food & drink federation
passionate about food & drink

Sustainability Networking Breakfast Event

Water Stewardship

24 January 2023 | FDF Bloomsbury Way

Sponsored by: binnies
Enhancing lives, communities and the environment

Introduction

Natalie Verner, Senior Sustainability and Environmental Policy Executive
FDF

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Water – Our most important natural resource

Steve Swift

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binnies
an RSK Group Company

Vision

To be a world-leader in delivering innovative and sustainable solutions in the Water and Environmental sectors

Mission

We collaborate with our clients and partners and empower our staff to deliver safer, smarter and more sustainable solutions to improve the lives of every person in our communities whilst supporting the UN's Sustainable Development Goals

Sense of Purpose

Enhancing lives, communities and the environment

Values

Response to challenges

Collaboration

Nature based solutions

Energy Recovery

Wastewater Treatment

Rain Water Harvesting

Green Investment

Environmental Economics

Digital Twin

FDF Breakfast

Helping you address Water Risk

24 January 2023

Rowen West-Henzell, WRAP

Why water?

By 2030 global demand for water is expected to double (FAO) while the UN predicts a 40% water shortfall.

The Environment Agency is warning of serious water shortages in the UK if no action is taken.

- 70% of global freshwater withdrawals are for agriculture
- 90% of UK fruit comes from overseas, often from drought-prone areas.
- In England, none of our rivers are in good overall health and agriculture impacts the most, affecting 62% of our river water bodies.
- Water is a vital shared resource that we all rely on
- Water stress is already impacting on supply & posing material business risk.
- However businesses don't know where to start and lack knowledge about water stewardship.

Climate Change and Water Resources

UN describes climate change as “primarily a water crisis”

Drought
Floods
Rising sea levels
Shrinking ice fields

→ Water scarcity
Unpredictability
Pollution

→ Risk to agriculture, food production, and food security

Summer 2022: 64% of EU and UK territory was under red alert or drought warning – the worst drought for over 500 years.

UN FAO describes drought as having ‘almost exclusive impact on agriculture’ – **82% of drought impact is felt by agriculture**.

Floods have the second largest impact on agricultural losses, accounting for over **19% of total losses in the past decade**.

Sustainable water management is central to both climate mitigation and adaptation, for building resilience in societies and ecosystems and reducing GHG emissions. UN Water

Water underpins all SDGs

Addressing **water risk** should be at the top of your list when thinking about **supply chain resilience.**

Water plays a huge part in the UN's 2030 Agenda for Sustainable Development – not just for SDG 6 but as a factor **underpinning progress towards almost all of the goals.**

