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# Five Steps for Water Companies to Strengthen Engagement with the Non-Household Market through Water Stewardship Practices

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November 2025

**20FIFTY**  
PARTNERS

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**Executive  
Summary**

## Executive Summary

### What is the challenge?

In line with other countries across the globe, the UK is grappling with the impact of climate change on the water cycle, compounding existing pressures of population and industrial growth on freshwater supply.<sup>1</sup> This has led to increased water demand and quality pressures across multiple regions. Water is a critical resource and core dependency for the nation's energy, food and environment.<sup>2</sup> Ensuring the security of its supply and quality is integral to industries like Agriculture, Manufacturing and Technology, which are all core to the nation's economic expansion plans over the coming years.<sup>3</sup>

Non-household (NHH) customers represent 20% of overall water consumption in England<sup>4</sup> and include industry, schools, and hospitals. If no effective action is taken, by 2055 water companies will have a 1 billion litre deficit of water supply per day, leaving them unable to meet NHH demand, threatening energy security and food production.<sup>2</sup> Several NHH sectors have also been found to be contributing to key issues affecting water bodies in England through physical modifications, pollution from rural areas and changes to levels of water.<sup>5</sup> This makes NHH customers a key stakeholder to engage in responsible water use and illustrates how vital it is to adopt a collaborative multi-sectoral approach to water management in the UK.

Over the last three decades, the structure of stakeholders within the water sector for England and Wales has undergone a significant evolution.<sup>6</sup> Deregulation saw the introduction of new retailers to the NHH market with the aim of increasing competitiveness and efficiency of the water sector.<sup>3</sup> An increased variance of stakeholder priorities has emerged as a contributing challenge to acting on the resilience of the UK water system. Thus, a unifying framework which meets a variety of stakeholder needs and addresses a broad set of water challenges is needed to help foster a co-ordinated collective approach to water in the UK.

### What is Water Stewardship & what does it offer?

Water Stewardship is defined as 'the use of water that is socially and culturally equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site-and-catchment based actions'.<sup>8</sup> This approach can offer a powerful framework for taking collective action on water resource management by encouraging NHH customers to identify and implement actions at a site level that deliver operational improvements whilst also addressing water risks and dependencies in the surrounding catchment.

Water stewardship complements water efficiency efforts already underway in the UK. Current efficiency initiatives for NHH customers encompass water audits<sup>9</sup>, efficiency advice<sup>10</sup>, leak detection and repair<sup>11</sup>, supply and fitting of water saving devices, smart meters and more efficient products<sup>9</sup> 10-37. Whilst each of these initiatives fall within the scope of the water stewardship framework, it has

an expanded focus across water quality, environmental and social impacts on the locality, good governance, and supply security.<sup>8</sup> This wider focus aligns with Ofwat PR24 targets (see Figure 1) which identify water quality and governance challenges in addition to efficiency. Hence, whilst efficiency initiatives allow water sector stakeholders to address a portion of the Ofwat PR24 targets, they need to be complemented by initiatives grounded in a broad framework, like water stewardship, to achieve all PR24 performance commitments.

<b>Lowest</b> leakage levels since privatisation	<b>424 million</b> extra litres of water supply per day by 2030	<b>45%</b> cut in storm overflow spills
<b>Triple</b> the replacement of water mains	<b>15,000km</b> of rivers improved or protected	<b>9</b> New reservoirs to secure water supplies

Figure 1: Ofwat PR24 highlights

### About this report

This project is funded by the Market Improvement Fund which is overseen by the Strategic Panel, the most senior governance group within the NHH water retail market in England. The panel provides strategic direction and oversees programmes of work to improve business customer outcomes, and is administered by MOSL, the market operator.

This report is based on applied research conducted in collaboration with Business Stream, Yorkshire Water, 20FIFTY Partners and Water Stewardship UK to identify opportunities to strengthen engagement with NHH Businesses. Extensive stakeholder engagement was sought as part of this project, involving participation from wholesalers, retailers and industrial sites in stakeholder interviews and a Certified Water Stewardship (CWS) UK pilot training programme. Their input into this project has helped to inform the five steps for Water Companies to Strengthen Engagement with the NHH Market through Water Stewardship Practices:

- Raise Awareness
- Offer Practical Supports
- Embrace Circularity
- Develop Data Tools
- Promote Collaboration

This report provides understanding of why the NHH sector needs to strengthen engagement in water stewardship practices, and identifies key business motivations for driving engagement in stewardship action. Case studies provide quantified evidence for priority areas of industrial water stewardship action, and examples evidencing the effectiveness of these areas. The report identifies shared water challenges across stakeholders and sectors in the UK water market. Ultimately, this report highlights the benefits of leveraging the water stewardship framework to strengthen cross-sectoral engagement in systemic approaches to shared-water challenges.

## Five Steps at a Glance

01

### Raise Awareness

Raise awareness of the benefits of better water stewardship practices across NHH customers and supply chains.

02

### Offer Practical Supports

Complement existing water efficiency initiatives with practical Water Stewardship Supports to build champions and accountability at all levels.

03

### Embrace Circularity

Help establish the UK as a world leader in the adoption of water circularity solutions across the NHH market

04

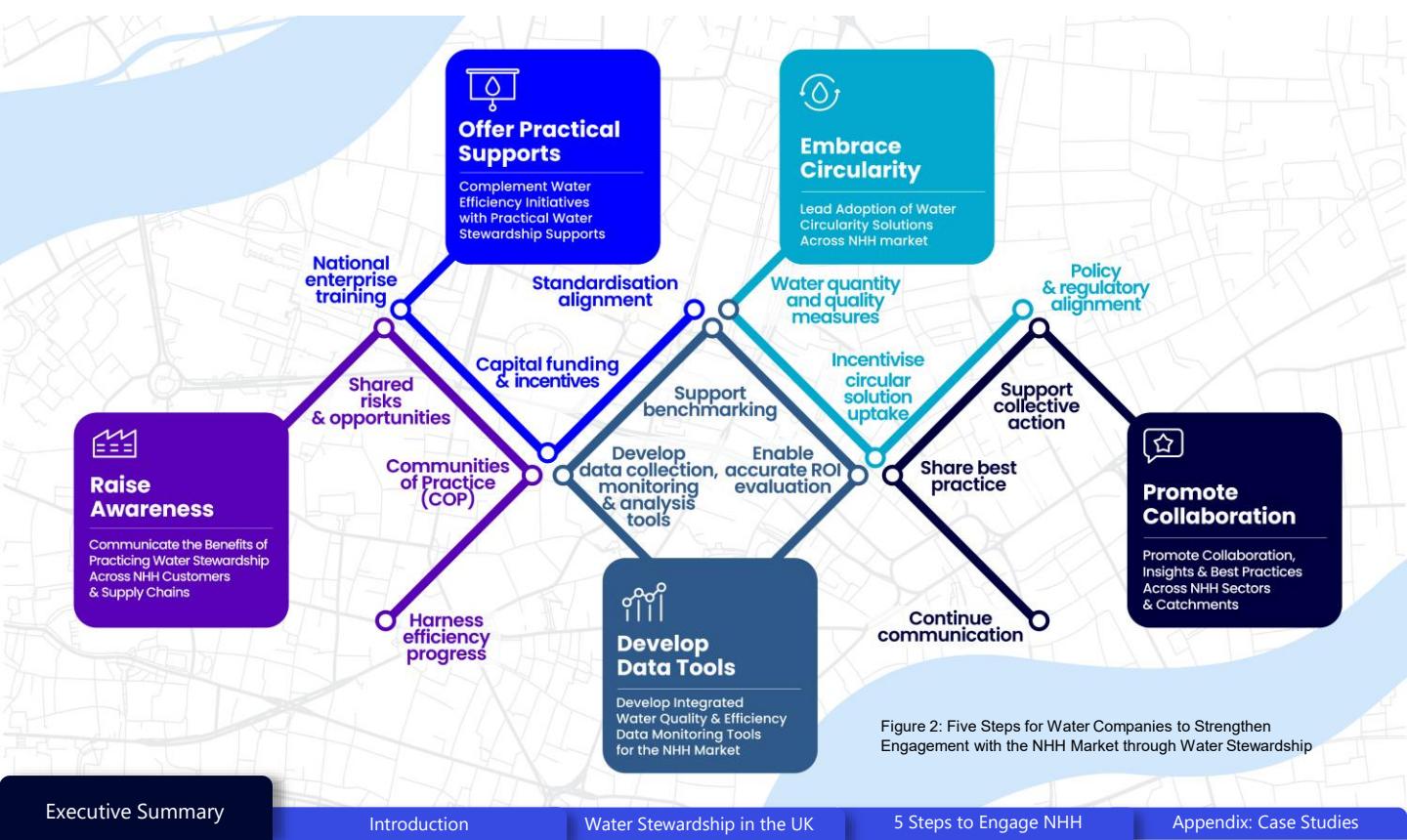
### Develop Data Tools

Develop better data analysis frameworks and tools to support integrated water quality and efficiency monitoring across the NHH market.

05

### Promote Collaboration

Promote collaborative action and the sharing of insights & best practices across NHH sectors and catchments





# 1

## Introduction

## Introduction

Prolonged periods of hot and dry weather and increased water supply demand is stressing rivers, aquifers and reservoirs in multiple areas across England and Wales. In 2025 the UK experienced its sixth-driest Spring on record, leading to five operational areas within the UK experiencing drought.<sup>13</sup> This is causing disruption to water supply and impacting upon agriculture, infrastructure and ecosystems. Over the long-term, these challenges are projected to develop into significant supply deficits if no effective action is taken.<sup>2</sup> Paired with the ongoing evolution of the UK water market structure<sup>6</sup>, this presents a considerable challenge to addressing water supply and environmental impact concerns dominating the UK water sector<sup>14</sup>.

