

# Our Contribution to Yorkshire

Annual impact and  
public value report

For the year ended 31 March 2022

Published December 2022



YorkshireWater

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There are also many other clickable links within this document which we've made easy to spot by underlining and **highlighting** them in blue. If you click on one of these links, but then wish to navigate back to the page you were viewing previously, simply click the 'Back' button at the top of the page.

# We're proud to play water's role in making Yorkshire a brilliant place to be – now and always

This is our purpose



# Contents

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Further information is available in the following supporting documents, all of which are available at [yorkshirewater.com/capitals](https://yorkshirewater.com/capitals)

- Methodology report, including a glossary of terms
- Data tables
- Sustainable Finance Framework *Allocation Report*

# 1. About Yorkshire Water and this report

## About Yorkshire Water

Yorkshire Water provides some of life's most essential services to the people and businesses of Yorkshire, playing a key role in the region's health, wellbeing, and prosperity. We do this by supplying water and wastewater services to over 5 million people and 140,000 business properties, as well as being custodians of essential infrastructure and the natural environment.



We collect, treat and supply around **1.3bn litres** of water every day.



We collect, treat, and safely return to the environment **1bn litres** of wastewater every day.



We provide jobs for **3,922 colleagues** across Yorkshire.



We invest over **£1m every day** to maintain and enhance Yorkshire's network of pipes, pumps, and networks.



We contribute to the wider economy, **spending £800m on goods and services** from **1,200 suppliers** each year.



We **manage £1bn of water bills** every year.

## About this report

This report presents the findings of our latest six capitals analysis to assess the impacts of our business activities over the financial year from April 2021 to March 2022. We call this *Our Contribution to Yorkshire*.

This is our fourth report of this kind, and we will continue to publish our assessment findings annually to help track our performance over time. In the report we explore the findings of our latest six capitals assessment, as well as providing a range of case studies to help bring what we do to life.

## For our investors

We raise debt from a variety of sources to help fund our activities and investments into the business. In early 2019, we introduced a Sustainable Finance Framework in which we committed that all debt raised under the framework would be allocated only to activities that benefit people and the environment. We will use this framework to raise almost all of our debt in future.

As of 31 March 2022, we have raised £1.2bn through the framework. This report is designed to meet the commitment we made in the framework to report annually on our environmental and social impact. A range of metrics can be found throughout this report, supported with commentary and case studies.

To accompany this main report, which is designed for all interests in Yorkshire Water, we also provide an accompanying investor allocation report with further information specifically for the investor community, including details of debt allocations. A link can be found on the [Contents page](#).



# 2. Foreword



I am pleased to share this publication of *Our Contribution to Yorkshire* with you.

This report assesses the impacts of Yorkshire Water’s business activities and investments, both positive and negative, using our six capitals approach. In doing so, it demonstrates our contribution to the region and how we are guided by our purpose of playing water’s role in making Yorkshire a brilliant place to be – now and always.

However, in the complex environment in which we operate, it is not easy to get everything right all of the time. I joined Yorkshire Water this year in a challenging period for water companies. Customer expectations are rising (particularly with respect to our environmental performance), we are experiencing significant financial pressures, and the ongoing rise in the cost-of-living underlines the need to avoid our bills adding an unnecessary burden to our customers’ household budgets.

In the face of these challenges, the requirement for robust, integrated decision-making has never been greater. Our six capitals approach helps us recognise and protect the many sources of value on which we depend as a business. By improving how we use the six capitals within our business, we aim to ensure decisions taken to improve the efficiency of our services are not made at the expense of our long-term resilience or affordability for future generations.

We will continue to develop and embed our six capitals approach across Yorkshire Water. I welcome your thoughts and feedback to help improve our future reports.

**Nicola Shaw**  
Chief Executive Officer

## Highlights



**>6,000ha**  
Hectares of **land conserved or enhanced.**  
(2021: 3,000ha)



**93%**  
Customer **satisfaction.**  
(2021: 93%)



**138**  
New **apprentices.**  
(2021: 19)



**>80,000**  
**Customers supported** financially.  
(2021: 61,000)



**3,000MI**  
Reduction **in leakage.**  
(2021: 3,000MI)



**340Gwh**  
**Renewable energy** generated.  
(2021: 295GWh)

## Areas for improvement



**143**  
**Pollution incidents.**  
(2021: 125)



**572**  
**Internal flooding incidents.**  
(2021: 778)



**12,000t**  
Waste to **landfill.**  
(2021: 9,000t)



**0.24**  
**Lost time incident rate.**  
(2021: 0.21)



**4%**  
**Gender pay gap.**  
(2021: -0.5%)



**2 star**  
**Environmental Performance** Assessment rating.  
(2021: 4 star)

# 3. The six capitals concept

**Capital, while often thought of only as money, describes any resource or asset that stores or provides value. Our business activities depend on, and impact, many different types of capital including the natural environment, our skills and knowledge, and the trust of our customers. However, these are often overlooked or undervalued in traditional financial accounting and analysis.**

In this report, we look beyond the financial balance sheet to assess the value we provide to Yorkshire across six types of capital. For each capital, we present annual accounts for the period April 2021 to March 2022. These include a range of indicators showing the extent and condition of our assets, as well as the positive and negative impacts of our activities.

Our six capitals approach is designed to help us become more sustainable and resilient by better understanding, and therefore better managing, the economic, environmental, and social impacts of our actions. In turn, this should allow us to protect and grow the value we create for customers, investors, and other stakeholders.

Further information on our data and methodology is available at [yorkshirewater.com/capitals](https://yorkshirewater.com/capitals)

## The six capitals



### Financial capital

Our financial health and efficiency.



### Manufactured capital

Our pipes, treatment works, offices, and IT.



### Natural capital

The materials and services we rely on from the environment.



### Human capital

Our colleagues' capabilities and wellbeing.



### Intellectual capital

Our knowledge, processes, innovations, and strategic partnerships.



### Social capital

Our relationships, trust, and contribution to wider society.

## Key elements of our six capitals assessment

### Asset

A stock of resources, such as the land we own. Assets can be measured by extent (the quantity we own) or condition (their ability to provide services over time).

### Output

A measure of positive or negative change resulting from how we have maintained and used our assets, which may indicate a change in impact.

### Impact

The amount that something is considered to be important, beneficial or detrimental. We estimate the economic value of our impact to Yorkshire Water and to wider society, such as the value of health benefits associated with recreational visits to our land. This allows us to compare different impacts in a common unit, although we recognise that not everything can be valued reliably in monetary terms.



# Guide to this report

## Scope









This report focuses on the activities directly undertaken by Yorkshire Water. Except where clearly stated, we have excluded activities carried out in Yorkshire Water’s supply chain or by others in the Kelda Group of companies of which Yorkshire Water is the largest.

## Timeframe

This report covers the financial year from 1 April 2021 to 31 March 2022. Throughout this report, unless otherwise stated, we refer to each financial year by the year end date. For example, 2022 refers to the financial year ended 31 March 2022.

## Symbols used in this report

We use trend arrows to show whether our performance has increased or decreased since last year.

 Upward trend <b>positive outcome</b>	 Upward trend <b>negative outcome</b>	 Upward trend <b>unclear outcome</b>	 Broadly stable trend <b>stable outcome</b>
 Downward trend <b>positive outcome</b>	 Downward trend <b>negative outcome</b>	 Downward trend <b>unclear outcome</b>	 Insufficient data to determine a trend

We indicate the robustness of our data and valuation methods using the following symbols.



Low confidence due to considerable uncertainty in data accuracy and reliance on extrapolations, estimations and assumptions. Valuation methods use techniques that are at the early stages of development.



Medium confidence due to limited uncertainty in data accuracy and reliance on extrapolations, estimations and assumptions. Valuation methods use techniques that are well-recognised but still maturing.



High confidence due to robust data that may undergo third-party assurance. Valuation methods use widely respected techniques that have matured to become commonly used by respected organisations.

## Find out more

### We openly publish our work on the capitals.

You can find previous reports, detailed methodologies and case studies at [yorkshirewater.com/capitals](https://yorkshirewater.com/capitals)

### You can also find further information

**about Yorkshire Water in our other corporate reports** – the Annual Performance Report and Annual Report and Financial Statements – at [yorkshirewater.com/reports](https://yorkshirewater.com/reports)

# 4. Trusting this information

## Governance

Sustainability sits at the core of Yorkshire Water's long-term strategy. We are working to embed the six capitals concept throughout our business and use it more widely to underpin our decision-making.

We recognise that we provide an essential public service and act as an anchor institution within Yorkshire, thus playing a key role in the health, wellbeing, and prosperity of the region. Our Public Value Committee (PVC), which is a formal Board Committee chaired by a non-executive director, provides a focus on the social purpose and public accountability of Yorkshire Water, and is responsible for ensuring that consideration of public value is embedded in strategy and decision-making across the business. The PVC are accountable for reviewing and approving this report prior to publication.

We have strong ethical standards of both corporate governance and business conduct to ensure we operate with honesty and integrity. Our Code of Ethics helps our colleagues and contractors make the right ethical choices and provides information on our Speak Up (Whistleblowing) policy to report matters of concern anonymously.

You can read more about our approach to corporate governance in our Annual Report and Financial Statements at [yorkshirewater.com/reports](https://yorkshirewater.com/reports)

## Accuracy and transparency

We want to provide accurate information you can trust. Unlike our traditional publications, the methodology that underpins this report uses innovative analytical techniques that continue to develop and evolve. To ensure openness and clarity, we use confidence grades throughout this report to reflect the different levels of maturity in our data and assessment methodology.

Many of the data points that underpin this report are subject to third-party verification or assurance, either in direct relation to this work or through their inclusion in other reports published by Yorkshire Water. We have highlighted these in the accompanying data tables with further details of the other publications in which these data can be found. We are working to strengthen the quality of our data and assessment methodology as part of continuous improvement in our decision making and reporting.

It can be challenging to assign economic values to things which are not usually expressed in monetary terms, and to quantify impacts that are not tangible or in our direct control. As a result, some of our calculations are based on assumptions and estimations. Furthermore, our figures do not yet represent a complete view of 'value'. For example, while we might express a value to Yorkshire Water of our colleagues' wellbeing in terms of changes in sickness days, this does not reflect the entirety of its importance to individuals and neither does it reflect the total scope of our business interests or responsibilities.

