



# Corporate Water Stewardship Case Studies

*Developed by the Pacific Institute for the Walton Family Foundation*

*April 2020*

This collection of 10 case studies was developed to highlight examples of private sector best practice on water stewardship that are applicable to the Western United States and the Colorado River Basin. These case studies cover a broad array of business sectors – from dairy to technology to spirits, and a wide range of project types –from on-farm irrigation investments to multi-stakeholder policy engagement to innovative financing mechanisms.

All case studies provide a basic overview of the project; the motivations of the project implementers; the challenges, successes, and key insights thus far; and the potential for scaling and replicating the project. Each case study is also “tagged” based on the water stewardship strategy(ies) used, and the element(s) of Sustainable Development Goal 6 on Water and Sanitation (SDG 6) that the project addresses. The water stewardship strategies align with those discussed in the corresponding report for this research project, [\*Scaling Corporate Water Stewardship to Address Water Challenges in the Colorado River Basin\*](#). SDG 6 is used for these case studies because it is the common framework to which corporations align their water stewardship goals.

The information for these case studies was gathered through phone interviews with representatives from the companies and organizations involved in the project. Special thanks to the following people who graciously agreed to be interviewed and provided refining edits as the case studies were created:

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Diane Herndon, Nestlé Purina  
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Ryan Flaherty, Sustainable Conservation  
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Gregory Mimms, Xylem  
Samir Patel, Xylem

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# Central Nebraska Irrigation Project

## WHO

Project Lead: The Nature Conservancy

Collaborators: Cargill, Nestlé Purina



## WHAT

In 2018, Cargill, Nestlé Purina, and The Nature Conservancy (TNC) launched a three-year farmer-led program in Nebraska to improve water conservation, water quality, and soil health in the beef supply chain by focusing in the area where water is used most – to irrigate row crops used for cattle feed. The project aims to build resilience to drought in an important agricultural region by providing Nebraska farmers with a technology tool pack to help them be more efficient with irrigation, while also reducing labor time. Sensors record real-time field conditions by collecting hourly measurements on crop health and climate. Through Internet of Things (IoT) technology, farmers can control irrigation systems remotely. This program is expected to reduce water use in the beef supply chain, saving an estimated 2.4 billion gallons of irrigation water over three years.

## WHY

More than 50 percent of the water used in US beef production is associated with irrigating row crop feedstock; for companies like Cargill and Nestlé Purina, this is an area of opportunity to advance water sustainability in their beef supply chains. In Nebraska, water for crop irrigation is drawn from the Ogallala Aquifer, the largest known aquifer on Earth and the main water supply for people in the High Plains region. The aquifer is replenished naturally by rainwater, and this program aims to alleviate potential water scarcity challenges by increasing efficiency and reducing the amount of water drawn for irrigation. Farmers are incentivized to participate not only because the project offers free technology and training, but also because the irrigation technology saves them time (remote management of irrigation systems from mobile devices) and money (lower groundwater pumping costs).

## WHERE



*Nebraska was chosen for this program because it contains the largest share of irrigated acres in the USA and the second largest of cattle population.*



*The idea for this program was born out of the Midwest Row Crop Collaborative, a multi-stakeholder group advancing water stewardship in key agricultural states. Both Cargill and The Nature Conservancy are founding members of the group.*

**For more information visit:**

**[cargill.com/2018/the-nature-conservancy-teams-with-nestle-purina-and-cargill](http://cargill.com/2018/the-nature-conservancy-teams-with-nestle-purina-and-cargill)**

## CHALLENGES

**Business:** Unlike other industries, the beef supply chain is not vertically integrated, with different businesses — including hundreds of thousands of independently-owned farms, ranches, and feed yards — operating at several stages of production from crop growing and cattle care to cattle feeding to meatpacking. It is therefore challenging for a company with a beef supply chain to identify specific farmers who are growing the feed for cattle and engage with them directly.

**Logistics:** Data collection required for concept testing was hindered by a prolonged wet period in 2019, so the program will run for four years to collect the data needed to demonstrate the full results of a three-year program.

## SUCCESSSES

- The adoption of technology by farmers was facilitated by TNC. The organization hosted community events, one-on-one trainings, and working sessions that facilitated learning by bringing together farmers, agriculture experts and tech providers.
- Farmers have achieved on average 15 percent more efficient water use, equivalent to saving 100 million gallons.
- Farmers are saving time and energy costs due to smarter water pumping enabled through the new technology.

## KEY INSIGHTS

- TNC and Cargill leveraged existing relationships with farmers, which has been critical to the viability of the program. The group also engaged the Central Platte Natural Resources District, which helps manage the natural resources along the Platte River by working closely with farmers in the area, offering additional connection into the community. In addition, past pilots led by TNC in Western Nebraska helped demonstrate the effectiveness of this approach.
- One-on-one trainings and community events organized and led by TNC helped engage farmers to facilitate the uptake of new technology. The support (financial and technology) from the project's private sector partners made this possible.

## SCALING & REPLICATING

Scaling and organic growth of the program is enabled by building relationships with farmers on the ground and encouraging peer-to-peer learning and knowledge share. This kind of program could potentially expand into other arid states in which farmers use pivot irrigation and rely on groundwater.

## TAGS

### Stewardship Strategies

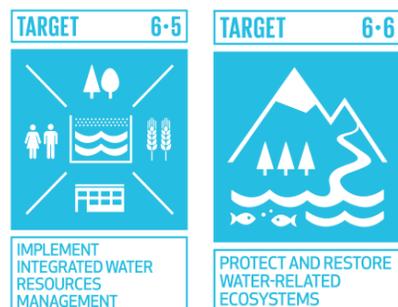
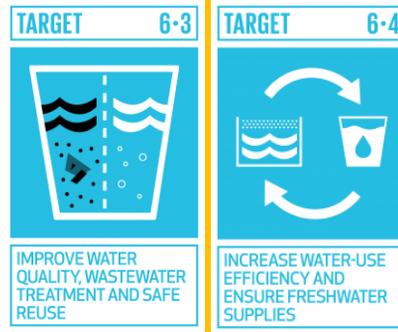
Water Management  
in Direct Operations

Value Chain  
Engagement

Collaboration at  
Watershed Level

Nexus Approaches

### SDG 6 Targets



# Ceres Connect the Drops Initiative

## WHO



Project Lead: Ceres

Members: ABInBev, Adobe, Annie's, Autodesk, Ben&Jerry, Burton, Channel Islands, Clif, Danone N.A., Dignity Health, Driscoll's, Eileen Fischer, Fetzer Vineyards, Gap Inc., Genentech, General Mills, Hilton, Kaiser Permanente, KB Home, Kellogg's, Kohler, Levi Strauss & Co., PepsiCo, Qualcomm, SFO, Seventh Generation, Sierra Nevada, Squaw Valley Alpine Meadows, Symantec, Target, The Coca Cola Company, The North Face, Vans, VMWare, Xylem.