UK governing bodies and regulatory authorities are responsible for setting targets for water companies and determining the funds they can raise to achieve said targets. The recommendation of the Department of Food and Rural Affairs (DEFRA) is that government intervention will incentivise water companies to reduce leakage or demand and improve infrastructure across the UK<sup>15</sup>. This has led to a high proportion of water company and retailer initiatives within both the household and non-household sector, targeting the rollout of smart meters to monitor consumption, leak detection interventions, site visits for the delivery of efficiency advice and water audits<sup>9 10 11 37</sup>. During crises in the South of England, temporary measures such as water-use bans have been introduced to manage public supplies.<sup>16</sup> Additionally, the Environment Agency has stated that it is essential that the UK takes an integrated approach to water management addressing water quality, drainage and wastewater systems, and resilience to flooding.<sup>2</sup>

Water stewardship is an internationally recognised approach for addressing a wide range of water challenges, including water quantity and quality at production sites, in the local catchment and at a river basin scale<sup>7</sup>. Whilst still an emerging framework in the UK, the term 'Water Stewardship' is widely used by businesses to describe activities they are undertaking with respect to the use of water in their business

operations and supply chain.<sup>17</sup> The supply of water and wastewater treatment is critical for most businesses to operate. This dependency makes industry a key stakeholder in efforts to bolster the resilience of the UK water sector. With national plans for the resilience of the UK featuring an expansion of manufacturing and technology industries<sup>3</sup>, it is integral that a cross-sectoral approach is taken to ensuring that the non-household sector has the capacity to take responsibility for their impact on the water supply and environment, both in the short and long-term.

Water Stewardship takes a systemic stakeholder inclusive approach to water use which aligns with the UK's need to engage various key stakeholders in the water sector to mitigate water supply, water quality and environmental issues. This report outlines how the water stewardship framework can enhance wholesaler and retailer engagement with the non-household sector. Furthermore, through nurturing industry's capacity to engage in water stewardship practices, this can enable the non-household sector to play a sizeable role in turning the dial on water challenges facing the UK.

This project outlines five key steps to increasing NHH engagement through water stewardship practices in the UK; raise awareness, offer practical supports, embrace circularity, develop data tools, and promote collaboration. In developing these steps, a methodology was employed using a triangulation of perspectives approach in association with stakeholders from across the UK water sector. The research methodology included the following steps which are expanded upon in Section 2:

- Desk literature review
- Quantitative analysis of Certified Water Stewardship (CWS) UK pilot training programme action plans
- Qualitative analysis of Stakeholder Interviews
- Qualitative analysis of Water Stewardship UK Community of Practice event insights

## Research Methodology

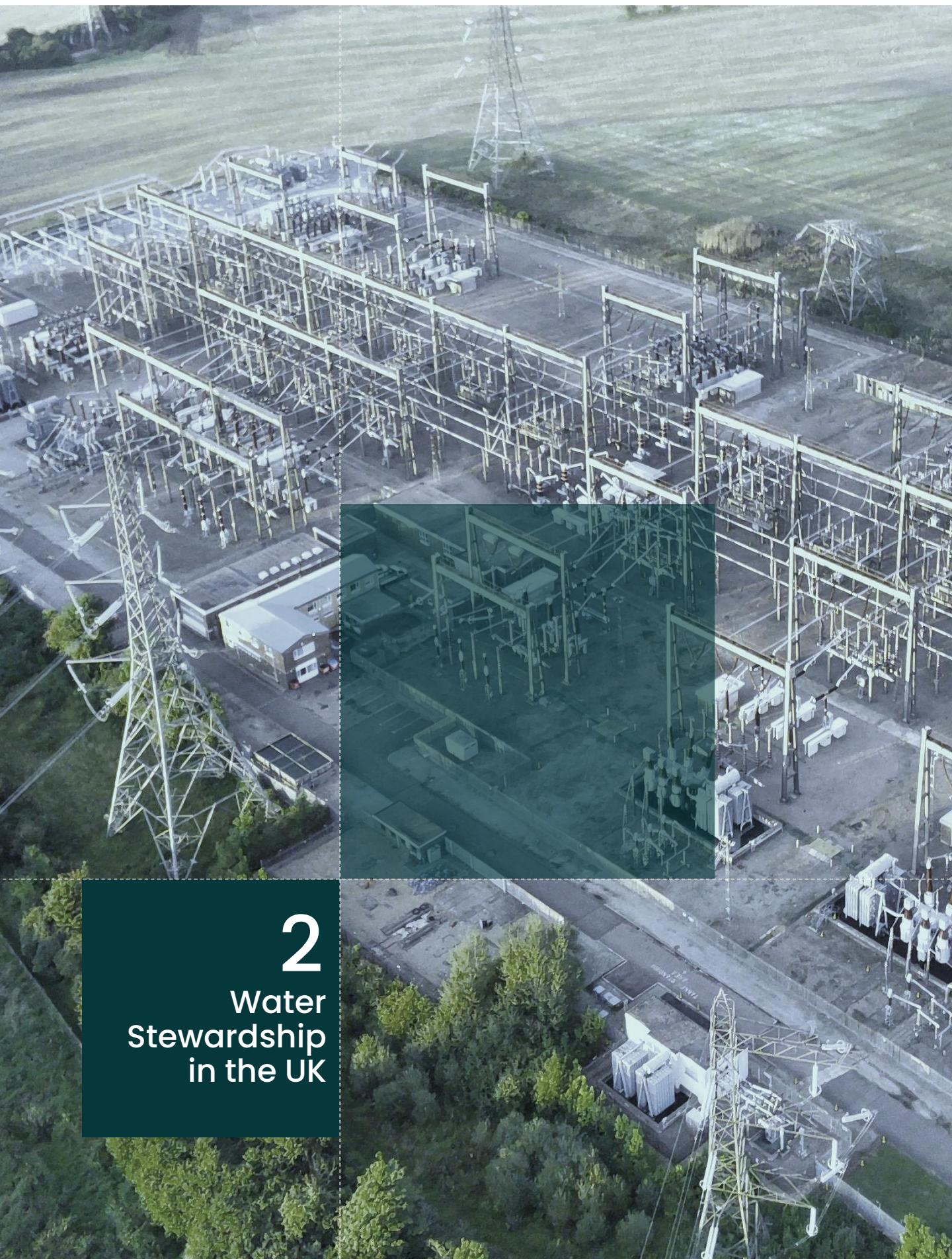
Approach to determine thematic challenges and steps for engaging NHH sector through Water Stewardship in the UK.



Figure 3: Steps of Research Project Methodology

Relevant representatives from key stakeholders across the UK water market contributed their perspectives and practices relating to industrial water stewardship via individual consultations in February and March 2025.





**2**  
Water  
Stewardship  
in the UK

## Desk Review: Water Stewardship

### Key Topics

## Global Water Landscape

- Global demand for freshwater use will exceed supply by 40% by the year 2030.<sup>18</sup>
- Industrial water use is expected to grow globally by 2050 with an estimated increase of 400% across manufacturing sites alone.<sup>19</sup>
- As a result of the increasing awareness of the impact of climate change on water, the water risk factors facing businesses in the decades ahead are encouraging organisations to adopt new approaches to water management.

## Water Stewardship in the UK

- Adoption of the overall water stewardship framework is in its infancy in the UK.
- Over 300 UK organisations currently provide voluntary disclosures across water conservation, management and stewardship activities via one or multiple international water standards and frameworks.
- Large multinationals are key actors in current stewardship activity.<sup>21</sup>
- Interest is growing in an enterprise level water stewardship standard covering:<sup>21</sup>
  - Transparency in target-setting
  - Measuring and reporting
  - Scaling-up water stewardship action

## Emergence of Water Stewardship

- 'Water stewardship' was first used in the 1970s and has seen an increase in usage since the 2000s.
- A mechanism to address water quantity and quality challenges at production sites, in the local catchment and at a river basin scale.<sup>17</sup>
- Enables businesses to create water strategies framed by both risk and value creation.<sup>20</sup>

## Role of Water Circularity\* in Water Stewardship

- Premised on designing out waste externalities, keeping resources in use, and regenerating natural capital.<sup>22</sup>
- Circular systems not only reduce water consumption but also improve water quality, creating benefits for ecosystems and wider catchments.
- Circular water technologies maximise resources and create value across pillars of water stewardship in parallel through:
  - Extracting nutrients & solutes from wastewater treatment processes for reuse
  - Extracting energy in various forms e.g. heat
  - Reducing risk of pollution to the catchment from discharge of wastewater.<sup>23</sup>

## Business Drivers for Water Stewardship

### Operational

Mitigation of water supply risks, quality deterioration and resource waste are of high priority for a business, alongside opportunities for value creation throughout their supply chain and communities.

### Financial

Increased tariffs and greater understanding of the true costs of water are driving businesses to consider water optimisation projects. Hidden costs include energy costs of heating and pumping, chemical costs from treatment of water, and material inputs for water processes.<sup>24</sup> The cost of industrial inaction to water-related risks across supply chains is estimated to be five times higher than the cost of mitigation investment.