**To ensure openness and clarity in this report, we have:**

- Rounded our final figures so as not to imply misleading levels of accuracy
- Used robustness ratings to show the reliability and maturity of each reported metric
- Published data tables and our calculation methodology to accompany this report at [yorkshirewater.com/capitals](https://yorkshirewater.com/capitals)
- Where necessary, restated last year's figures to allow performance to be compared on a like-for-like basis
- Asked for independent assurance on some aspects of our work by Deloitte. More information on the scope of their work and their findings can be found in the independent limited assurance report at the end of this document.

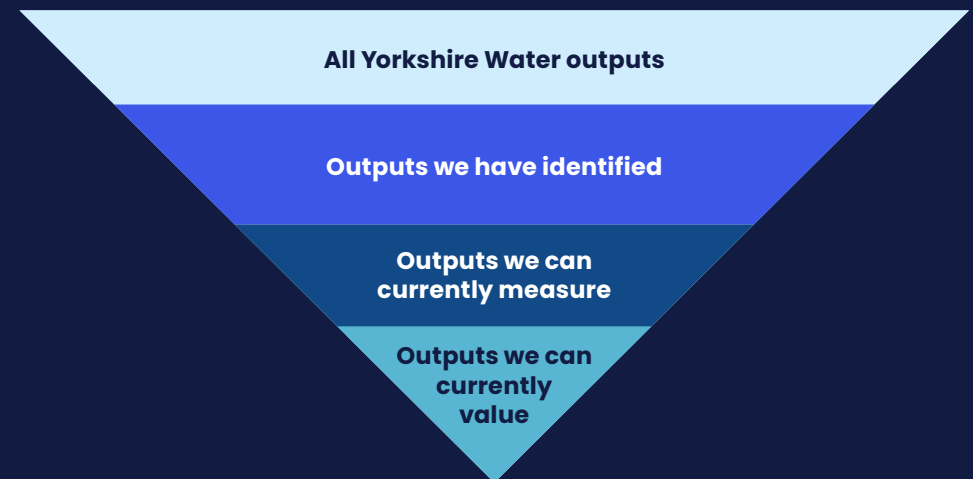


# 5. Our assets and outputs

**In this section we provide a visual summary of our 2022 assessment to demonstrate the extent and condition of the assets on which we rely and the outputs we have created through our business activities. More details on each of the six capitals can be found in later sections of this report.**

Whilst we have worked hard to identify all our material outputs, we may not have identified all the outputs generated by our business activities. Similarly, we are limited in our ability to measure and value our outputs in some areas at present but will work to address these gaps in future.

Our assessment methodology continues to evolve in line with best practice. In some cases we have restated last year's figures to allow performance to be compared on a like-for-like basis. Further information on our assessment methodology, together with a suite of data tables for 2021 and 2022, is available at [yorkshirewater.com/capitals](https://yorkshirewater.com/capitals)



### Financial capital

<b>Assets</b>	Regulatory capital value <b>£7,746m</b> (2021: £7,024m) ↗	Pension funds <b>£1,529m</b> (2021: £1,563m) ↘	Total debt <b>£5,714m</b> (2021: £5,642m) ↗	Credit rating (lowest) <b>Baa2</b> (2021: Baa2) →
<b>Outputs</b>	Taxes <b>£159m</b> (2021: £148m) ↗	Salaries <b>£159m</b> (2021: £143m) ↗	Pension contributions <b>£13m</b> (2021: £12m) ↗	Operating profit <b>£242m</b> (2021: £241m) →

### Manufactured capital

<b>Assets</b>	Water mains <b>32,000km</b> (2021: 32,000km) →	Sewers <b>52,000km</b> (2021: 52,000km) →	Renewable energy generation capacity <b>26MW</b> (2021: no data) ?	
<b>Outputs</b>	Change in asset value <b>£1,026m</b> (2021: £366m) ↗	Waste to landfill <b>12,000t</b> (2021: 9,000t) ↗	Energy used <b>732Gwh</b> (2021: 730Gwh) ↗	Renewable energy generated <b>340Gwh</b> (2021: 295Gwh) ↗

### Natural capital

<b>Assets</b>	Land ownership <b>28,000ha</b> (2021: 28,000ha) →	Water reservoirs <b>127</b> (2021: 129) ↘	Bathing waters <b>20</b> (2021: 20) →	Land carbon stock <b>2,100,000t</b> (2021: no data) ?
<b>Outputs</b>	Biodiversity units created <b>14,600</b> (2021: no data) ?	Leakage <b>103,000MI</b> (2021: 106,000MI) ↘	Pollution incidents <b>143</b> (2021: 125) ↗	Net carbon emissions <b>263,000tCO<sub>2</sub>e</b> (2021: 271,000tCO <sub>2</sub> e) ↘

### Human capital

<b>Assets</b>	Total colleagues <b>3,922</b> (2021: 3,925) →	Share of colleagues female <b>26%</b> (2021: 26%) →	Share of colleagues BAME <b>5%</b> (2021: 5%) →	Gender pay gap <b>4.1%</b> (2021: -0.5%) ↗
<b>Outputs</b>	Apprenticeships <b>138</b> (2021: 19) ↗	Colleague turnover (total leavers) <b>537</b> (2021: 422) ↗	Lost time incident rate <b>0.24</b> (2021: 0.21) ↗	

### Intellectual capital

<b>Assets</b>	Partnership projects <b>16</b> (2021: 7) ↗	
<b>Outputs</b>	Spend on R&D <b>£2.9m</b> (2021: £2.8m) ↗	Colleague training <b>78,000hours</b> (2021: 52,000hours) ↗

### Social capital

<b>Assets</b>	Public recreational sites <b>56</b> (2021: 52) ↗	Households served <b>2.3m</b> (2021: 2.2m) ↗	Customers on PSR <b>89,000</b> (2021: 77,000) ↗	Customer trust <b>89%</b> (2021: 92%) ↘
<b>Outputs</b>	Recreational health benefits <b>336 QALYs</b> (2021: 425 QALYs) ↘	Internal flooding incidents <b>572</b> (2021: 778) ↘	Customers financially supported <b>81,000</b> (2021: 61,000) ↗	Percentage spend with local suppliers <b>37%</b> (2021: 37%) →

# 6. The economic value of our impacts

**This section shows our estimate of the economic value created by our impacts in 2022.**

Our figures show the net estimate for the impacts we have been able to value, grouped by theme. This can mask some finer details within each theme. However, we provide further insights into our results in later sections of this report and also in the data tables and methodology that accompany this report. As our assessment does not currently capture all our material impacts, we do not provide a sum of reported impacts at this time.

Financial capital	Impact (2022)	Impact (2021)	Trend	Confidence grade
Taxes	£159m	£148m	↗	H
Salaries	£159m	£143m	↗	H
Pension contributions	£13m	£12m	↗	H
Operating profit	£242m	£241m	→	H
<b>Manufactured capital</b>				
Change in asset value	£1,026m	£366m	↗	H
Waste use & reuse	£37m	£3m	↗	M
Renewable energy	£30m	£20m	↗	M
<b>Natural capital</b>				
Water use & efficiency	-£58m	-£58m	→	M
Environmental water quality	-£17m	-£22m	↗	H
Land & biodiversity	£169m	No comparable data	?	L
Air quality	-£79m	-£79m	→	M
<b>Human capital</b>				
Performance & development	£36m	-£6m	↗	M
Health, safety & wellbeing	-£16m	-£12m	↘	M
Diversity & inclusion	-£2m	£0m	↘	L
<b>Intellectual capital</b>				
Research & development	£10m	£10m	→	L
Knowledge & learning	£8m	£7m	↗	M
Processes & efficiency	Not yet assessed		?	
<b>Social capital</b>				
Trust	-£2m	£0m	↘	L
Public health & wellbeing	£46m	£53m	↘	L
Vulnerability	£3m	£2m	↗	L
Public education	£1m	£0m	↗	L

# 7. Financial capital



# Financial capital

## What is financial capital?

Financial capital is the common way in which society measures something's value. It includes those things with a cash value, such as money or stocks and shares. Financial capital cannot exist without the other five capitals; it is a way of representing parts of the value inherent in the other capitals. With the dominance of finance in traditional decision making, it is this partial representation that can lead to unsustainable approaches to decision making. This runs to the heart of the capitals concept for the need to take a broad view of value.

In this section we consider our financial impacts and value by presenting information on the financial contribution we make as a business through salaries, profits, and taxes. We also add other indicators of our financial resilience including our gearing ratio, pension funds, and the proportion of our debt that is classed as sustainable.

## Why is financial capital important?

For Yorkshire Water, strong financial foundations are critical to our ability to reliably maintain the region's public water and wastewater infrastructure and provide our essential services to customers and the environment, both now and in the future. For society and the economy, we play an essential role as a local anchor organisation due to our fixed regional presence and large employee base. Water and wastewater infrastructure underpin almost every section of the economy, and we create further financial benefits through our large supply chain, which you can read more about in the Social Capital section of this report. We also make a significant financial contribution to our colleagues, investors and wider society through salaries, pension contributions, the profits we generate, and the taxes we pay.















## Assessment findings for 2022

Our financial capital metrics demonstrate generally stable or positive movements in comparison to last year.

The overall level of total debt increased slightly from last year to £5,714m (2021: £5,642m), reflecting new debt being raised principally in order to refinance certain existing debt balances that were repaid during the year. New debt raised during the year related to the issue of £350m of sustainable bonds in April 2021 by Yorkshire Water’s primary financing subsidiary, Yorkshire Water Finance. This represents the third sustainability bond to be issued off the Sustainable Finance Framework, taking the total issued under the Framework to £1.2bn and increasing the sustainable finance share of debt to 21% (2021: 15%).

Our regulatory capital value increased during the year to £7,746m (2021: £7,024m). Lower gearing<sup>1</sup> represents one measure of financial stability and the increase in our regulatory capital value, coupled with limited increase in total debt, has resulted in a reduction in gearing to 73% (2021: 77%).

