



Water Balance Targets

Exploring the role of volumetric goals in water stewardship





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TABLE OF CONTENTS

- 3** Forward
- 5** Introduction
- 6** Driving Water Stewardship Beyond the Fence line
- 8** What Are Water Balance Goals?
- 10** Why Do Companies Adopt Water Balance Goals?
- 11** Strengthening Water Balance Outcomes
- 13** Examples of Water Balance Commitments
- 15** Types of Water Balance Projects
- 16** Balance Project Case Studies
- 20** Toward Context-Based Targets: Focusing on Basin Sustainability
- 22** Learn More



FORWARD

Within the corporate water stewardship landscape, some companies are setting and pursuing “water balance” goals as part of their overall water strategies. What this concept means, and how companies are implementing it, can be confusing. To increase understanding around the evolving landscape of water balance goals and associated projects, this report will discuss where the concept of water balance came from, the motivations for balance initiatives, types of balance projects and benefits, important considerations, and emerging water stewardship trends in target setting.

Most businesses have a material interest in ensuring the consistent, long-term availability and sustainable management of water for their operations and, increasingly, in their supply chains, surrounding communities, and critical markets. Consequently, water targets must drive outcomes for a company that yield meaningful results, such as reducing material business risks while also serving the public interest.

The seeming simplicity of balance goals and projects can be attractive—“we will restore a volume of water equal to the amount our business consumes.” However, the implementation of a balance goal is anything but simple, requiring the

development and application of appropriate quantification methodologies, corporate system guidelines, documentation procedures, data collection, and verification and reporting processes. In fact, executing a balance goal requires significant investment and sophistication if it is to meaningfully complement a water stewardship strategy that will drive better basin¹ management and ultimately reduce water risks. We hope this report can provide helpful guidance to those considering a balance goal/target, as well as those in the midst of a balance goal implementation.

Ultimately, there is no silver bullet. Water is local and inherently complex. Addressing issues and implementing solutions is hard, and requires taking a long view and a basin-scale perspective. Continued investment and engagement by public and private stakeholders will be required to address our shared water challenges. One company, one agency, or one NGO cannot do it alone.

¹ In different parts of the world, basins are also referred to as watersheds or catchments. In this report, we use these terms synonymously.



Introduction



When working outside their own operations, businesses are asking: What targeted investments should we be making and where? How can we set targets and measure the water benefits of our sustainability investments in the basin?

In recent years, water crises have risen to the top of the World Economic Forum's annual ranking of most significant long-term risks worldwide (WEF 2016). At the same time, leading companies that rely heavily on clean and reliable water supplies recognize the significant and growing risks that water issues pose to their growth and financial success (CDP Water 2015). They also recognize the growing expectations of consumers and investors that the private sector's use of water be socially equitable, environmentally sustainable, and economically beneficial.

Since water in a given ecosystem or watershed is shared by all its users, no single entity can ensure sustainable management of the resource on their own; only collaboration can secure water for the future. A business might be on the forefront of water efficiency and treatment, but if their neighbor is polluting or consuming too much water, the health of shared freshwater ecosystems will continue to decline, and the business will remain vulnerable and likely suffer the impacts.

Good water stewards first understand their own water use and risks, and then maximize efficiency and manage storm water and wastewater discharges. Then they develop an awareness of the watershed context and shared concerns in terms of water governance, water balance, water quality, and important water-related areas. Ultimately, they must engage in meaningful individual and collective actions that benefit people and nature.

In recent years, some companies have added water balance goals to their water stewardship strategies. The emergence of corporate water balance goals reflects the importance of water stewardship performance indicators to incentivize action and demonstrate measureable progress toward goals.

But do balance goals meaningfully address water challenges in basins where a business might be experiencing significant physical, reputational, or regulatory water risk? Do balance goals mitigate the impacts from business water use where and when those impacts manifest? Leading companies are working to strengthen water balance activities to ensure that the benefits delivered by balance projects are connected to improvements in their own water use, and to meet basin-level challenges shared by their operations, supply chains, local communities, and freshwater ecosystems. While balance targets provide a link between watershed investments and how much water a business consumes, the landscape of water stewardship targets is evolving. Context-based corporate targets that meaningfully address basin challenges are the next step in aligning water stewardship efforts with ensuring the sustainable management of water for all.

Driving Water Stewardship Beyond the Fence Line



Corporate water stewardship strategies and associated balance goals should focus on ensuring availability and sustainable management of water and sanitation for all in alignment with the SDGs' water goal.

Companies need to set and measure goals that will increase shareholder value and build long-term growth opportunities. Mitigating water risks and harnessing water opportunities are financially material to minimizing expenses and maximizing revenue. A water stewardship approach that addresses risk both within and beyond the fence line helps secure business continuity and the license to operate for supply chains and operations, as well as securing freshwater resources.

