



BEVERAGE INDUSTRY
ENVIRONMENTAL ROUNDTABLE

**A Decade in Review:
Practical Perspectives and
Experience in Driving Impactful
Water Replenishment Initiatives**

May 2023



Acknowledgements

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Why this insights document, why now?

The purpose of this document is to share, in a clear and concise format, insights the Beverage Industry Environmental Roundtable (BIER) has accumulated from developing corporate water replenishment initiatives in ways that deliver business, environmental and social value.

This initiative was driven in response to the increasing adoption and deployment of corporate water replenishment initiatives, by the desire to share BIER's 10 years of experience and leadership in water replenishment, advance greater standardization and best practice, with the hope that other companies pursuing water replenishment may benefit.

The desired result is for companies to be better positioned to establish impactful collaborations and make meaningful

investments in water replenishment initiatives that result in measurable impacts at the catchment level.

How was this insights document developed?

The insights and recommendations contained herein were developed through a series of interviews with BIER members, including Beam Suntory, Inc., The Coca-Cola Company, Constellation Brands, Inc., Diageo plc, Heineken N.V., Keurig Dr Pepper Inc., The Molson Coors Beverage Company, PepsiCo, Inc., and Pernod Ricard.

Interviews were designed to gain key insights and lessons learned across all aspects of a corporate water replenishment initiative, from the motivations and value drivers behind the initiative, all the way to practical tips on what worked, what didn't, and what can be improved when implementing these programs.

Who is the audience for this insights document?

While this insights document has been developed by BIER, it is designed to be relevant to any company or facility, in any industry, in any location in the world. This document is intended to accelerate internal conversations and decisions at the regional and facility level with regards to investments in corporate water replenishment initiatives.



What is water replenishment?

Water replenishment refers to the mechanism by which a volume of water resulting from water stewardship activities modifies the hydrology in a beneficial way and/or helps address local water challenges that are shared with local communities and stakeholders and have a measurable and positive impact on the catchment's water availability. Water replenishment is also often referred to as "water restoration", "water balance" or "water regeneration".

Water replenishment initiatives refer to programs, projects, collaborations, collective actions, or strategies that aim to advance specific water replenishment objectives and/or activities, typically undertaken in high water stressed catchments. Water replenishment initiatives are also referred to as water balance or water restoration initiatives and are typically represent only one part of a broader corporate water stewardship strategy. Water replenishment initiatives are often developed to help meet targets and goals to return to the local catchment a volume of water equivalent to what a site in that same catchment withdraws or consumes on an annual basis.

How does water replenishment relate to water stewardship?

Water stewardship, is the use of water that is socially and culturally equitable, environmentally sustainable, and economically beneficial, achieved through a stakeholder-inclusive process that includes both site- and catchment-based actions. ([Alliance for Water Stewardship 2019](#)).

Water replenishment is only one of many mechanisms available to advance water stewardship outcomes.



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Why pursue replenishment initiatives?

For beverage companies, water is the main ingredient of our products, making water availability and quality indispensable to long-term business continuity. In addition to driving internal actions to improve water efficiency, reuse and recycling, beverage companies can also contribute to improving source water sustainability through external actions, in the catchment, outside the four walls of the site.

Water replenishment provides a systematic, methodical approach for sites to improve source water sustainability within the broader catchment context, and in some cases, improve catchment health. By doing so, replenishment allows companies to address physical, regulatory, and reputational risks in a way that is reflective of the site's scale, water dependency, and sphere of influence in the catchment.

Through water replenishment initiatives, companies have an opportunity to:

- **Build relationships with local communities and other stakeholders**, in ways that ultimately strengthen the company's social license to operate, particularly in water stressed regions.



- **Reduce physical risk**, by supporting projects that improve catchment health and address local shared water challenges.
- **Drive internal awareness and build capacity**, to help practitioners on-site better understand the local water challenges and build a shared responsibility and ownership to address water-related risk and pursue water-related opportunities.
- **Drive external awareness**, by working collaboratively with other companies and communicating with other stakeholder to help inspire others to act and contribute to having positive impacts on catchment health.
- **Contribute to other company priorities**, by supporting water replenishment activities that going beyond volumes and deliver other social, environmental, and economic benefits.