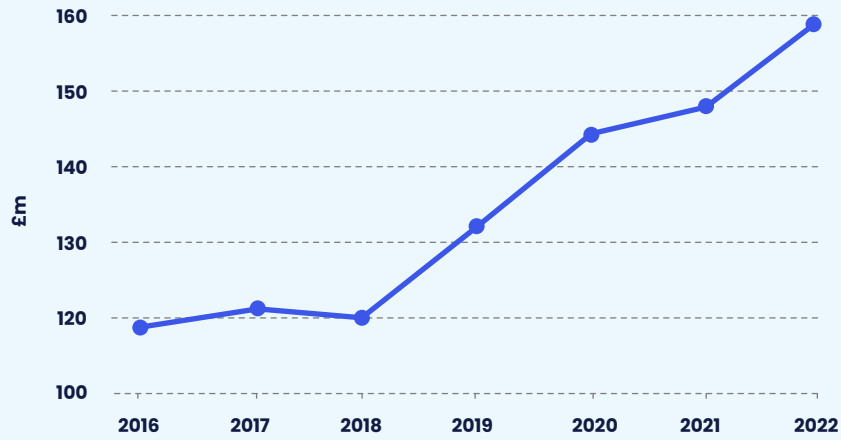
Further information about our financial performance and resilience can be found in our statutory Annual Report and Financial Statements (ARFS) available at [yorkshirewater.com/reports](http://yorkshirewater.com/reports)

	Financial assets	Investments	Debt	Credit rating
<b>Assets</b>	 Regulatory capital value <b>£7,746m</b> (2021: £7,024m)	 Pension funds <b>£1,529m</b> (2021: £1,563m)	 Total debt <b>£5,714m</b> (2021: £5,642m)	 Credit rating (lowest) <b>Baa2</b> (2021: Baa2)
	 Gearing <b>73%</b> (2021: 77%)	Pension funds invested sustainably <b>Not yet assessed</b>	 Share invested sustainably <b>21%</b> (2021: 15%)	
	Expenditure			
<b>Outputs</b>	 Taxes <b>£159m</b> (2021: £148m)	 Salaries <b>£159m</b> (2021: £143m)	 Pension contributions <b>£13m</b> (2021: £12m)	 Operating profit <b>£242m</b> (2021: £241m)

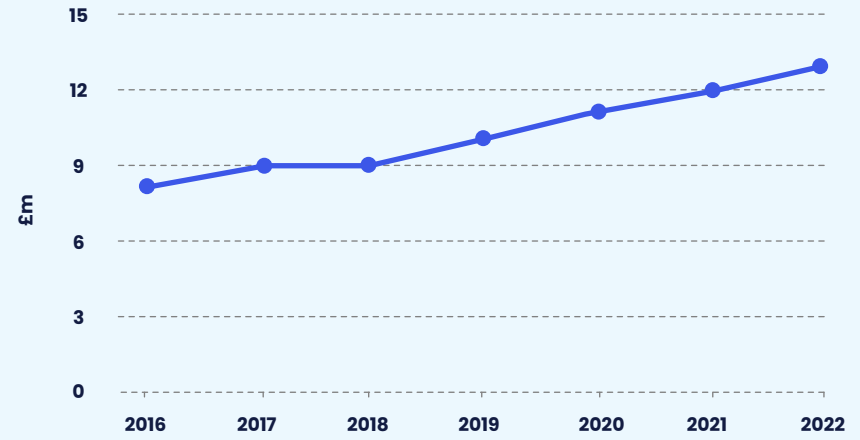
<sup>1</sup> We use a bespoke gearing ratio calculated using adjusted net debt and regulatory capital value. For more information see page 25 of the ARFS.

## Impacts

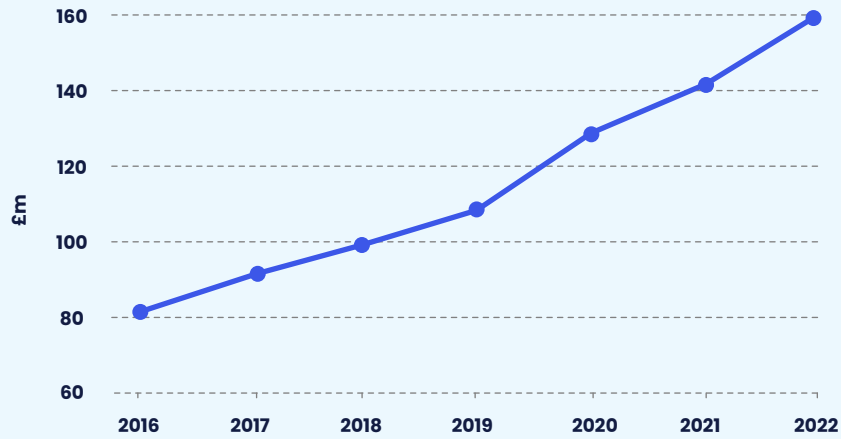
Taxes



Pension contributions



Salaries



Operating profit



# 8. Manufactured capital



# Manufactured capital

## What is manufactured capital?

Manufactured capital represents the material goods or fixed assets that are owned or controlled by an organisation. Yorkshire Water uses, maintains, and enhances a vast infrastructure of pipes, pumps and treatment works to provide water and wastewater services to customers, as well as other assets such as tools, vehicles, and energy generation facilities. The impacts we create through our manufactured capital assets include energy consumption and waste production.

## Why is manufactured capital important?

The long-term stewardship of Yorkshire's water and wastewater infrastructure is essential to the region's health and prosperity. It is our core duty to use, maintain, and enhance its water and wastewater infrastructure efficiently to ensure that communities and businesses can rely on safe and affordable water and wastewater services today and in future.

We are investing and innovating to reduce waste from our operations to improve efficiencies and minimise environmental impacts. Our 'circular' approaches help unlock value by keeping resources in continual use and avoiding the creation of waste. For example, we use human waste to generate significant amounts of biogas, which we use to generate renewable energy and quality products for agricultural use. We are also investing in manufactured capital to reduce leakage and pollution and to enhance the resilience of our business to extreme weather events. You can read more about investment in our resilience case study on [page 24](#).



## Assessment findings for 2022

The total value of our tangible assets increased by £1,026m (2021: £366m) over the last year. Among the largest components of our fixed assets are our extensive clean and wastewater networks, which we have continued to repair or replace at relatively low rates similar to those seen in previous years. £434m (2021: £448m) of this increase arises from additions to the asset base, though the greatest movement on the value relates to asset revaluation<sup>2</sup> (£902m increase; 2021: £217m increase).

## Waste

This year we updated our waste reporting methodology to improve data accuracy and consistency. In particular, we have removed clean water sludge that is sent to our wastewater treatment plants from our figures to prevent double counting of waste. We now report all our waste streams in dry tonnes and, for transparency, we have revised and restated last year's waste figures to allow for meaningful comparisons of our performance over time. Overall, the amount of waste we produced increased to 273,000 dry tonnes (2021: 229,000t) and we sent 12,000t to landfill (2021: 9,000t), resulting in a landfill avoidance figure of 96% (2021: 96%).

The majority of our waste was associated with construction, repair, and maintenance activities, which increased as expected towards the middle of our current five-year business cycle that runs from 2020 to 2025. Construction-related waste is likely to decrease towards the end of the business cycle, but we are also seeking to implement more efficient construction techniques, such as off-site fabrication, which should further help to reduce the amount of construction waste we produce.

In addition to generating biogas and renewable energy, we have created £37m added value from waste and under-used resources (2021: £3m). One example of where we created value is at our sewage treatment works at Whitby. Working with our sister company, Keyland Developments, we developed and sold an area of under-used land adjacent to the works for residential housing. Our plan for the site, which has secured planning consent, is underpinned by our six capitals approach and places a strong emphasis on sustainable measures. These include enhanced provision of access to nature and use of blue-green infrastructure that go beyond the standard approach to housing developments, which will bring long-term benefits to the local community and regional economy.

<sup>2</sup> For further information on revaluation and other movements in tangible assets see our Annual Report and Financial Statements.



## Energy

The total amount of renewable energy we generated increased<sup>3</sup> substantially to 340GWh (2021: 295GWh), of which 95% was generated from biogas. We treat all our sewage sludge using anaerobic digesters at 13 sites across the region, which produce biogas (methane) as a by-product of the treatment process. The biogas is used to provide heat and power to our sites, with a small amount of electricity exported to the grid. This year's increase in energy generation was driven by the opening of a new digester at Huddersfield and the re-opening of a digester at Dewsbury following a full-year refurbishment.

Overall energy use was similar to last year at 732GWh (2021: 730GWh). Approximately 85% was electricity associated with treating and moving water and wastewater. We are targeting energy efficiency improvements for our site treatment processes and are introducing new technologies to improve the efficiency of our pumps, which are the largest single source of our energy consumption. We are also investing in alternative sources of energy generation to reduce our exposure to volatility in global energy markets. For example, we are deploying solar panels across 28 sites that will produce 17GWh per year once fully installed.

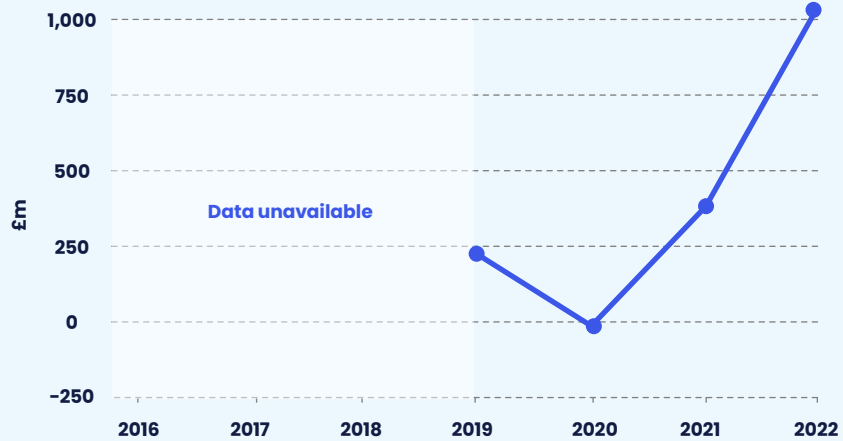
<sup>3</sup>Last year's energy figures have been restated

	Water assets	Wastewater assets	Energy assets	
<b>Assets</b>	<p>→ Length of mains <b>32,000km</b> (2021: 32,000km)</p> <p>↘ Renovated, built or relined <b>0.31%</b> (2021: 0.34%)</p>	<p>→ Length of sewers <b>52,000km</b> (2021: 52,000km)</p> <p>→ Renovated or replaced <b>0.05%</b> (2021: 0.05%)</p>	<p>? Renewable energy generation capacity <b>26MW</b> (2021: no data)</p>	
<b>Outputs</b>	<p>↗ Asset value Change in tangible asset value <b>£1,026m</b> (2021: £366m)</p>	<p>↗ Waste use and reuse Waste to landfill <b>12,000 dry tonnes</b> (2021: 9,000 dt)</p> <p>↗ Value created from waste <b>£37m</b> (2021: £3m)</p>	<p>↗ Energy intensity Energy intensity (wastewater) <b>630 kWh/MI</b> (2021: 605 kWh/MI)</p> <p>↗ Energy intensity (water) <b>706 kWh/MI</b> (2021: 693 kWh/MI)</p>	<p>↗ Energy assets Energy used <b>732GWh</b> (2021: 730GWh)</p> <p>↗ Renewable energy generated<sup>4</sup> <b>340GWh</b> (2021: 295GWh)</p>