Recently, the global community codified a promising new framework for action, the Sustainable Development Goals (SDGs). Goal 6, which calls for the sustainable management of water and sanitation for all, provides an opportunity to align corporate water stewardship strategies with Goal 6 targets and to improve the effectiveness of

water programs, the quality of data and reporting, and the confidence and trust of key stakeholders.

However, meeting global, or system-wide, commitments on water requires individual actors throughout operations and supply chains to feel empowered to identify local risks and suitable mitigation strategies. Moreover, these strategies should

address impacts at the basin scale in order to drive collective action that can improve basin decision making on water. Determining how to introduce and harmonize a water stewardship program, especially for global companies, can be arduous. For this reason, many companies are leveraging the Alliance for Water Stewardship (AWS) Standard to improve their water stewardship implementation at the individual site level. The Standard's framework helps ensure a single, strategic approach to addressing all water-related issues that may impact a site. By leveraging the SDG, AWS and CEO Water Mandate frameworks, companies can help drive outcomes within and beyond the fence line that will contribute to basin sustainability.

Setting water stewardship targets and measuring progress. Many companies begin their efforts on water by establishing site-based water efficiency goals. A company can and should set goals to reduce water risks through internal water efficiency measures, and there has been significant progress in this regard. However, water goals also can and should extend into the supply chain. Several companies in the food and beverage sector have set goals for sustainable sourcing of key ingredients by a particular date. Some companies have also set goals related to community and employee engagement on water issues. Some companies are striving for more holistic goals that address the six focal areas of the UN Global Compact's CEO Water Mandate: direct operations, supply chains, watershed management, collective action, public policy, community engagement and transparency.

But because water is a shared resource, even the most efficient operation can impact and be impacted by external factors, including overuse and pollution, spills, droughts, floods, and negative sentiments from local communities and media. The private sector bears a responsibility to engage and contribute to the mitigation of these external risks as a responsible steward of a limited and critical natural resource.

Alliance for Water Stewardship

✓ **Good Water Quality Status**

✓ **Sustainable Water Balance**

✓ **Good Water Governance**

✓ **Viable Important Water-Related Areas**

Global Goals for Sustainable Development (SDGs)

✓ SDG 6: CLEAN WATER AND SANITATION



Water Access, Sanitation & Hygiene

6.1 Achieve universal and equitable access to safe and affordable drinking water for all

6.2 Achieve access to adequate and equitable sanitation and hygiene for all



Water Quality & Quantity

6.3 Improve water quality

6.4 Increase water-use efficiency, ensure sustainable withdrawals and supply, and reduce the number of people suffering from water scarcity



Water Management & Governance

6.5: Implement integrated water resources management

6a: Expand international cooperation and capacity-building

6b: Support and strengthen the participation of local communities



Freshwater Ecosystems

6.6 Protect and restore water-related ecosystems

Although metrics such as water use efficiency ratios are commonly employed within businesses to measurably demonstrate progress, they alone are insufficient. Setting water performance indicators that will incentivize action beyond internal operations—and the need to capture the associated benefits—is essential to ensuring business continuity, fiduciary responsibility, and environmental sustainability.

Water balance strategies. Some companies are going beyond their direct operations to partner on community water access projects and/or specific watershed interventions. Ultimately, these initial forays into watersheds should lead to collective action efforts with other stakeholders that influence basin policy and join up individual efforts to

Water is infinitely renewable as it moves through the water cycle, residing in the atmosphere, surface water, and groundwater bodies. As a shared resource essential to life, its use has important social, environmental, and economic implications.

increase the scale and impact of projects. Along the way, water balance goals are sometimes seen as a step that can tie these watershed actions back to a company via consumptive water use. Associated balance targets and methodologies have been developed (or are being developed) to capture the water benefits from investments in water-related community activities and/or conservation projects. The resulting project portfolios help companies move toward a target, which in many cases is based on some portion of a company's water consumption.

What are Water Balance Goals?



While the concept of water balance has no standard definition, the general idea is that a volume of water consumed by a company is “balanced” through interventions in watersheds and communities outside the plant walls. In other words, water that would otherwise be “lost” to business uses is “added” back (see box below). As projects are implemented, they provide quantitative water benefits by restoring, treating, or saving a certain volume of water, and ultimately contribute to a time-bound target.

Capturing the complexity of **water accounting and water balancing** can be challenging. Does being “balanced” mean that you have erased all impacts of your use? How important is the timing of your water balance project compared to when you took the water out? Must the project be located in

the same watershed as the water use? The answer usually is, “it depends.” As such, clarity in communications is essential when describing balance goals, the benefits of specific projects, and claims about progress toward targets.

Balance goals are typically established as one component of an overall water stewardship strategy. The Coca-Cola Company was one of the first to employ methodologies and implement projects focused on water benefits as a way to make corporate water stewardship goals actionable and drive investment in local basins. In 2007, working with WWF and other partners, the Company set an aspirational goal to “safely return to communities and nature an amount of water equivalent to what is used in our beverages and their production by 2020.” The Coca-Cola Company refers to this commitment as their “Replenish” goal.