How do water replenishment initiatives relate to a company's broader water strategy?

BIER recognizes that water replenishment alone will not suffice to address emerging water challenges across the value chain, and that ultimately, achieving water security will require improved water governance and collective action across sectors.

Because of this, for all the companies interviewed, water

replenishment was only one component of a broader water strategy, typically required only for sites located in high water stress areas. Other pillars of company water strategies included, but were not limited to, water in operations, community water access, and sustainable sourcing.



Have water replenishment initiatives met their desired outcomes?

For most participating BIER member companies, it's too early to know if their water replenishment initiatives have improved water security within the catchment and/or strengthened the company's social license to operate. However, there are some initial findings indicating that this type of program has delivered value through:

- Increased awareness and understanding of how challenging it is to improve water security and the need for and importance of coordinated collective action.
- Greater internal prioritization of capital and focus on high water risk areas.
- Improved understanding on the business case for action on water.
- Potential improvements of company reputation.



Opportunities moving forward:

- Analyze the impacts of water replenishment initiatives in the context of local catchment data to ensure initiatives are having the right impact and contributing the desired outcomes.



How have water replenishment initiatives evolved over time?

Over the past 15 years, beverage companies have developed and improved their approach to water replenishment, informed by lessons learned in the field and an ever-evolving landscape of best practice guidance and tools being made available. Some of the main areas of evolution in water replenishment initiatives include:

- **Increased ambition and coverage**, driven by a need to do more to address emerging water challenges, some beverage companies have extended the ambition of the water replenishment initiatives, from aiming to replenish a volume of water equal to what is in their final products, to replenishing all consumptive water use, in water stressed areas. Furthermore, the number of sites with water replenishment goals has grown, in response to company growth and increased exposure to water risk.
- **From volumes, to beyond volumes**. Initially, the

primary focus of water replenishment was to deliver the highest volume per dollar invested, an effective approach to meeting volumetric water targets. However, in order to address the full range of water challenges sites face, and address other company priorities, water replenishment initiatives have evolved to focus on delivering volumes with high societal and environmental value, by focusing on activities that improve catchment health more broadly and respond to stakeholder priorities and local context.

- **Processes and tools**. The evolution of water replenishment initiatives has informed improved internal processes and tools to help streamline the deployment of meaningful and impactful activities. For example, it's common for beverage companies to use pre-validation and completion templates to streamline approval processes and guide decision-making towards projects with higher potential to deliver measurable impacts on catchment health.



How to start a water replenishment initiative?

What worked:

- **Don't reinvent the wheel**. Consult and engage experts, including internal stakeholders, peer organizations, industry associations, and third-party experts, to build on what has already been done,



leverage existing best practices, look for opportunities to join and scale existing efforts when possible.

- **Engage your stakeholders.** Stakeholder engagement, internally and externally, is critical. Build awareness and expertise within the business that will help have decentralized expertise and advocates for water stewardship within the company. Articulate the business case and link it to other company priorities (resilience/community/smallholder farmers), and if you don't have the internal capability to do this, leverage external subject-matter experts to help get you started. Keep in mind that water replenishment is an easy way to communicate ambition to senior leadership, it's a clean metric, very easy to understand & measure.
- **Prioritize.** Prioritizing locations based on the company's operational footprint, site exposure to water-related risk, and site source water vulnerability assessments (SVAs) to identify where water replenishment can have the most impact on the business and on catchment health.
- **Commit.** Consider developing setting targets to know what level of investment and engagement will be needed at each location, using a consistent, methodical approach, integrated into broader business performance scorecard so it's treated as the same priority as other KPIs.

Example: Talking to people, bringing them together over a beer is the best place to start. That will help you start thinking about the problem collectively and identifying solutions. One BIER member started by hosting stakeholders at one of their breweries to talk about water - the first time they did that they had 50 stakeholders join them at a brewery!

