

Our Contribution to Yorkshire

Annual impact and
public value report

For the year ended 31 March 2023

Published September 2023



YorkshireWater

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Find more information in the supporting documents listed below at

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.

Our vision is to create **'A thriving Yorkshire: right for our customers, right for the 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 **3,600 colleagues** across Yorkshire.



We invest **£1.5m every day** to maintain and enhance Yorkshire's network of pipes, pumps, and networks.



We contribute to the wider economy, **spending £950m 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 2022 to March 2023. We call this *Our Contribution to Yorkshire*.

This is our fifth 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 2023, we have raised £1.8bn 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, during the year to the end of March 2023.

The year to March 2023 was a challenging one to do business in the UK, given high rates of inflation driven by higher energy prices, shortages and delayed deliveries in materials and parts supplies. All of this was exacerbated in Yorkshire because of the limited rainfall, high temperatures and then drought we suffered through much of 2022. Yorkshire people also suffered especially financially as the cost-of-living pressures hit home, which was one reason we were pleased to announce in June 2022, £15m additional financial support for struggling customers through to the end of March 2025.

During the course of the year, we established a new ten-year strategy for the organisation with a vision of a thriving Yorkshire: right for our customers and right for the environment. To deliver this we know we’ll need to change and have established three pillars (asset health improvement, developing ourselves as a high performing team, and delivering in a joined-up way) and two underpins (modernisation and sustainability) to ensure that we do change. In one element of those changes we are considering how to evolve our reporting and approach to delivery within Yorkshire. We always welcome your thoughts on that and anything else you read in this report so that we can continue to improve.

In addition, during the year we focussed on delivering the key things that our customers and stakeholders told us they wanted – for example maintaining our trajectory of reducing clean water leakage and improving our environmental performance to 3 stars (as described by the Environment Agency, one of our regulators). We are under no illusion as to the scale of the change we need to make, however, if we are to deliver on our vision.

Nicola Shaw, CBE
Chief Executive Officer

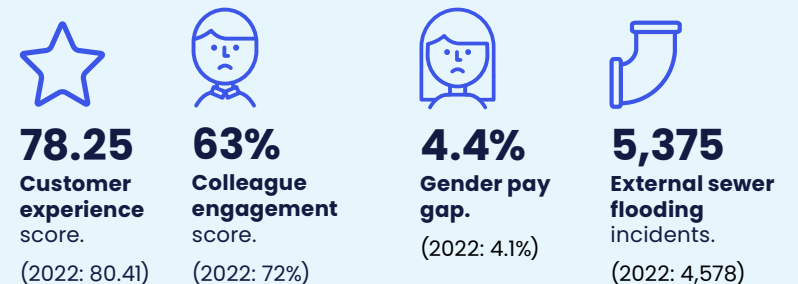
Highlights



Areas of progress



Areas for improvement



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 2022 to March 2023. These include a range of indicators that measure our assets, the outputs of our activities, and the monetised impacts of these outputs on various stakeholder groups.

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

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 value of our impacts 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 2022 to 31 March 2023. Throughout this report, unless otherwise stated, we refer to each financial year by the year end date. For example, 2023 refers to the financial year that ended 31 March 2023.

Symbols used in this report

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

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

at yorkshirewater.com/reports

4. Trusting this information

Governance

Sustainability sits at the core of Yorkshire Water's long-term strategy. 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

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 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
- 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 DNV. 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.



