Net Positive Water Impact An Introduction

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Authors

Gregg Brill Klaudia Schachtschneider Ashok Chapagain Giuliana Moreira Deborah Carlin

United Nations Global Compact CEO Water Mandate

www.ceowatermandate.org

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Ross Strategic and Pegasys supported the development of the original conceptual framework. This was further developed into an earlier version of this document (working draft) by Bluerisk, building on practitioner experience and published literature, working in close consultation with the CEO Water Mandate, Pacific Institute and the NPWI Taskforce of member organizations from the Water Resilience Coalition, including 3M, Danone, Heineken, Holcim, The Nature Conservancy and Kurita.

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All the views expressed in this publication are those of the authors and do not necessarily reflect those of the project sponsors, the members of the Taskforce, Water Resilience Coalition or those who have contributed their views to this guidance.

For more information and resources relevant to NPWI, please visit the project page.

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GLOSSARY

Due to the significant size of the glossary, specific terminology used in this guidance has been placed into Appendix A.

ABBREVIATIONS

- AWS Alliance for Water Stewardship CDP Carbon Disclosure Project **EPA** United States Environmental Protection Agency ESG Environmental, Social and Governance ILO International Labour Organization ITF **Internal Tracking Framework** JMP Joint Monitoring Programme M&E Monitoring and Evaluation NBS Nature-Based Solutions NGO Non-Governmental Organization NPWI Net Positive Water Impact ROI **Return On Investment** SBTN Science Based Targets Network SDG Sustainable Development Goal TMDL Total Maximum Daily Load TNFD Taskforce on Nature-Related Financial Disclosures UNICEF United Nations International Children's Emergency Fund VWBA Volumetric Water Benefit Accounting **VWB**s Volumetric Water Benefits WASH Water Access, Sanitation and Hygiene WFD Water Framework Directive of the European Commission **WHO** World Health Organization
- WQBA Water Quality Benefits Accounting
- WRC Water Resilience Coalition
- WRF Water Risk Filter
- WRI World Resources Institute
- WWF World Wildlife Fund



OVERVIEW OF THE NPWI GUIDANCE

The NPWI guidance documentation supports implementation of an NPWI ambition across a company's direct operations. Overall, the NPWI guidance contains multiple documents, supplementary material and an online progress-tracking tool (Internal Tracking Framework):

- The Executive Summary provides a high-level summary for decision-makers and executives to understand 1. the NPWI ambition and implementation steps.
- 2. Net Positive Water Impact: An Introduction (this document) offers a comprehensive introduction to the objectives, value and structure of NPWI, providing the entry point to the NPWI guidance and suitable reading for corporate leadership and technical staff.
- 3. Implementing Net Positive Water Impact: Technical Guidance provides an in-depth description of the required NPWI steps across three Pillars and three dimensions of water stress. It forms the core reading to guide a company through NPWI implementation at the site and basin scales in water-stressed basins.
- 4. Implementing Net Positive Water Impact: Step-in-Practice provides a practical example for operationalizing NPWI in the textile industry and is intended as an add-on to the technical guidance document.

Upcoming

- 5. The Internal Tracking Framework (ITF) includes all indicators and other metrics to enable standardized data collection and progress reporting towards milestone achievements and site NPWI claims.
- 6. A supplementary document on How Net Positive Water Impact relates to the Water Resilience Coalition is currently being developed with WRC signatories. It will be relevant to anyone interested in better understanding this relationship.

This is the **second** document in the series.

OBJECTIVES OF THIS INTRODUCTORY DOCUMENT

This is the introductory document to NPWI and should be read by anyone wanting to familiarize themselves with the fundamental NPWI concept and its steps, scales and dimensions. It aims to help organizations understand NPWI, including general processes and key considerations for operationalizing NPWI across sites in the water-stressed basins in which a company operates. This document is intended for a variety of private-sector decision makers (e.g., C-suite, operational management, sustainability practitioners, water stewardship teams, etc.) and more specifically those tasked with leading a company's efforts to achieve NPWI. Although this document was prepared to support endorsing companies of the CEO Water Mandate and WRC to build long-term water resilience across their direct operations, it is intended to serve the needs of all companies, regardless of their affiliation or involvement with these organizations. The hope is that this work is adopted by a broad audience and implemented globally. Only through mainstreaming and upscaling this work will we be able to address the multiple dimensions of water stress.

INTRODUCTION

Water is linked to many of the most pressing global challenges faced by humanity and the environment. Global water demand has increased by 600% over the last 100 years, and the current global water demand of about 4,600 km³ per year is set to increase by another 20 to 30% by 2050 (Burek *et al.*, 2016; Wada *et al.*, 2016). This increased demand for water goes hand in hand with reduced availability of water resources and increasing water pollution due to population growth, socio-economic development and changing consumption patterns (Boretti and Rosa, 2019; UNESCO, 2023). Given the ongoing impacts on freshwater ecosystems and increasing water demand worldwide, businesses play a pivotal role in reducing the effects of the water crisis. They can contribute to the sustainability of their operations and to environmental conservation through internal initiatives and strategic partnerships.