### Reputational

Engaging in water stewardship presents opportunities to strengthen customer relationships, investor confidence, social license to operate and dialogue with regulation and policy makers.<sup>25</sup>

### Regulatory

Governments globally are increasing regulatory enforcement mandating rigorous water usage and pollution standards, which in the event of non-compliance may result in legal consequences, fines and reputational damage.<sup>26</sup>

\* Water Circularity is defined by the shift away from a linear 'Take-Use-Discharge' approach to water use, towards a more sustainable circular economy, emphasizing reuse and recycling of materials to preserve and restore natural resources.<sup>38</sup>

## Desk Review: UK Water Landscape Summary

### Challenges to National Water Targets

Without effective action, England is expected to require an extra 6 billion litres of water per day by 2055.<sup>2</sup> This includes public water supply, water for energy and water for food. Over 60% of this extra supply will need to be tackled through measures which address demand and leakage reduction.<sup>2</sup>

Water companies across the UK are currently implementing a target of 50% leak reduction by 2050 to complement a national target set by the Department of Food and Rural Affairs (DEFRA).<sup>15</sup> Whilst water companies are the only stakeholder with regulated accountability for meeting these targets, retailers also have a statutory duty to promote efficiency.<sup>28</sup> NHH customers are the target audience for retailer initiatives which promote efficiency. This highlights the interdependent dynamics between the water companies, retailers, and NHH customers which need to be strengthened.

### Importance of Non-Household Stakeholders

Throughout 2023-2024, the NHH sector consumed 20% of the total water put into England's water distribution network.<sup>4</sup> However, projected supply demand for the non-household sector varies dependent on location in the UK, with the highest projected proportion of total demand being 61% for NHH customers within scope of West Country Water & Environment.<sup>2</sup> Furthermore, non-household customers have been cited by the Environment Agency as a contributing source to the quality of England's river bodies, with only 14% of rivers and lakes in England achieving 'good ecological status'.<sup>5</sup> These figures highlight the importance of water companies engaging NHH stakeholders in national water resource planning and action at site, sectoral and catchment level.

### Regulation & Policy Development

Since the Catchment Management Declaration<sup>29</sup> in 2018, there have been significant policy developments in the environmental domain.

- The UK government passed both the Environmental<sup>30</sup> and Agriculture Acts<sup>31</sup> and updated

the Environmental Improvement Plan<sup>32</sup>.

- The Water Resources National framework for England<sup>2</sup> identifies strategic long-term water needs of England, covering the North, East, Southeast, West Country, & West regions.
- PR24 determinations will see water companies quadruple their level of investment in new infrastructure and resources, equating to £104 billion over the next five years<sup>33</sup>.
- The Water (Special Measures) Act 2025<sup>34</sup> places greater statutory responsibility on water companies to monitor, treat and report on the quality of wastewater outputs.

### Future Direction of Travel

Despite developments in regulation and policy, the UK water sector has reached a critical juncture.<sup>33</sup> The Cunliffe Review<sup>14</sup> of the UK water sector aims to restore consumer confidence, attract investment to clean up the waterways and meet the demands of the future. Upon release of this review, four separate regulators are to be brought under a single regulatory entity. The aim is to strengthen adherence to environmental standards and closely guard against environmental deterioration. Aligned with this regulatory approach, the National Framework for Water Resources<sup>2</sup> outlines the need for water resource planning to enable growth, strengthen multi-sector resilience, protect and improve the environment, and support an integrated approach to water management.

### What do these developments mean for non-household customers?

- More regulatory pressure to engage in a broader set of actions to mitigate negative impacts of water use
- Higher water tariffs to assist with financing investment in new infrastructure and resources
- Higher scrutiny of industrial impact within regions and catchments

## UK Water Landscape

### Summary of Stakeholder Consultations

# Drivers and Challenges to increasing collaborative water stewardship action across UK Water Sector

## Regulation and policy

Wholesale water companies outlined the below challenges in this area:

- Water Resources Management Plan (WRMP) targets
- Limited control over NHH customer contribution to targets
- Fostering compelling engagement with retailers and NHH sector
- Accountability for sustainability reporting falls on wholesalers.

## Limited water availability

- Increased demand for new supply connections (e.g. new businesses and housing developments)
- As a crises measure, some areas are temporarily restricting water supply by imposing moratoriums and requiring new supply connections to demonstrate water neutrality

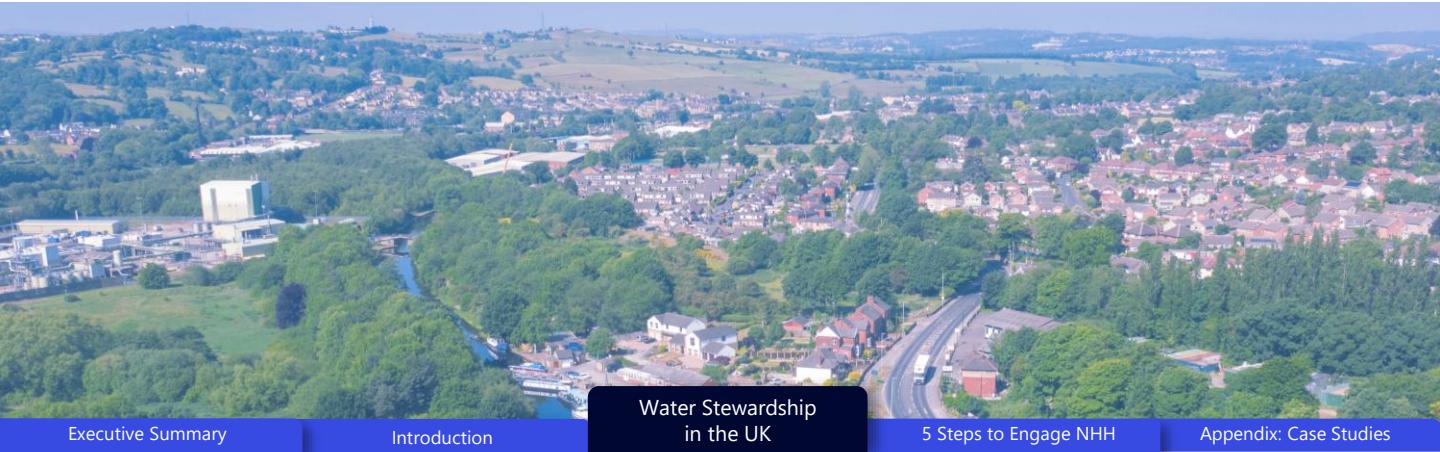
## Lack of knowledge

- Lack of in-house expertise to support industry in addressing process-related water inefficiencies
- Lack of knowledge on water stewardship amongst retailers and NHH customers
- Lack of understanding on the wholesaler-retailer market structure amongst NHH customers
- Water often receives lower priority than emissions reduction in corporate sustainability agendas

## Restricted data access

Both wholesalers and retailers detail restrictions in data access as a barrier to engagement in water stewardship practices in the following ways:

- Lack of access to detailed NHH usage data
- Lack of data on industry contacts impedes the support and development of a compelling business case for engaging in water initiatives
- Primary contacts may not be most relevant in organisation



## Moving Beyond Water Efficiency to Water Stewardship

### Importance of Continuing Water Efficiency Efforts

In 2018, the National Infrastructure Commission (NIC) estimated that two-thirds of additional capacity needed for future water demands will be met through actions focusing on consumption reduction.<sup>35</sup> It states that the remaining third of actions should focus on improvements to infrastructure and investing in increased supply. Since then, water company and retailer initiatives for non-household customers have largely focused on water audits, smart metering, efficient water management and lower operational costs.<sup>9 10 11</sup> The findings of this suggest the adoption of water stewardship practices would enable the UK to continue progress within these action areas, whilst in tandem, move towards a broader set of actions to address catchment-based water challenges.

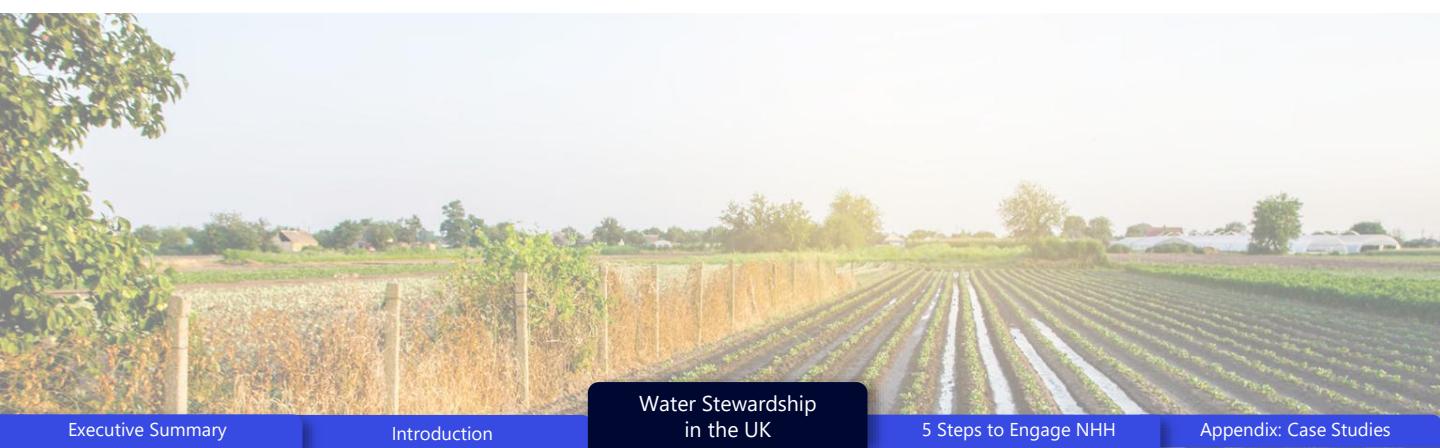
### Complementing NHH Efficiency Initiatives with Water Stewardship