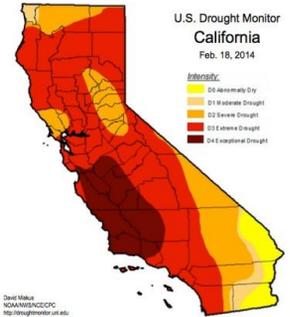
## WHAT

The Ceres Connect the Drops initiative brings together 35 companies from multiple sectors including food and beverage, apparel, tech, and others, which have strong leadership in corporate water stewardship. By leveraging its expertise in water issues and policy, Ceres helps businesses to identify potential policy engagement opportunities that would drive water sustainability in California. Ceres facilitates policy engagement through advocacy tools, including face-to-face meetings, press conferences, OpEds, sign-on letters of support, and other approaches. The initiative promotes stronger policies that address water conservation and efficiency; water reuse; stormwater capture, use, and recharge; sustainable groundwater management; and funding for smart water projects in California.

## WHY

In California, water issues are exacerbated by climate change, resulting in prolonged periods of drought followed by excessive rainfall. Water scarcity creates a material issue for many businesses dependent on water resources in the state, through operations, supply chains, and customers. This initiative is bringing the business voice to Sacramento, the state's capitol, to remove barriers to and accelerate adoption of improved water management practices for California.

## WHERE



## California

*The state of California faces many water challenges, which are worsening due to climate change. It is also a critical economic region for many companies.*

### It's time for California to Connect The Drops

Water is the lifeblood of California. It is central to our communities, our economy and our natural resources. Our state is blessed with world-class innovation and talent, bountiful farmland, and diverse wildlife. Yet today, the water supplies that sustain these essential resources are in jeopardy. We cannot risk our state's economic future by relying on outdated water management practices, policies and infrastructure. Now is the time for fresh thinking, shared purpose and bold solutions to build a resilient water future for all Californians. And it is incumbent on us—the business community—to help lead the way. It's time to come together. To connect the drops. Between flowing rivers and economic opportunity. Between saving water and saving energy. Between clean water and healthy people. By embracing innovation and investing in smart policies and solutions that help us conserve, reuse and maximize our water supply. California has made progress—but much more can be done. We can be more water efficient. We can do more to replenish our rivers and aquifers. And we can do it while strengthening the communities and industries that make our economy strong. But we cannot do it alone.

Come and join us.



*The centerpiece of the Ceres Connect the Drops initiative is a declaration signed by the business members that advocate for sustainable water management in California.*

For more information visit: <https://www.ceres.org/initiatives/connect-the-drops>

## CHALLENGES

- **Engaging policy makers:** State policy makers have many competing priorities and issues to address. Drawing the attention of these policy makers to water issues, especially when the state is not in a drought, can be difficult.
- **Engaging businesses:** Companies similarly have many competing priorities, of which water is only one. As such, it can be challenging to keep companies engaged and meaningfully involved in the collective action efforts of the initiative.

## SUCCESSSES

- Connect the Drops is increasing the visibility of businesses speaking out for sustainable solutions in California water policy. The business voice is often seen as less progressive or seeking to impede environmental policies, but this group is sending a message to policy makers that companies want to see sustainable water management and policy that supports that.
- The advocacy and engagement of Connect the Drops corporate members contributed to the passage of Water Use Efficiency Bills AB 1668 and SB 606, the Open and Transparent Water Data Act (AB 1755), the Safe and Affordable Drinking Water Fund (SB 200), and others.

## KEY INSIGHTS

- It takes significant times and resources to keep companies engaged and interested in the initiative. It is important to maintain consistent and persistent contact and keep companies excited about the work.
- Because a multi-sector, unified, constructive business voice is often absent from policy-making processes, this initiative plays a crucial role in helping to make businesses share their water stewardship stories and vocalize why it is important to move thoughtful water policy forward. Leveraging the power of collective action and bringing together 35 companies helps make their agenda more visible and credible.

## SCALING & REPLICATING

Connect the Drops started with seven company signatories and quickly scaled to 35 by educating companies around the importance of public policy engagement. Ongoing recognition of member companies' efforts and successes inspires peers to take action as well. Connect the Drops is also coordinating with the California Water Action Collaborative to identify policy barriers to innovative water projects that should be addressed. Lastly, there is growing interest and potential to bring the Connect the Drops model to other states and regions facing water challenges.

## TAGS

### Stewardship Strategies

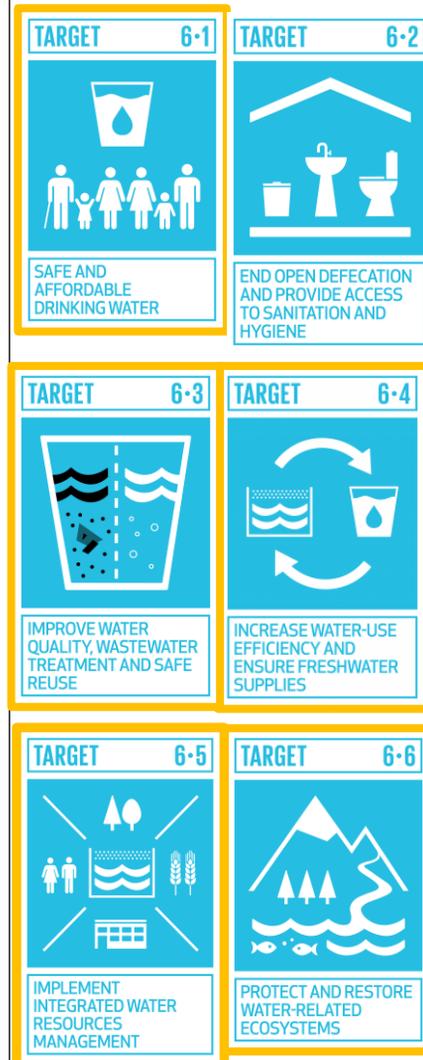
Water Management  
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at Watershed Scale