Water scarcity, a primary challenge for many societies, affects about four billion people (UNESCO, 2023). Regions where water resources are limited and heavily exploited are particularly vulnerable, such as the Middle East, North and Southern Africa and parts of Asia and Latin America. Climate change exacerbates the situation by altering precipitation patterns and increasing the frequency of droughts and floods, which can disrupt surface and groundwater resources and

the water supply. Agricultural demands and industrial use are responsible for the over-extraction of groundwater and have accelerated groundwater-level declines in 30% of the world's regional aquifers over the past four decades (Jasechko *et al.*, 2024).

Poor water quality is a second challenge that exacerbates the global water crisis. Polluted water is simply unsafe to drink. Its use in agriculture and industry often requires additional treatment. Aquatic and terrestrial habitats facing water quality issues can experience long-lasting declines in biological diversity and ecosystem functioning. Poor water quality increases the cost of water treatment and distribution, placing a greater burden on already stressed water infrastructure. In many cases, pollution disproportionately affects vulnerable communities, deepening inequality and compounding water scarcity.

Lastly, the water crisis includes a lack of access to water, sanitation and hygiene (WASH). Approximately 2.2 billion people globally do not have access to safe drinking water, and about 4.2 billion people lack proper sanitation

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(UNESCO, 2023). Lack of appropriate access to safely managed and climate-resilient WASH services has dire health implications, as contaminated water sources can lead to waterborne diseases, which result in more than 800,000 WASH-related deaths annually (Prüss-Ustün *et al.*, 2019).

In response to this water crisis, many companies are engaging in water stewardship and collective action to help address their water-related externalities and to secure, treat and manage water for the growing needs of all users. These stewardship and collective action responses are based on the realization that water risks are caused not only by a company's footprint but also by the conditions in the basin in which the company operates (CEO Water Mandate *et al.*, 2019).

Water-related risks to a company will be location-specific and may be a function of a suite of interrelated water challenges in a basin that can fall under:

- Water availability
- Water quality
- Access to safely managed and climate-resilient WASH
- Water governance
- Important water-related ecosystems
- Extreme weather events and climate change
- Resilience of the basin and its stakeholders

The overarching objective of Net Positive Water Impact (NPWI) is to make long-term improvements in basin health and resilience by directly addressing the underlying root cause of water availability, quality and accessibility challenges.



WHAT IS NET POSITIVE WATER IMPACT?

NPWI is a **leadership ambition** set at the enterprise level and is available to any company, across any sector, industry or geography. It aims to ensure that the water user's contributions towards a healthy basin exceed their impacts, especially **in water-stressed basins**. It requires **long-term commitment** and input towards quantifiable outcomes.

WHAT TO ADDRESS

As part of NPWI, there are three dimensions of water stress to address, namely:



Water availability: The objective of this dimension is for **companies to reduce the volume of water withdrawn within the basin over time** (volume unit/year). This is addressed as minimized water withdrawals on site, replenished volumes of water to balance a site water footprint and measurable, sustained, long-term basin volumetric outcomes that go beyond the company footprint.



Water quality: The objective of this dimension is to reduce (and ultimately avoid adding) pollutant load at the site, downstream and in the basin (percentage or total pollutant load reduction in mass or volume/year).



Water accessibility: The objective of this dimension is to **improve access to water, sanitation and hygiene (WASH) services** that are physically accessible at work, within or near the employee household and for the population in the overall basin (percentage of people with safely managed and climateresilient WASH services).

WHERE TO ADDRESS

There are **three distinct "Pillars"** that define the scale at which NPWI is being addressed. **Each Pillar addresses the three dimensions of water stress across different scales** (Figure 1).



FIGURE 1: SPATIAL DELINEATION OF THE THREE NPWI PILLARS

The three Pillars, which **may be addressed in parallel or consecutively**, guide the engagement scale. These Pillars are scale-dependent and defined by local conditions and the type of actions required. Importantly:

Pillar 1 is always confined to the **site boundary**.

Pillar 2 activities may still be located on **company property or may extend beyond this**. The boundary is defined by the area in which replenishment projects occur, by the location of wastewater outflow or by the scale of surrounding communities where most employee households are located.



Pillar 3 should be undertaken at the largest scale, generally at the **sub-basin or basin scale** at which collective action initiatives are most impactful.

For Pillars 2 and 3, the most suitable and workable scale shall be decided based upon local conditions.

WHO DRIVES WHAT ACTION

There are several players involved in NPWI implementation:

Pillar 1 is **company-driven** and, due to its on-site focus, it should be managed internally and address availability, quality and accessibility to the point of best practice (avoid or reduce operational impact through water efficiency, reuse, recycling and wastewater treatment and appropriate employee access to WASH).



Pillar 2 is also **company-driven**, with the focus to further reduce the operational footprint through replenishment, restoration or regeneration activities to address both availability and quality while ensuring employee WASH access at home. The aim is to balance all operational impacts, and this may be done internally or through bilateral or collective action.



Pillar 3 is **stakeholder-driven**, meaning that the nature of challenges, the problem scale in the basin and activities are jointly defined by stakeholders. Companies shall meaningfully support and participate in collective actions that deliver measurable, beneficial basin outcomes and impacts that will improve overall basin health and contribute to good water governance, sustainable water balance, good water quality status, important water-related areas and/or safe water, sanitation and hygiene for all.