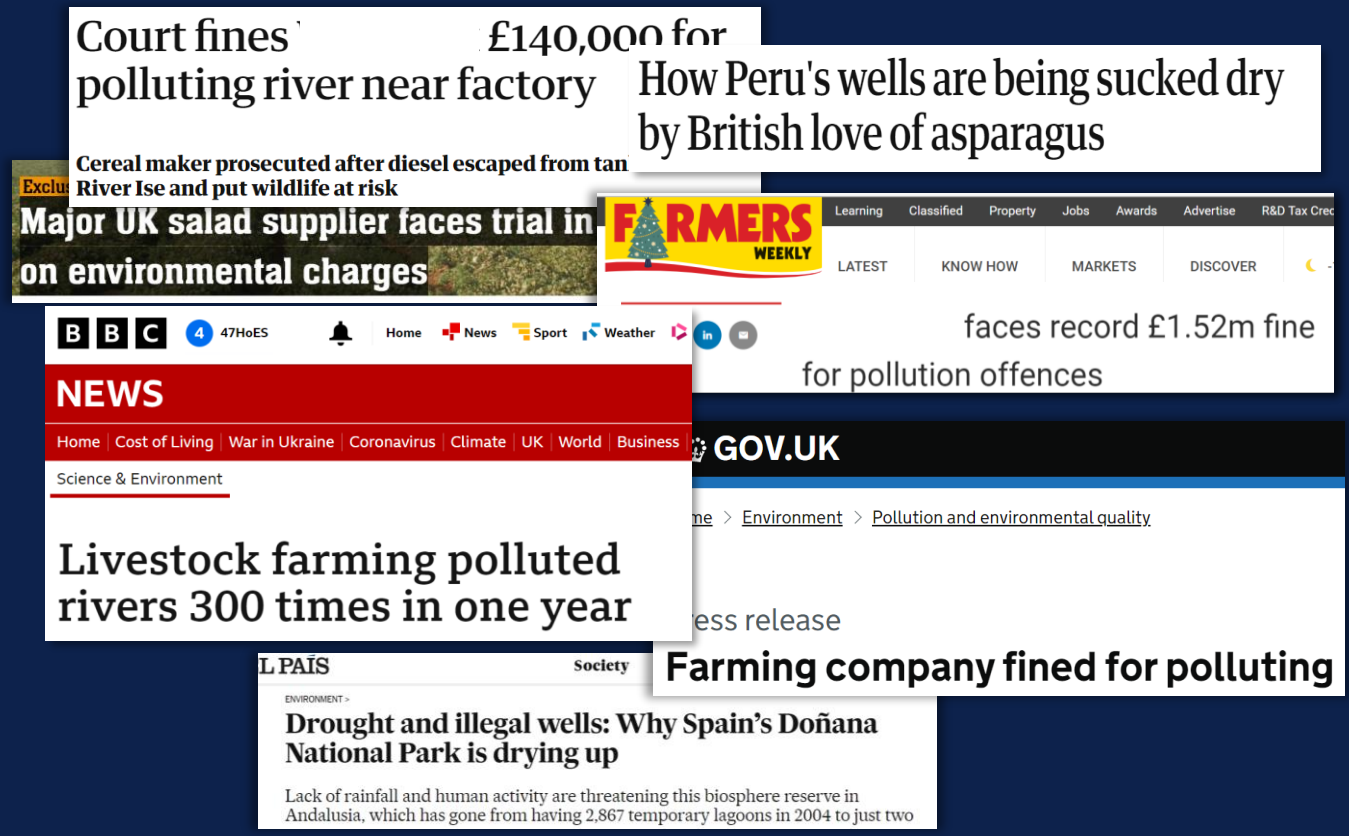
Increasing risk of inaction

Legal obligation

- Significant strengthening of regulations around water use and waste.
- 56 prosecutions have been brought against businesses for water pollution related reasons in last 7 years with fines of over £141 million
- Penalty for pollution by water companies will go from £250k to up to £250 million.

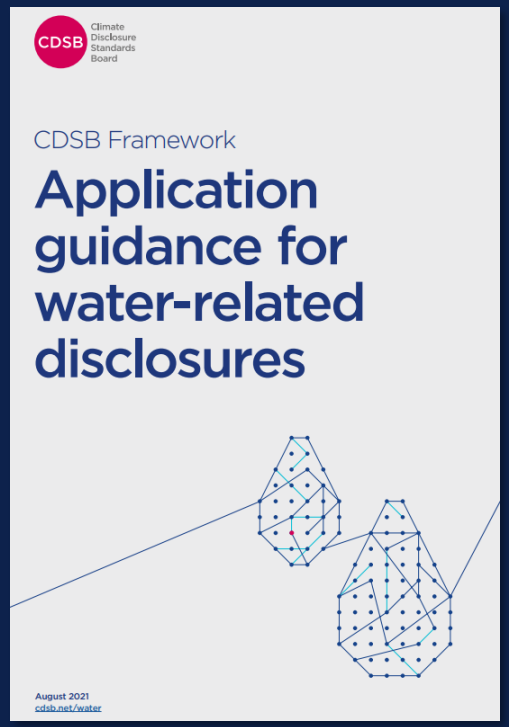
Reputational risk

- Media scrutiny of how food & drink production impacts on water resources, has risen by more than 25% in the past year (and 50% since 2015).
- Leading food & drink businesses are increasingly held to account for their role in pollution and water scarcity sourcing.



In 2021, the CDP estimated the cost to agri-food businesses of inaction on water could be **over 20 times greater** than the cost of taking new action now, to address those risks.

Link to financial disclosures



TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Mandatory Climate-Related Financial Disclosure

Requires large businesses to report on financially material climate-related business risk – ***including water risk.***

Came into effect for larger businesses in April 2022, will be mandatory across the economy by 2025.

Reporting must include:

- Arrangements for identification, assessments and management of water risk;
- Targets, and performance against those targets.

Businesses are using the Water Roadmap to help them report on climate-related financial disclosures.

The Water Roadmap

A pathway to achieve the Courtauld 2030 target "to source at least 50% of the UK's fresh food and drink from areas with sustainable water management" by 2030.

- Launched November 2021
- 65 organisations signed up, including 56 businesses

Commitment to:

- Set water-related targets;
- Identify water risk hotspots in operations and supply chain;
- Report on progress;
- Participate in Collective Action projects.

WWF

The Rivers Trust

wrap

The Water Roadmap

Who would you be joining?

This is not exhaustive

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Existing Collective Action Projects

Overseas

UK

Future Collective Action Projects

Shortlisted with input from Courtauld signatories

UK

1. NW England
2. W Wales
3. Northern Ireland/Republic of Ireland

Overseas

4. Peru
5. Chile OR Morocco (TBC)

How to make a start on water?