Increased water efficiency is just one of several outcomes expected from implementing the water stewardship framework across non-household customers. Water Stewardship advocates for an integrated approach to water which also achieves outcomes for good water quality status, reduced impact on the environment and important water-related areas, and good water governance.<sup>8</sup> Key concerns to non-household customers which cover both efficiency and broader outcomes associated with water stewardship practices are demonstrated in the action plans of the CWS UK pilot training programme conducted as part of this project (see pg. 14). Whilst concerns about quantity of site water usage and water supply security were prominently cited, this was alongside challenges related to impact on the locality, compliance, cost and water quality. The participating

cohort of non-household consumers intend to address these key issues through actions which not only focus on leakage, but span across process use, organisational practice, cleaning & sanitation, circular initiatives, heating & cooling and alternative supply. Collaboration is at the heart of water stewardship practice, reflected in 74% of actions which will require a team for action implementation. The outputs from the CWS UK pilot programme highlight the areas beyond water efficiency where industry has identified its potential for impact at a site, sectoral and catchment level.

### System-Based Approach to National Water Challenges

Leveraging the holistic water stewardship framework can provide crucial support to the government's target to cut water companies' sewage pollution in half within five years.<sup>24</sup> Challenges to the quality of water within a river basin are local in nature but have global relevance when understood in the context of a catchment and supply chain.<sup>17</sup> Whilst industrial users will be locally affected by the impact of water quality issues within the basin, there is potential for negative impacts of water pollution to cascade along their supply chains dependent on the type of business output. This is contributing to a cognisance across industry that attending to water challenges within site boundaries will not suffice in mitigating core water related challenges to industrial resilience. This illustrates how vital engagement from the non-household sector is, to both the industry itself and the wider catchment, when it comes to water challenges facing the UK water sector beyond water quantity and infrastructure.



## Moving Beyond Water Efficiency to Water Stewardship Certified Water Stewardship UK Pilot Programme

### Overview:

The Certified Water Stewardship (CWS) UK Programme has been established to support non-household customers with training on how to lower water consumption and reduce operating costs while also protecting the environment. Aimed at those responsible for water management within their company, the work-based learning programme, which is certified by the Institute of Sustainability and Environmental Professionals (ISEP) supports participants to create a water stewardship plan for this site.

### Impact to date:

- A pilot programme with participants from 15 NHH organisations was delivered in Q1 2025. 12 NHH organisations completed the programme from a variety of sectors including 50% from the Food and Beverage Sector with remaining participants spread across healthcare, transport, logistics and education.
- Averaging 227,921m<sup>3</sup> in annual water consumption, 100+ new water stewardship projects were identified during the course of the CWS UK pilot programme across the pillars of quality, quantity, governance and catchment.
- At the time of writing (4 months post pilot-programme completion), all projects are either in progress or yet to commence. Therefore, potential efficiency or cost savings or environmental benefits are yet to be independently verified. Outlined in the appendix are some examples of projects identified across each water stewardship pillar by participants.

### Key Takeaways from CWS UK Pilot Programme:

### Closing Water Governance Gaps to support efficiency and stewardship goals



20%

Had no metering / monitoring system(s)



17%

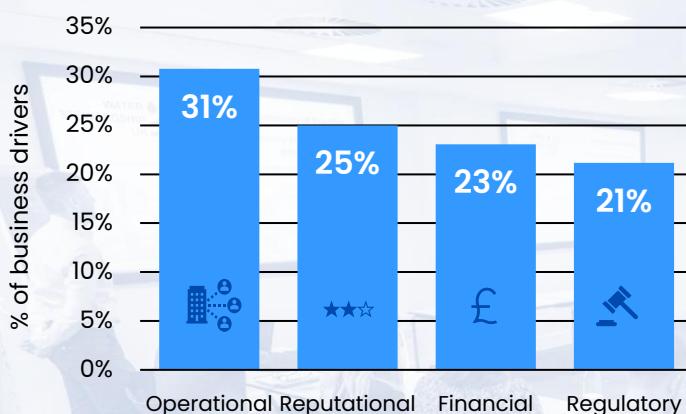
Had no water related KPIs/Targets in place



-14%

Average water consumption reduction target from baseline  
(organisations who have monitoring systems)

### What is driving industry to engage in water stewardship?



### What areas of water are a concern to industrial practices?



### How does industry plan to take action on water?



## Moving Beyond Water Efficiency to Water Stewardship

### Water Stewardship UK Community of Practice

#### Overview:

Water Stewardship UK is a voluntary, industry-led network of some of the largest production and service facilities across the UK including global leaders, national stakeholders and development agencies, working together to address water related risks to business. Launched in 2024 with funding provided by the Market Improvement Fund, facilitated by MOSL on behalf of the Strategic Panel, the community aims to accelerate stakeholder engagement across the UK water sector in adopting water stewardship practices in the non-household sector.

#### Impact to date:

Participation in the community has included a number of key stakeholder groups including leading businesses such as Morrisons, Greencore, Britvic, Marshalls, Mid Yorks NHS Trust, the University of Leeds and Sheffield University. Retailers such as Business Stream and wholesalers such as Yorkshire Water have been instrumental in bringing life to this community of water stewardship practitioners.

In addition, the community has benefited from close engagement with the Water Stewardship Ireland group of 400+ industrial water users, including in-person presentations such as those from ABP Food Group's Bandon, Ireland site which became one of the first sites in Europe to achieve the Platinum certification from the Alliance for Water Stewardship standard.

#### Key Takeaways:

Cross-stakeholder engagement is critical to identifying, analysing and responding to shared water challenges. The Community of Practice, in its first nine months of establishment has identified a number of key issues that supported the development of this roadmap and identified additional actions for the community to prioritise in later meetings.

These include:

- Enabling better collaboration across wholesalers, retailers and non-household sector
- Stakeholder and Catchment Engagement
- Water-related Supply Chain Resilience
- Water Reuse and Recovery
- Water and Wastewater Circularity Technologies
- Water vs Production Interplay and quantification of project impact
- Smart Metering / Industrial Water 4.0
- Water mapping
- Fire Hydrants as a source of water leakage
- Impact of climate change and weather-related events on business operations
- Communicating the value of water internally and externally

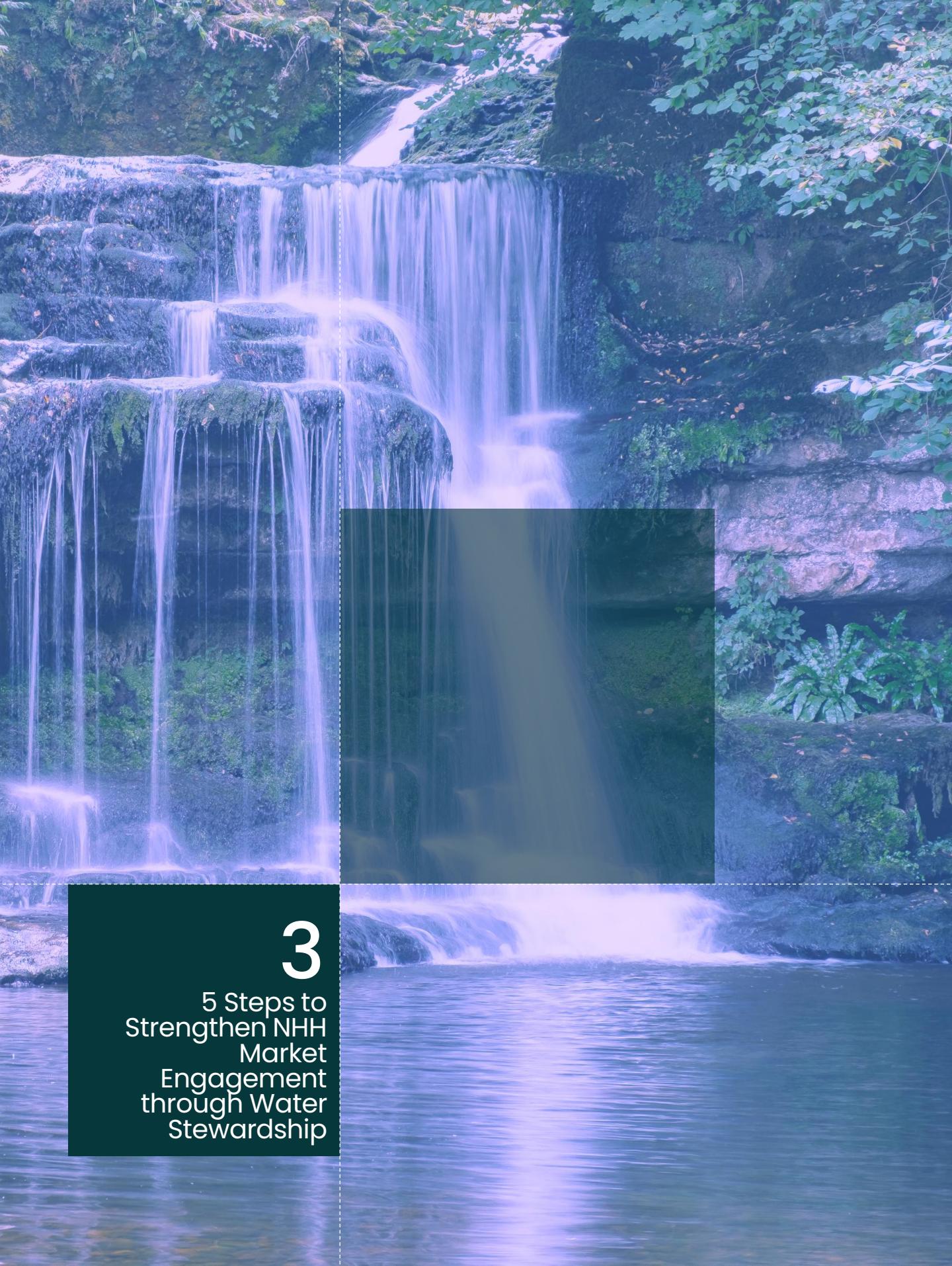


Attendees at Inaugural Water Stewardship UK Community of Practice meeting in University of Leeds, November 2024