A number of other companies have since developed similar goals with quantitative targets. Like The Coca-Cola Company, they are achieving targets by implementing watershed protection projects and, in some cases, providing access to water for drinking and productive uses. These goals strive to “balance” the Companies’ consumptive water by decreasing demand or enhancing supply. To date, few companies have set **quantitative goals**

Definitions & Terminology: **Water vs. Carbon**

Terms such as water footprint, water neutral, water offset, and mitigation are adopted from the carbon world. At face value they appear to reflect simple concepts and they are readily understood when addressing the impacts of greenhouse gas emissions—you can neutralize your carbon footprint and mitigate the impacts by buying carbon offsets.

But water is different from carbon. Unlike greenhouse gas emissions, which can be offset through actions elsewhere, water is a finite resource and action in one place does not offset impacts in another. For example, a reduction in use in one watershed does not (necessarily) affect availability in another, and an action at one time of the year may or may not benefit availability at another critical time of the year.

around water in their supply chains or related to consumer end use.

Assessing the Benefits: Quantifying project results. The Coca-Cola Company funded a foundational piece of work for estimating the benefits of balance project benefits to support their extensive Replenish program. This work included an in-depth review of methodologies for quantifying water quantity and quality benefits, and the findings are described in peer-reviewed literature (Rozza et al. 2013). Several other companies with balance goals are applying these methods to their projects.

Quantification methods range from simple to complex and are specific to the project type. The methodology for water access projects is straightforward and based on the number of people provided with full access to safe drinking water (GETF and White 2009). However, the volumetric benefits of watershed projects vary, and the volume is estimated by using a suite of standard empirical and process-based watershed methods (Rozza et al. 2013).

To quantify the benefits of a balance project, companies must first identify the change in water quantity that occurs as a result of the intervention. Examples are:

- An irrigation efficiency project reduces the volume of water applied to a crop, which “saves” a certain number of cubic meters.
- A revegetation project changes the land cover and reduces runoff from a degraded landscape, which “keeps” a quantifiable amount of water in the soil.
- A water access project is installed with a community in the basin, which “gives” a certain volume of water to the community.
- A constructed wetland treats polluted runoff, allowing an amount of clean water to “return” to the system.

Another challenge of watershed projects is tracking water savings to ensure that they end up where and when they are needed to support freshwater ecosystems. Without robust monitoring and corresponding environmental flow policies, “saved” water that is added back to the system can be re-consumed by downstream users rather than remaining in aquifers or rivers.

To be effective and avoid accusations of “greenwashing,” balance goals must have a defensible means of accurately defining and measuring performance indicators, and highlight the importance and progress of other actions, like collectively working with others in a basin to improve broader water policies and management.



Why Do Companies Adopt Water Balance Goals?

Motivations for setting water balance goals are as diverse as the companies who are adopting them.

- **Ease of communications:** A frequently cited reason for setting a balance goal is that it can be easily understood and readily communicated to many audiences. A balance goal can reduce the complexity of responses to water issues to a number that is tied to a company's water use.
- **Opportunity to connect:** Some companies view balance projects as an opportunity to connect to consumers, local communities, partners, and employees on water issues. Understanding how to quantify balance benefits can help implementing partners better understand impacts and design more effective and long-term projects.

- **Brand enhancement:** Businesses may be motivated to set balance goals to enhance their brands and reputations, and this is particularly true for consumer-facing companies. Balance goals may help position a company as a beneficial presence both within the global community and within their local community.
- **Incentivize internal and external engagement:** Leading companies recognize the importance of both internal and external engagement, and understand that quantitative balance targets have the potential to incentivize both. Within operations, balance goals can galvanize focus on improving water use efficiency in order to reduce the fraction of consumptive use that is not physically part of the manufactured goods or services. This reduces the sustainable balance target. Further, balance goals can promote engagement in the watersheds and communities outside the “four walls” of facilities. One company shared that setting time-bound targets linked to sales volume “inspires action and makes us do more” as the business grows.
- **Building in longevity:** Balance goals can also encourage project longevity—businesses want to continue to count benefits from completed projects so they work up front to ask questions and help design activities with longevity (and local ownership) in mind.
- **Risk mitigation:** If a water balance goal is to be used for strategic risk mitigation, projects of local relevance and conservation impact can be designed in the watershed where operational or supply chain impacts occur. This can help address a wide variety of risk—physical, regulatory, and/or reputational—depending on the depth and strength of the project (and whether or not it incorporates policies and awareness-raising efforts).





Strengthening the Outcomes of “Water Balance”

Focus on meaningful outcomes that benefit business operations, communities, and nature. It is important to establish clarity around the purpose of a water balance goal to avoid misunderstandings and insufficient outcomes. Moreover, water balance goals should be meaningful for the business strategy (i.e., provide shareholder value), but also be meaningful to nature and local communities. Balancing water in the wrong place or at the wrong time leads to less meaningful (or even sometimes meaningless) outcomes. Making a balance goal meaningful to all affected users will help mitigate a broader set of forms of water risk—physical, reputational, and regulatory—while driving other bottom-line benefits like brand enhancement and nurturing a facility’s license to grow.