Target

Sign up to the Water Roadmap and **set targets** to address water risk in your own operations + supply chain. By signing up you will be expected to **report** data to WRAP annually.

Measure

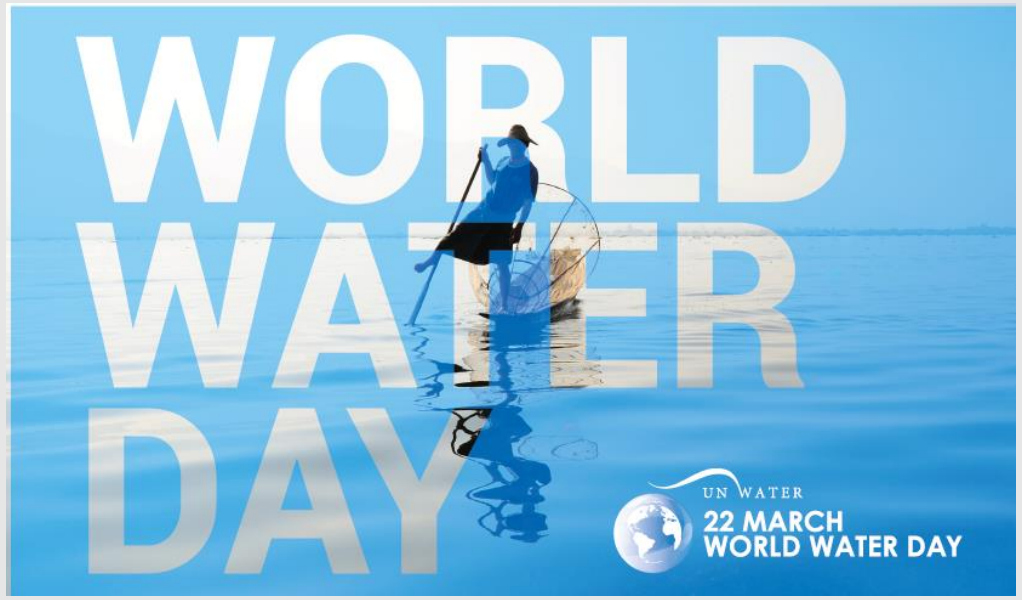
Use the **WWF Water Risk Filter** to measure water risk in your supply chain and map your water risk hotspots. This will help you understand where to act and invest in collective action.

Once you have signed up we can grant you access to a webinar with WWF to help support you in using the Water Risk Filter.

Act

Join one of our **collective action projects** so that you can **take action** on water risk in your supply chain (note: this will include a **financial contribution** £ and a minimum commitment of 3 years).

UN World Water Day 22 March



We aim to make a splash about our Water Roadmap and collective action projects around UN World Water Day in March.

This will be a great chance to showcase new Water Roadmap supporters across different sectors, and we would love to have you on board by then!

THANK-YOU…

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food and drink 2030

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Nature Based Solutions & partnership working in Buxton, Derbyshire

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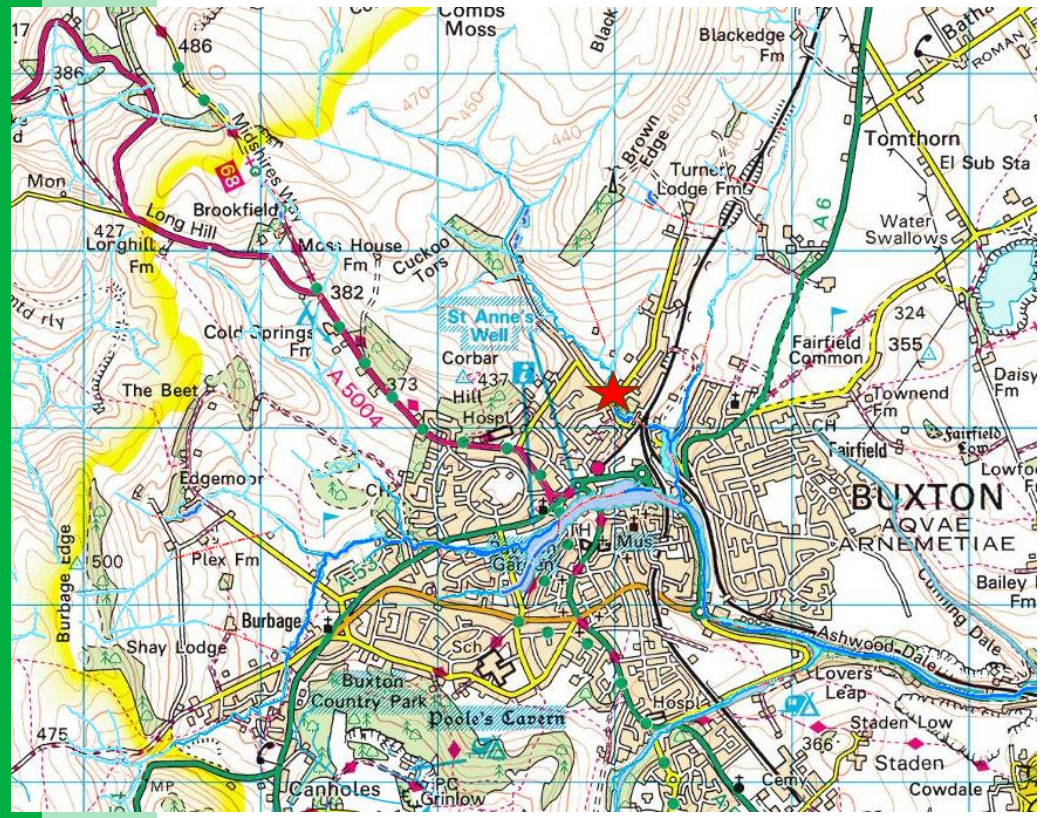
Hogshaw Brook, Buxton