<sup>4</sup> Includes electricity and heat

## Impacts

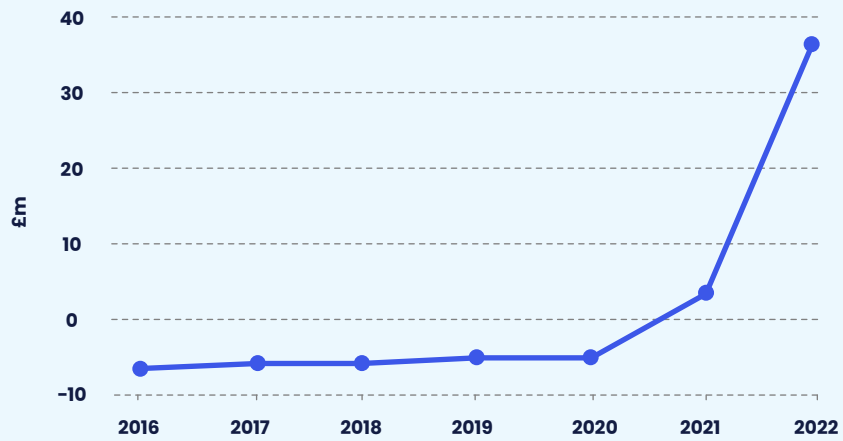
### Change in tangible asset value



### Renewable energy



### Waste use and reuse



Case study

# Improving flood resilience at our treatment sites

**Due to the nature of our business, many of our assets are located adjacent to rivers and therefore at risk of flooding during extreme weather events. In 2019, severe floods in Doncaster in the south of the region damaged several of our wastewater treatment sites. Although we were able to recover most of these relatively quickly, some assets required more substantial repairs that have since been delivered through our £18m Flood Recovery Programme.**

As part of this programme, we included around £2.6m of proactive investment to improve resilience to future flooding across 24 wastewater sites. Examples of new flood resilience measures include raising electrical panels and placing kiosks on concrete plinths to protect them from high water levels. This additional investment will help us ensure that we are able to maintain a reliable and cost-effective service to customers during future flood events, which are expected to become more common in the face of climate change.

We are now identifying additional sites across the region at which to install similar flood resilience measures in future.



Examples of raised electrical control panels and kiosks to enhance flood resilience at wastewater sites





# 9. Natural capital



# Natural capital

## What is natural capital?

Natural capital is the stock of environmental resources that people manage, use, and depend on. These natural resources provide a wide variety of 'ecosystem services', which underpin our economy and society to support human wellbeing and quality of life.

These services can be considered in four categories:

### Provisioning services

such as the supply of water, food, and timber.

### Regulating services

such as carbon sequestration and soil erosion control.

### Supporting services

such as crop pollination and nutrient cycling.

### Cultural services

such as recreation, tourism, and spiritual value.



## Why is natural capital important?

We rely fundamentally on water and other natural resources, yet the nature and location of our activities mean we often work in close proximity to sensitive environments with the potential to cause harm if our work is not properly managed. Our core duties involve taking water from the environment to supply customers, taking their wastewater away, and treating it for safe recycling back to the environment. These processes require large amounts of energy and chemicals produced from different forms of natural capital, which results in a substantial carbon footprint. In addition, our pipes, pumps, and other aspects of manufactured capital are all made from materials sourced from the environment.

We are a large landowner with an estate covering around 28,000 hectares. We own and manage this land with our farm tenants and other partners to protect sources of water, while also creating further benefits for natural flood management, recreation, farming, wildlife, and carbon storage. We also work closely with many other landowners and stakeholders to safeguard water sources on catchment land we do not own ourselves. Understanding how natural and human landscapes, habitats and processes interact, and how we can preserve and enhance them for future generations, is critical for the sustainability and resilience of our business.



## Assessment findings for 2022

### Land and biodiversity

More than two-thirds of our estate is used for agricultural purposes and we are supporting our farm tenants to ensure we optimise the value of this land and protect the benefits it provides. Our Beyond Nature™ initiative helps farmers adopt sustainable land management practices to improve the environment such as creating new areas of woodland, reducing fertiliser inputs, and improving wildlife habitats. This year we increased the area of land under Beyond Nature™ management to 6,300 ha (2021: 5,300 ha) and our ambition is to build on our learning from the Beyond Nature™ programme to help to protect the Yorkshire landscape for future generations.

We carry out many activities to support and enhance biodiversity across our land holdings and the wider region. Our work includes, for example, restoring substantial areas of peatland, creating pollinator superhighways to improve wildlife diversity, and introducing biosecurity facilities at our reservoirs to counter the spread of non-native invasive species. We also work in partnership with other organisations (e.g. Yorkshire Dales National Park Authority, Yorkshire Wildlife Trust, RSPB) to help facilitate conservation projects and make Yorkshire a more habitable area for plants and wildlife. Using the latest Biodiversity Metric 3.0 tool, we estimate that we created 14,600 biodiversity units this year through our work (2021 comparative data unavailable), with an estimated value of £168m. The majority of these units are associated with our work to conserve and enhance land such as Sites of Special Scientific Interest, Local Wildlife Sites, and farmland managed under our Beyond Nature™ programme.

### Water use and efficiency

The total volume of water we abstracted from the environment increased this year to 489,000 MI (2021: 481,000 MI), which was driven by increased demand from business customers and Yorkshire's growing population but offset to an extent by decreased per capita consumption. While abstracting water has potential for negative impacts on freshwater environments, we work closely with the Environment Agency (EA) to balance environmental needs with the requirement to provide our customers with a reliable supply of water, ensuring we comply with the limits of our abstraction licences. To ensure we do not abstract more water than we need to, in recent years we have invested more in schemes to reduce losses from leakage and promote household water efficiency measures.

We are pleased that these schemes are now starting to deliver their intended outcomes: total leakage decreased this year to 103,000 MI (2021: 106,000 MI) and average water consumption decreased to 131.5 litres per person per day (2021: 141.2 l/p/d). We aim to drive further reductions in leakage and water demand in future to enhance the long-term resilience of our water resources to future climate and population pressures.

### Local air quality

We operate a vehicle fleet of operational vans and company cars, of which the majority run on fossil fuels. This year we have estimated the impact on local air quality caused by emissions from these vehicles (e.g. nitrous oxides and particulate matter). As we increase the proportion of our vehicles that are electric, this is expected to result in improvements to local air quality and also reduce our operational carbon emissions.

## Environmental water quality

Bathing water sampling by the EA resumed this year following a one-year pause due to Covid-19. Of our 19 coastal bathing water sites, 16 are in 'good' or 'excellent' condition, two are in 'sufficient' condition, and one site at Tunstall is unassessed because coastal erosion has prevented access for sampling. We also have one inland bathing water site on the River Wharfe in Ilkley, which you can read more about in the case study at the end of this section.

We are continuing to work in partnership with Scarborough Borough Council, East Riding Yorkshire Council, and the EA as part of the Yorkshire Bathing Water Partnership to improve water quality on the Yorkshire coast. This includes a recent £1m investment in a sampling and modelling project to understand better and improve bathing water quality at our Scarborough and Bridlington bathing water sites. Information from the project will be fed into EA's pollution risk forecasting tool, which is used on a daily basis to predict whether there will be any temporary water quality issues at bathing waters along the coast.

Our operational activities can have negative impacts on environmental water quality and unfortunately the number of pollution incidents this year increased to 143 (2021: 125) and our Environmental Performance Assessment rating dropped to 2 stars (2021: 4 stars). Although the number of pollution incidents is relatively low compared to most previous years, we have reviewed our pollution incident reduction plan to identify opportunities to improve performance. We are also currently developing our long-term Drainage and Wastewater Management Plan to help us maintain a robust and resilient drainage and wastewater system and reduce the use of storm overflows and the risk of environmental pollution incidents in future.

More positively, we are pleased to have improved 50km of river environment this year (2021: 0km). About 45km of improvements are due to the installation of new phosphorous removal processes at four wastewater treatment works (Oxenhope, Stillington, Sutton-on-Forest, and Sheriff Hutton). These sites are the first of over 80 to be installed before 2025 in line with the requirements of the Water Industry National Environment Programme. A further 5km of river was improved through a project to remove a pipe that was blocking a river, allowing fish to swim upstream more freely.

We also recognise that we impact the environment through the release of treated effluent from our wastewater treatment plants. This represents a gap in our current assessment methodology that we are working to fill for future reports.



## Carbon

Net carbon emissions<sup>5</sup> decreased this year to 263,000tCO<sub>2</sub>e using a market-based approach (2021: 271,000tCO<sub>2</sub>e). Reducing our emissions continues to be a priority for us as we drive towards achieving net zero operational emissions by 2030. 100% of our electricity continues to be supplied from renewable sources and we are targeting reductions in the wider use of fossil fuels across our business.

Wastewater treatment is a key source of carbon emissions and we are trialling new treatment methods to reduce emissions in this area. Earlier this year saw the opening of our integrated constructed wetland at Clifton in South Yorkshire, which uses more than 24,000 plants to create an innovative approach to treat wastewater with no onsite chemicals and extremely low operational carbon emissions.

We are monitoring the performance of the site closely and hope that it will serve as a template for future nature-based solutions for wastewater treatment across the region.

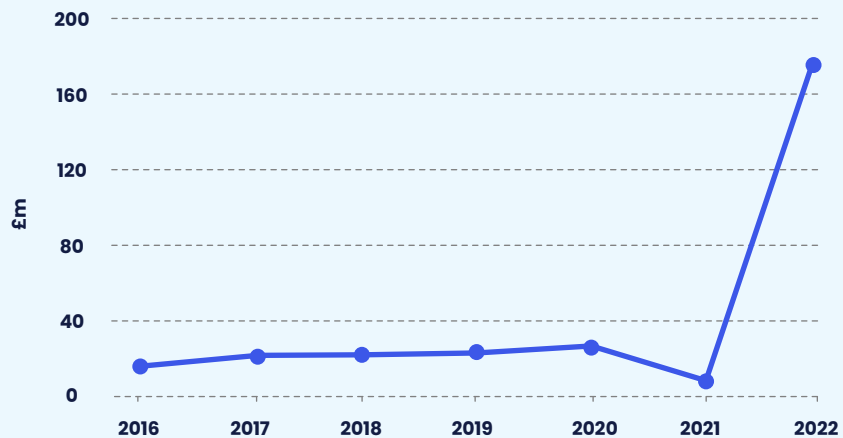
We are also developing a detailed net zero plan to target further reductions in operational emissions, which will include, for example, transitioning our fleet of 1,200 operational vans to electric vehicles. We are also working with our supply chain to reduce capital (also known as embedded) carbon in our construction activities through the use of alternative materials, modular construction techniques, and more efficient use of resources.