Nexus Approaches

### SDG 6 Targets



# Diageo Water Blueprint

## WHO

### DIAGEO

Project Lead: Diageo

Collaborators: CEO Water Mandate, Beverage Industry Environment Roundtable, Alliance for Water Stewardship, WaterAid, Gap Inc., Unilever, HSBC.

## WHAT

The Diageo Water Blueprint lays out a roadmap for the company to address water challenges across four key areas:

**1. Sourcing.** Diageo works closely with its suppliers to reduce water impacts in its supply chain by providing tools for its suppliers, improving water efficiency in its third-party operations, ensuring water stewardship on its owned agricultural lands, and sourcing drought-tolerant agricultural materials in water-stressed areas.

**2. Production.** Diageo set a target to safely return 100% of water consumed its operations back to the catchment from which the water was withdrawn. The company engages with the CEO Water Mandate, the Beverage Industry Environment Roundtable, and the Alliance for Water Stewardship to set a water targets informed by priorities for local catchments.

**3. Communities.** For over a decade, Diageo has had a program to support adequate access to safe water, sanitation, and hygiene (WASH) for communities in the water-stressed areas where the company operates, particularly Africa and India. Collaborating with WaterAid, Gap Inc., Unilever, and HSBC, Diageo is working to quantify the financial benefits of providing WASH in local communities.

**4. Advocacy.** Global and local advocacy is an important part of Diageo's water strategy. Diageo engages in local and international collaborative efforts to address the water crisis.

## WHY

As a beverage company, Diageo uses significant amounts of water in its production, from growing raw materials to manufacturing operations to producing beverages. With its international reach across 150+ facilities in 30 countries, Diageo leverages its scale to address water issues in direct operations, supply chains, and local communities.

## WHERE



*Diageo completed a water risk assessment of owned sites located in water-stressed areas, which account for approximately one third of its global production volume. The water-stressed sites are predominantly in Eastern Africa and India.*



*Diageo's Water Blueprint lays out a roadmap for the company to reduce its water use and address global water challenges along its value chain, focusing on sourcing, production, local communities, and advocacy.*

## CHALLENGES

- **Financial:** It can be challenging to make a financial case for water-related capital investments and identify projects that have a strong ROI.
- **Partnerships:** For water replenishment and WASH initiatives, it can be difficult to find the right implementation partner who can deliver the project efficiently and meet defined project specifications. It can also be difficult to find collaborators to take on collective catchment-based water stewardship, as this requires getting stakeholder alignment on objectives for the catchment.
- **Communication:** Local advocacy can be a challenge, as it can be difficult to engage with local governments and advocate for more public investment in water-related initiatives.
- **Impact measurement:** Due to some loose definitions of water stewardship and related activities, it can be hard to select the right metrics, track and measure impact of water-related projects.

## SUCCESSSES

- In 2019, Diageo replenished 60% of the water used in final product in water-stressed areas. A significant proportion of this has been in India and East Africa through WASH, aquifer recharge and other replenishment activities.
- With its history of strong commitments and meaningful engagement, Diageo has established itself as global corporate water stewardship leader. For example, the company now requires 100% of operations and production sites worldwide to report water-related metrics.

## KEY INSIGHTS

- Partnerships are key to establishing successful water replenishment programs. It is important to identify and build relationships with an intermediary organization which has developed expertise and network in the field.
- To set up an impactful water stewardship project, there must be a consistent, methodical, feasible, and robust approach to ensure smooth implementation. It's critical to develop numerical targets to track and measure impact.
- Excellence in water management is often indicative of strong overall management of a production unit or facility.

## SCALING & REPLICATING

Scaling and replication of projects, strategies, and ideas is facilitated through collaboration and peer-to-peer learning in platforms like the CEO Water Mandate and the Beverage Industry Environment Roundtable (BIER).

## TAGS

### Stewardship Strategies

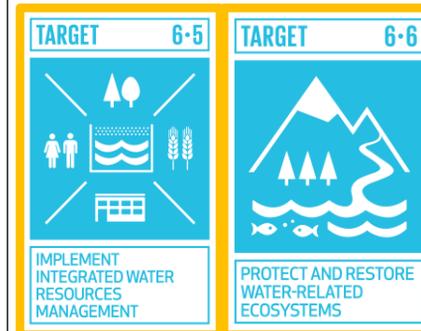
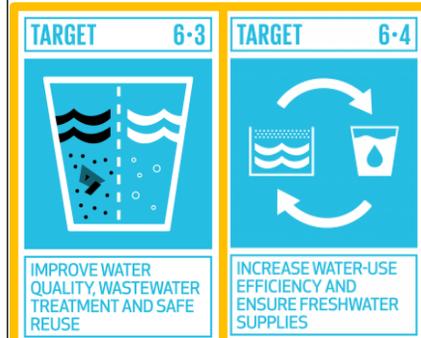
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# Ecolab Smart Water Tools for Business Decision Making

## WHO



Project Lead: Ecolab  
Collaborators: CEO Water Mandate, Pacific Institute, Alliance for Water Stewardship, World Resources Institute, The Nature Conservancy, Trucost, Microsoft.

## WHAT

In addition to its role as the global leader in water, hygiene and energy technologies, Ecolab has developed tools to help businesses drive water stewardship performance in their own operations. Ecolab's Smart Water Navigator and Water Risk Monetizer enable companies to map out a plan to become "water-smart." The Smart Water Navigator allows companies to sort individual facilities by water-stress level and water management performance, helping companies prioritize sites for investment in water-saving solutions. Using a benchmarking function, companies can compare their facilities to industry peers on a Water Maturity Curve and access industry- and location-specific guidance on leading water practices. The Water Risk Monetizer incorporates financial modeling that helps businesses understand the impact of water quantity and quality on their operations and factor water risks into their decision making.