Flood and Coastal Erosion Risk Management (FCERM) Strategy

Its long-term vision is for:

"a nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100"

Provides 3 long-term ambitions to help move the country towards the vision:

Ambition 1

Climate Resilient Places

Ambition 2

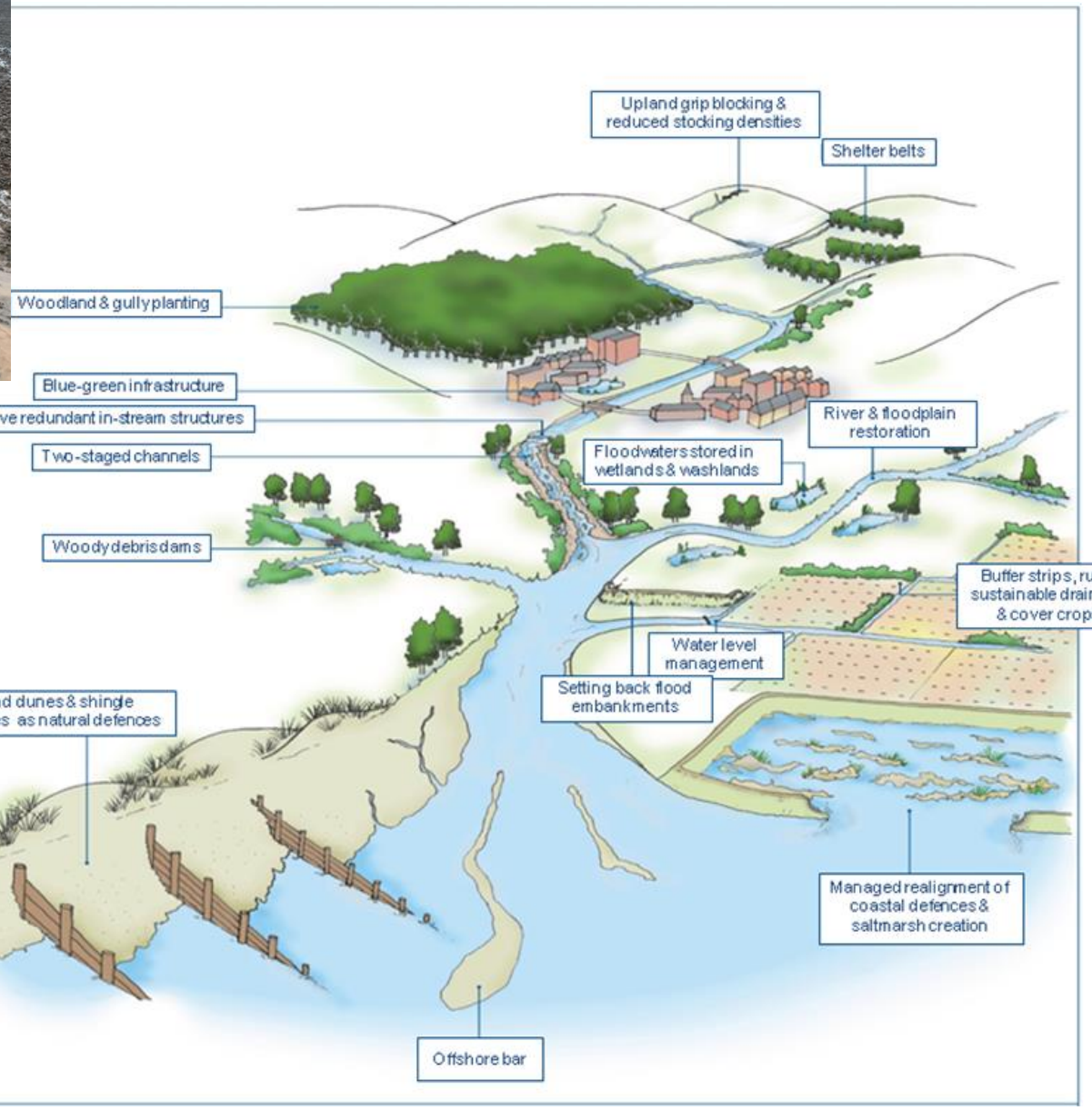
Today's growth and infrastructure in tomorrow's climate