WAYS TO ACHIEVE NET POSITIVE WATER IMPACT

There are multiple ways a company can undertake its NPWI implementation across operations in basins that have been identified as water-stressed. There is no prescriptive approach, and as such companies should adopt a process that best fits their individual site's operations, capacity and resources. It should also align with corporate-level ambitions. The following examples will explain several approaches to doing this. For example, a company completes its risk assessments and finds that it has sites in three water-stressed basins and (currently) one non-stressed basin. NPWI's focus is on the water-stressed basins. A company may strategize to first address all its impacts relative to accessibility, quality and availability in one basin. Once that has been completed (anticipated time of ~10 years), the company has achieved NPWI across all three dimensions for sites in that specific basin. The company may opt to make a public claim of achieving NPWI and will follow the claim-validation process (see Technical Guidance).

Another option for the company is to address the dimension posing the highest risk across all water-stressed basins first (e.g., availability). That way, the company strategically makes the most impactful contribution across sites for one dimension. Addressing the less pressing dimensions may then follow across all three basins.

The NPWI journey may also not be as straightforward as depicted in the previous examples. The NPWI journey may be more iterative, based upon a combination of priority and opportunity, leading a company to focus on, for example, one basin where sites have progressed far on the water stewardship journey with respect to one dimension that poses the highest risk (e.g., quality) now. Addressing the rest may then follow. It needs to be noted that not all three dimensions of availability, quality and accessibility are equally pressing in all basins. Some basins may have full levels of WASH access, for example, meaning that the company may focus its efforts entirely on availability and quality.

Figure 2 shows an example of a company that has achieved full NPWI across all three basins in all relevant dimensions. Progress tracking of NPWI will take place in the ITF, where a company can track the progress of individual sites and the full portfolio of sites using the relevant dashboards.

Given the wide diversity of businesses, the journey to reaching NPWI by 2050 will look different for each organization, based on the maturity of its corporate water stewardship as well as its locations, scale, strategy, sector and level of water dependency. Companies may pursue NPWI in basins that are not classified as water-stressed, although this lies outside the current scope of this guidance.



FIGURE 2: PATHWAY TO ACHIEVING NPWI IN WATER-STRESSED BASINS

DIFFERENTIATING NET POSITIVE WATER IMPACT FROM OTHER WATER-POSITIVE TERMS

Many organizations utilize one or more of the following terms to describe "water-positive" concepts:

- Net-zero
- Net-neutral
- Net-positive
- Water neutral
- Net water positive
- Positive water impact
- Regenerative water use

Many of these terms stem from climate mitigation initiatives aiming to reduce greenhouse gases and address carbon emissions. However, these terms are not necessarily appropriate when applied to water and do not fully reflect the ambition of NPWI. Despite the confusion in terminology, several organizations offer definitions for achieving some form of positive water impact. For example, the United Nations (n.d.) suggests that net positive is an approach that goes beyond "doing less harm" and urges businesses to have a positive impact through replenishment actions and "putting more water back into the environment than they are extracting from it." Importantly, this replenishment should be done in the same basin that the water was originally extracted from. The International Desalination and Reuse Association (2022) states that being water positive is about creating a system of sustainability, and sustainability is balancing the activity cohesively and collaboratively with the resource and the environment. It too supports "returning more water to nature than they consume."

NPWI is a concept that originates from such definitions but better aligns with the 'mitigation hierarchy' (Arlidge et

al., 2018) (avoid, minimize, restore, offset) because it goes beyond just operational efficiencies and replenishment (volumetric benefits) by also addressing quality and accessibility as added dimensions of water stress. It also looks to **build long-term water resilience at the site and basin levels**. NPWI requires companies to go **well beyond balancing their operational impact and footprint**. To reduce basin water stress, they need to be committed to doing measurably and significantly more by engaging with basin stakeholders on jointly identified basin challenges through **collective action** and by addressing these challenges through strategic investments across **water availability, quality and accessibility.** This distinction ensures a more **holistic, system-wide approach**. Because NPWI addresses water stress at different scales – from the site level to the basin level

NPWI promotes broadbased engagement and collaboration to have a meaningful contribution to addressing water stress in a basin."

- the outcomes and impact go beyond individual contributions and rely upon the need for strategic partnerships at broader scales. The general insight in water stewardship circles is that one company cannot successfully address water challenges on its own in any water-stressed basin. Water stress and related risks will remain even if one company, acting alone, goes beyond addressing its footprint and impact. Hence, NPWI promotes broad-based engagement and collaboration to have a meaningful contribution to addressing water stress in a basin.

NET POSITIVE WATER IMPACT AND THE SUSTAINABLE DEVELOPMENT GOALS

Getting companies to contribute to the United Nations Sustainable Development Goals (SDGs) is gaining traction under the auspices of scaling business impact for the decade of action. As companies set targets and goals, there is an acknowledgment that meeting the SDGs is an ongoing, long-term process. The outcomes of NPWI are intended to contribute towards the SDG outcomes, supporting a pathway towards fulfillment of the 2030 pledge for SDGs. NPWI explicitly connects to Goal 6: *Ensure availability and sustainable management of water and sanitation for all*, and it does so for all three Pillars and dimensions of water stress. Table 1 summarizes the relationships between NPWI and the specific targets of SDG 6.