#### Partners and Members include:



UNIVERSITY OF LEEDS



**3**  
5 Steps to  
Strengthen NHH  
Market  
Engagement  
through Water  
Stewardship

## Five Steps to Strengthen NHH Market Engagement through Water Stewardship

As an outcome of research presented in section 2 of this report, this section sets out 5 steps to enhancing NHH engagement in the UK water sector through Water Stewardship. These are informed by extensive research conducted as part of this project, spanning a literature review, stakeholder interviews, Certified Water Stewardship (CWS) UK training programme action plans and insights from Water Stewardship UK Community of Practice (CoP) events.

### 01 Raise Awareness

### 02 Offer Practical Supports

### 03 Embrace Circularity

### 04 Develop Data Tools

### 05 Promote Collaboration

These steps are interlinked and non-linear, forming a recommended framework for how the model of water stewardship can be leveraged to enhance non-household engagement in the UK water sector, as presented in Figure 5.

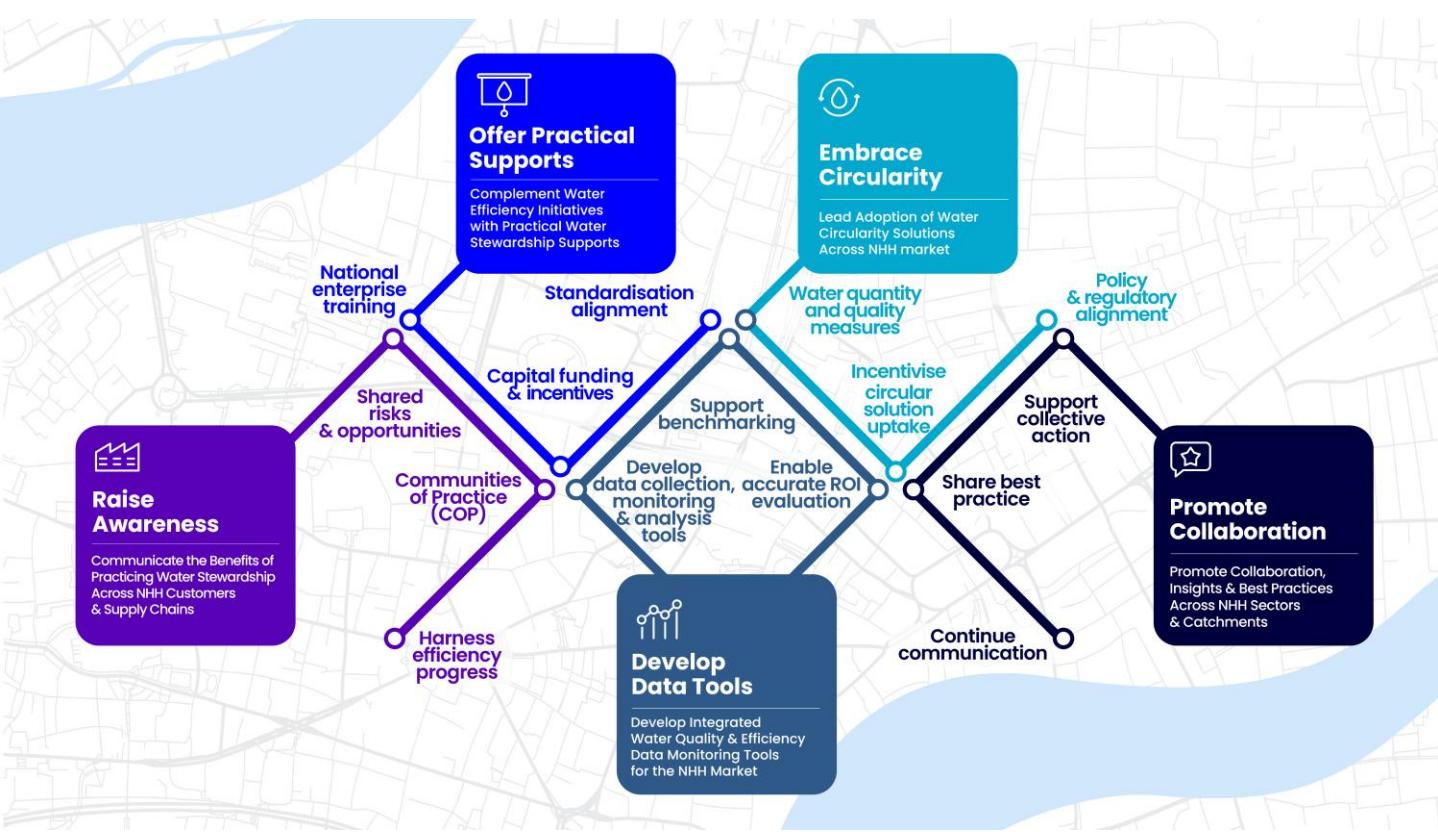


Figure 5: Five Steps for Water Companies to Strengthen Engagement with the NHH Market through Water Stewardship

## Raise Awareness

### Raise Awareness of the Benefits of Better Water Stewardship Practices across NHH Customers and their Supply Chains

#### Objective

Water companies can lead on awareness-building & dialogue on water stewardship by providing stakeholders including retailers and the NHH sector with a platform to collaboratively share and tackle water-related challenges across sites, sectors and catchments. Adopting a water stewardship approach can mobilise retailers and large industrial water users to engage in collaborative water efficiency, quality and governance actions to turn the dial on systemic water challenges facing the UK.

The exchange of best practice amongst key stakeholders in the UK non-household water sector is a fundamental requirement in promoting better water stewardship. Whilst stakeholders can span across different stakeholder groups – wholesalers, retailers, NHH sector, policymakers, regulators, NGOs and broader society, – the water stewardship approach allows for the identification of shared risks and dependencies at value-chain system level. Furthermore, by sharing best practice examples at site, sector and catchment level, this enables water stewards to collectively identify and adapt to ever-changing industrial demands. This demonstrates the potential of water stewardship as a model for overcoming challenges in communication through finding commonalities across water sector stakeholders.

#### Levers for achieving objective



#### Current challenges

- Lack of stakeholder knowledge on water stewardship
- Limited control of stakeholder (e.g. retailer and NHH sector) contribution to wholesaler targets
- Lack of in-house expertise to support industry in process-related water inefficiencies
- Ensuring effective engagement with retailers

#### Communities of Practice as a vehicle for change

Whilst to date, the UK non-household water sector has progressed facets of the water stewardship framework, widespread understanding of the breadth of the water stewardship approach is in its infancy. A recurring theme from stakeholder consultations was the lack of an existing format to bring together different stakeholders across the value chain to discuss systemic responses to water-related risk and challenges across pillars of efficiency, quality and governance. It emerged from consultations that a water stewardship approach is an obvious mechanism to improve stakeholder relationships and catalyse cross-sectoral engagement in responsible water use.

#### Existing strengths to leverage

There are avenues for the UK water sector to promote water stewardship practice through leaning into an existing NHH sector motivation for action which supports water supply security and efficiency. Many NHH organisations have already commenced their water stewardship journey. 80% of industrial sites participating in the CWS UK pilot training programme stated concern over water quantity challenges (abstraction, consumption and replenishment). This reflects how efforts to communicate the importance of improving water efficiency amongst large water users across regulation, policy, resource plans and non-household initiatives has made critical progress. There is potential to build on the momentum achieved through water efficiency initiatives when communicating the benefits of a stewardship approach which involves stakeholders at all levels, within both sites and catchments.

#### Potential benefits of Raising Awareness

- Collaborative identification of shared risks & dependencies across supply chains
- Collaborative adaption to ever-changing industrial demands
- Mobilising large water users to take responsibility for their contribution to national targets
- Enhancing wholesaler visibility of NHH action towards national efficiency targets

## Offer Practical Supports

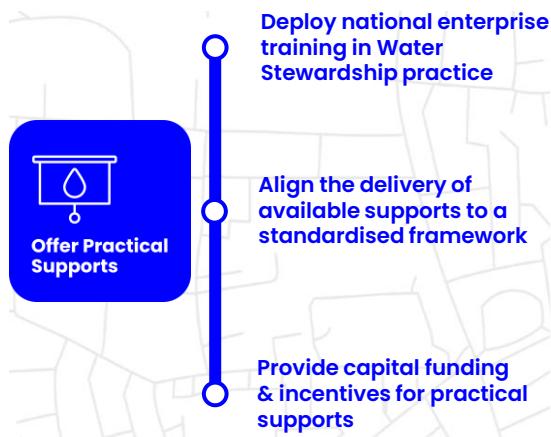
### Complement Existing Water Efficiency Initiatives with Practical Water Stewardship Supports to Build Champions and Accountability at all Levels

#### Objective

Water companies can complement existing water efficiency supports available to non-household consumers with the provision of water stewardship supports to increase engagement across stakeholders and sectors.