<sup>5</sup> Includes emissions from operational activities (94,000tCO<sub>2</sub>e), capital spend (152,000tCO<sub>2</sub>e), and land holdings (17,000tCO<sub>2</sub>e)

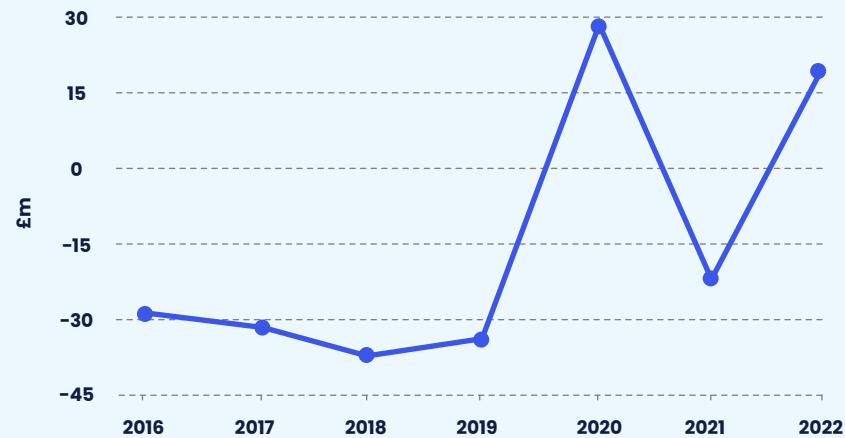
	<p><b>Land</b></p> <p>→ Land ownership <b>28,000ha</b> (2021: 28,000ha)</p> <p>↗ Land under Beyond Nature™ schemes <b>6,300ha</b> (2021: 5,300ha)</p>	<p><b>Water withdrawn from environment</b></p> <p>↘ Reservoirs <b>127</b> (2021: 129)</p> <p>↘ Average reservoir level <b>84%</b> (2021: 89%)</p>	<p><b>Water in environment</b></p> <p>→ Bathing waters <b>20</b> (2021: 20)</p> <p>? Bathing waters in good or excellent condition <b>16</b> (2021: no data)</p>	<p><b>Land carbon</b></p> <p>? Land carbon stock <b>2,100,000t</b> (2021: no data)</p>
<p><b>Assets</b></p>	<p><b>Land and biodiversity</b></p> <p>? Biodiversity units created <b>14,600</b> (2021: no data)</p>	<p><b>Water use and efficiency</b></p> <p>↗ Water abstracted <b>489,000MI</b> (2021: 481,000MI)</p> <p>↘ Leakage <b>103,000MI</b> (2021: 106,000MI)</p>	<p><b>Environmental water quality</b></p> <p>↗ Pollution incidents <b>143</b> (2021: 125)</p> <p>↗ River improved <b>50km</b> (2021: 0km)</p>	<p><b>Air quality</b></p> <p>↘ Net carbon emissions <b>263,000tCO<sub>2</sub>e</b> (2021: 271,000tCO<sub>2</sub>e)</p> <p>? Vehicle fleet NO<sub>x</sub> emissions <b>9,500kg</b> (2021: no data)</p>
<p><b>Outputs</b></p>				

## Impacts

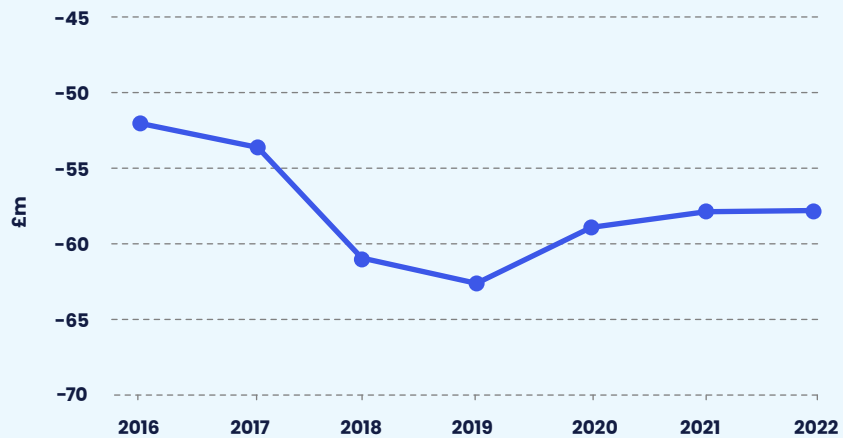
### Land and biodiversity



### Environmental water quality



### Water use and efficiency



### Air quality



Case study

# Water quality in the River Wharfe

**In late 2020, the River Wharfe at Ilkley was designated as the UK's first inland bathing water following a successful application for bathing water status by the Ilkley Clean River Group. Yorkshire Water supported the application, and we are now working in partnership with other key stakeholders across the catchment – including landowners and farmers – to develop a plan to improve the health of the Wharfe.**

During the summer of 2021 we carried out water quality monitoring and modelling in collaboration with local citizen science groups to identify key sources of bacteria that can impact the bathing water and help determine where we need to invest further in our assets to deliver the necessary improvements.

Based on our findings, we began installing enhanced disinfection measures, similar to our approach on the coast, to remove faecal bacteria at our Grassington, Draughton and Beamsley sewage treatment works upstream of Ilkley in the summer of 2022.

We have also upgraded the screening mechanism on a storm overflow at Ilkley that discharges into the bathing water and are rerouting some sections of the Ilkley sewer network to support a reduction in the use of storm overflows. Furthermore, as part of our work on the Wharfe, we are deploying a range of smart technologies – including monitoring, analytics, and control solutions – to help us better understand and manage the sewer network and enhance the condition of our manufactured capital assets.





# 10. Human capital



# Human capital

## What is human capital?

Human capital relates to people's wellbeing and the value they bring to society. For an organisation, human capital represents their workforce's health, productivity, and experience. Human capital is not 'owned' by an organisation, but is rather 'leased' in exchange for salaries and other employment benefits. While it can be useful to monetise the value of human capital to help inform decision making, this is not about seeing people as a commodity. Quite the opposite; by understanding the value of human capital and the things that affect this value, more effective action can be taken to protect and develop people to allow them to achieve more.

## Why is human capital important?

Ensuring that we have a safe, healthy, happy, and skilled workforce is essential for us to provide our services. Additionally, as a large employer in Yorkshire, we recognise we have a role to play in social cohesion and we are committed to ensuring our diversity reflects that of the society we serve. Measuring our human capital helps us better understand the risks and opportunities driven by factors such as an ageing workforce, sickness, talent management, career development, and diversity and inclusion programmes, and in turn make effective decisions to manage these.



## Assessment findings for 2022

We have adopted a hybrid working approach since Covid-19 and refurbished most of our offices to provide more collaboration spaces for our colleagues to meet in person once again. Colleague engagement decreased slightly this year to 72% (2021: 74%) but remains relatively strong. We carry out a regular engagement survey to understand how colleagues feel about different issues and also provide a direct voice for colleagues to the Board through our Colleague Engagement Forum.

We recognise the importance of creating a strong pipeline of talent to meet our future business needs. This year 138 apprenticeships began across the business (2021: 19), representing a mix of new and existing colleagues, which not only brings benefits to our business but also provides a wider value to society that we estimate at £31m.

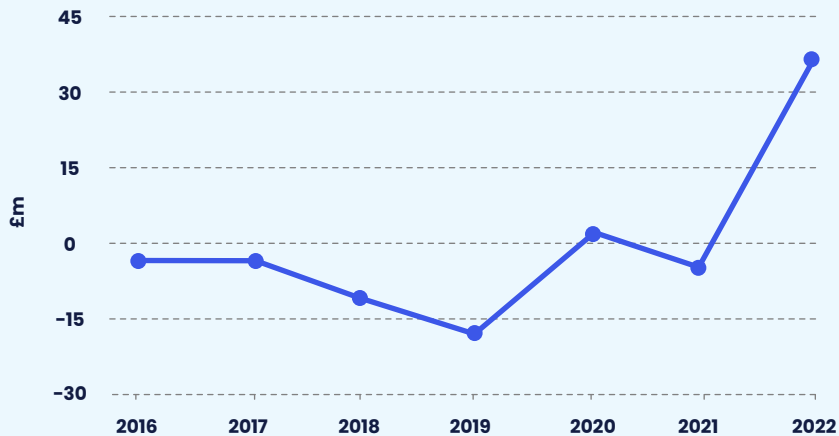
Our lost time incident rate (LTIR) is calculated as the number of hours lost per 100,000 hours worked. This year's performance of 0.24 has risen slightly since last year (2021: 0.21) due to an increase in minor slips, trips and falls. Health, safety, and wellbeing is paramount in all that we do, and the LTIR is reviewed regularly by senior management and Board members.

This year our mean gender pay gap increased to 4.1% favourable to male colleagues (2021: 0.5% favourable to female colleagues). This was driven by a transfer of mainly female colleagues from Loop, our customer management sister company, to Yorkshire Water, which increased the proportion of females in relatively lower paid roles. Our gender pay gap remains lower than that seen in most of the previous reporting years, and well below the national average.



# Impacts

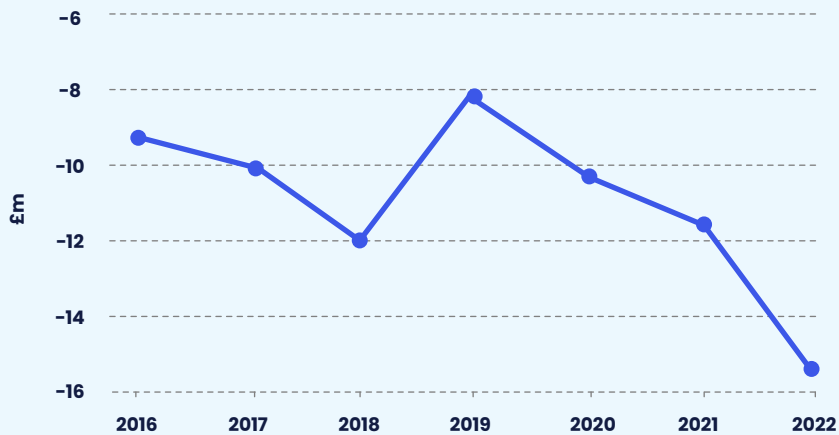
### Performance and development



### Diversity and inclusion



### Health, safety and wellbeing



Case study

# Talking Performance

**It takes almost 4,000 Yorkshire Water colleagues to supply our customers with essential water and wastewater services. We know that the more engaged, skilled, and motivated our colleagues are, the better service they provide to our customers. This year, following a successful pilot, we introduced a new approach to individual and team performance for all colleagues called Talking Performance, which is designed to create the very best results for us, our customers, and for Yorkshire.**

Talking Performance focuses on supporting our colleagues to have simple, friendly, and fast conversations with their managers about their progress. It represents a move away from our traditional approach to performance management, which in the past has focused more on paperwork than performance, and towards a model focused on continuous improvement and marginal gains.