## WHY

It has become increasingly crucial for businesses to rethink the way water is valued and to take action. Although companies are increasingly setting ambitious water reduction goals and publicly disclosing their water related information, water withdrawal is continuing to increase globally, and water related risks are become more prominent. A survey conducted by Ecolab and GreenBiz identified that although 75% of reporting companies set water reduction targets, 82% lacked the tools to achieve them. Ecolab's tools and solutions to help businesses take action to achieve their water reduction goals.



*Using the Water Risk Monetizer, businesses can understand the full value of water to their operations and incorporate risk-adjusted water costs into facility budgets, financial projections, business scenarios, project proposals, and other business decisions.*



*Using the Smart Water Navigator, businesses can take an assessment, informed by leading water stewardship experts, to see how their facilities are performing compared to industry-leading water management practices on a Water Maturity Curve.*

For more information visit: <https://www.ecolab.com/sustainability/>

## CHALLENGES

- **Economic barrier:** The value of water is difficult to quantify as different sectors conceptualize and describe its value differently (e.g. private sector vs. public sector vs local communities).
- **Social barrier:** Changing mindsets and increasing accountability around water management across an organization is key to driving water saving behavior, and changing norms and behaviors can be challenging.
- **Governance barrier:** Water is a shared resource but is often managed in silos. Breaking the silos and driving water stewardship beyond the fence line requires coordination and agreement across multiple stakeholders.

## SUCCESSSES

- In 2018, Ecolab helped its customers worldwide to conserve more than 188 billion gallons of water, equivalent to the annual drinking water needs of 650 million people.
- Ecolab has been a leader in the corporate water stewardship space for over a decade, including being a founding member of the Alliance for Water Stewardship (AWS). Through leadership and collaboration, they have established themselves as a leading voice on the relationship between industry and water.

## KEY INSIGHTS

- Ecolab's expertise in water technology and solutions highlighted an opportunity to help businesses rethink the way they use and manage water, incorporating into business strategy.
- Climate change connects to the world's water challenges. Businesses need to take action to develop strategic water management practices.

## SCALING & REPLICATING

Ecolab scales the adoption of its water tools by incorporating more water-related variables into the tools and keeping the tools constantly up-to-date, to ensure their applicability for a broad array of users. Ecolab sees an opportunity to replicate successful water practices by bridging public and private sectors and addressing water challenges in the context of climate-related risks.

## TAGS

### Stewardship Strategies

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# Feed Crop Irrigation & Nutrient Efficiency for California Dairies

## WHO

Project Lead: Sustainable Conservation

Partners: Netafim USA, USDA Natural Resource Conservation Service, De Jager Dairy North, Mike McRee Dairy, Western United Dairymen, University of California Cooperative Extension, General Mills Foundation, Nestle USA, Bonneville Environmental Foundation.

## WHAT

Sustainable Conservation and its partners have developed and demonstrated an innovative drip irrigation system that reduces water use, nutrient use, and GHG emissions while growing quality feed crops for dairy cows. Manure (nutrients) is collected from the cow barn into a lagoon, and from there is mixed with water and then applied via buried drip irrigation to the feed crops. This water-efficient technology targets water and manure directly to crop root zones in monitored quantities to better meet crop demand. A successful pilot ran from 2014-2016, and the system was demonstrated on dairies across the San Joaquin Valley from 2017-2019 through a USDA Natural Resource Conservation Service Conservation Innovation Grant. The partners are now scaling adoption through outreach, guidance, and incentives – such as cost-share funding from NRCS' Environmental Quality Incentive Program (EQIP).

## WHY

About 85% of California's 1.7 million cows are in the San Joaquin Valley, where current manure management on farms contributes to declining groundwater quality. Water availability in the region is also increasingly volatile. In response, the project was started to develop, prove, and scale a solution that enables dairy producers to use their manure nutrients with drip irrigation instead of flood irrigation. In doing so, dairies can ensure crop yield and quality while reducing use of water, risk of nitrate leaching, and nitrous oxide emissions. The technology makes business sense for many California dairies and results in multiple environmental benefits.

## WHERE



### San Joaquin Valley, California

The majority of California's agricultural production, including dairy farms, is concentrated in the San Joaquin Valley.



*This project is one of ten in the California Water Action Collaborative project portfolio.*

**For more about this project visit:** <https://suscon.org/project/managing-dairy-manure/>

## CHALLENGES

- **Social:** This project modifies operational and cultural norms on a dairy farm; farmers can be wary of adopting new practices until they are proven and have been accepted by a substantial group of first movers.
- **Financial:** Dairies are struggling financially with limited capital available to make large on-farm investments, and there are many needed investments to choose from each year.
- **Policy:** There are currently few incentives available for innovation and improvement in nutrient management.
- **Communication:** It takes a lot of time to build relationships and communicate with farmers, dairymen, and other stakeholders to gain buy-in for new solutions. This can be compound by the “social” challenge mentioned above.

## SUCCESSSES

- Since development in 2014, the technology has operated successfully on multiple dairies with distinct characteristics.
- Pilot results: +14% crop yield, -48% water application, -70% irrigation-related GHG emissions. Recent (median): +2% crop yield, -36% water application, -45% nitrogen application.
- As a result of the project, the system is now eligible for NRCS' EQIP cost share program. NRCS California is currently providing up to about 80% EQIP cost share.

## KEY INSIGHTS

- Dairies are complex systems with multiple benefits and tradeoffs possible. Solutions are more effective when they address multiple needs versus one issue.
- Market and government incentives send signals to dairies on where to prioritize their efforts. If customers, brands, regulators, and policy-makers were incentivizing improved nutrient management, such as adoption of this technology, it would better motivate solving the problem.
- Increased early support of innovations that enhance the sustainability of dairy and reduce local impacts to communities is needed, especially from companies with dairy in their supply chain who have the most to benefit.