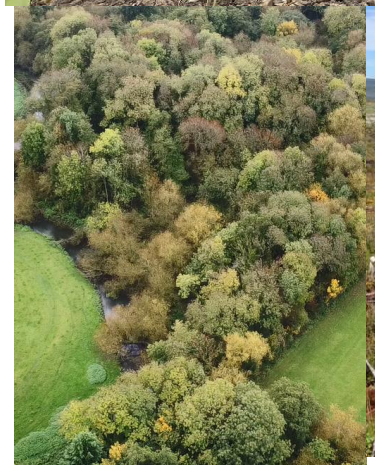
Ambition 3

A nation ready to respond and adapt to flooding and coastal change

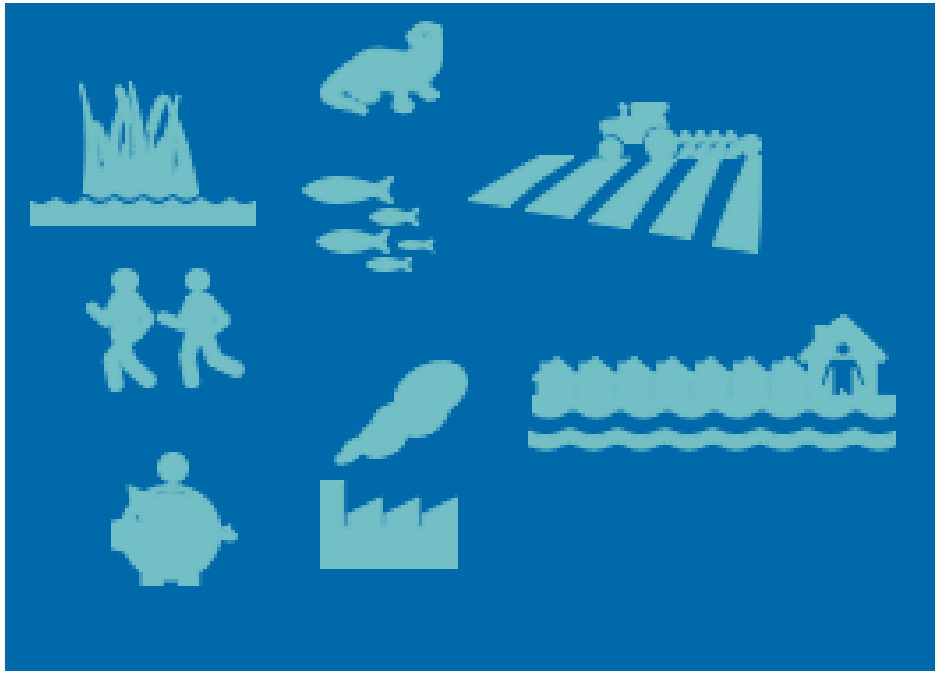
Environment Agency

Natural Flood Management





Working in partnership



Environment Agency

BRITVIC

Dr Yianni Alissandratos *PhD, BEng (Hons), MSc, MSc, AMiMechE*

Innovation Engineering Lead

Academic

Bachelor's (Hons) Mechanical Engineering

MSc Energy (Renewable Energy Engineering)