By providing a consistent approach to performance management for all our colleagues, we aim to create an environment where individuals and teams are set up for success. This brings us into line with other leading employers and reflects the latest thinking in behavioural science.



# 11. Intellectual capital



# Intellectual capital

## What is intellectual capital?

Intellectual capital is knowledge and information: our people's skills and know-how, our systems and processes, the information we hold, and the technologies and innovations that we use and/or share with society. Intellectual capital is closely related to human capital since skills and experience are often associated with individual people. However, unlike human capital (which we assess separately), intellectual capital is assessed by looking beyond our individual colleagues to measure those intangible assets that allow our business to function efficiently. These include, for example, research and development (R&D) capabilities, information systems, and strategic partnerships with other organisations.

## Why is intellectual capital important?

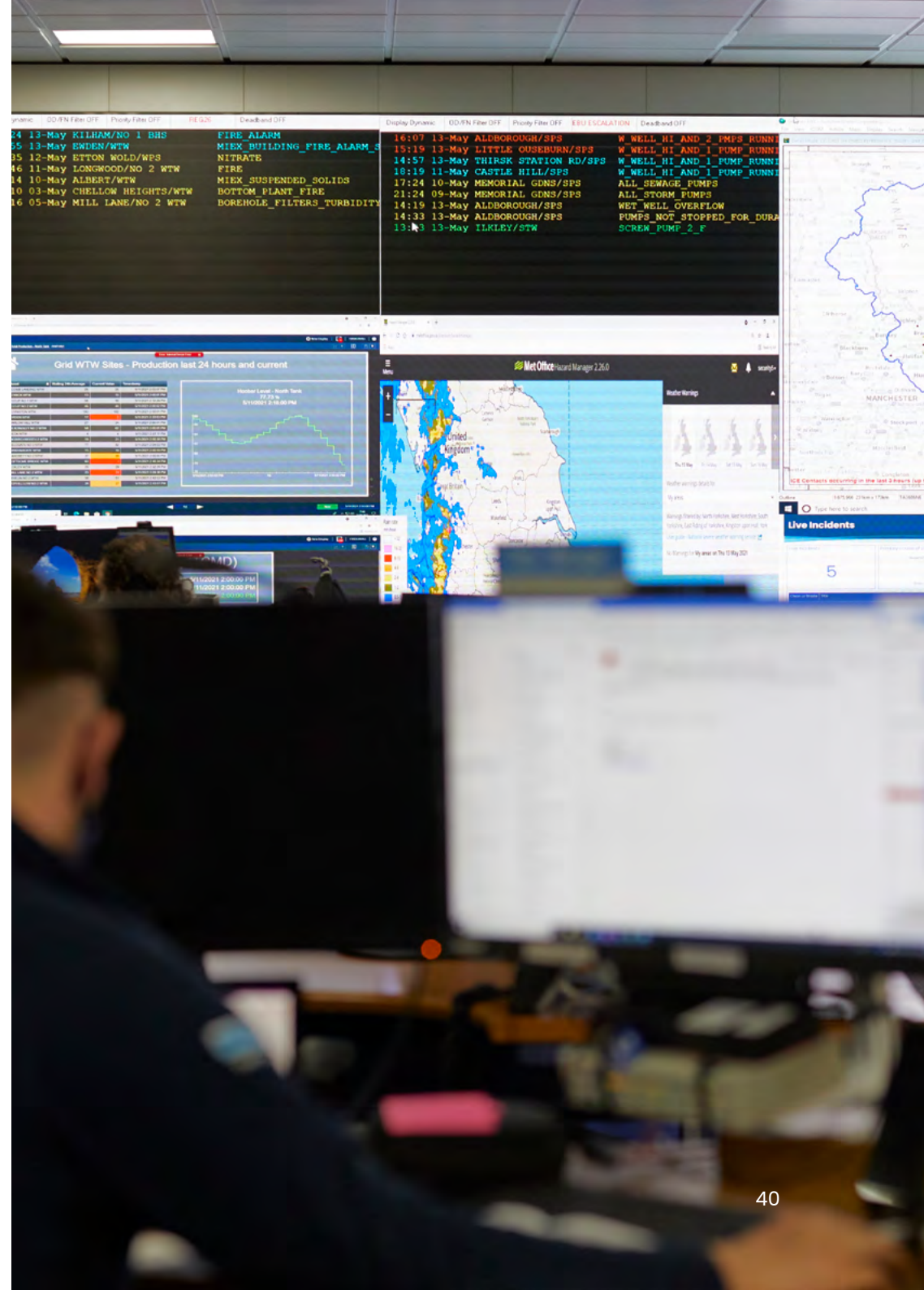
We use our intellectual capital through our people, systems, and processes to deliver water and wastewater services. We are continually looking for ways to improve our ways of working and finding more efficient ways to deliver our services, while keeping bills low for customers.



## Assessment findings for 2022

We have continued to build relationships and explore innovative ways of working with a range of partner organisations this year, bringing our total number of projects delivered in partnership with independent agencies, organisations or individuals to achieve a shared objective to 16 (2021: 7), in line with the requirements of our regulatory 'Working with others' performance commitment. These include, for example, collaborating with Leeds City Council to expose an underground stream to daylight and reduce flood risk to nearby properties; and partnering with Sheffield City Council to install rain gardens and other sustainable urban drainage features in central Sheffield. Working in partnership can help to identify and resolve shared risks, such as surface water flooding, and create benefits that would not be achieved through standard ways of working.

Face-to-face colleague training courses resumed this year after a pause during Covid-19. The total duration of training delivered to colleagues increased to 78,000 hours (2021: 52,000 hours), of which almost half was spent on health and safety training courses. However, due to financial business pressures, overall colleague training provision remains significantly lower than pre-Covid levels.





Spend on R&D activities increased this year to £2.9m (2021: £2.8m)<sup>6</sup>. We are committed to developing innovative ways to deliver our services more efficiently and reduce pressure on customer bills. Examples of recent R&D projects include:

- Trialling the use of customer sewer alarms to provide real-time monitoring of sewer water levels in 5,000 households across Yorkshire. Alerts from the alarms are used to identify and proactively respond to increases in sewer levels, which helps to reduce the risk of flooding from sewers.
- Investigating the potential to use our existing network of water pipes to carry fibre-optic cables to provide broadband to hard-to-reach areas, with additional funding from the Department of Digital, Culture, Media, and Sport. The cables have an additional benefit in that they can be used to help us detect cracks and leaks in our pipes, so we can fix them quickly and reduce water loss.
- Developing a cost-effective pipe lining solution to help our existing water pipes last longer. By avoiding traditional methods of digging up and replacing old pipes, pipe lining can reduce disruption for customers and also helps reduce our carbon emissions and the amount of waste we generate.

<sup>6</sup> Some R&D spend is capitalised and therefore also reflected in the value of our fixed tangible assets (see Manufactured Capital section).

	<b>Partnerships</b>	<b>Ideas and innovation</b>	<b>Data and technology</b>
<b>Assets</b>	 Partnership projects <sup>7</sup> <b>16</b> (2021: 7)	<b>Not yet assessed</b>	<b>Not yet assessed</b>
	<b>Knowledge and learning</b>	<b>Research and development</b>	<b>Processes and efficiency</b>
<b>Outputs</b>	 Colleague training <b>78,000 hours</b> (2021: 52,000 hours)	 Spend on research and development (R&D) <b>£2.9m</b> (2021: £2.8m)	<b>Not yet assessed</b>

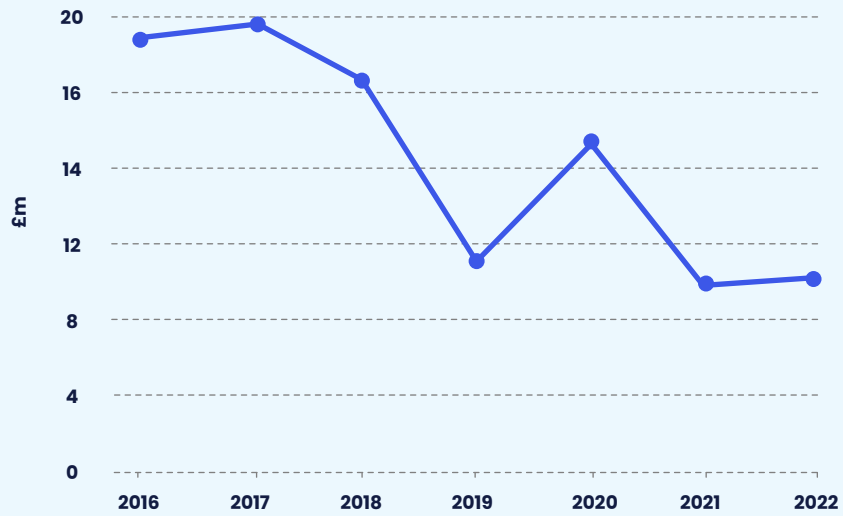
<sup>7</sup> Represents projects included in our 'Working with others' performance commitment, but does not capture the full number of partnerships that Yorkshire Water are involved in at present.

## Impacts

### Knowledge and learning



### Return on R&D investment



Case study

# Smart water networks

**Tackling leaks and bursts on clean water networks reduces overall water demand and is a crucial part of our long-term strategy to address the impacts of climate change. Smart solutions – such as meters, sensors, and analytics platforms – can improve network performance and allow us to predict and respond better to leaks and bursts, as well as understand more about when and why they occur.**

Following a successful R&D trial over the past two years to assess the risks and benefits of various smart network solutions, this year we invested £3m in the first phase of our £30m smart network strategy. This will see the installation of new technology, including acoustic loggers, water pressure sensors, and enhanced customer water meters, which will be connected to an artificial intelligence operating system to provide near real-time visibility into our water network and inform operational decision making.