Key barriers:

- **Technical capacity:** Build a water replenishment initiative requires often requiring external expertise and capacity, consider this upfront and plan for resources accordingly
- **Long-term view:** a water replenishment initiative will take multiple years to implement and deliver value back to the company. Make sure your internal stakeholders understand that and align early on the expected timelines. Because of this, consider taking a strategic approach – don't plan annually, instead plan and finance the program on a 3 to 5 year-basis to address direct risks.
- **Funding is a major barrier:** for some companies, water replenishment initiatives are paid for by the local businesses, which raises a lot of questions. Some beverage companies have assessed the value at risk to help justify investments in water replenishment and get leadership sign off.



- **Lack of standardization:** on what is the minimum expectation for what companies should aim for, or what is expected more broadly.
- **Scalability:** it's very challenging to get scale in a way that can have a material impact on watershed health through water replenishment initiatives alone.

Opportunities moving forward:

- When possible, particularly if they are in the same catchment, consider including 3rd party manufacturing partners and/or key agricultural suppliers, that may quadruple the number of sites involved and offer a big opportunity to drive impact at scale within the catchment!
- Consider adding scenario analysis to understand future conditions and potential sites not stressed today that will be stressed in the future.
- Put greater emphasis in raising awareness across the company to better align on internal expectations and identify opportunities to build on and complement other company priorities and commitments.
- Be more open and transparent with partners on expectations of what to achieve and why.



How to understand the local catchment and business context?

What worked:

- Keep the approach pragmatic yet comprehensive enough to help you identify opportunities to mitigate water-related risks.
- Use information from the site's SVA, combined with discussions with local water utilities, local NGOs, and catchment groups. That can allow sites to understand the specific shared challenges in the catchment, which in turn will help identify opportunities for water replenishment that improve catchment health.
- The process of understanding the catchment context helps deepen the site's awareness and understanding of the catchment and business case for action.
- Consider partnering with subject matter experts to do this. There are a lot of knowledgeable parties, including local NGOs, universities, research organizations and consultancies, that are working to understand shared water challenges and have good ideas on what needs to be done to have an impact – it's great to work with those organizations instead of starting from scratch.

Key Barriers:

- Sites may push back when they are listed as an 'at risk site', because the site has a poor understanding



of the catchment context and/or because of the significant financial implications to admitting the site is at high-water risk (i.e., it will require high CAPEX for efficiency and replenishment targets).

- It's challenging to secure multi-year funding needed to plan and finance a water replenishment program on a 3 to 5 year-basis.
- Water providers and other stakeholders are not always willing to cooperate and provide information.

Opportunities moving forward:

- Understand other industry in the catchment that may join your efforts and help share costs and increase impacts/outcomes.
- Add scenario analysis to understand future conditions and opportunities to proactively address issues.
- Seek to engage others in a proactive way and explore opportunities to get more people involved proactively and not just reactively. For example, engage implementation partners that have the technical capability to: (a) understand the local risk drivers and (b) develop solutions that are appropriate to the local catchment context and risks.



How to identify and prioritize water replenishment opportunities?

What worked:

- **Engagement.** Engagement is a must – you can't do projects without it. Start to network and develop relationships early on, with peer companies, NGOs, and other catchment stakeholder groups, that can ultimately lead to a solid set of implementing partnerships in the catchment, that can: (a) help other stakeholders understand your interests and objectives in the catchment, (b) identify opportunities for collaboration and collective action and (c) establish trust between organizations.
- **Communication.** For projects that can be scaled and that are in areas where multiple stakeholders/funders have interest, hosting replenish project site tours is an effective way to get buy-in and drive collaboration/co-funding. Transparency and good communication with implementing partners is key to have the hard conversations about what we learned and where we need to improve.
- **Process and tools.** Consider going back to the SVA and risk assessment to evaluate the largest opportunities and priorities for the businesses. Combine that with opportunity assessment criteria to help select the right projects and confirm there is a pathway to achieving measurable outputs and impacts.



- **Keep it simple and practical.** Giving sites responsibility of their target can bolster project ownership and drive them to move forward with identifying partners and opportunities. Start small and try it out to learn and plant the seed for others. E.g., if you work with barley farmers, start with a showcase barley farm. Once you figure it out and see what works you can bring in others, share learnings and get others to adopt similar practices.

