme or consideration in existing relationships and consortia that are not currently water-focused, such as with suppliers, customers, industry groups, or groups focused on other sustainability topics.

Coordinated action in pursuit of shared goals across sectors is needed to address complex water challenges, leveraging the strengths and influences of different voices and perspectives.

By growing the corporate water stewardship movement, evolving strategies and success metrics, and expanding the partnerships needed to support it, the private sector can accelerate the pace, scale, and impact of action on water.

MOVING FORWARD IN CALIFORNIA

California is one of the most economically vital, socially vibrant, and ecologically diverse regions in the world. Its economy ranks fourth globally and includes a diverse and unparalleled private sector. But the long-term resilience of the water systems that underpin California's economic and ecological vitality is at risk. The state faces mounting water challenges, from more intense storms, longer and hotter droughts, groundwater depletion, snowpack loss, aging infrastructure, and imperiled freshwater ecosystems.

Companies have a key role to play in supporting California's transition to a water-resilient future. **With more companies participating, a revised set of goals and approaches, and strong partnerships and with shared long-term ambitions, the private sector will be a powerful force for enabling this transition.** In California, these shifts can help unlock the following critical pathways for positive change:

- **Aligning corporate action with public policy priorities:** Numerous policies in California aim to address water challenges across geographies and sectors. For example, California's state government has passed legislation and is now requiring/incentivizing nonfunctional turf removal, water efficiency improvements and leak reduction, sustainable groundwater management, expanded water recycling, multibenefit land repurposing, ecosystem restoration, fire resilience and recovery, and the provision of safe drinking water to all Californians. CWRI is helping companies identify and support scalable projects that directly complement or plug into state programs by connecting new project opportunities and building relationships with state agencies to explore opportunities for more programmatic collaboration.

CWRI is helping companies identify and support scalable projects that directly complement or plug into state programs.

- **Driving increased investment in water resilience solutions:** CWRI is exploring innovative funding and finance vehicles that unlock greater capital for projects that deliver water benefits (that is, projects that directly contribute to CWRI's 2030 target and other volumetric targets). The initiative is also building the case for investments in activities that enable long-term improvements in water management, such as streamlining project permitting, improving water data, and performing analyses to determine where and how project implementation can have the greatest impact. The initiative is also working to engage previously untapped or underleveraged business sectors in corporate water stewardship, such as forestry, agriculture, fisheries, private power and water utilities, and industries closely tied to outdoor recreation.
- **Leveraging the corporate voice to elevate water resilience in policymaking and public discourse:** Many companies have the experience and expertise needed to communicate effectively with the public. Raising water on the corporate agenda can unlock these communication resources to create content that resonates with consumers (including voters and policymakers) and influences public policy. Sharing how corporations are a part of the solution will generate goodwill and encourage others (peer companies, governments, and individuals) to take action.

These aims are the driving motivation behind CWRI. The initiative is actively working to bring them to fruition by galvanizing and guiding private-sector action, building public-private partnerships, and creating a roadmap for scaling impact.

CWRI IN ACTION

- **Aligning corporate action with public policy priorities**: The California Department of Conservation (DOC) has a **Multibenefit Land Repurposing Program (MLRP)** that incentivizes agricultural landowners to transition to less water-intensive land uses while maintaining or enhancing social, ecological, and economic benefits. CWRI is working with the program administrators to identify how corporate funding can support this work, either by cost sharing with the DOC or by funding eligible projects that were not selected for DOC funding.

- California's State Water Resources Control Board passed legislation requiring urban water suppliers to establish and meet water conservation targets, including targets for **reducing non-revenue water** (for example, water lost to leaks in the distribution system). CWRI is facilitating connections between water suppliers struggling to reduce non-revenue water and companies that offer technology solutions that address leak loss, and is identifying where corporate support can accelerate adoption.

- **Driving increased investment in water resilience solutions**: The WRC is building a global investment strategy to unlock funding and finance for water and has launched two successful funds to date. CWRI is learning from the WRC investment team to understand opportunities to **apply innovative investment approaches in California.** At the same time, CWRI is building relationships with financial institutions that focus on water and climate issues in California.

  CWRI partnered with McKinsey Consulting to conduct an analysis of companies with material interest in California. The results identify and prioritize companies for recruitment and indicate their likely business drivers for action on water.

- **Leveraging the corporate voice to elevate water resilience in policymaking and public discourse:** CWRI has established productive working relationships with the **leaders of key California state agencies,** including the Department of Water Resources, the State Water Resources Control Board, the Department of Food and Agriculture, the Natural Resources Agency, and the Governor's Office of Business and Economic Development. The CWRI leadership team conducts annual visits to Sacramento to meet with these groups and discuss opportunities for alignment and collaboration.

CWRI is **elevating the profile of corporate water stewardship** and its contributions to California's water resilience through outreach to media, policymakers, and other decision makers. For example, in 2025, CWRI leaders Emilio Tenuta (Ecolab) and Jason Morrison (Pacific Institute) published an opinion piece in the Sacramento Bee on public-private action to address California's water scarcity.[23]

23 Tenuta, Emilio, and Jason Morrison. 2025. "A Public-Private Partnership Might Be the Answer to Address California Water Scarcity." The Sacramento Bee. May 7. https://www.sacbee.com/opinion/op-ed/article305419811.html#storylink=cpy

Conclusion

The past decade of corporate water stewardship in California has demonstrated an increasing urgency to address the state's mounting water challenges. Valuable lessons have been learned, leaders have emerged, and coalitions have been built to advance corporate water stewardship in California and beyond. It has become clear that corporations bring unique attributes that, when deployed strategically, can deliver outsized influence and results.

Experience to date in California shows that corporate leadership in public-private partnerships, innovative financing, and deeper engagement can unlock scalable solutions that often would not advance without private sector leadership. Lessons from California are also informing global efforts to evolve and expand corporate water stewardship to achieve water resilience by elevating water as a global priority and driving place-based action.

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