MSc Advanced Engineering Design

PhD Manufacturing / Bioprocessing

Past Experience

What I do Know

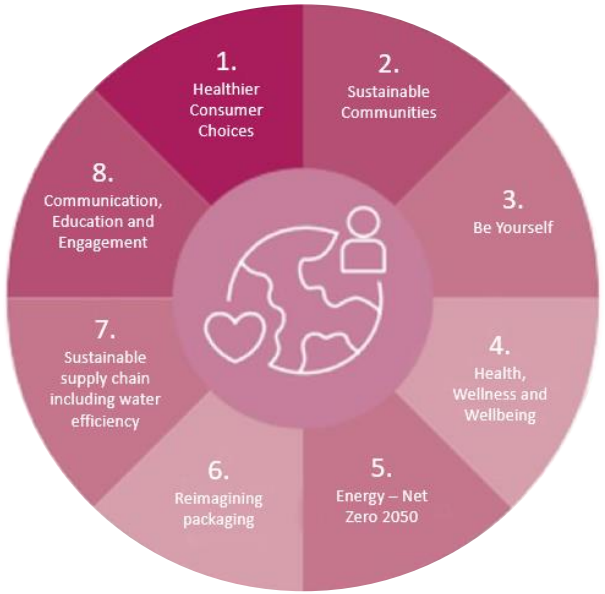
BRITVIC

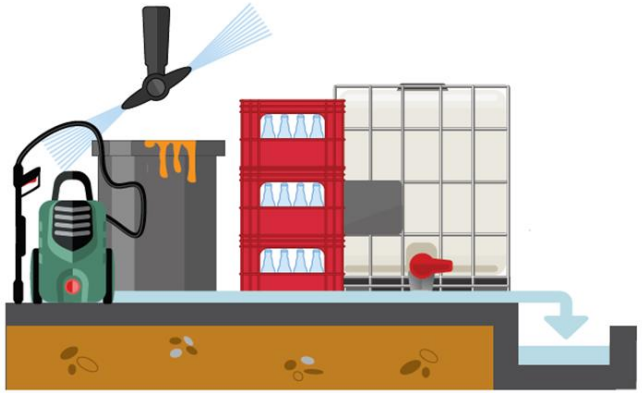
*Develop new **protocols, practices and strategies** which enable the business to develop systems and processes optimising our product development and manufacturing.*

Today's Talk

A (very) high level outline of Britvic's commitment to reducing and recovering our water

Introduce ---------- Focus on one project ---------- Highlight achievements in this area





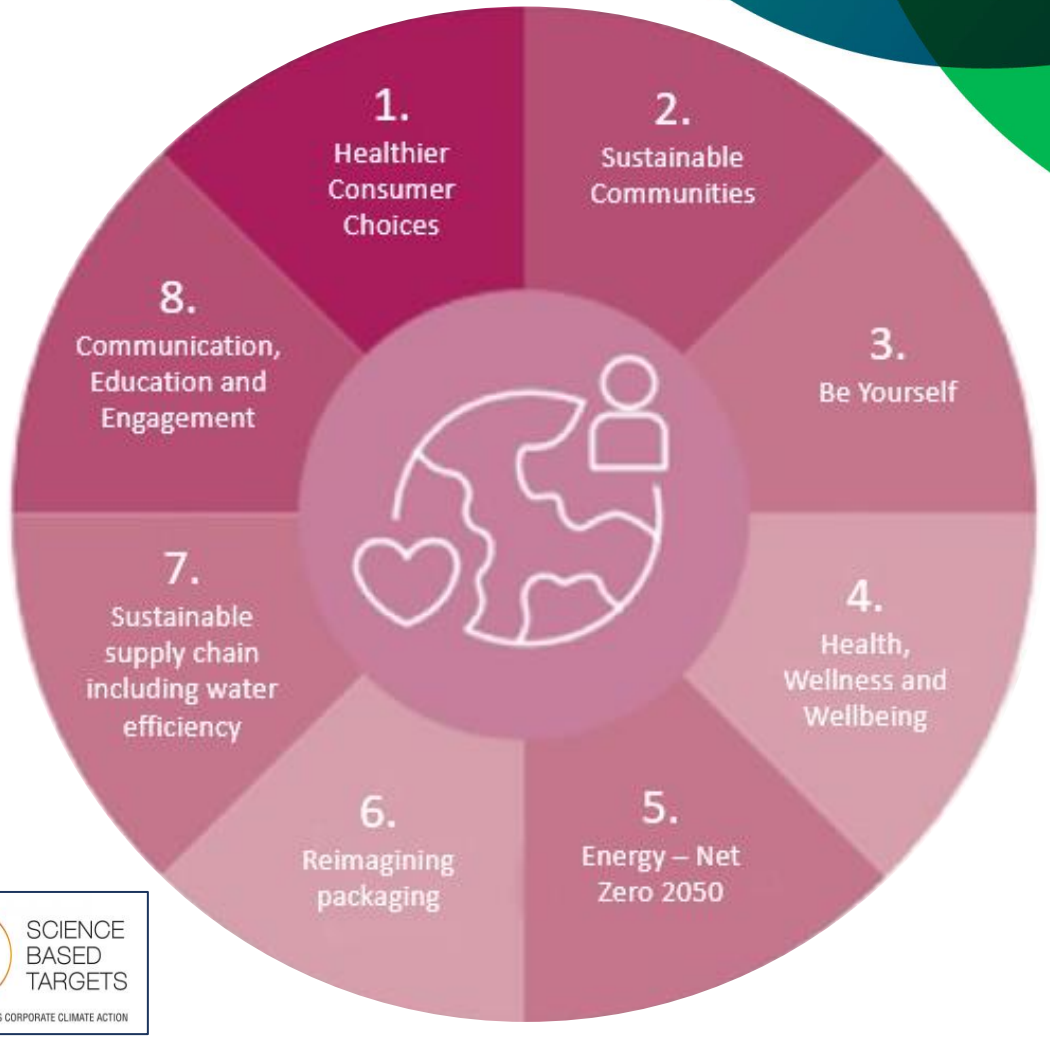
The Rivers Trust

Our 2025 commitments: Healthier People, Healthier Planet

Our Key Targets

- <30 calories per 250ml serve
- **Double** employee community days (vs 2020 baseline)
- **Top quartile** employee engagement score (vs 2020 baseline)
- **Top quartile** employee wellbeing score (vs 2020 baseline)