Support and incentivize strong implementation.

Successful outcomes will depend on the strength of implementation at different levels of the business. Strategies need to be embraced at the regional and local levels by those tasked with implementation. Incentives should be designed that will orient implementation of the goal toward the most locally meaningful water actions for business and basin sustainability.

Deliberate effort must be continuously exercised to ensure that tactics do not become confused for the strategy itself. Otherwise, a volumetric target may drive corporate staff and their partners to focus on projects that deliver large water volumes in lieu of projects that deliver greater business, social, and economic value in the short and long terms.

Explain your scope. Today, many companies are finding that the large majority of their water footprint resides in agriculture supply chains and

A sustainable water balance is defined by the AWS (2014) as “The state when the amount and timing of water use, including whether the volumes withdrawn, consumed, diverted, and returned at the site and in the watershed, are sustainable relative to renewable water supplies and are maintaining environmental flow regimes and renewable aquifer levels.”

even consumer end use. Balance goals that do not incorporate the largest uses of water in the value chain are likely to receive more criticism and scrutiny, especially as water issues become more challenging and acute in stressed regions (Winston 2015). Consequently, companies should be candid with stakeholders about the extent to which balance goals help address water risk throughout their value chains. Further, discussing the scope of a balance goal should be viewed as an opportunity to share with external audiences broader water stewardship work within supply chains and with consumers.

Ultimately, water resource management must be addressed by all stakeholders in a basin. The best balance projects tap into local relationships and partnerships and help catalyze collective action among multiple users. They are scalable and replicable, and designed to incentivize others to contribute to overall basin sustainability.



Build a locally relevant project portfolio. There is no one-size-fits-all framework for balance project portfolios. However, locally relevant projects that address important issues within a business' watersheds are most likely to provide the highest return on investment. Regional and local activities should be developed based on desired water stewardship outcomes, identified risks and opportunities, and local water issues, and in collaboration with implementing partners.

Where possible, actions that reduce the impacts of a company's operations and associated risks (where they exist) should be the highest priority. If these risks cannot be addressed through the balance portfolio, or the necessary enabling conditions for a successful balance project are not present in a watershed, then the business should pursue other, more strategic water stewardship activities.

Promote basin health. Water impacts extend beyond the site, and companies should strive for better water accounting of their on-site water use, and a sustainable balance at the basin level. Balance goals can drive local action and investment, and volumetric benefits from a watershed project can be impressive at the project level. However, their beneficial impact on the broader basin can be much harder to evaluate. Without a more costly impact assessment, an observer may ask, "So what?" in response to a volume of water saved, particularly if the next user downstream extracts whatever water has been added back to the system. This underscores the importance of broader water stewardship strategies and collective action within basins, which can help ensure that sufficient water remains for all users—communities, businesses, and the environment.

Leverage water balance goals to galvanize action beyond the fence line, but focus contributions on broader basin goals. Otherwise, it could mean that balancing a company's operational use does little to address the larger question of how much a specific watershed might need to cut back to protect *everyone's* ability to do business, grow food, and live (Winston 2015).

Limit claims. Limit your claims about what you can accomplish. Replenishing water used for business does not erase all water impacts on communities and nature, and on its own does not constitute being a good water steward. Be transparent about what outcomes your efforts can and cannot accomplish.

Examples of Water Balance Commitments



As the following examples demonstrate, balance goals are generally one component of a more comprehensive corporate water stewardship strategy. Leading companies are working to ensure that the goals they set and associated key performance indicators (KPIs) drive outcomes and sustainable water balance at the basin scale.

Cummins is a global power leader who designs, manufactures, sells, and services diesel engines and related technology around the world. Cummins serves their customers through a network of 600 company-owned and independent distributor facilities. Their water strategy includes four priority areas: conservation, risk management in business operations, community engagement, and supply chain. Two goals have been set to support the water strategy—one focused on reducing operational water use and one focused on water neutrality.

Cummins has communicated guidance on how to interpret their balance goal. For example, they stipulate that before a site can be counted toward the goal of 15 “water neutral” sites, it must successfully “offset” 100% of its water consumption within the community, and be located in a water-scarce region. Projects must also abide by Cummins waste and water management hierarchies (reduce first), protect the environment and the communities where the company operates, and complete annual validation reviews (new and renewal sites).

Diageo is a global leader in beverage alcohol, producing brands from more than 200 sites in over 30 countries. The Diageo Water Blueprint defines a strategic approach to water stewardship based on four core areas: sourcing of raw materials, owned operations, the communities in which they operate, and local and global advocacy for best practices in water stewardship.