TABLE 1: CROSSWALK BETWEEN SDG 6 TARGETS AND NPWI PILLARS AND DIMENSIONS

SDG 6 Targets	N	let Positive Wa	ter Impact	
	Water Dimension	P1	P2	P3
SDG 6.1 "Safe Drinking Water for All" Includes Indicator 6.1.1: "the proportion of population using safely managed drinking water services."		S		
SDG 6.2 "Sanitation for All" Includes Indicator 6.2.1: "proportion of population using (a) safely managed sanitation services and (b) a handwashing facility with soap and water."	¢.			
SDG 6.3 "Better Water Quality" Includes Indicator 6.3.1: "the proportion of wastewater safely treated" and Indicator 6.3.2: "the proportion of bodies of water with good ambient water quality."				
SDG 6.4 "More Efficient Water Use" Includes Indicator 6.4.1: "the change in water- use efficiency over time" and Indicator 6.4.2: "the level of water stress: freshwater withdrawal as a proportion of available freshwater resources."		S	S	
SDG 6.5 "Implement integrated water resources management at all levels."	۵ 🎄 📥			Possible, if identified as key point in collective action with stakeholder
SDG 6.6 "Protect and restore water-related ecosystems."			Yes, as a benefit of NBS actions under availability and quality	Yes, as a benefit of NBS actions under availability and quality
SDG 6.A "Expand international cooperation and capacity-building support to developing countries."	ا الله الله الله الله الله			Possible, if identified as key point in collective action with stakeholders
SDG 6.B "Support and strengthen the participation of local communities."	ا الله الله الله الله الله			Possible, if identified as key point in collective action with stakeholders

SDG 6 Targets 6.1, 6.2, 6.3 and 6.4 each relate to one of NPWI's dimensions of water stress and the three NPWI Pillars. Implementing NPWI in water-stressed basins can, therefore, help an organization address many of the SDG targets in that geography. SDG 6 Targets 6.5, 6.6, 6A and 6B may also have a relation to NPWI. As companies engage collectively with stakeholders through Pillar 3, it is possible to fulfill these targets, depending upon the agreed-upon collective needs and activities.

More details about how Pillar 3 can engage with these targets is described below:

SDG Target 6.5 (Integrated water resource management) is a framework for companies and partners to address potential conflicts and opportunities between the targets within Goal 6. As outlined in UN-Water (2016), this is done by "balancing the demands from various sectors on water resources, as well as the potential impacts of different targets on each other, to form a coordinated planning and management framework. This is achieved by considering all levels of management, including transboundary cooperation and upstream-downstream uses as appropriate."

SDG Target 6.6 (Protect and restore water-related ecosystems) may be addressed in a collective effort to restore, manage and protect degraded wetlands, riparian areas and freshwater bodies like rivers, wetlands, ponds and lakes. Building artificial habitats can also help provide additional habitat to local species and help provide additional ecosystem services such as water storage and filtration, fire protection and diverse cultural services. With a significant focus on nature-based solutions (NBS) and the improvement of water-related ecosystems, there can be significant local and downstream benefits to water quality and quantity and can support of WASH services. Equally, an increase in available water and reduced pollutant loads will benefit the freshwater ecosystems in the basin.

SDG Target 6A (Expand international cooperation and capacity-building support to developing countries) is likely the most difficult to address but may be approached through collective action initiatives that take a wider approach with transboundary basin organizations, water-transfer schemes and river commissions. Alternatively, collaborations between the public and private sector as well as with NGOs, civil societies and communities may help build local, regional and national solutions to water-stressed basins. The outcomes of this cooperation and capacity development result in improvements to water security across NPWI's three dimensions of water stress.

SDG Target 6B (Support and strengthen the participation of local communities) may be positively addressed if the collective engagement under NPWI Pillar 3 ensures the direct involvement of local communities with positive outcomes and impacts for them and their livelihoods.

ALIGNMENT BETWEEN NPWI AND OTHER WATER STEWARDSHIP TOOLS, APPROACHES AND FRAMEWORKS

The number of climate, water and biodiversity agreements, frameworks and reporting tools has grown significantly over the years and in some cases has become increasingly complex. Understanding the different agreements, frameworks and tools and deciding upon the most appropriate ones for the company has become time-consuming and confusing. How the different frameworks and tools align, overlap or exclude each other has become an added layer of confusion. Water stewardship is a very engaged and busy space, hence it is important to clarify how and where NPWI fits into this ecosystem. Figure 3 presents a proposed matrix of agreements, action frameworks, reporting frameworks and rating systems. Some companies apply many of these in their corporate water stewardship efforts.

NPWI falls squarely under the water resources category, aligning with international agreements and the targets of SDG 6. It falls into the same action framework realm as the Science Based Targets Network (SBTN), the Alliance for Water Stewardship (AWS) and the Taskforce on Nature-related Financial Disclosures (TNFD) but differs in that it seeks to address water challenges at both the site and basin levels and across multiple dimensions of water stress.

Complementary crosswalks exist among the approaches mentioned at the intersection of NPWI and SBTN, AWS and TNFD with deep-dive analyses between the AWS Standard and NPWI being drafted (to be added once available). For a more detailed crosswalk between NPWI and a selection of popular frameworks, guidance documents and tools, please refer to Appendix B.