- Reduce packaging per serve by **20%** (vs 2020 baseline)
- **Packaging 100%** recyclable in Great Britain
- Our ambition is to transition all our PET bottles to **100%** rPET and/or sustainably sourced PET through use of innovation
- **Reduce manufacturing water intensity ration by 20%** (m^3/*tonne production*)
- Reduce Scope 1 & 2 **carbon emissions** by **50%** by 2025
- Reduce Scope 3 carbon emissions by **35%** by 2025



The Rivers Trust

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

BRITVIC
R&D INNOVATION

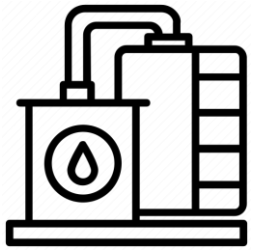
How is Britvic R&D supporting this strategy ?

Innovation are spearheading activities to:

- ***Drive sustainable choices*** *in all stages of product development.*
- ***Digitally transform*** *our factories and processes to be able to better monitor and identify waste.*
- ***Discover opportunities*** *to valorise our waste.*
- **Identify new reduce, reuse strategies for our water –** *Waste Valorisation / Water Recovery (WV/WR) project*

WV/WR Project: What is it

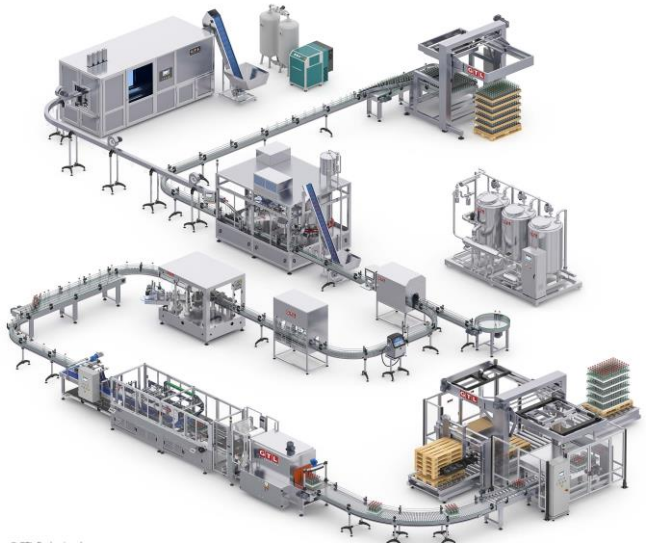
Water



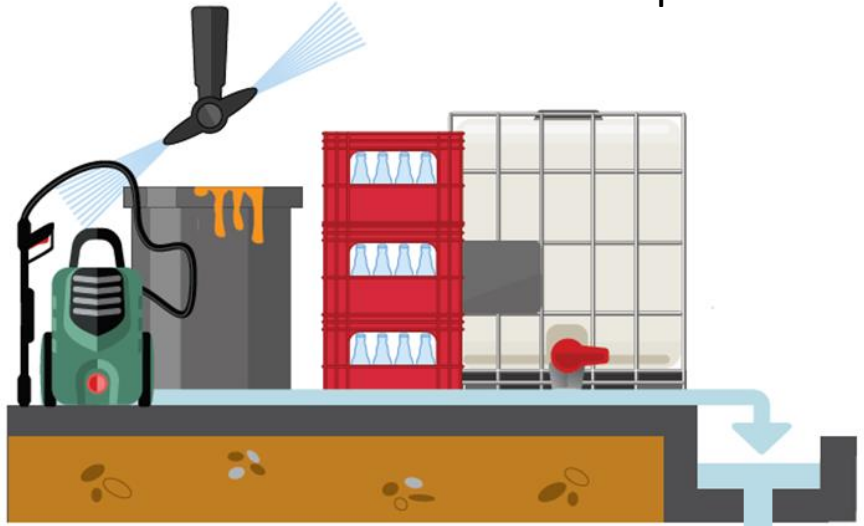
Liquid Materials (Syrups & Concentrates)

Manufacturing Facilities

BRITVIC



Where our waste ends up



There is value in our waste

Can we identify:

(i) What is in our waste

*(ii) effective strategies to **recover** it*

WV/WR: Aim

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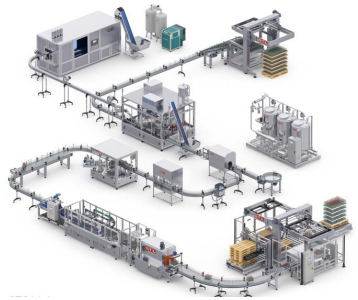
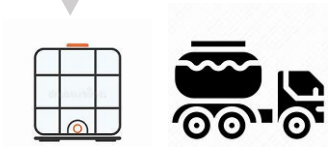


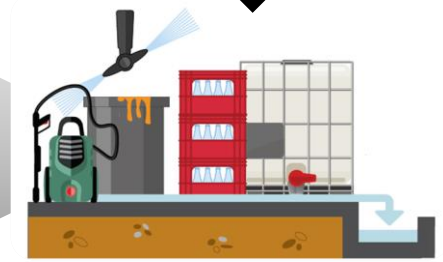
*Create new **reduce, reuse and recovery** strategies for our water*

Current Waste Model

Finished Product & Syrup

Pre-Rinse





Liquid Waste

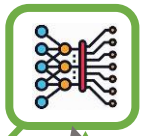
Look into our waste and develop new

- ***Processes***
- ***Methodologies***
- ***& Strategies***

New Waste Recovery Model

Create New Green Circular Economies with ***"Waste Recovered Materials"***

Industrial Process Design

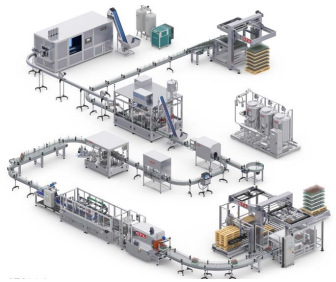


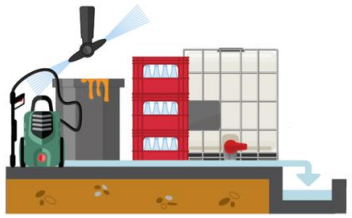
Data Science

Physical Science

Engineering

WV/WR: Project structure





Liquid Waste

***Level 3:** Develop technology & partnerships to upcycle our waste*

***Level 2:** Creating Water Recovery Routes*

***Level 1:** Recycling high value compounds*

Now

Fingerprint our waste profile

Mission 20|25

KING'S College LONDON

<2025

Develop **recovery strategies**

Mission 20|25

KING'S College LONDON

Beyond 2025

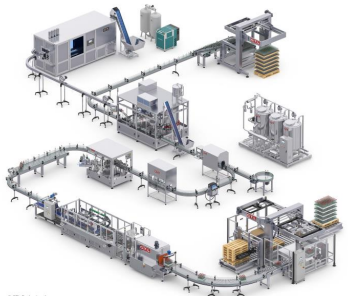
Establish **protocols** & **partnerships** to **upscale** waste

Project has been structured for immediate impact !!!

...But also look at opportunities beyond 2025

BRITVIC R&D INNOVATION

We are already making a difference

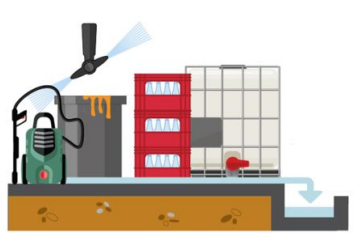


<2025

***Level 2:** Creating Water Recovery Routes*

***Level 1:** Recycling high value compounds*

Liquid Waste



Water Stewardship activities across the Business

Our own Operations:

- Reuse of water across sites – (example. Brazil c.31M litres of water recovered & reused annually)
- Reducing frequency and number of cleaning cycles

Local Catchments:

- Working with GB supply chain to identify site specific programmes that improve local water stewardship issues
- Funding of “Replenishment” projects to balance the amount of water we use across our facilities
- Partnership with River’s Trust
- Establishing Volunteering Opportunities

Paul Murgett

Aaron Patel

Head of Public Affairs GB&I

The Coca-Cola Company, Great Britain

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Water Replenishment at Coca-Cola

In Great Britain

Globally

170% of water used in our finished beverages returned to nature and communities in 2020	**1.75T+** liters of water replenished globally between 2012 and 2020	**13.5M+** people provided access to safe drinking water, sanitation, and hygiene between 2010 and 2020*	**#1** ranked by Ceres under their "Feeding Ourselves Thirsty" benchmark, recognizing TCCC's leadership ambitions	CDP DISCLOSURE INSIGHT ACTION A LIST 2021 WATER

'North Star'

Sustainability Networking Breakfast Event

Q&A

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Thank you!

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