Recognizing that their impact on water stretches beyond their operations, Diageo has committed to replenishing water in water-stressed areas. This means that where they make their brands in water-stressed areas, they will replenish the equivalent amount of water used in final products—by “putting it back” into the local area or into another water-stressed area, or through projects such as reforestation, wetland recovery, and improved farming techniques.



Keurig® Green Mountain, Inc. (Keurig) is a specialty coffee and coffeemaker company headquartered in the US. They source, produce, and sell coffee, hot cocoa, teas, and other beverages under various brands in portion packs for their Keurig brewing systems. As they are a beverage system company, water is a fundamental input to their business. Their strategy has three specific areas of focus: restoring the water used in beverages to people and nature, connecting people to clean water, and using water efficiently in operations and supply chains.

Keurig has committed that for every beverage made, the same volume of water will be balanced through projects that focus on enhancing watersheds, protecting habitats, and conserving water.



MillerCoors brews, markets, and sells a portfolio of brands in the US and Puerto Rico, and is the second-largest beer company in America. A three-part water stewardship strategy focuses on reducing water use in direct operations; restoring a volume of water equal to the final product volume from breweries located in water-stressed watersheds; and reducing agricultural resource risks, including water risks, in 100% of key barley-growing regions.

The company has committed to restore the volume of water in their final products by collaborating with key stakeholders and incentivizing others to invest in projects that promote sustainable water use. They are focusing efforts on the water-stressed watersheds upon which their Irwindale, Golden, and Fort Worth breweries depend.

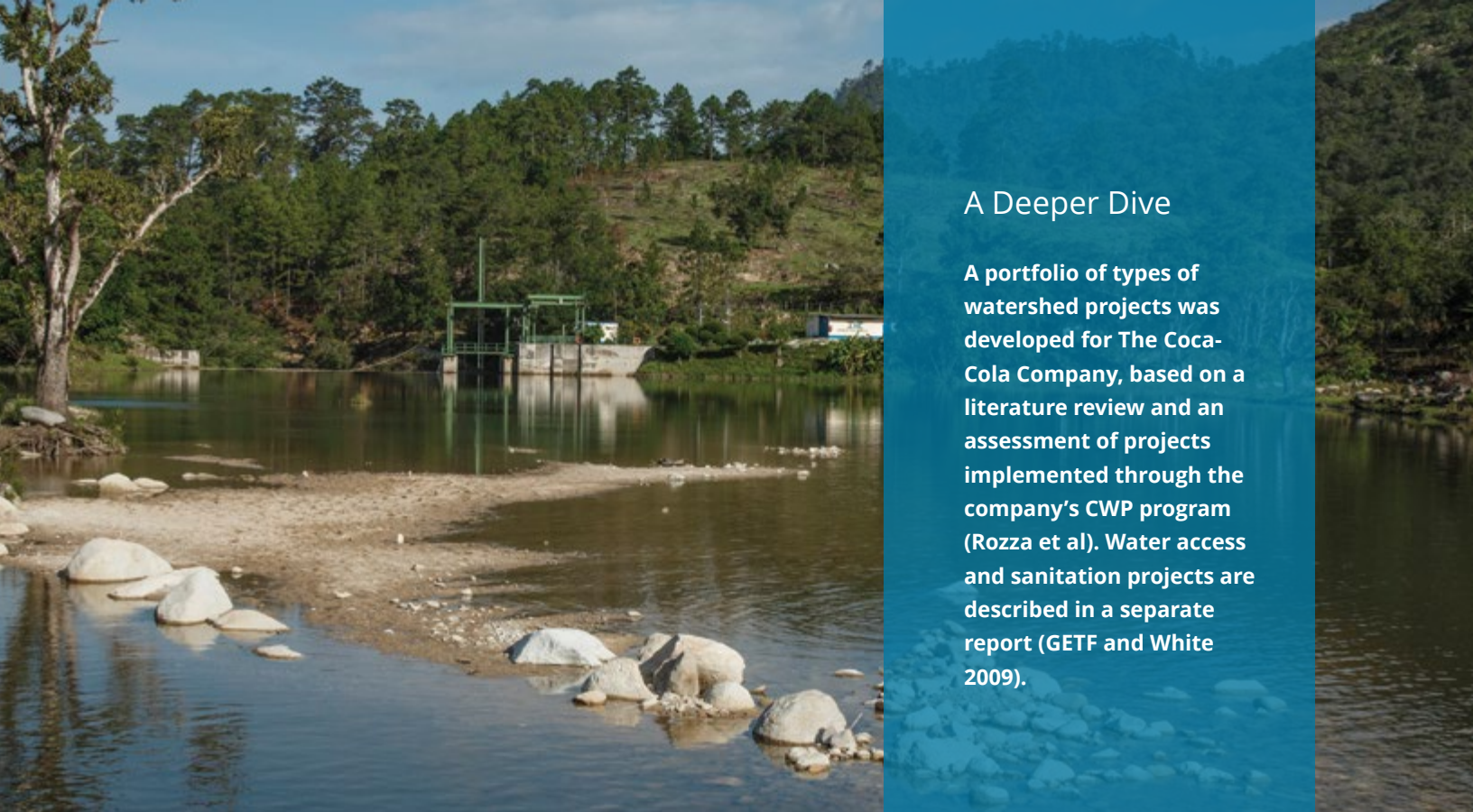
PepsiCo is an American multinational food, snack, and beverage corporation with interests in the manufacturing, marketing, and distribution of grain-based snack foods, beverages, and other products. The company's water strategy centers on a goal to help protect and conserve global water supplies, especially in water-stressed areas, and partner to provide access to safe water. Priority areas of focus include conservation in operations, agricultural efficiency, positive water balance, watershed management, and access to safe water.