FIGURE 3: RELATIONSHIP OF NPWI AND OTHER AGREEMENTS, FRAMEWORKS AND REPORTING TOOLS TO CLIMATE CHANGE, WATER RESOURCES AND BIODIVERSITY

		Climate change	Water Resources	Biodiversity
Internationa Agreement	ıl	PARIS2015 COP21-CMP11	6 actasette	2020 UN BIODIVERSITY CONFERENCE CO P 13 - C P / M O P 10 - P / M O P 1 Con P 10 - P / M O P 10 - P / M O P / A Fundamentaria for the table RAINING CHINA
Action	Target	SOIENCE BASED TARGETS	Target: Problem solving for entire basin	SCIENCE BASED TARGETS NETWORK
Framework	Action	GREENHOUSE GAS PROTOCOL	NPWI Comparison KUR STEVESOF	
Reporting Framework				
Rating Organization / System	I		MSCI ESG Research	ecovadis S&P Global

CONCLUSION

Businesses are significant water users in many of the world's water-stressed basins and are essential stakeholders in contributing to the responsible management of water resources. While many businesses have invested in water stewardship solutions, more businesses must join these efforts, speed up and scale progress. Water challenges pose growing risks to business continuity, climate, environmental and health. Yet these impacts on businesses should not be the sole reasons to act. Resilient water systems are also vital to address dual climate and nature crises. They profoundly underpin society's ability to achieve multiple SDGs for food security, human health, biodiversity, gender equality and other priorities. To be on the right side of history, the time to act is now.

The UN Global Compact CEO Water Mandate and WRC call upon businesses to join the NPWI journey to build resilience for their operations and the communities and ecosystems in the basins in which they operate. The leadership ambition of NPWI is available to any company, across any sector, industry or country in the world. As one of three overarching commitments of the WRC, NPWI aims to make long-term improvements in basin health and resilience by directly addressing the underlying root causes of availability, quality and accessibility challenges.

NPWI is an ambition for a water user to interact with a basin, ecosystems and communities in such a manner that there are measurable contributions towards reducing water stress in three of its dimensions (availability, quality and accessibility). The objective is to ensure that the water user's contributions exceed its impacts on water stress in the same region. NPWI aligns with established methodologies and can be measured, using appropriate indicators for outputs, outcomes and impacts of actions taken in direct operations and collectively in the basin.

NPWI intends to provide companies with a layered approach to reducing their water-related operational footprint and help address shared water challenges in water-stressed basins. NPWI aims for companies to embrace the wide spectrum of individual efforts all the way to collaborative action, which generates measurable, large-scale improvements in basins. This aligns with the Business Leaders' Open Call to Accelerate Action on Water and can drive meaningful on-the-ground change by supporting communities, ecosystems and economies. Getting to these significant changes requires broad thinking, breaking down siloed approaches and raising the ambition of all actors. NPWI is the ambition needed to reach that point. The NPWI Technical Guidance and the Step-in Practice documents provide practical guidance on achieving NPWI, using a five-step process. The Internal Tracking Framework provides an online information repository to recode NPWI progress.

NEXT STEPS AND CALL TO ACTION

Currently, the NPWI guide material consists of five documents, namely the stand-alone Executive Summary, introduction to NPWI (this document), Technical Guidance, Step-in-Practice document and the upcoming WRC-NPWI Overview. These documents are scheduled to be updated periodically, based upon lessons learned during implementation and when new indicators and methods relevant to this work become available.

The NPWI guidance developed thus far covers a company's direct operations. Guidance for NPWI in the value chain will be developed as part of the next update. Additional elements already under consideration for future versions of the

NPWI guidance series include:

- The addition of biodiversity as a fourth dimension of water stress.
- A technical guideline document outlining NPWI implementation across value chains.
- Detailed crosswalks with SBTN and all benefit accounting frameworks (e.g., VWBA, WQBA, BioBA, etc.).
- Developing data imports from reporting platforms, such as CDP and/or GRI, in the ILT.

Conceptualizing and drafting of the NPWI guidance for value chain implementation is planned to commence in late 2024 and completed by 2025. This document will adapt the NPWI approach to a company's value chain, allowing for a positive impact at broader basin scales. We invite and encourage companies to carefully consider their value chain impacts and possible improvements already, providing an informed vantage point from which to act, once NPWI value chain guidance is launched. We recommend the SBTN framework steps 1, 2 and 3 on supply chains in the absence of detailed NPWI guidance.

It is noted that this guidance does not yet include a detailed list of sector-specific pollutants. This will be investigated going forward in collaboration with the WQBA framework and other target and framework initiatives.

As a call to action, all companies operating in water-stressed basins are encouraged to adopt and promote NPWI at the enterprise level and implement NPWI at each of their sites in water-stressed basins. It is only by scaling this work that we will see a net positive impact for water in basins globally.