Together these investments are expected to deliver substantial reductions in leakage and household water consumption. In turn, these will reduce energy costs and carbon emissions associated with chemical use and water pumping and improve the resilience of our water supply network to climate change. The data will also provide insights into the root causes of performance issues and help to extend the life of existing network assets.



# 12. Social capital



# Social capital

## What is social capital?

Social capital is the value of an organisation's relationships with people, society, and other organisations, and the trust placed in it by others. It also relates to the impacts that an organisation can have on people and society; for example, by providing a valuable service, through contributions to charities and the local community, or by providing publicly-available recreational and learning opportunities.

## Why is social capital important?

As a private company providing a public service, our social capital is essential – our 'social licence' to operate is just as important as our legal one. Ensuring strong levels of trust is a priority for us at a time when public confidence in large organisations is low. We focus on this by trying to do the right things for our customers and other stakeholders, looking after those in vulnerable circumstances, and setting ourselves challenging targets for delivering reliable and high-quality services. We also work to improve our wider impacts on society, such as through our volunteering programme and our charitable work with WaterAid that strives for a world where everyone has access to clean water and sanitation.



## Assessment findings for 2022

### Public health and wellbeing

This year we introduced a dedicated team of countryside ranger services at our most popular recreational sites to engage with visitors and promote public safety, access and conservation. Recreational public visits to our sites decreased this year to 2.8m visits (2021: 3.6m visits) as travel restrictions eased and people started to venture further afield and undertake more varied activities than last year. Following recent changes in HM Treasury guidance, we have updated our valuation methodology this year and estimate the value to society provided by recreational visits to our sites to be £31m (2021: £38m).

### Service delivery

Making sure the water we provide to customers is clean and safe to drink is of utmost importance to us. We measure our overall water quality performance against water quality tests using a measure known as the Compliance Risk Index (CRI), which was designed by the Drinking Water Inspectorate and is used to illustrate risk arising from treated water compliance failures (a lower score is better). This year, our CRI score has increased to 4.83 (2021: 2.46), which was driven mainly by six coliform bacteria detections at water treatment works. Similarly, our Drinking Water Contacts metric, which measures the number of times we are contacted due to the look, taste, or odour of drinking water, increased to 10.9 per 10,000 customers (2021: 10.5). We are investigating the underlying cause of these incidents to identify potential improvements to our management practices. We are also working with Sheffield University to identify water quality risk 'hotspots' on our network and prioritise these for flushing by our operational colleagues.

On our wastewater network, the number of internal sewer flooding incidents dropped this year to 572 (2021: 778) and the number of external sewer flooding incidents dropped to 4,578 (2021: 5,038). We know sewer flooding is one of the worst experiences for our customers, and therefore we have continued to develop our approach to reduce sewer flooding this year. For example, we invested £17.8m in proactive sewer investigations, flushed high-risk sewers at nearly 60,000 properties, and carried out educational engagement visits with over 4,000 restaurants and takeaways to reduce the risk of food waste (particularly fats, oils, and greases) entering our wastewater network.

### Vulnerability

Some of our customers lead very difficult lives with unique needs and circumstances that make them more vulnerable than others. These include people with disabilities, long-term illnesses, or caring responsibilities. Our Priority Services Register (PSR) is free for customers to sign up to and helps to inform us about their circumstances so that we can provide services to support them. This year we increased the total number of customers on our PSR to 88,702 (2021: 77,395), representing 3.9% of all our household customers, and are working to improve our methods of contacting vulnerable customers to increase their awareness of the PSR and make it simple for them to access our priority services.

We try to ensure our bills remain affordable for customers. Although our average combined bill dropped this year to £419 (2021: £425), we recognise that our customers are increasingly finding themselves in financial difficulties due to the ongoing national rise in the cost of living. This year we provided financial support to 80,778 customers (2021: 61,406) to make their bills more affordable through mechanisms such as social tariffs, debt schemes, and domestic water meters.

## Trust















Customer trust decreased slightly this year to 89% (2021: 92%) and remains relatively high compared to previous years, though is not as high as we would like it to be. Trust is a complex issue that can be affected by a range of factors. Because of this it is often difficult to identify the particular reasons for a change in customer trust. We plan to carry out customer research in future to explore the drivers of customer trust in more detail.

We spend over £800m each year on goods and services, and in doing so play a key role in the local economy. This year we continued to support businesses across Yorkshire with 37% of our spend going to local suppliers (2021: 37%). However, the share of invoices we paid late rose to 74% (2021: 67%).

We are exploring how to enhance the diversity of our supplier base further by, for example, providing additional support to small- and medium-sized enterprises and community organisations and making it easier for them to engage with us and bid for tenders.

## Public education

We carry out a range of virtual and in-person activities to raise awareness of the value of water. This year saw 21,000 participants in our education programmes (2021: 7,000), which was largely due to the reopening of our public education centres following closure due to Covid-19.

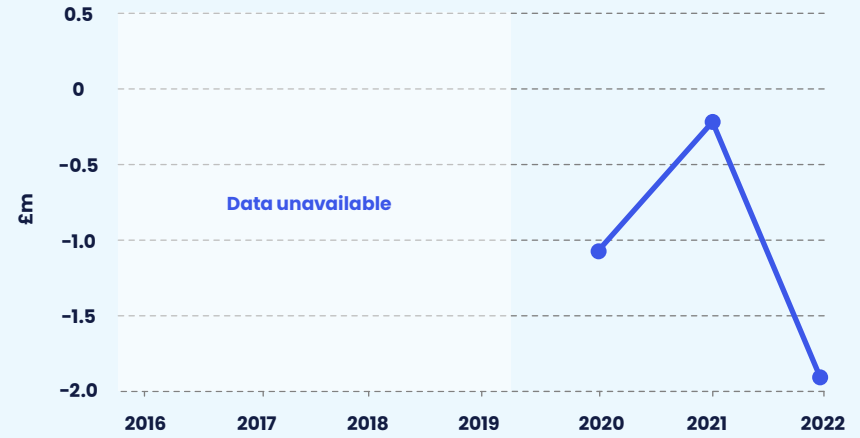
	Public health and wellbeing	Household customers	Vulnerability	Trust
<b>Assets</b>	 Public recreational sites <b>56</b> (2021: 52)	 Households served <b>2.3m</b> (2021: 2.2m)	 Customers on PSR <b>89,000</b> (2021: 77,000)	 Suppliers used <b>1,200</b> (2021: 1,100)
		 Customer satisfaction <b>93%</b> (2021: 93%)	 Awareness of PSR <b>47%</b> (2021: 43%)	 Customer trust <b>89%</b> (2021: 92%)
	Public health and wellbeing	Service delivery	Vulnerability	Trust
<b>Outputs</b>	 Recreational site visits <b>2.8m</b> (2021: 3.6m)	 Drinking water contacts <b>10.9 per 10,000 population</b> (2021: 10.5 per 10,000 population)	 Customers financially supported <b>81,000</b> (2021: 61,000)	 Share of invoices paid late <b>74%</b> (2021: 67%)
	 Recreational health benefits <b>336 QALYs</b> (2021: 425 QALYs)	 Internal flooding incidents <b>572</b> (2021: 778)		 Percentage spend with local suppliers <b>37%</b> (2021: 37%)