PepsiCo achieves a positive water balance "by returning more water than is used to manufacture our products through in-plant conservation, agricultural initiatives such as direct seeding of paddy rice and drip irrigation of potatoes, and water harvesting and recharging in communities around our manufacturing facilities."

The Coca-Cola Company, a global system with operations in more than 200 countries and territories, focuses water stewardship efforts on the following areas: improving the company's overall water-use efficiency, managing wastewater and storm water discharge at their plants, mitigating risk through implementation of source water protection plans, and replenishing the water used back to communities and nature.

According to The Coca-Cola Company framework, a 100% sustainable balance is achieved when an enterprise implements a portfolio of locally relevant Community Water Partnerships (CWPs) that collectively produce an annual volumetric benefit equivalent to the annual volume of consumptive water use for that particular enterprise (Rozza et al. 2013). This and other resources detailing the nuances of the strategy, methods of quantification, and project verification are publically available on The Coca-Cola Company's website (LimnoTech and GETF, 2015).





A Deeper Dive

A portfolio of types of watershed projects was developed for The Coca-Cola Company, based on a literature review and an assessment of projects implemented through the company's CWP program (Roza et al). Water access and sanitation projects are described in a separate report (GETF and White 2009).

Types of Water Balance Projects

Community access: Where food security and/or access to safe drinking water are concerns, balance projects may involve provision of irrigation water for agricultural use and access to clean drinking water supply. Provided that the use is sustainable, these types of projects may address issues related to the equitable use of water and critical social and economic needs.

Watershed restoration and protection: Watershed projects include interventions on the land and in waterways, including land cover improvements such as reforestation, floodplain

reconnection and wetland restoration, agricultural improvements, storm water management, and treatment of polluted discharges. The projects are designed to address local water quantity and/or quality issues, and support improved ecosystems and more sustainable water supplies for all users.

Balance projects often include education and awareness activities as well as research, monitoring, and policy engagement. While these types of activities are important and can engage employees, consumers, and local stakeholders, they do not provide volumetric benefits that are counted toward balance targets.

Companies have learned that it is not always easy to identify suitable projects and partners in the watersheds of operations, and there may be political, logistical, and economic challenges to implementation. Identifying the right implementing partner and other local water users interested in collaborating on balance projects can also be a challenge.

BALANCE PROJECT CASE STUDIES



CASE STUDY. Changing a River's Trajectory.

The Rio Grande, called the Rio Bravo in Mexico, flows through the heart of America's arid southwest and into Mexico, fueling both amazing biodiversity and growing economies on both sides of the border. Human activities already require more water than exists in the system, and the region faces a future of increased demands and hotter, drier weather.

With several bottling plants in the Rio Grande/Rio Bravo basin, The Coca-Cola Company is particularly interested in working with basin stakeholders to align the Company's water sustainability goals with the public good. Since 2007, the WWF and The Coca-Cola Company Partnership has worked to address water challenges throughout the region, including through biodiversity conservation, support for environmental flows, and headwaters protection with indigenous communities. The Partnership also focuses on engaging binational stakeholders to increase collective action, striving to advance innovations and best

practices. Some of the activities under this broad engagement—especially restoring habitats and removing thirsty, invasive species—augment water availability for freshwater ecosystems and contribute to The Coca-Cola Company’s “replenish” goal.

BINATIONAL RESTORATION ACTIVITIES

The Partnership recognizes that restoring freshwater ecosystems in the basin, particularly by eradicating giant cane and replanting local tributaries, could benefit both people and nature. Giant cane takes in significant amounts of water and catches and holds sediment, unnaturally constricting river flow. This narrowing reduces habitat for native species and undermines the natural flood protection for riverside towns. Meanwhile, many local tributaries have lost key riparian vegetation, which negatively affects wildlife species, increases system flashiness, reduces water retention, and enables more sediment to enter the system.

WWF, The Coca-Cola Company, the US National Park Service, the Comisión Nacional de Áreas Naturales Protegidas, and a mix of other partners from both sides of the border have cleared giant cane from over 50 miles of the Rio Grande/Rio Bravo’s shorelines and planted thousands of native cottonwoods and willows along local tributaries. Those involved share best practices and work closely together—from planning through implementation—to maximize progress. Given that, the restoration work has helped build stronger, binational relationships, which partners are now leveraging to investigate additional collective action opportunities throughout the basin.