This demonstrates the opportunity for water stewardship training to support a transition beyond efficiency practices towards a more systemic and catchment-based approach to site water management and managing limited supply headroom nationally.

#### Levers for achieving objective



#### Competency development as a vehicle for change

Water stewardship presents the UK with a framework for enabling industry to play its role in enhancing the resilience and competitiveness of the nation across environmental, economic and social dimensions. Large industrial water users in the UK would benefit from the introduction of a national water stewardship training programme to overcome the current lack of understanding of stewardship. Through formalising a national water stewardship programme built on international best practice, the UK can resolve this knowledge gap and combat confusion amongst large water users about different NHH support initiatives available within the current market structure.

#### Additional considerations

Capital funding and incentives are required to overcome the barrier of upfront investment which may hinder the engagement of large water users and retailers in water stewardship initiatives. With many competing site priorities such as carbon emission reduction, funding of early intervention training programmes will enable large water users to make a business case for follow-on stewardship training for behavioural change at an individual and corporate level. The availability of incentives and rewards across stakeholders in the water sector, such as tariff reductions based on annual water stewardship performance, presents an avenue for engaging stewardship champions at all levels.

The CWS UK pilot programme provides businesses with a structured approach to integrating water stewardship practices into operational business activities. Engaging in the programme has the potential to increase the competitiveness of organisations who adopt water stewardship practices in their business plans, contributing to the competitiveness and sustainability of the UK NHH sector as a whole. Furthermore, developing the capacity of water stewards to take a holistic approach to water management enhances the capability of UK organisations to achieve recognition, standards accreditation, and a global leadership position for their responsible water usage.

#### Potential Benefits of Offering Practical Supports

- Address knowledge gaps in the UK water sector for NHH customers
- Enable NHH customers to take a holistic approach to solving water management challenges at both site and catchment level
- Support NHH customers in mitigating water tariff rises
- Enable credible and standardised implementation of water stewardship initiatives in the UK

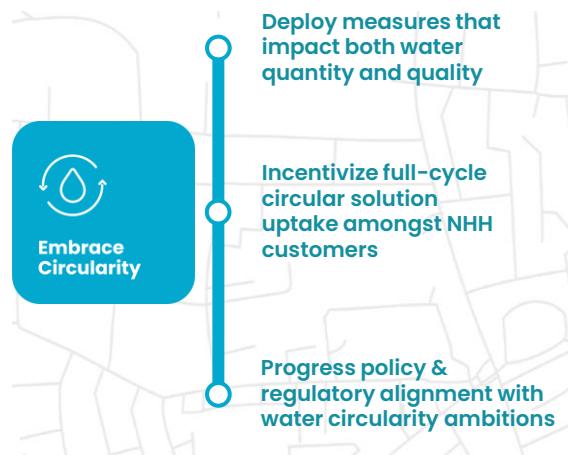
## Embrace Circularity

### Help Establish the UK as a World Leader in the Adoption of Water Circularity Solutions Across the NHH Market

#### Objective

Maximising resource efficiency and minimising environmental impact underpins the ever-increasing national water resilience needs in the UK. In support of this, water companies can play their part in creating an environment for the UK to become a world leader in the adoption of circular water solutions across the NHH sector. Creating a supporting ecosystem around water circularity approaches and technologies can enable NHH customers to take an integrated approach to quality and quantity related water challenges and in doing so, relieve pressures on both water supply and treatment services.

#### Levers for achieving objective



#### Current challenges

- Linear based approach to industrial water supply and demand in the UK
- Narrow focus of efficiency measures in existing NHH support initiatives

#### Circular solutions as a vehicle for change

Ever evolving water circularity solutions and technologies have made it increasingly practical for industry to invest in circularity projects which offer a wide array of benefits across water quantity and quality such as the case study examples highlighted in the following page. Through equipping and supporting the NHH sector in identifying and implementing circular water solutions, this will help water companies to address their own quantity and quality related water challenges.

#### Existing strengths to leverage

Findings from the CWS UK pilot programme suggest that NHH customers have already begun exploring circular innovations which balance a need to be more efficient while addressing the environmental impact of their activities.

In the pilot programme, actions employing circular solutions (13%) are more frequent than actions focused on water leaks (8%). This reiterates an earlier point in this report that efficiency has served as an effective base for industry to transition towards broader and more complex stewardship practices. Many circular actions within the pilot plans focus on water recycling, the savings through which present an opportunity to reduce effluent discharge and as a result, mitigate against effluent tariff increases. There is opportunity to further expand industrial adoption of circular water technologies which focus on elimination and regeneration of circular economy principles.

#### Additional considerations

There is an opportunity for the UK to take global leadership in the provision of national initiatives which foster the development, supply and adoption of circular water solutions and technologies for the NHH sector. Through leading innovation and implementation in this area, the UK can harness the power of cutting edge circular technologies to support NHH in positively impacting national growth, nature replenishment and future resilience. Programmes which support the NHH sector in adopting and implementing these solutions are needed to enable the UK water sector to embrace circularity approaches.

Addressing any economic barriers to NHH uptake of circular solutions will be essential in the UK's transition to a leadership role in this area. This will require financial investment by the UK in research and development of circular technologies and solutions as well as support incentives for the early adoption of such solutions across the NHH sector and beyond. Whilst there is a direct link between industrial concerns, national water challenges, and the opportunity potential of circular solutions, this link has yet to be cemented through a co-ordinated national enterprise strategy. Providing industry with the necessary circular tools to take responsibility in the transition to a circular economy, as part of the wider water stewardship framework, will necessitate national policy and regulatory alignment.

#### Potential Benefits of Embracing Circularity

- Identifying evidence-based opportunities for circular value creation across the water lifecycle of NHH supply chains
- Demonstrating global leadership in driving development, supply and adoption of circular water solutions and technology across NHH customers
- Developing a co-ordinated national enterprise strategy
- Equipping industry with the capacity to tackle various water challenges in tandem

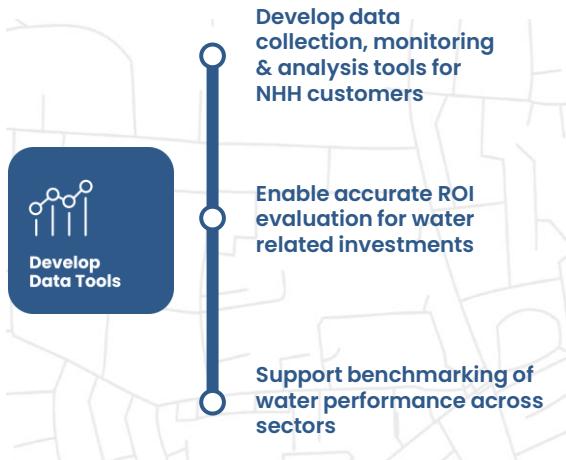
## Develop Data Tools

### Develop Data Analysis Frameworks and Tools to Support Integrated Water Quality and Efficiency Monitoring Across the NHH Market

#### Objective

Supporting the accurate measuring, monitoring and assessment of action outcomes against key water stewardship KPIs and targets is integral to ensuring that the NHH sector maximises positive impact when tackling water-related challenges.

#### Levers for achieving objective



#### Existing strengths to leverage

In recent years, the UK has placed a large and successful priority on the rollout by water companies of smart meters to capture consumption data for large water users across the nation. This is reflected in the action plans from the CWS UK pilot, with 80% of industries indicating they have metering / monitoring system(s) in place prior to programme participation. The majority of targets are set for water consumption reduction. However, most of the actions planned by this industrial cohort will also require the collection, monitoring and evaluation of data on water quality, local impact, supply security, and true cost of water.

#### Additional considerations

Better data analysis tools which support integrated water quality and efficiency monitoring, should enable broad business case development in the NHH sector. By collecting a broader range of water quality, quantity and cost datapoints, businesses will not only consider cost when building a business case for decision makers, but also provide information on projected environmental impact, business continuity, risk mitigation, resilience, and reputational change.

#### Current challenges

- Confounding variables over time e.g. seasonality of production patterns, weather variability
- Low standardisation of data measurement across industry for comparative benchmarking
- Narrow datapoints impeding business case development

#### Data tools as a vehicle for change

Equipping the UK NHH sector with tools to measure and monitor quality, quantity and cost parameters of water over time will be a significant step in enabling an integrated approach to responsible water usage. There is a need for practical and accessible data tools which can be applied across sectors and catchments to cover potential confounding variables. For example, tools that monitor and track water usage and water quality in the context of variables such as seasonal variations, production profiles and site processes will be needed to progress from simple demand management approaches to integrated water stewardship impact analysis. The development of data tools which allow the NHH sector to identify the degree of variance explained by these parameters changing over time will better equip evidence-based water system planning.