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Appendix A: Glossary

Accessibility (water)	Everyone has the right to water and sanitation services that are physically accessible within, or in the immediate vicinity of, the household, educational institution, workplace or health institution.	Link
Availability (water)	In this guidance document, water availability refers to a basin's volumetric abundance or lack of water. It can be related to water scarcity – typically calculated as a ratio of human water consumption to available water supply in each area.	Link
Basin	Basin refers to the geographical zone in which water is captured, flows through and eventually discharges at one or more points. The concept includes both surface water catchments and groundwater catchments.	Link
Basin health	Basin health refers to the water quantity, quality and ecosystem conditions within a basin. A healthy basin has balanced water quantity, good water quality and healthy ecosystems, supported by appropriate infrastructure and good governance. A healthy basin protects human health, maintains viable ecological functions and processes and supports self-sustaining populations of native fish and wildlife species.	NPWI definition
Collective action	Coordinated engagement among interested parties within an agreed-upon process in support of common objectives. Water-related collective action refers to specific efforts to advance sustainable water management, whether through encouraging reduced water use, improved water governance, pollution reduction, river restoration or other efforts.	Link

Operational footprint	Site operational footprint is the volume of water withdrawn from the basin or the total load of pollutants released into the basin from site operations in the base year of NPWI assessment. This is also referred to as "footprint" or "site operational footprint" throughout this document. This document distinguishes between "operational impact" and "operational footprint" within a specific basin. Operational impact refers to the direct consequences of a company's actions at the site level, where control lies solely with internal decisions. In contrast, the operational footprint encompasses broader consequences influenced by the company's activities but requires collaboration with external stakeholders for significant reduction.	Link
Replenish	The act of returning a volume of water to a site's local catchment areas in ways that address the local water challenges shared by local communities and stakeholders, align with the leading practice for corporate water stewardship, are informed by the best available information and catchment context and have a measurable and positive impact on the catchment's water availability, quality and accessibility.	Link
Restore and regenerate	An intervention that involves returning degraded, damaged or destroyed ecosystems to a near pre-disturbance state. Considered synonymous with reforestation, rehabilitation, revegetation and reconstruction.	Link
Safely treated wastewater	Wastewater is safely treated if it can be released back into the environment, or it can be used again for purposes such as drinking, stock watering, recreation or irrigation, without any arising health and environmental problems. The required treatment level depends upon the water quality guidelines, set for downstream uses at either the national or international level.	Link
Shared water challenge	A water-related issue, concern or threat shared by a company site and one or more stakeholders within the catchment. Examples include physical water scarcity, deteriorating water quality and regulatory restrictions on water allocation.	Link
WASH	WASH is both a concept and an acronym, formed from the first letters of water, sanitation and hygiene. The grouping of water supply (access to drinking water services), sanitation and hygiene into an overarching concept is done deliberately because these three fields overlap very closely, and any shortcoming in one of them has significant impact on the other two. Basic WASH service: Water should be accessible for beneficiaries within a 30-minute round trip (including queuing), sanitation should be on-premises and not shared with other households and hygiene should be on premises.	Link
WASH - climate resilient	WASH services and behaviors that continue to deliver benefits, or that are appropriately restored, within a changing climate context and despite climate-induced hazards.	Link

Water efficiency	The minimization of the amount of water used to accomplish a function, task or result.	Link
Water quality	The measure of the suitability of water for a particular use based on selected physical, chemical and biological characteristics.	Link
Water risk	The possibility of an entity experiencing a water-related challenge (e.g., conflicts over water among communities, water scarcity, water stress, flooding, infrastructure decay, drought). The extent of risk is a function of the likelihood of one or several specific challenges occurring and the severity of the challenge's impact. The severity of impact itself depends upon the intensity of the challenge and the compounding effect of experiencing multiple challenges simultaneously as well as the vulnerability of the actor.	Link
Water scarcity	The amount of water that can be physically accessed varies as supply and demand change. Water scarcity intensifies as demand increases and/or as water supply is affected by decreasing quantity or quality.	Link
Water stewardship	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.	Link
Water stress	The ability, or inability, to meet human and ecological demand for fresh water. Compared with scarcity, water stress is a more inclusive and broader concept. It considers several physical aspects related to water resources, including water availability, water quality and the accessibility of water (i.e. whether people can make use of physically available water supplies), which is often a function of the sufficiency of infrastructure and the affordability of water, among other things. Both water consumption and water withdrawals provide useful information that offers insight into relative water stress. There are a variety of physical pressures related to water, such as flooding, not included in the notion of water stress. Water stress has subjective elements and is assessed differently depending upon societal values. For example, societies may have different thresholds for what constitutes sufficiently clean drinking water or the appropriate level of environmental water requirements to be afforded to freshwater ecosystems and thus assess stress differently. It needs to be noted that water stress is defined differently across guidelines and tools (e.g., Aqueduct), hence referral to the glossary for each product is important.	Link
Water withdrawals	Water diverted or withdrawn from a surface water or groundwater source.	Link

Appendix B: Crosswalks with other water stewardship guidelines and frameworks

This Appendix provides a direct comparison of the most popular and the most aligned guidelines and frameworks with NPWI. Where possible, alignment is shown to the five steps, the three Pillars and the three dimensions of availability, quality and accessibility. A solid dot (\bigcirc) shows direct alignment, in which some information and/or data can be directly exchanged. An unfilled dot (\bigcirc) indicates an indirect link. This may mean that the material can be informative or valuable in preparing for NPWI, without direct transferability. Grey dots (\bigcirc) indicate the likely links between NPWI and current materials that are still under development.