“The Coca-Cola Company and WWF Partnership amplified the momentum and empowered us to do more work, and to work together,” says Big Bend National Park’s river ranger, Mike Ryan. “When we started working more as a partnership, I had a feeling we would be successful. But I didn’t realize our impact until recently. I’m not a scientist, so I have to see progress to believe it. When I see sand bars crumbling, the cane receding, and the right species returning, I know we’re on the right track.”

Replenishment Benefit

The replenish benefit associated with the work to remove giant cane from the banks of the Rio Grande/Rio Bravo is significant. A priority of ongoing work is to improve quantification estimates via expansion of ongoing monitoring and research. It’s important to note that this quantity is an estimate based on currently available information. A priority of ongoing work is to improve quantification estimates via expansion of ongoing monitoring and research.

Additional Benefits

- **greater extent and distribution of native ecosystems that offer high-quality habitat for native birds, mammals, reptiles, and fish**
- **enhanced natural river flow, including during dry periods**
- **reduced fire risk**
- **improved water quality**
- **reduced flood frequency and flood hazard to streamside towns and infrastructure**



CASE STUDY. Protecting and Restoring a Treasured Lake.

Boasting miles of beautiful shoreline and breathtaking views, Lake Champlain is located mainly in the states of Vermont and New York. Approximately 200,000 people depend on the lake for drinking water and enjoy its recreational opportunities. But over the past few decades there have been signs of deteriorating water quality. Excessive nutrients are promoting algal blooms, which harm aquatic life, threaten water supplies and impact recreation. The nutrients originate from agricultural and urban stormwater runoff and other land sources. In recent years, floods have caused significant destruction in the basin, in part because of development in flood-prone areas.

Keurig Green Mountain, Inc. (Keurig), based in Vermont, recently announced a commitment to help improve water quality in Vermont through public-private partnerships. Keurig is collaborating with The Nature Conservancy on restoration projects that meet joint priorities, including scalability and replicability, measurable long-term conservation impacts, and opportunities to leverage additional funding. Keurig is also partnering with LimnoTech, a private environmental engineering firm, and the Vermont Agency of Natural Resources to create a tool that will help prioritize watershed management actions and optimize allocation of resources. Watershed groups and interested citizens will be able to use the tool, which will be housed by the Vermont Agency of Natural Resources.

“We’ve approached water stewardship in the same way we’ve dealt with our products and our supply chain: by focusing on the whole system over the long term.” said Monique Oxender, Keurig’s Chief Sustainability Officer. “Thankfully, our efforts are building at a critical time as water quality and infrastructure challenges have taken the spotlight across the U.S.”



Balance Benefit

In 2015, Keurig set a 2020 target to balance the water used to make every Keurig® beverage by returning the same amount of water, ounce for ounce, to people and nature. Keurig's partnership with The Nature Conservancy is helping achieve this goal through activities in Vermont and the Great Lakes. Several projects in the Vermont portion of the Lake Champlain watershed are underway, focused on protecting and restoring natural infrastructure that filters and retains water, resulting in balance benefits and numerous other positive outcomes. Balance benefits will be calculated after on-the-ground projects are implemented.

Additional Benefits

- Improved habitat for native species;
- Potential for reduced flood frequency and flood hazard to communities and infrastructure.

Toward Context-Based Targets: Focusing on Basin Sustainability



Communities, industry, economies, and nature all rely on water, and they will rise or fall depending on how well they are able to manage and sustain increasingly stressed water resources. To implement solutions, engaged water users must navigate a remarkably complex and integrated set of systems. The shared challenges experienced by government, civil society, and industry drive the need for collective action among these stakeholders.

This need for collective action on water is underscored by mounting dialogue on global targets. Throughout the development of the SDGs, the targets associated with water were carefully designed to maximize integration. At the same time, demand has increased for “science-based targets” around issues like carbon and “context-based targets” for issues like water where science alone cannot produce consistent, accepted, and defensible targets that businesses can rally around. The development of credible context-based water targets that can drive meaningful change for people and nature at the basin scale is underway, and will link to the SDGs. Context-based targets are emerging as an approach particularly for companies seeking to contribute to SDG 6.

The road toward basin sustainability may not be easy or smooth, but it is a path to which we must all commit. Here are some reminders to guide your journey.

Use existing frameworks. Don't reinvent the wheel and come up with your own definitions and frameworks. Align with existing frameworks, like the SDGs and AWS Standard, and utilize CEO Water Mandate guidance to link your corporate targets to them.

Be transparent and clear. Outline what you expect your water stewardship targets to deliver and explain how the targets will result in outcomes that benefit your business and serve the public interest.

Get outside your four walls. Go out into communities, build relationships with other companies and organizations, and move beyond a specific project focus to develop frameworks, knowledge, and collaborations at the corporate level. Discuss how the relationships and learnings from water balance projects can support collective action within a larger water stewardship framework.