## SCALING & REPLICATING

Sustainable Conservation and its partners are currently scaling adoption of this system in California and in other regions facing similar issues. Farmer support and incentives, such as the USDA Natural Resource Conservation Service's Environmental Quality Incentive Program (EQIP), are critical for scaling.

## TAGS

### Stewardship Strategies

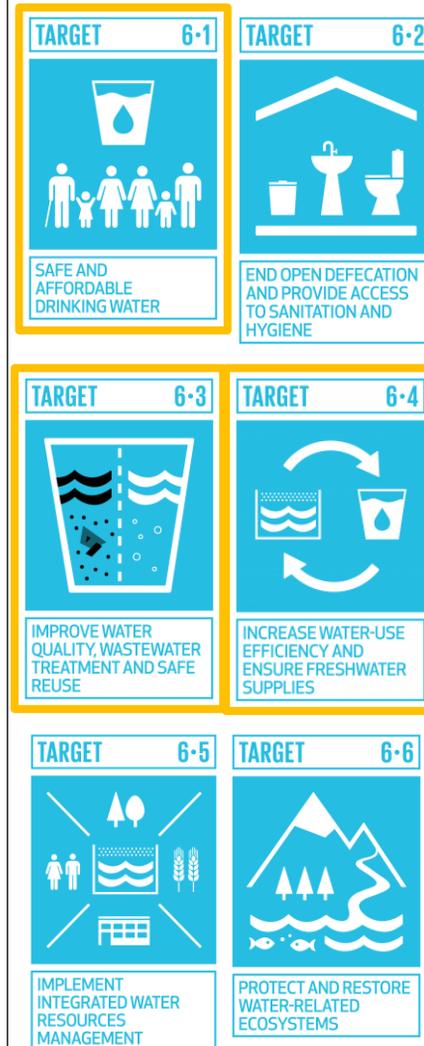
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# Intel's Corporate Water Stewardship Strategy

## WHO



In implementing their corporate water stewardship strategy, Intel works with organizations such as Bonneville Environmental Foundation, LimnoTech, The Nature Conservancy, and others.

## WHAT

Intel was the first large technology corporation to adopt a comprehensive water stewardship strategy and associated targets. Their three-pronged approach includes:

1. **Conservation of water in operations:** To reduce water used in manufacturing, Intel is investing in water efficiency and using reclaimed water purchased from municipalities.
2. **Creating technology solutions to enable others to rethink ways they use and conserve water:** Intel is leveraging the potential of its Internet of Things (IoT) business to facilitate water conservation and efficiency in other businesses and operations as well as their own.
3. **Collaboration on water initiatives with communities:** Intel is the first tech company to announce a public water goal to restore 100% of its global freshwater consumption by 2025. The goal is based on closing the gap in the company-wide water balance by funding a portfolio of projects in local watersheds. As of January 2020, Intel has made significant progress toward its goal and has funded 21 projects that are estimated to restore more than 1.6 billions gallons of water each year once complete.

## WHY

Manufacturing computer chips and hardware is water-intensive, and many of Intel's facilities are in water scarce regions, which makes water a material issue for the company. Intel seeks to reduce business risk, and support the communities in which they operate, by practicing corporate water stewardship. The company also aims to influence peer companies to set similarly ambitious water targets, acknowledging the need for collaborative action to address the water challenges they face.

## WHERE



*Intel's operations in Arizona are one of the company's largest water users globally. To address water risks, the company has supported 11 water restoration projects that benefit Arizona's water resources.*



*One of Intel's water restoration projects in Colorado is supporting the conversion of alfalfa crops to low-water use pasture grasses and irrigation efficiency improvements to reduce water diversion from the Colorado River.*

## CHALLENGES

- **Finding partnerships:** It can be difficult to find the right watershed conservation projects and on-the-ground partners that will meet Intel's objectives towards fulfilling its corporate water restoration commitments. This has been especially true for projects outside of the United States.
- **Impact measurement:** There is a lack of common understanding around water stewardship terms like "water neutral" and "replenish." Companies must self-define their water goals and select impact metrics. Because of this lack of common definitions and metrics, companies can struggle to defensibly measure and demonstrate their impact.
- **Communication:** Related to impact measurement, it can be difficult to communicate water stewardship outcomes when there is not a common language for doing so.

## SUCCESSSES

- Intel's water conservation projects supporting source watersheds have saved over 60 billion gallons of water over the last two decades.
- Intel is developing leadership in corporate water stewardship, sparking and accelerating action by others in the sector and developing new collaborations with peer companies.

## KEY INSIGHTS

- Partnerships are key to making any progress on watershed conservation projects. It is important to identify and build relationships with an intermediary organization with expertise and relationship in the field. For example, working with the Bonneville Environmental Foundation (BEF) has helped to facilitate engagement with NGOs and navigate different ways of approaching projects.
- Internal buy-in and commitment is very important to achieving water conservation in operations. Intel has teams embedded in operations across the company to develop and advance leadership for water use efficiency.

## SCALING & REPLICATING

For successful scaling of the number and impact of water stewardship projects, multistakeholder groups such as the California Water Action Collaborative (CWAC) are needed for every region to help develop partnerships and catalyze action. The lack of these platforms in regions where Intel would like to engage is slowing efforts to scale there.

## TAGS

### Stewardship Strategies

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in Direct Operations

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# P&G's Holistic Water Stewardship Approach

## WHO



Procter & Gamble is working with several partners to implement their water stewardship approach. The World Resources Institute (WRI), the World Wildlife Fund (WWF), and ERM.

## WHAT

Building on over a decade of focus on operational water efficiency, P&G is now working towards a holistic water stewardship strategy throughout its value chain. An evaluation of water risks across the life cycle of its products (see sidebar) helped P&G select 18 priority river basins across seven countries, including the United States, Mexico, China, India, Turkey, Spain, and Saudi Arabia.

Relying on expertise and guidance from its NGO partners and other basin stakeholders, P&G is developing 2020-2030 roadmap for each priority river basin. For example, P&G has already started engaging the top 25 percent of its suppliers by total spend, requesting information on their water use, risks, and management. This helps identify key suppliers with whom to partner on collaborative water management and stewardship projects. P&G is also engaging its consumers through product innovation.