Impact on the local catchment is a key concern for UK industry, demonstrating the social value of water. Not only does the social value of water involve ensuring a common resilience amongst stakeholders within a catchment, but also the impact that industrial water practices can have on a site's reputation. 25% of industries in this pilot state that their reputation is driving their engagement in water stewardship action. New tools and frameworks can leverage this and enable industry to capture, monitor and evaluate datapoints for evidence-based communication on their positive impact within a water catchment.

#### Potential Benefits of Developing Data Tools

- Better equip NHH sector to robustly measure and monitor a wide range of water quality, quantity and cost datapoints
- Support comparison and benchmarking across sectors and catchments
- Attract sector investment providing evidence for potential return on funding risk taken

## Promote Collaboration

### Promote Collaborative Action and the Sharing of Insights & Best Practices Across NHH Sectors and Catchments

#### Objective

The momentum built through taking a broad and collective approach to water management for the duration of this project serves as a baseline to be taken further and leveraged across the UK water sector.

#### Levers for achieving objective



#### Current challenges

- Raising awareness and adoption of water stewardship in the UK
- Increasing engagement between water companies and NHH sector
- Adopting an integrated approach to addressing challenges facing the UK water sector

#### Water Stewardship as a framework to address challenges in the UK water sector

Whilst each stakeholder within the UK water market is grappling with a variety of challenges specific to their position, this project illustrates the potential of water stewardship practice as a vehicle for strengthening industry's contribution to meeting shared national water use targets. Through taking a holistic and systemic approach to water use, water stewardship encourages strong multi-stakeholder engagement and prioritises environmental, social and economic value creation in parallel. This project's pilot CWS UK programme has culminated in a database of water stewardship action plans spanning sites, sectors, catchments and value chains.

This report has detailed the many ways in which water stewardship presents a framework to address challenges facing industrial water users in the UK. The lines of communication initiated by this project through community events and training with large water users in UK catchments and value chains need to continue and

encompass a larger audience. This pilot project has demonstrated how pivotal it is to prioritise inclusive multi-stakeholder initiatives for responsible water use, enabling the UK water market to overcome communication challenges across value chains.

#### Building momentum for a resilient sector and catchments

The creation of dedicated NHH community platforms for sharing water stewardship best practices and solutions in response to shared water challenges can increase water stewardship awareness, dialogue and systems of support amongst large water users.

The exchange of knowledge and experience from a multi-stakeholder perspective equips large water users with the tools and knowledge to take accountability for their water use at both site and catchment level. This project has demonstrated how the sharing of best practice amongst NHH water users, be it in CoP or training programme format, equips industry to look beyond efficiency measures towards a broader set of actions encompassing water quality, governance and catchment actions. Ongoing engagement between the participants in this pilot needs to continue and to extend in membership in order to support the broader NHH sector in applying the water stewardship framework across consumption, pollution, risk and resilience challenges.

This project utilised methods that foster opportunities for collective action, through enhancing engagement across site and sectoral boundaries. This collaboration needs to be nurtured across NHH users and other actors within the UK water market to address shared water related risks at a catchment level. Water stewardship practice is demonstrated within this report as a well-aligned collaborative solution to the water-related challenges identified by key players in the UK water sector. Insights within this report and the success of the pilot programme in strengthening NHH engagement in responsible water use can help to inform collaborative stakeholder dynamics in future research and policy. Furthermore, insights from collaboration between water sector stakeholders can help to inform the development of UK water stewardship standards which factor new connections, buildings and infrastructure into the framework.

#### Potential Benefits of Promoting Collaboration

- Increase engagement between key stakeholders in the UK water market
- Build a culture of corporate water stewardship across NHH sectors in the UK
- Enhance capacity for NHH sector to translate national strategies and targets into action at a site, catchment and regional level

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# **Appendix:**

## **Case Studies and the Importance of Water Stewardship from CWS UK and CoP Participants**



## Case Study

### Water Stewardship in the Food and Beverage Sector

#### Context:

Company A is a large food and beverage manufacturer where the site in question is a heavy water user. Emerging from the CWS UK pilot programme has been their understanding of their materiality of water as a key resource for the organisation. Resulting from the programme, the site has identified a number of water efficiency, circularity, quality and governance projects to support business continuity and reduce environmental impact of both operations and products.

#### Challenges identified in CWS UK Pilot Programme:

- Water scarcity in summer months affecting reliability of supply
- Maintaining legal compliance to adhere to evolving water regulations
- Increase in water bills (incoming and effluent charges)
- Reducing water consumption to combat water availability issues in catchment and reduce stress on local water treatment plants
- Data gaps across their water lifecycle that preclude them from identifying water saving opportunities in certain water using processes

#### How a Water Stewardship approach is supporting better water management:

Company A has implemented an organisation-wide water stewardship policy to promote stronger water governance across its portfolio of sites and broader supply chain. Constraints on the quality and quantity of water available will limit the organisation's ability to operate. As a result, the organisation has turned to water stewardship interventions such as improved wastewater treatment, wetland protection, water conservation and nature based solutions.

#### Water Quantity

Overall, the organisation has:

- Decreased manufacturing water intensity ratio ( $m^3/tonne$  production) from 2.07 in 2017 to 1.94 in 2024 (Annual Report 2024)

Additional water efficiency projects and potential impacts identified in the CWS UK pilot programme included:

- Optimisation of CIP parameters including temperatures, flow rates and cycle times could result in water savings of up to 300 $m^3$  per day
- Capture and reuse of water for washing process equipment, replacing expensive RO water will reduce water-related costs

#### Water Quality

Overall, the organisation has :

- Decreased manufacturing water effluent ratio ( $m^3/tonne$  production) from 0.94 in 2017 to 0.77 in 2024 (Annual Report 2024)
- Reuse of wastewater in backwash process at one UK site is expected to save 31,000 $m^3$  of water annually (Annual Report 2024)

Additional water quality projects and potential impacts identified in the CWS UK pilot programme included:

- Change of water type from RO to softened water for certain production processes to reduce costs and pressure on RO systems
- A recent catchment project by the organisation has funded the restoration of a local wetlands in partnership with the Rivers Trust, recreating a natural flood plain to protect the local area during periods of heavy rainfall (Annual Report 2024)

#### Catchments

Water governance projects and potential impacts identified in the CWS UK pilot programme included:

- Launching an employee awareness programme to empower employees to investigate and implement water saving projects
- Implementing a sub-metering improvement programme to improve data visibility over entire water lifecycle on site and identify quick-win water savings opportunities

## Case Study

### Water Stewardship in the Transport Sector

#### Context:

Company B is a transport hub with an emerging understanding of the potential impact of climate and catchment related challenges on their ability to operate with any disruptions likely to have financial, reputational and regulatory impacts. Resulting from the CWS UK pilot programme, the hub will engage in more proactive stakeholder engagement to gain a more detailed understanding of their water-related risks from shared water challenges in the catchment as well as the impact of their operations on the local environment. In addition, the organisation has committed to undertake catchment studies.

#### Challenges identified in CWS UK pilot programme:

- Climate related risks such as local water scarcity and drought would shut operations and result in financial, regulatory and resilience impacts
- Trade effluent volumes are dependent on weather conditions such as rainfall / rapid snow melt which heavily impact discharge volumes thus resulting in larger costs
- Impact of operations on local environment, particularly risk of pollution events on surrounding watercourses from flooding events

#### How a Water Stewardship approach is supporting better water management:

Company B is adopting a water stewardship approach in response to the potential environment impacts of its operations in its local catchment. With under 50,000m<sup>3</sup> of water consumption per annum, Company B promotes efficient water use across its operations but also recognises that its most material water impacts are in the catchment, relating to risk of potential pollution events on the surrounding water courses. Projects and potential impacts identified in the CWS UK pilot programme include:

#### Water Quantity

Water efficiency projects and potential impacts identified in the CWS UK pilot programme included:

- Installation of sub-meters at identified hot-spots to identify consumption optimisation opportunities
- Installation of leak detection systems in areas of high consumption and discharge.
- Exploring rainwater harvesting techniques for greywater use
- Reviewing effectiveness of low use water flow fitting

#### Water Quality

Water quality projects and potential impacts identified in the CWS UK pilot programme included:

- Installation of pollution monitors at high risk water outlets across site
- Completion and analysis of hydrogeological study on local catchment

#### Catchments

Local catchment projects and potential impacts identified in the CWS UK pilot programme included:

- Implementing a water resilience plan to mitigate against water scarcity risk
- Implementing a catchment management plan to reduce their potential impact on water quality and wildlife downstream of operations

#### Water Governance

Water governance projects and potential impacts identified in the CWS UK pilot programme included:

- Creation of a team of water champions from different parts of the business to improve understanding of water use across the entire water lifecycle and build knowledge base to improve collaboration between staff
- Launching an educational campaign on the importance of water for key stakeholders

## Case Study

### Water Stewardship in the Food Processing Sector

#### Context:

Company C is a large food processing company where Sites A and B consume over 600,000m<sup>3</sup> and 300,000m<sup>3</sup> of water per annum respectively. Aware of water risks relating to local water shortages including reduced water aquifer levels in the catchment and with a responsibility for managing effluent discharge back to the catchment, the organisation is seeking to reduce water exposure risk across its portfolio of sites and broader supply chain to ensure business continuity.