Make sure watershed-based approaches are meaningful and manageable. Leading companies are increasingly taking action beyond efficiency, which is also one of the aspects under the SDGs. Balance goals will do little to address watershed-based water risk unless projects help mitigate shared water challenges. Actions in the watershed must align with issues that matter to local stakeholders and ecosystem requirements. Without a common, local baseline, such as those established in Basin Health Report Cards [World Wildlife Fund and University of Maryland Center for Environmental Science (UMCES), 2015], watershed targets may lack meaning.

Recognize that it will take time and require multiple iterative steps.

- Start with a clear understanding of the context (i.e., water budget): available supply and demand, environmental flow requirements, and shared water challenges, including water quality and habitat. Align your action with stated public policies and plans.

- Where data and understanding are lacking, look for opportunities to support initiatives such as monitoring, databases, and tools.
- Develop a global water stewardship strategy with clear goals and quantitative targets that will empower locally relevant basin or watershed plans. Include support for science-based policy where relevant.
- Implement your plan where balance projects already exist, and leverage the relationships and knowledge gained.
- Assess progress and revise your plan on a regular basis.
- Communicate regularly with stakeholders. Build awareness, stakeholder engagement, trust, and transparency. Engaging early, often, and repeatedly is critical to relationship building, which is a necessary foundation to collective action for the betterment of the basin.

Build in longevity. When planning projects, it is important to build in mechanisms to ensure that the projects will be maintained and continue to function after funding runs out. This can be difficult when funding is year to year and the availability of future funds is uncertain. At the scale of most projects, individual actions by themselves will not be sufficient to sustain adequate water supplies

during droughts, and may not prevent public perception or regulatory action from limiting or stopping access in the future.

What's next? In the coming months, WWF, WRI, TNC, and CDP will be working with the UN Global Compact's CEO Water Mandate to develop guidance for companies that outlines how context-based corporate water targets might work. This effort will be grounded in the following core concepts:

- Shared challenges need collective action.
- Collective action needs common visions/goals.
- Common visions/goals can be met by setting meaningful targets across sectors.
- Targets need to be robust but applicable within the context of business.

To shape this guidance, we are calling on companies — those that are thinking bigger and willing to work together beyond the fence line — to share their early input and ideas on how we can transition to context-based targets that support basin sustainability.



Learn More



Resources and References

AWS. 2014. The AWS International Water Stewardship Standard: Version 1.0. <http://www.allianceforwaterstewardship.org/assets/documents/AWS-Standard-v-1-Abbreviated-print.pdf>

CDP Water. 2015. Accelerating action: CDP Global Water Report 2015. <https://www.cdp.net/CDPResults/CDP-Global-Water-Report-2015.pdf>

CEO Water Mandate. 2014. Driving Harmonization of Water-Related Terminology. <http://ceowatermandate.org/blog/resource/driving-harmonization-of-water-related-terminology/>

CEO Water Mandate, WWF and WaterAid. 2015. Serving the Public Interest: Corporate Water Stewardship and Sustainable Development.

GETF and A. Wright. 2009. Quantifying Water Access Benefits in Community Water Partnership Projects. Prepared for The Coca-Cola Company. September. http://assets.coca-colacompany.com/84/39/629ba3ea4fb78b60f8ce7f7726a8/water_access_benefits.pdf

LimnoTech and GETF. 2015. Quantifying Replenish Benefits in Community Water Partnership Projects. Prepared for The Coca-Cola Company in collaboration with GETF. March. <http://assets.coca-colacompany.com/e1/42/f74e22fc4599aace62d8fcc0f680/quantifying-water-replenish-benefits-in-community-partnership-projects.pdf>

Rozza, J.P., B.D. Richter, W.M. Larson, T. Redder, K. Vigerstol, and P. Bowen. 2013. Corporate Water Stewardship: Achieving a Sustainable Balance. *Journal of Management and Sustainability*. 3:4. Canadian Center of Science and Education. <http://www.ccsenet.org/journal/index.php/jms/article/view/28896/18665>

Winston, A. 2015. Coca-Cola Met Its Water Goals Early. Were They Too Easy? *Harvard Business Review*. <https://hbr.org/2015/09/coca-cola-met-its-water-goals-early-were-they-too-easy>

World Economic Forum. 2016. Global Risks 2015 – 10th Edition. <http://www3.weforum.org/docs/Media/TheGlobalRisksReport2016.pdf>

WWF. 2015. Measuring the Benefits: Replenishment and Corporate Water Stewardship. http://assets.worldwildlife.org/publications/826/files/original/Replenish_Fact_Sheet_low-res_FIN.pdf?1443705693

World Wildlife Fund and University of Maryland Center for Environmental Science (UMCES), 2015. <http://www.worldwildlife.org/initiatives/basin-report-cards>



For More Information

To learn more about WWF's work with the private sector how we can help develop balance goals as part of a corporate waters stewardship program, visit worldwildlife.org/waterstewardship

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