AWS

The Alliance for Water Stewardship (AWS) Standard and NPWI have close alignment across multiple steps (Table C1). NPWI, as an ambition, has the potential to strengthen the outcomes of AWS. In return, the standard, due to the considerable content overlap, can enhance the consistency of NPWI. Direct overlap between NPWI and AWS occurs on all three dimensions of availability, quality and accessibility and directly across Pillars 1 and 3. Depending upon the local situation, AWS steps may offer useful support to some Pillar 2 components as well, depending upon how the scale of Pillar 2 is framed. The AWS standard includes a WASH component, but more information will be available in a separate WASH guidance document. A more detailed crosswalk document between AWS and NPWI is upcoming.

TABLE B1: CROSSWALK BETWEEN AWS AND NPWI

	Relevance to Pillars			Re Di	levance mensio	e to ns	
NPWI	P1	P2	Р3		0.00 0.00		Alliance for Water Stewardship (AWS)
STEP 1 AWARENESS	•	•	•				AWS Criterion 1.1 Gather info to define scope
STEP 2 AMBITION							
STEP 3 ASSESSMENT							Step 1: Gather and Understand and Step 2: Commit and Plan
3.1 Define baseline	•	•	•	•	٠	•	Step 1: 1.2 - 1.3; 1.5 - 1.8
3.2 Define objectives and targets							Step 2: 2.2 - 2.4
STEP 4 ACTION	•	•	•	•	•	•	Step 3: Implement
	•	•	•	•	•	•	Step 4: Evaluate
SIEF 5 MEASUREMENT	•	•	•	•		•	Step 5: Communicate and Disclose (5.3 and 5.4 in ITF)

BENEFIT ACCOUNTING FRAMEWORKS (VWBA, WQBA, WASH BA)

The benefit accounting frameworks provide standardized methods with which companies can calculate their actual impact on water quantity, quality and accessibility (WASH). The benefit accounting frameworks are regularly referred to in the NPWI guidance document.

In the Volumetric Water Benefit Accounting Framework (VWBA), the list of calculation methods is recommended primarily for water availability-related projects. In addition they are also applicable for water quality-related projects where an increased volume of water in the basin directly contributes to the dilution or flushing of pollutants or where flow patterns reduce water quality problems such as soil erosion. Some methods, such as the 'volume provided' method, can also be used for quantifying WASH projects. The methods provided in the VWBA can be applicable across all three Pillars, depending upon the nature of the initiative. The VWBA methods primarily come into play in Step 4: Action and Step 5: Measurement. Their review can already prove useful in the second part of Step 3: Assessment (see Table B2).

TABLE B2: APPLICABILITY OF THE VOLUMETRIC BENEFIT ACCOUNTING FRAMEWORK (VWBA) AND NPWI

	Releva	ance to	Pillars	Re Di	levance imensio	e to ns	
NPWI	P1	P2	Р3		• ₽ ₽		VWBA
STEP 1 AWARENESS							
STEP 2 AMBITION							
STEP 3 ASSESSMENT	•		٠	•	•	•	
STEP 4 ACTION	•			•	•	•	
STEP 5 MEASUREMENT	•			•	•	•	

The WASH Benefit Accounting Framework (WASH BA) standardizes the accounting for corporate WASH outputs, outcomes and impacts, advancing best practices for alignment with corporate water stewardship goals while accounting for the multiple benefits of water stewardship activities. It speaks directly to the accessibility dimension of NPWI across all three Pillars. The WASH BA methods focus primarily upon the accessibility dimension and can support Steps 3, 4 and 5 (Table B3).

TABLE B3: APPLICABILITY OF THE WASH BENEFIT ACCOUNTING FRAMEWORK AND NPWI

	Relevance to Pillars			Relevance to Dimensions				
NPWI	P1	P2	Р3		0 0 0 0		WASH BA	
STEP 1 AWARENESS								
STEP 2 AMBITION								
STEP 3 ASSESSMENT		•	•			•		
STEP 4 ACTION	•							
STEP 5 MEASUREMENT		•	٠		•	٠		

The Water Quality Benefit Accounting (WQBA) and Biodiversity Benefit Accounting (BioBA) frameworks are still to be launched, and a proper crosswalk will be made available in the next guidance update.

WATER COLLECTIVE ACTION IMPLEMENTATION GUIDE (DIAGEO)

The Diageo Water Collective Action Implementation Guidelines is not specific to any of the NPWI water dimensions, and it can be used for collective action planning and implementation across any water stress dimension. It is a valuable information source and guideline for all collective action work that can be generated under Pillar 3. An approximate crosswalk between the NPWI steps and the steps in the Diageo guideline is shown in Table B4.