#### Challenges:

- Water scarcity at local and supply chain levels will impact the organisation's ability to source water-dependent raw materials, produce and transport products
- Ineffective water use can lead to reduced aquifer levels, limiting ability to extract from boreholes
- Significant increase in cost of water
- Limiting carbon footprint associated with water consumption, use and discharge
- Maintaining compliance with evolving trade effluent regulations

#### How a Water Stewardship approach is supporting better water management:

Company C's sustainable water strategy sets out a direction of travel towards becoming leaders in water stewardship. This strategy begins with efficiency improvements within its portfolio of sites and moves onto identification of water risk hot-spots in the supply chain. Ultimately, Company C plans to support a number of water stewardship collective action projects with suppliers and other stakeholders in high water stress areas, using its position to advocate for better water governance. Projects and potential impacts identified in the CWS UK pilot programme include:

#### Water Quantity

- Decreased Water withdrawal (megalitres) across all operations from 2,717 in FY23 to 2,684 in FY24 (independently verified to both the Global Reporting Initiative and Sustainability Accounting Standards Board) and are in the process of setting a water reduction target to 2030.

Additional water efficiency projects and potential impacts identified in the CWS pilot programme included:

- Reduction of water usage by 2.5% through installation of pressure control hose-pipe and a further 2% by installing automated cleaning system on production line
- Reduction of water usage by 6m<sup>3</sup> per day by implementing water reuse process in sprinkler system

#### Water Quality

Overall, the organisation has:

- invested over £8m in the installation and upgrade of site effluent treatment plants at four sites to reduce discharge impacts (Annual Report 2024)

Additional water quality projects and potential impacts identified in the CWS UK pilot programme included:

- RO processing plant trial with potential to reuse up to 980m<sup>3</sup> per day of treated effluent
- Implement changes to CIP processes, reducing both water and chemical costs

#### Catchments

Local catchment impacts from projects identified in the CWS UK pilot programme included:

- Reduction in freshwater abstraction / use through water reuse and reduction projects
- Reduced volumes of effluent discharged through water reuse and reduction projects

#### Water Governance

Water governance projects and potential impacts identified in the CWS pilot programme included:

- Changes to hygiene cleaning operation processes will promote behavioural change and an estimate saving of up to 2% of water usage
- Implementation of employee engagement programme on water

## Case Study

### Water Stewardship in the Food Processing Sector

#### Context:

Company D, a founding member of the Water Stewardship UK Community of Practice, is a large food processor with over 50 sites across Europe. With targets to reduce water use by 60% by the year 2030, establishing the business case for water stewardship projects is imperative to ensuring water targets are met and ensure a return on investment to the business.

#### Challenges:

- Continued availability of water at site and supply chain level
- Management of trade effluent, exacerbated by climate change
- Robust metering and monitoring strategy that provides timely and accurate water quantity, quality and cost data across the water lifecycle
- Stakeholder engagement to support elimination of unsustainable practices across supply chain

#### How a Water Stewardship approach is supporting better water management:

Company D has a multi-site water stewardship policy and strategy that is localised to reflect the differing water challenges each of its sites faces in catchments across the UK and wider Europe. Company D has a detailed water stewardship programme and is working towards water quantity, quality, cost and environmental impact targets. Recognised as a global exemplar in water stewardship, Company D is at the forefront of disruptive innovation in water stewardship having implemented water circularity technologies, sustainable production projects, wetlands restoration projects, and intensive water reduction projects at site and supply chain levels across its portfolio.

#### Water Quantity

Overall, the organisation has:

- Achieved a 47% reduction in water consumption to date against 2015 baseline against a target of 60% to 2030 (SBTi Verified Target)

Recent water efficiency projects emerging from engagement in the CWS programme include:

- Reducing water loss at sites by evaporation via heat recovery projects
- Rainwater harvesting for vehicle washdown
- Leakage reduction programme

#### Water Quality

Recent water quality projects and potential impacts emerging from engagement in the CWS UK programme include:

- Greywater recycling from effluent plant for reuse in washdown
- Reuse of treated high quality water in domestic services to reduce volume sent to effluent treatment plant

#### Catchments

Local catchment projects included:

- Trialling of farmyard run-off project with key stakeholders using nature based solutions to reduce discharge of pollutants to water bodies with low-cost, low maintenance solution

#### Water Governance

Water governance projects previously completed by the organisation at a group level to strengthen water governance across entire portfolio include:

- Becoming one of the first organisations in the UK and Ireland to have a site receive platinum certification to the Alliance for Water Stewardship standard and serve as exemplar to remaining portfolio
- Development and verification of targets under Science Based Targets initiative
- Completion of True Cost of Water analysis at all UK sites, enabling accurate quantification of water project potential and benchmarking of high cost water users at each site, supporting better data and cost driven decisions.

## The Importance of Water Stewardship: What CWS & Water Stewardship UK COP Participants have to say

“Businesses have an environmental responsibility to adopt ethical practices for the good maintenance of our planet as they use up a significant amount of natural resources when producing, manufacturing and distributing on a global scale.”



“By maintaining and boosting the health of both local and wider environments, businesses can ensure a sustainable future not just for themselves, but for the communities and natural habitats that also depend on these water resources.”



“Water operational efficiency has to be improved in all manufacturing and service businesses in the UK by adopting innovative clever technology to monitor, analyse and optimize consumption [...] Businesses face tight pollution regulations related to water quality & their treatment before discharge.”

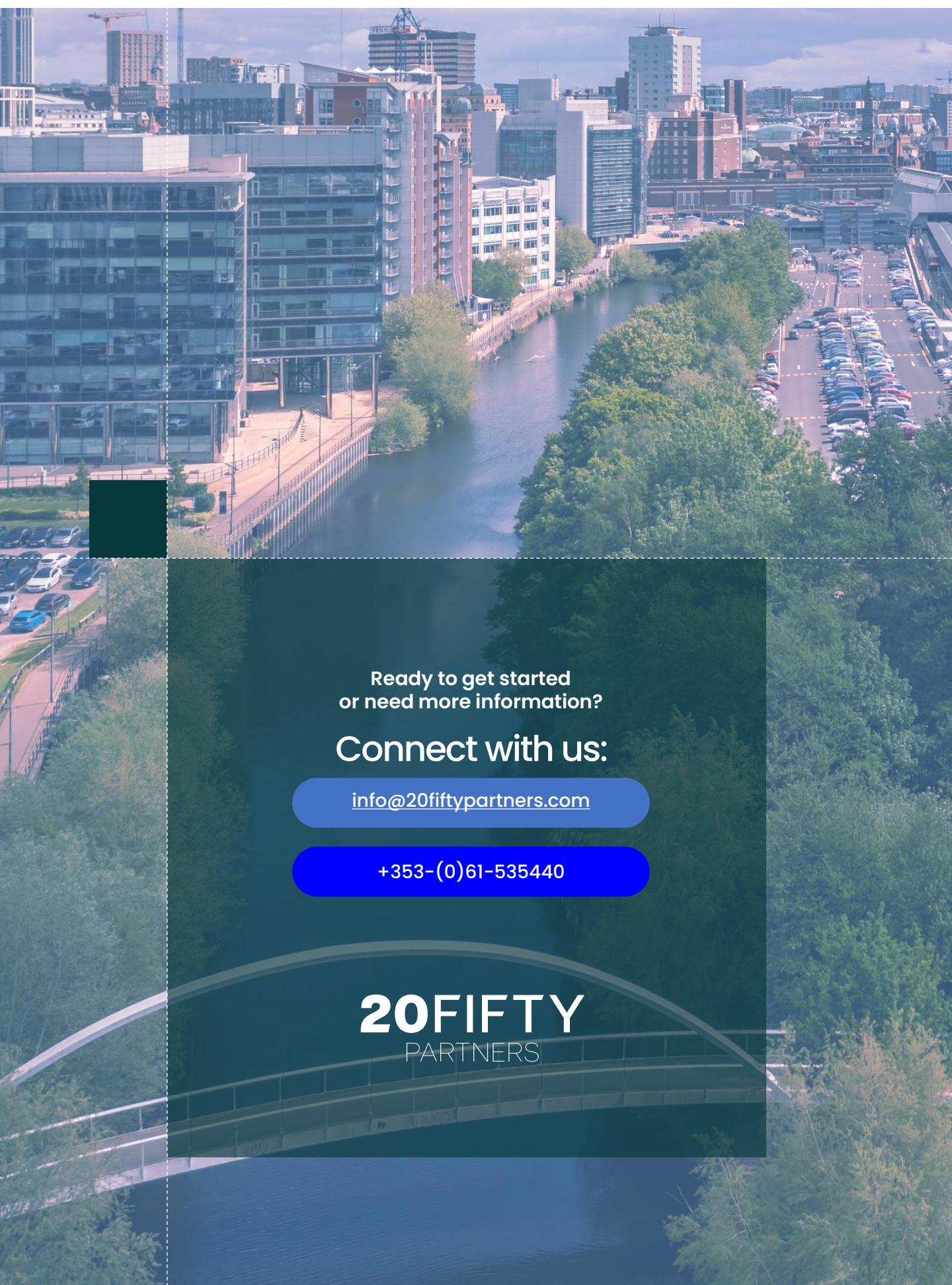


“We need to set up an initiative within the university to minimise losses and to look for opportunities to reuse water. A cultural change in the approach we have to our water resources is needed.”



“The management of water is of vital importance to the University of Leeds, as it helps ensure the sustainability of essential resources and reduces the institution's environmental impact. By using water more efficiently, the university can lower operational costs and promote a more resource-efficient, environmentally conscious campus.”





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or need more information?

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