Key barriers:

- **Project pipeline.** Some locations don't have local partners and no global NGO interest – it can be incredibly difficult to find / implement opportunities and hard to understand what a pipeline of future projects looks like – combined, it makes it difficult to budget and plan against target deadlines. Some organizations try to create databases for people to access projects, that doesn't always work – dedicating time and investing in engagement with local stakeholders has shown to be more valuable.
- **Uncertainty of natural risks/ hazards.** There are many natural hazards that could impact your ability to deliver volumes. It's hard to determine if the project's resilient to changing physical climate risks.
- **Project timelines.** Some very meaningful and impactful projects may require years to develop and implement, which is not within the typical timeline of

corporate funders.

- **Misaligned interests.** Every company is very specific about where they want to do, it makes it hard to drive collective action because there is not always geographical overlap – it's a barrier to scale/collaboration.

Opportunities moving forward:

- Being willing to engage early in the process and provide catalytic investment to develop good replenish projects where they don't currently exist.
- Each stakeholder group, including NGO's, have their own agenda so keep in mind site objectives and talk to as many partners as you can to find good alignment on objectives and involved governance and community engagement teams internally, consider also engaging and working with other companies that are in the catchment.
- **Access public funding.** Tapping public funding takes time and can be complex, this is a huge opportunity for improvement to help leverage corporate dollars to unlock public funding to drive impact at scale.
- **Improve communication** on the effects of the projects on the local catchment. Not doing so is a huge missed opportunity to build trust with stakeholders, learn, and improve over time.





How to monitor and evaluate performance over time?

What worked:

- Having a standard approach that we can all agree on to estimate benefits is very helpful (using methods like VWBA¹), recognizing that different partners may have different approaches and recommendations that can complement or go beyond what is possible with VWBA.
- **Going beyond volumes.** Consider moving from measuring volumetric water benefits to measuring other co-benefits. Sometimes it may be the other benefits that will be most noteworthy and interesting to others, for example, there are many initiatives designed to achieve forest restoration or freshwater species conservation, that also deliver water benefits, as well as projects designed to reduce GHG emissions that also may yield water benefits.
- **Be open and flexible** with project partners and other stakeholders on what may need to change to meet objectives.
- **Internal controls.** Having internal protocols for ongoing monitoring and verification to ensure the projects are performing as reported, including external verification to help give external stakeholders confidence.
- **Conduct in-person site visits** where possible to

verify completion and performance. This also demonstrates to the local partners that we're committed to the project and care about the local benefits, beyond just writing a check.

- **Be pragmatic.** If we make monitoring and evaluation too difficult it won't happen, we need to find practical, cost-effective solutions.

Key Barriers:

- **Maintenance costs.** Many projects' partners don't factor in the maintenance costs as part of the initial project costs. This makes it very challenging later to do the required maintenance.
- **Estimating catchment outcomes and impacts.** It is difficult to detect/measure outcomes on a catchment scale.
- **Timelines.** Project timing often doesn't align with fiscal year/reporting year timelines.
- **Uncertainty in results.** Measurement and validation of results is hard, and it is difficult to determine whether the project outcomes meet the design (recharge rates, number of beneficiaries, etc.) Furthermore, local project partners may not have the right measurement and reporting capabilities, resulting in errors in results and/or overestimation of benefits. Furthermore, there are discrepancies between actors (e.g., originators, partners, offtakes) on the benefits and/or duration of benefits.

¹ [Volumetric Water Benefit Accounting](#)



Opportunities moving forward:

- **Going beyond volumes**, to measure other societal, environmental, and economic outcomes and impacts.
- **Knowledge sharing**. Sharing learnings and lessons learned can be extremely valuable to help learn and gain experience from others.
- **More standardization and agreement**, on how to account for project benefits (both volumetric and non-volumetric), considering what and when should benefits be expected and communicated.
- **Combatting turnover**. Government agencies change staff all the time and auditors want to be able to check with the government agencies to confirm project claims – so use an NGO or other entity to coordinate with government to help mitigate that risk.
- **Maintenance**. Make sure that ongoing maintenance and performance monitoring is understood at the beginning of the project, and if possible, factored into the cost.