TABLE B4: CROSSWALK BETWEEN THE WATER COLLECTIVE ACTION IMPLEMENTATION GUIDE AND NPWI

	Relevance to Pillars	Relevance to Dimensions	Water Collective Action
NPWI	P1 P2 P3	۵ 👶 📥	(Diageo)
STEP 1 AWARENESS			
STEP 2 AMBITION			Step 1.1: Review the collective action concept checklist Step 1.2: Review basin challenges and determine collective action potential
STEP 3 ASSESSMENT 3.1 Define baseline	•	• • •	Step 2.1: Screen ongoing initiatives/projects in basinStep 2.2: Assess and prioritize initiatives/projectsStep 2.3: Make initial outreach to stakeholders involved in collective action
STEP 4 ACTION		•••	 Step 3.1: Evaluate investment and initiative/project engagement options Step 3.2: Establish and formalize Diageo's role in the initiative/ project Step 3.3: Set up for long-term success: monitor and report Diageo's involvement
STEP 5 MEASUREMENT	•	• • •	Step 3.3: Set up for long-term success: monitor and report Diageo's involvement

SCIENCE BASED TARGETS FOR NATURE (SBTN)

A recent publication looked at crosswalks between SBTN and other popular corporate water stewardship materials. This does include a crosswalk outline for SBTN and NPWI.

The setup of SBTN and NPWI share a focus on the mitigation hierarchy, to avoid, minimize, restore and offset impacts. The crosswalk table below (Table B5) goes into more detail, looking at the relevance to the Pillars and dimensions of NPWI. In terms of structure and flow, the two guidelines are similar, using a five-step process. The significant difference is that SBTN includes the upstream value chain, whereas NPWI only looks at operational sites at present. SBTN and NPWI have a good overlap for water availability and quality, but SBTN does not cover accessibility. SBTN specifically refers to basin targets and thresholds, and hence the overlap is most direct with NPWI Pillars 1 and 3, while Pillar 2 may be indirectly addressed, given the site conditions. The crosswalk table (Table B5) goes into more detail, looking at the relevance to the Pillars and dimensions of NPWI.

Steps 4 and 5 of SBTN are not yet developed, and hence the likely overlap between these steps and NPWI is indicated in grey bullets.

	Releva Pil	Re Di	levance mensioi	to ns		
NPWI	P1 P	2 P3				SBTN
STEP 1 AWARENESS						
STEP 2 AMBITION	•	٠				Step 1: Access (excluding value chain assessment) and Step 2: Prioritize
STEP 3 ASSESSMENT	•	٠	•	•		Step 3: Set Targets
STEP 4 ACTION	•		•	•		Step 4: Act
STEP 5 MEASUREMENT						Step 5: Track

TABLE B5: CROSSWALK BETWEEN SBTN AND NPWI

TASKFORCE FOR NATURE-RELATED FINANCIAL DISCLOSURES (TNFD) – LEAP APPROACH

The alignment between TNFD LEAP Approach and NPWI is more in structure and flow than in content. LEAP steps can in part enrich and complement the content of the NPWI steps, but there is no direct alignment at present. It is anticipated that the alignment will become more direct as future NPWI versions will include the value chain and an added dimension of biodiversity. The structural alignment is indicated as indirect (**O**) in Table B6.

TABLE B6: CROSSWALK BETWEEN TNFD LEAP APPROACH AND NPWI

NPWI	Indirect Alignment	TNFD LEAP Approach	
STEP 1 AWARENESS			
STEP 2 AMBITION		Step 1: Locate	
2.1 ID Sites	0	Step 1: L1, L3, L4	
STEP 3 ASSESSMENT		Step 2: Evaluate, Step 3: Assess, and Step 4: Prepare	
3.1 Define baseline	0	Step 2: E1, E2, E3, E4 and Step 3: A1, A2, A3	
3.2 Define objectives and targets	0	Step 3: A4 and Step 4: P2	
STEP 4 ACTION		Step 4: Prepare	
4.2 Secure resources and implement	0	Step 4: P1	
STEP 5 MEASUREMENT		Step 4: Prepare	
5.3 Report and communicate results	0	Step 4: P3, P4	

WASH SELF-ASSESSMENT

The WASH self-assessment is a useful tool that can directly determine a WASH baseline and opportunities for Pillars 1 and 2 in Step 3: Assessment (Table B7).

TABLE B7: CROSSWALK BETWEEN THE WASH SELF-ASSESSMENT TOOL AND NPWI				
	Relevance to Pillars	Relevance to Dimensions		
NPWI	P1 P2 P3		WASH Self-assessment Tool	
STEP 3 ASSESSMENT	•	•	GEI, WH4, WS3, WWS2	
	•	•	CW6	

The CEO Water Mandate's six core elements:

DIRECT OPERATIONS

Mandate endorsers measure and reduce their water use and wastewater discharge and develop strategies for eliminating their impacts on communities and ecosystems.

SUPPLY CHAIN AND WATERSHED MANAGEMENT

Mandate endorsers seek avenues through which to encourage improved water management among their suppliers and public water managers alike.

COLLECTIVE ACTION

Mandate endorsers look to participate in collective efforts with civil society, intergovernmental organizations, affected communities, and other businesses to advance water sustainability.

PUBLIC POLICY

Mandate endorsers seek ways to facilitate the development and implementation of sustainable, equitable, and coherent water policy and regulatory frameworks.

COMMUNITY ENGAGEMENT

Mandate endorsers seek ways to improve community water efficiency, protect watersheds, and increase access to water services as a way of promoting sustainable water management and reducing risks.

TRANSPARENCY

Mandate endorsers are committed to transparency and disclosure in order to hold themselves accountable and meet the expectations of their stakeholders.