## WHY

Water is an essential part of the use and making of P&G products and ingredients. The company also recognizes safe and clean drinking water and sanitation as a fundamental human right. This has led to water playing an important role in the company's Ambition 2030 Sustainability Goals.

## P&G Water Risk

### Assessment Framework

To screen and prioritize its high-risk river basins, where facilities, suppliers, and consumers are most exposed to water risks, P&G used the following risk assessment framework:

**Screening supplier locations and in-depth assessment across consumer markets**

### P&G site water risk screening

Identify water risk level of site:

- Baseline water score (WRI)
- Gross national income per capita (World Bank)
- P&G site water use per year (P&G)
- Access to water (WHO/UNICEF)

### P&G tailored site questionnaire

Prioritize sites based on outcomes of responses:

- P&G questionnaire was built upon the facility questionnaire in WWF's Water Risk Filter

### In-depth site water analysis

Prioritize risks for mitigation and develop site water stewardship plans:

- Alliance for Water Stewardship International Water Stewardship Standard 1.0 steps 1-3

## CHALLENGES

After decades of focusing internally on water efficiency, expanding the facility manager's focus to basin stewardship required engagement, education, and technical support. P&G addressed these barriers by engaging company leadership to highlight the importance of water stewardship, partnering facility water leaders with external water experts to identify basin risks and opportunities, and fostering transparent conversations throughout the process.

## SUCCESSSES

- In under a year, P&G implemented steps 1-3 of the AWS Standard 1.0 at half their facilities exposed to high water risk.
- As P&G facilities completed their AWS action plans, they adopted a more holistic approach to water management and understood its importance beyond the facility fence line.
- P&G has exceeded its 2020 goal of 20% water reduction per unit of production versus the 2010 baseline year.

## KEY INSIGHTS

- For large companies owning and managing numerous sites and competing in several consumer markets, it is essential to find an effective yet efficient way to prioritize time and resources to implement water stewardship.
- It is important to connect water-related and other sustainability activities to business objectives. Obtaining buy-in from senior management help scale the adoption water and sustainability strategies and, as a result, create a greater positive impact.

## SCALING & REPLICATING

P&G continues to grow its water stewardship efforts within its own company - over the next 10 years they will focus efforts on the 18 basins identified as having the highest water risk.

Scaling and replication of P&G's water stewardship practices in other companies can be facilitated through peer learning and knowledge sharing. In addition, all companies can leverage the availability of open-source water risk assessment tools, such as WRI's Aqueduct Water Risk Atlas, for a rapid identification of risk exposure of their assets and operations, their suppliers, and customers. This helps inform meaningful water stewardship action across basins around the world.

## TAGS

### Stewardship Strategies

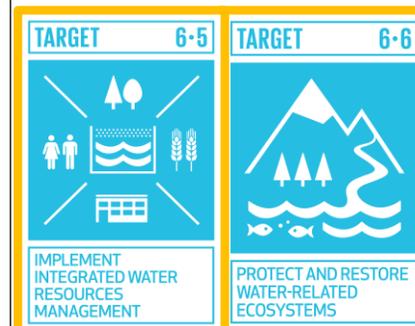
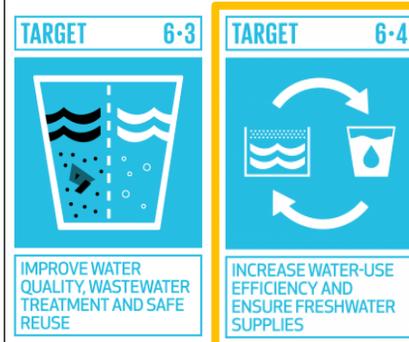
Water Management  
in Direct Operations

Value Chain  
Engagement

Collaboration at  
Watershed Level

Nexus Approaches

### SDG 6 Targets



# The California Water Action Collaborative

## WHO



The consortium includes 19 companies and 11 NGOs. Current corporate members represent the food and beverage, agriculture, technology, hospitality, and retail sectors. CWAC is professionally facilitated by Ag Innovations, a nonprofit focusing on systems change collaboration in agriculture, water, and natural resources.

## WHAT

The California Water Action Collaborative (CWAC) is a platform for diverse stakeholders - including leading environmental organizations, food & beverage companies, agricultural producers, and others - to come together and pursue collective action projects that will improve California's water security for people, business, agriculture and nature. There are currently ten CWAC projects, meaning that for each of those projects there are at least three CWAC members contributing to the project with their time, money, or other resources. Projects range from on-farm water quality management, to urban landscape transformations, to online tools to inform groundwater management, and more. The group meets for monthly calls and bi-annual convenings to share insights, discuss new project ideas, and get updates about California water happenings.

## WHY

California is a water-stressed region with great economic importance. The state supports 12% of the US population, generates 13% of its agricultural value and 14% of its GDP, while receiving only one percent of its average rainfall. Water demand is increasing as the population grows, and climate change is causing hotter, longer droughts interspersed with more intense storms. The idea for CWAC came out of a CEO Water Mandate meeting in Los Angeles in 2014, at the height of the last drought. Meeting attendees (companies and NGOs) wanted to better understand California's water challenges, identify geographies and issues of shared interest, and work together on projects that would make positive impacts on water security in the state.

## WHERE

*CWAC projects exist across the state of California, though key areas of interest include the San Joaquin Valley, the San Francisco Bay Area, the Central Coast, and the South Coast.*



*CWAC is governed by a steering committee comprised of three corporate and three NGO members. CWAC also has four working groups, each chaired by different CWAC members.*



## CHALLENGES

- **Translations:** Because CWAC is a multistakeholder work, sometimes members have different ways of talking about the same things. There is often a level of “translation” needed to ensure everyone is on the same page.
- **Measuring impact:** Measuring and communicating the impact of CWAC simply to a broad audience is difficult to achieve but critical for making the case for its existence.
- **Engagement:** To actively engage members, the direction of the platform must align with their multiple needs and interests. As these are constantly changing and sometimes conflicting, it is a challenge to keep all members meaningfully engaged.