The information provided herein represents the combined experience and practical learnings of 9 of the world's largest beverage companies and offers valuable insights into any company currently developing or planning a water replenishment initiative.

As shared by the BIER member companies interviewed, when designed and implemented correctly, water replenishment initiatives can deliver many benefits for your company. For example, it can help build trust with internal and external stakeholders, contribute to reducing physical, regulatory, and reputational water-related risks, and ultimately strengthen your social license to operate in water stressed areas. Moreover, it can help you raise awareness within your company, and externally, on the shared responsibility and need to urgently address emerging shared water challenges.

Developing an impactful water replenishment initiative is a journey. Regardless of where your company is on this journey, the experience of BIER member companies underscores the importance of:

- Prioritizing early stakeholder and community engagement, to build trust and ensure others understand your interests and objectives in the catchment;
- Keeping things practical and pragmatic to ensure adoption, and help build ownership and responsibility of water replenishment initiatives within the company; and,
- Being open and flexible, to adapt and make changes overtime in response to changing catchment and business context and increasing climate uncertainties.



Moving forward, BIER invites companies and organizations across sectors to share their learnings and experience with implementing water replenishment initiatives.

Helpful Resources

On water risk:	Year	Link
WWF Water Risk Filter	2022	https://riskfilter.org/
WRI Aqueduct Water Risk Atlas	2022	https://www.wri.org/aqueduct
On water management:	Year	Link
Performance in Watershed Context	2017	http://www.bieroundtable.com/wp-content/uploads/Performance-in-Watershed-Context-Insights-Paper.pdf
AWS International Water Stewardship Standard 2.0	2019	https://a4ws.org/the-aws-standard-2-0/
A RECIPE FOR IMPACT: Key Ingredients for Companies to Drive Measurable Impact in Watershed Health	2022	https://www.nature.org/content/dam/tnc/nature/en/documents/Recipe-ForImpact_March2022.pdf
On water-related collaboration and engagement:	Year	Link
Diageo Water Collective Action Implementation Guide	2021	https://ceowatermandate.org/wp-content/uploads/2021/09/Diageo-Water-Collective-Action-Implementation-Guide-May-2021-ext.pdf
Water Action Hub	2022	https://wateractionhub.org/
On water-related measurement:	Year	Link
Volumetric Water Benefit Accounting (VWBA): A Method for Implementing and Valuing Water Stewardship Activities	2019	https://files.wri.org/d8/s3fs-public/volumetric-water-benefit-accounting.pdf
Benefit Accounting of Nature-based Solutions for Watersheds	2020	https://ceowatermandate.org/nbs/wp-content/uploads/sites/41/2020/08/landscape.pdf
Volumetric Water Benefit Accounting (VWBA): A Practical Guide to Implementing Water Replenishment Targets	2021	https://ceowatermandate.org/wp-content/uploads/2021/01/VWBA_Guidebook_F_Web.pdf
Measuring and Evaluating the Impact of Corporate Watershed Projects	2021	https://www.nature.org/content/dam/tnc/nature/en/documents/MeasuringandEvaluatingtheImpactofCorporateWatershedProjects_Sept2021.pdf
Beyond Volumes: Exploring the Societal Value of Corporate Water Stewardship Projects.	2022	https://blueriskintel.com/beyond-volumes-exploring-the-societal-value-of-corporate-water-stewardship-projects/



About the Beverage Industry Environmental Roundtable (BIER)

BIER is a technical coalition of leading global beverage companies working together to advance environmental sustainability within the beverage sector. Formed in 2006, BIER is a common voice across the beverage sector, speaking to influence global standards on environmental sustainability aspects most relevant to the sector, affect change both up and down the supply chain and share best practices that raise the bar for environmental performance of the industry. By doing so, BIER is able to monitor data and trends, engage with key stakeholders, develop best practices, and guide a course of action for the future.

Additional information is available at www.bierroundtable.com.