## Impacts

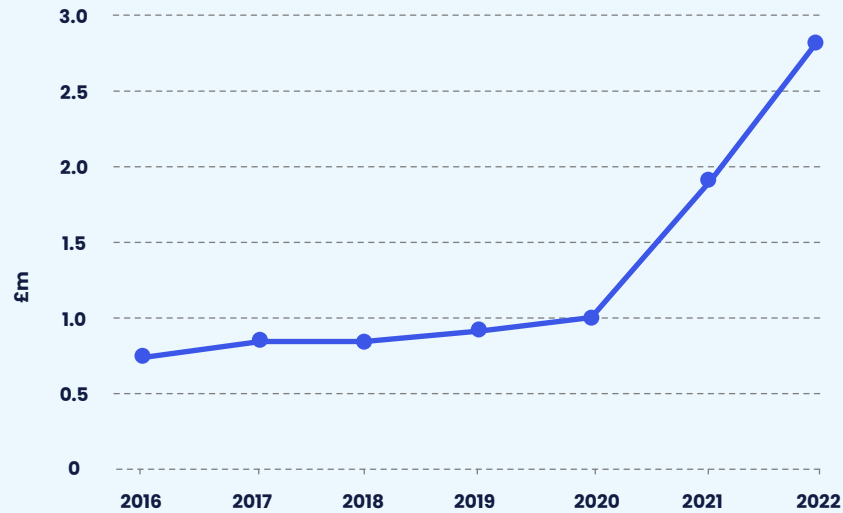
Public health and wellbeing



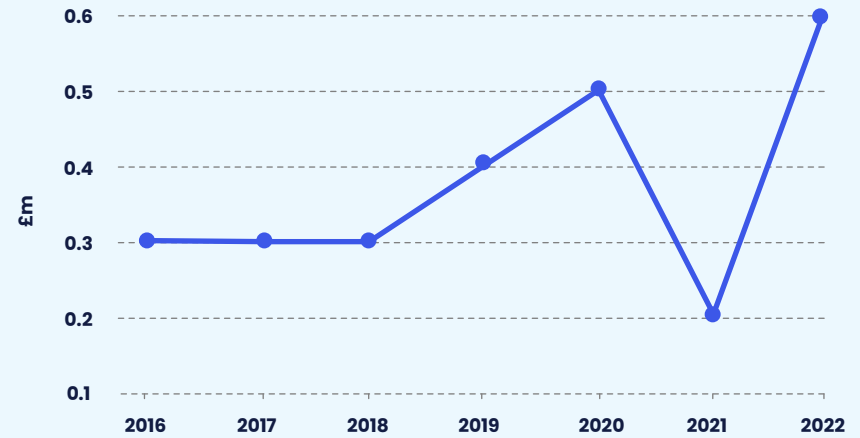
Trust



Vulnerability



Public education





Case study

# Connected by Water

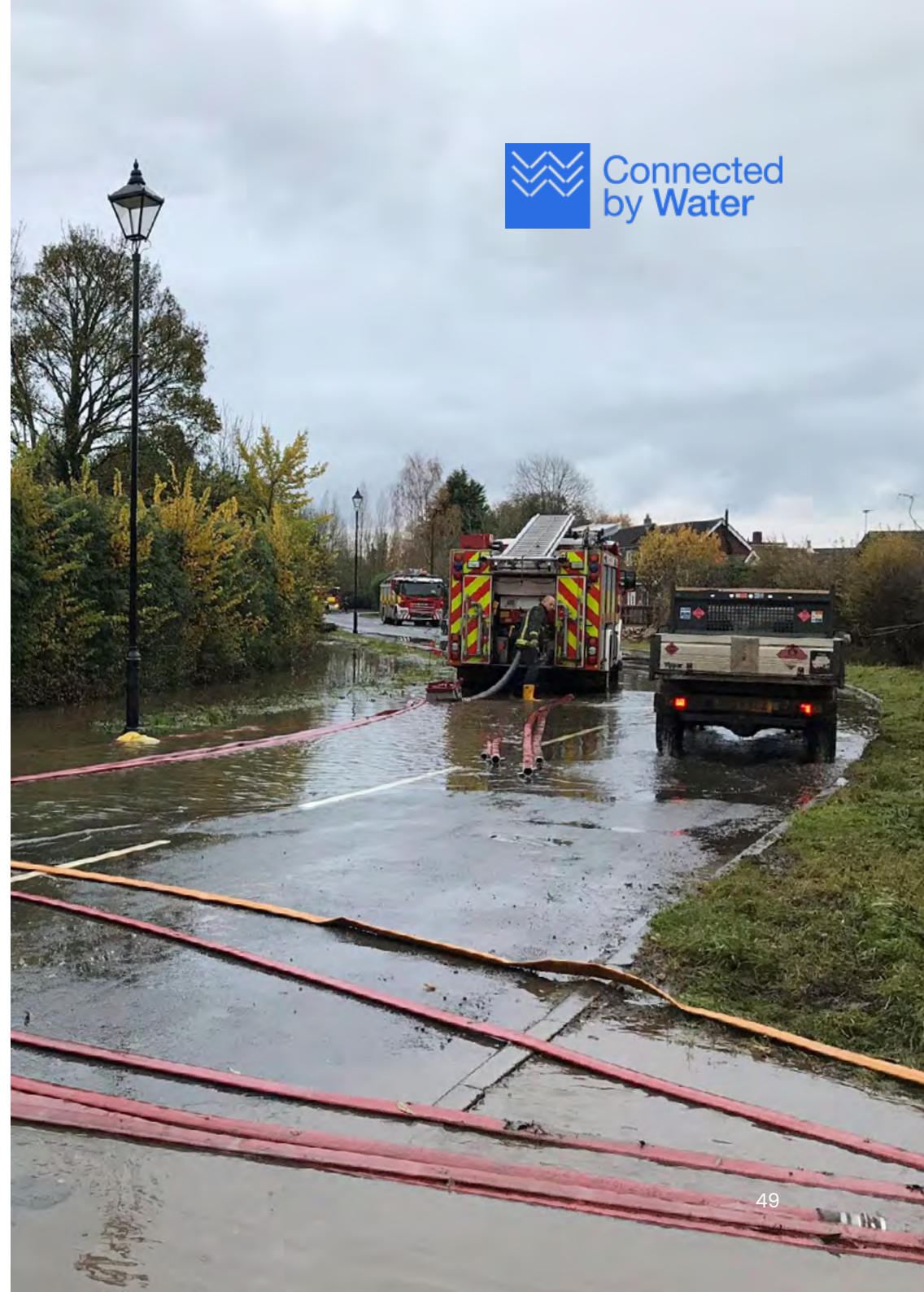
**In November 2019, South Yorkshire was hit by the most devastating floods since 2007. Over 1,000 homes were impacted by flood water as rivers reached unprecedented levels. Many were left uninhabitable when the floodwaters receded, resulting in significant financial damages as well as considerable impacts on the mental health and wellbeing of local residents.**

Connected by Water – an alliance of partners comprised of Yorkshire Water, the EA, South Yorkshire Mayoral Combined Authority, and four lead local flood authorities – was set up in response to the floods. Working across the River Don catchment, Connected by Water aims to reduce flood risk and build climate resilience by helping communities in South Yorkshire live, work, and thrive in the face of a changing climate.

Connected by Water's Action Plan, developed collaboratively between Yorkshire Water and partner organisations, outlines the projects that the alliance is developing and delivering now and in the coming years. Examples of actions led by Yorkshire Water include interventions to slow the flow of water by tree planting and peatland restoration in upper catchment areas, as well as delivering a range of sewer flood alleviation schemes.

We are also working in collaboration with partner organisations to create a South Yorkshire flood risk investment tool, which will bring together flood risk data and evidence from across the region to help ensure that future investment provides the maximum flood risk benefit.

For more information see [connectedbywater.co.uk](https://connectedbywater.co.uk)



# 13. Conclusions

**This report assesses the outputs and impacts, both public and private, created by Yorkshire Water's business activities during the 2022 financial year. In addition to the public health benefits created through the provision of our core water and sanitation services, the report also captures the additional benefits we create through our other activities. Our assessment highlights areas of strong and improving performance over the past year, as well as other areas where further action is needed to improve our performance.**

The six capitals approach helps us measure our progress towards achieving our purpose of making Yorkshire a brilliant place to be – now and always. Not only does it allow us to understand the positive and negative impacts of our activities, but it also enables us to articulate these impacts to our stakeholders and understand trends over time.

As we mature our thinking around the six capitals, we aim to embed the approach further into our operational business decision-making processes. Ensuring we take a balanced view of competing priorities by considering their full range of costs and benefits will allow us to make more informed decisions when prioritising investment. In turn, we hope this will lead to measurable differences in shaping what we do to grow positive outcomes for the region and to reduce our negative impacts.

We will continue to report on our progress and performance in future *Our Contribution to Yorkshire* reports. To enable scrutiny and build trust with interested parties, we will also continue to provide the underlying data and methodology that supports our reporting. Finally, we will continue to evolve our assessment process responding to business priorities and latest best practice guidance, working in collaboration with the wider multi-capitals community to share our knowledge and understanding of this subject.

## Get in touch

We welcome your feedback, questions, and ideas in response to this report. Please get in touch using [sustainability@yorkshirewater.co.uk](mailto:sustainability@yorkshirewater.co.uk)

# Appendix 1. Independent limited assurance report

## Independent Assurance Report to the Directors of Yorkshire Water Services Ltd

We have been engaged by the Directors of Yorkshire Water Services Ltd ("Yorkshire Water") to perform a limited assurance engagement relating to the Selected Metrics, as outlined below, within the 'Our Contribution to Yorkshire' report for the year ending 31 March 2022.

Selected Metrics	Unit of Measurement	Assured Value
Spend on research and development (R&D)	£m	2.9
Percentage spend with local suppliers	%	37

## Use of report

This report is made solely to the Directors of Yorkshire Water in accordance with our agreed terms of engagement. Our work has been undertaken so that we might state to the Directors of Yorkshire Water those matters we have agreed to state to them in this report and for no other purpose. Without assuming or accepting any responsibility or liability in respect of this report to any party other than Yorkshire Water and the Directors of Yorkshire Water, we acknowledge that the Directors of Yorkshire Water may choose to make

this report publicly available for others wishing to have access to it, which does not and will not affect or extend for any purpose or on any basis our responsibilities. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Yorkshire Water and the Directors of Yorkshire Water as a body, for our work, for this report, or for the conclusions we have formed.

## Our conclusion

Based on our work as described in this report, nothing has come to our attention that causes us to believe that the Selected Metrics for the year ending 31 March 2022 have not been prepared, in all material respects, in accordance with the applicable criteria as defined within the Methodology Report prepared and published by Yorkshire Water at [yorkshirewater.com/about-us/capitals](https://yorkshirewater.com/about-us/capitals)

## Respective responsibilities of the Directors and assurance provider

### The Directors are responsible for:

- Establishing applicable criteria for preparing the Selected Metrics;
- Designing, implementing, and maintaining internal processes and controls over information relevant to the preparation of the Selected Metrics that are free from material misstatement, whether due to fraud or error; and
- Measuring and reporting the Selected Metrics based on the applicable criteria.

Our responsibility is to express a conclusion on the Selected Metrics based on our procedures. We conducted our engagement in accordance with the International Standard for Assurance Engagements 3000 (“ISAE 3000”) issued by the International Auditing and Assurance Standards Board (“IAASB”), in order to state whether anything had come to our attention that causes us to believe that the Selected Metrics have not been prepared, in all material respects, in accordance with the applicable criteria as defined within the Methodology Report.

Our procedures consisted primarily of:

- Performing enquiries and interviews with management to understand how the applicable criteria have been applied in the preparation of the Selected Metrics;
- Understanding internal controls, the quantification process and data used in preparing the Selected Metrics, the methodology for gathering qualitative information, and the process for preparing and reporting the Selected Metrics;
- Inspecting documents relating to Yorkshire Water’s non-financial performance, including board committee minutes to understand the level of management awareness and oversight of the Selected Metrics;
- Considering the risk of material misstatement of the Selected Metrics, including analytical procedures;
- Performing procedures over the Selected Metrics, including recalculation of relevant formulae used in manual calculations and an assessment of whether the data has been appropriately consolidated;
- Performing procedures over underlying data on a sample basis to assess whether the data has been collected and reported in accordance with the applicable criteria, including verifying to source documentation;
- Reading the reports and narrative accompanying the Selected Metrics with regard to the applicable criteria, and for consistency with our findings; and
- Accumulating misstatements and control deficiencies identified and assessing whether material.

## Criteria

The self-defined applicable criteria; the nature of the Selected Metrics; and absence of consistent external standards allow for different, but acceptable, measurement methodologies to be adopted which may result

in variances between entities. The adopted measurement methodologies may also impact comparability of the Selected Metrics reported by different organisations and from year to year within an organisation as methodologies develop.

## Inherent limitations

Our engagement provides limited assurance as defined in ISAE 3000. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Inherent limitations exist in all assurance engagements due to the selective enquiry of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Our work does not involve testing the operating effectiveness of controls over the underlying data, nor have we sought to review systems and controls beyond those relevant to the Selected Metrics.

## Our independence and competence

We complied with Deloitte’s independence policies, which address and, in certain cases, exceed the requirements of the International Ethics Standards Board for Accountants’ Code of Ethics for Professional Accountants in their role as independent auditors, and in particular preclude us from taking financial, commercial, governance and ownership positions which might affect, or be perceived to affect, our independence and impartiality, and from any involvement in the preparation of the report.

We have applied the International Standard on Quality Control 1 and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

**Deloitte LLP**

**London, UK**

16 December 2022

[yorkshirewater.com](http://yorkshirewater.com)

Yorkshire Water Services Limited, Western House, Halifax Road, Bradford, BD6 2SZ.  
Registered in England and Wales No.02366682