## SUCCESSSES

- CWAC started five years ago as a casual working group of a handful of companies and organizations and is now a formalized consortium with 30 members and 10 projects.
- Since 2014, corporate members have invested over \$4 million in CWAC projects throughout the state.
- CWAC is fostering peer learning and has seen the maturation of companies’ thinking and action on water through the ideas and learnings they get from other CWAC members.

## KEY INSIGHTS

- Creating an environment in which members trust one another and feel they can have candid, exploratory, ambitious conversation is extremely important to the success of CWAC.
- Innovation disrupts the status quo, which can be met with resistance. CWAC and its projects are innovative. In order to allow for adoption of these innovations, new incentives, skills, markets, and policies are needed.
- Partnerships are key for effective action on water, and should be based on inclusion from the outset, common interest, clear expectations, firm commitment, and open communication.

## SCALING & REPLICATING

- CWAC helps build understanding of key issues through information exchange, so members can engage in water policy discussions in an informed and productive way. This allows business leaders to become informed advocates for CWAC and for water stewardship in California.
- CWAC projects demonstrate “the art of the possible.” The aim is to take these from pilots to the status quo through changes in government policies, regulations, and finance mechanisms.

## TAGS

### Stewardship Strategies

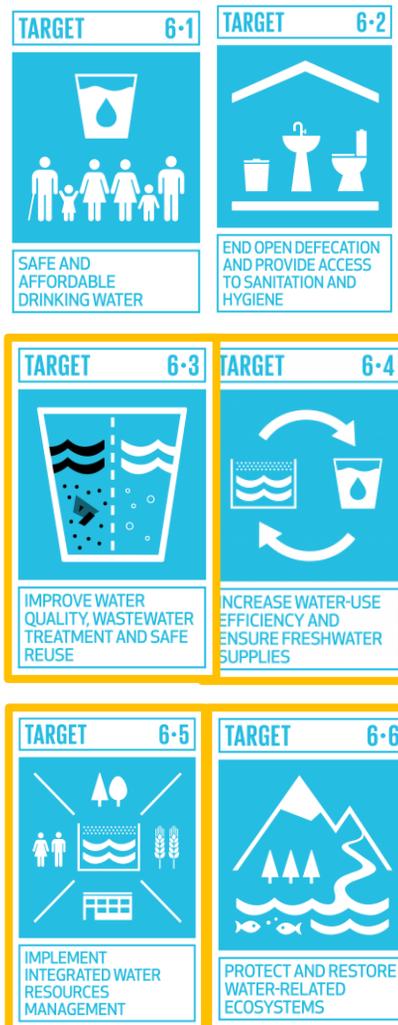
Water Management  
in Direct Operations

Value Chain  
Engagement

Collaboration at  
Watershed Level

Nexus Approaches

### SDG 6 Targets



# Water Restoration Partnership: Danone North America & Bonneville Environmental Foundation (Change the Course)

## WHO



## WHAT

Nonprofit organization BEF and food and beverage company Danone North America have a unique legacy of partnership on water spanning over 15 years. In 2009, the company was one of the earliest supporters of BEF's Water Restoration Certificates program, purchasing certificates in support of projects to balance their water use. This program led to the creation of Change the Course, an initiative that engages companies and individuals in water conservation and restoration.

Danone North America became the first Charter Sponsor of Change the Course, which was piloted in the Colorado River Basin. This campaign motivates people to pledge to conserve water, and for every pledge made returns 1,000 gallons of water to the environment. The company leveraged the power of their brand to engage the public in understanding the importance of the Colorado River, and helped to increase the project's visibility. In 2015, 20 more companies joined the movement, supporting 14 restoration projects in the Colorado River Basin alone. Building on the success of the Colorado River Basin pilot, Change the Course has now expanded into a nationwide initiative.

## WHY

A strategic partnership between Danone North America and BEF is a mutually beneficial collaboration that enables both parties to achieve their goals and create a positive impact. By working with BEF, Danone North America can easily find and invest in local projects that replenish its corporate water use and improve watershed sustainability. For BEF, Danone North America's leadership and partnership has helped to create a movement of voluntary corporate action to adopt environmental solutions addressing corporate impacts on water.

## WHERE



*Change the Course was first piloted in the Colorado River Basin.*



*In 2017, Change the Course was awarded the US Water Prize, which celebrates innovative and sustainable approaches to water management.*



*To support recruitment for Change the Course, Danone North America commissioned a life-size, interactive art installation of the Colorado River in Chicago's Union Station, where Danone employees engaged people to make the pledge.*

## CHALLENGES

- **Geographic limitations:** Change the Course initially focused only on the Colorado River Basin, which hindered recruitment of corporate sponsors who were interested in supporting projects in other states.
- **Slow corporate uptake:** When Change the Course started, many companies were still in the early stage of developing water stewardship strategies and were not yet supporting water projects beyond their direct operations.
- **Project timelines:** Restoration project timelines do not always line up well with corporate goals; projects are planned years ahead, while corporate budgets are set quarterly or annually.
- **Communication:** Implementing project partners are sometimes ill-equipped to navigate the complexity of corporate decision making. On the flip side, companies are not always well equipped to translate technical project outcomes into understandable metrics for a broad public audience.

## SUCCESSSES

- Danone North America, as a Charter Sponsor of Change the Course, has been supporting almost 40 water restoration projects, has restored over 7.8 billion gallons of water, and has leveraged their brands for stakeholder engagement and water conservation education and awareness. The company has advanced their water stewardship focusing on agricultural water use, operational efficiency quality and safety, as well as driving collaborative stewardship in targeted watersheds.
- Building upon the success of delivered projects, BEF is now seen by the business community as an independent nonprofit that can assist companies in scoping, vetting, and supporting projects material to their operations and/or value chain.

## KEY INSIGHTS

BEF has seen a dramatic increase in companies seeking to support water projects as well as a desire to collaborate. As the interest in water restoration projects has grown, multi-benefit projects are becoming increasingly important, particularly as companies are setting targets that address multiple aspects of sustainability.

## SCALING & REPLICATING

Expansion of BEF's portfolio of water restoration projects is enabled by the demand of Danone North America and other companies for water stewardship opportunities, as more businesses become aware of their water risks and aim to support projects in geographies material to their operations and value chains.

## TAGS

### Stewardship Strategies

Water Management  
in Direct Operations

Value Chain  
Engagement

Collaboration at  
Watershed Scale

Nexus Approaches

### SDG 6 Targets

TARGET 6-1



SAFE AND AFFORDABLE DRINKING WATER

TARGET 6-2



END OPEN DEFECA- TION AND PROVIDE ACCESS TO SANITATION AND HYGIENE

TARGET 6-3



IMPROVE WATER QUALITY, WASTEWATER TREATMENT AND SAFE REUSE

TARGET 6-4



INCREASE WATER-USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES

TARGET 6-5



IMPLEMENT INTEGRATED WATER RESOURCES MANAGEMENT

TARGET 6-6



PROTECT AND RESTORE WATER-RELATED ECOSYSTEMS

# Xylem's Sustainability-Linked Loan Facility

## WHO



Project Lead: Xylem

Lead Arrangers and Joint Bookrunner: Citibank, N.A., JPMorgan Chase Bank, N.A., ING Bank N.V., Dublin Branch, BNP Paribas Securities Corp., Wells Fargo Securities, LLC.

Administrative Agent: Citibank, N.A.

Syndication Agent: JPMorgan Chase Bank, N.A.

Sustainability Coordinator: ING Capital LLC

National Association as Documentation Agents: BNP Paribas and Wells Fargo Bank.

## WHAT

In coordination with ING Bank and Sustainalytics, Xylem developed and secured a revolving loan facility (syndicated across 12 banks) that creates a financial incentive for the company to integrate sustainability and social value across its operations. The facility is expected to finance Xylem's capital expenditures and investments as needed. The interest rate is index-linked to Xylem's overall environmental, social, and governance (ESG) progress as measured by Sustainalytics. Unlike a green bond, which is static, performance will be measured annually through 2024 and the loan rate will increase or decrease in accordance with changes in that performance.

## WHY

Xylem, as a global water technology provider, can contribute to major advances in industrial water conservation and efficiency with their products and services, in addition to practicing water stewardship within their own operations. To incentivize ambitious action and hold themselves accountable for achieving their 2025 sustainability goals, Xylem aligned its sustainability performance with its finance objectives with this sustainability-linked loan. At the same time, the investors involved in the development and operation of the loan facility were interested in supporting the long-term sustainability initiatives of Xylem's global business.

### **Sustainability-linked loans**

*are loans that incentivize borrowers with margin reductions or increases depending on their ability to meet pre-set environmental performance targets.*



***Sustainalytics** is one of the world's leading providers of ESG ratings and research. It is the market leader in Sustainable Loans, with over 40 companies using its ESG rating for over \$20 billion USD in ESG Linked, Sustainable Loans.*

### **Xylem's 2025 water goal:**



*To help solve water affordability and scarcity through our solutions and products by saving more than 23 billion cubic meters of water.*

## CHALLENGES

- **Technical:** It took time and research to understand the different types of mechanisms available to tie sustainability to finance, including the identification of tracking metrics, internal monitoring, and ways to improve an ESG score.
- **Communication:** It was not always easy to communicate the value of this approach to banks and persuade them to participate in the sustainability loan structure. Most banks were not familiar with this structure before being approached by Xylem, and not all of them were ready to participate in that kind of innovative financing approach.

## SUCCESSSES

- In 2019, Xylem secured a first-in-its kind loan facility for \$1 billion that is directly tied to its annual sustainability performance metrics. This established them as a leader in the space of sustainability-tied financing for the industrial sector.
- The sustainability loan structure gained visibility within the company and enhanced the collective ambition to achieve corporate 2025 sustainability goals.
- Presuming that the sustainability goals can be met each year, this structure saves money for Xylem because they benefit from a preferential loan rate.

## KEY INSIGHTS

- Persistent and patient convening, coordination, and facilitated discussions were essential to obtaining buy-in both internally within Xylem and from the bankers who might back the loan facility.
- Linking sustainability and finance provides a holistic view of long-term value and drives the integration of sustainability into business strategies across the company globally.

## SCALING & REPLICATING

Having now undergone this process once, Xylem expects that any future financing objectives will likely tie to sustainability - this approach will be scaled over time through Xylem's business operations. The successful implementation of the sustainability loan structure elicited positive reactions among Xylem's customers and peers, many of whom were interested to learn about it and implement in their own organizations. So there is also potential for scaling across the industry.

## TAGS

### Stewardship Strategies

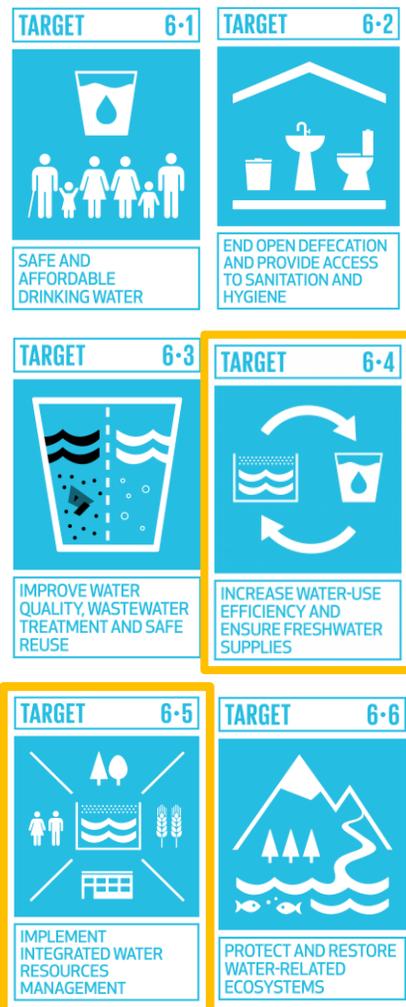
Water Management  
in Direct Operations

Value Chain  
Engagement

Collaboration at  
Watershed Scale

Nexus Approaches

### SDG 6 Targets





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