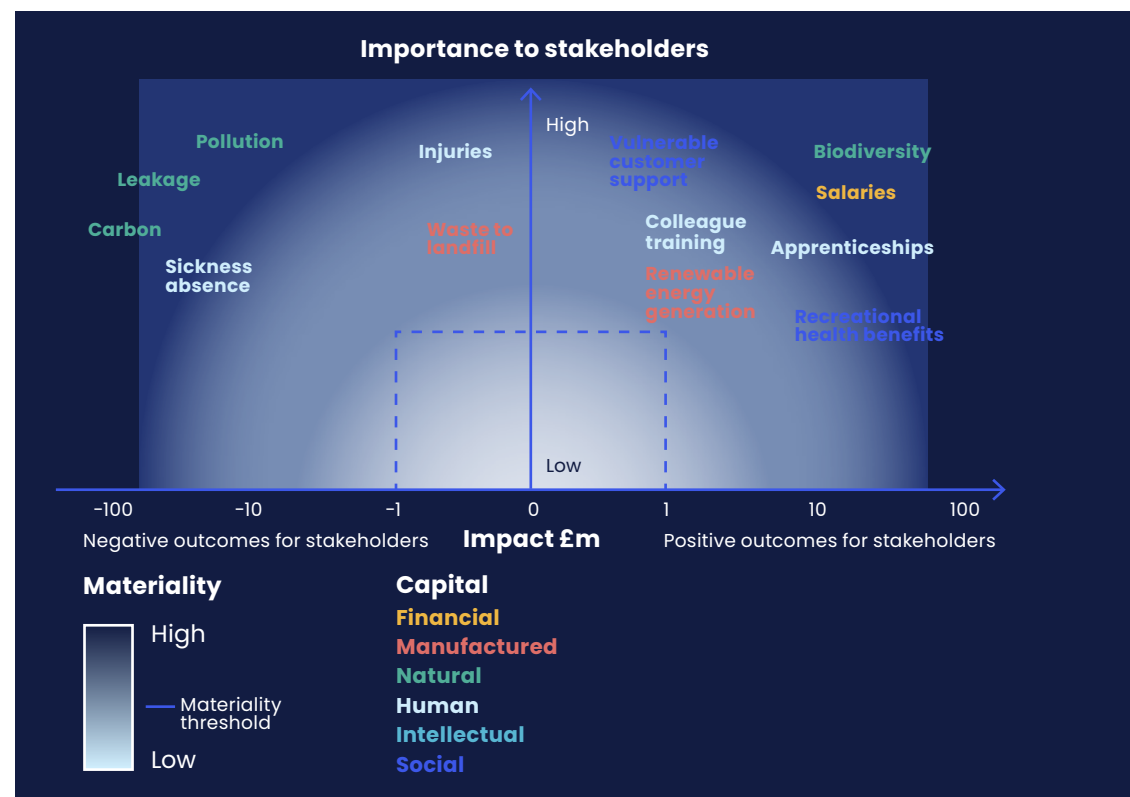
5. Identifying our material impacts

We create many different impacts through our business activities, both positive and negative. In most cases we can compare impacts by converting them to monetary values that reflect their importance to stakeholders, including individuals, groups of people, or society as a whole.

Impacts with positive monetary values reflect activities our stakeholders consider as having beneficial effects, whereas impacts with negative monetary values reflect activities that have detrimental effects for stakeholders. However, we recognise that some of our largest impacts may not be perceived as highly important by all our stakeholders. Similarly, some of the impacts that matter the most to certain stakeholders will not necessarily be those with the highest monetary values.

To help us better understand and prioritise our most material impacts, this year we carried out an exercise to capture the views of a variety of internal and external stakeholder groups, including customers, colleagues, suppliers, and non-governmental organisations.

The results of our assessment help ensure we have captured our material impacts and that our reporting remains relevant and focused. Any impacts not identified as material have been excluded from this report. Further information on our materiality assessment is available in the accompanying Methodology Report at yorkshirewater.com/capitals



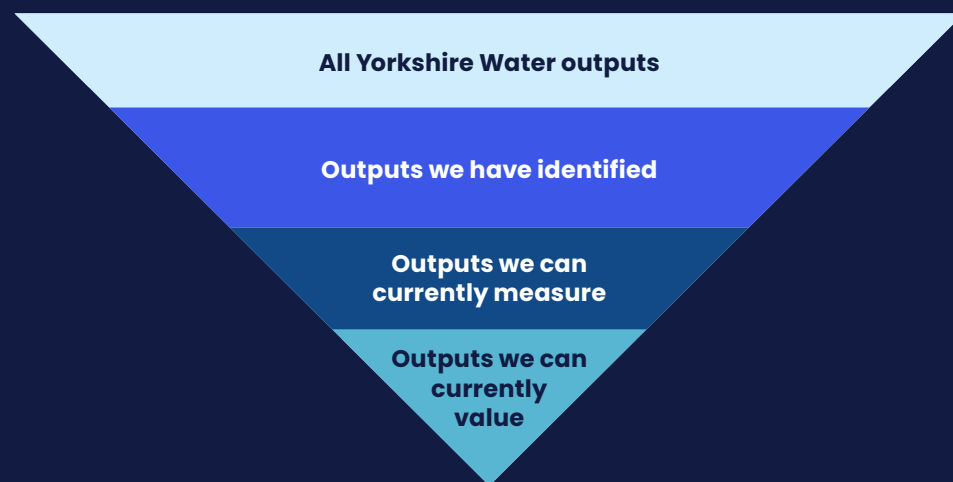
Materiality assessment results showing selected impacts categorised by capital type. Note that not all impacts are shown here due to space limitations.

6. Our assets and outputs

In this section we provide a visual summary of our 2023 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 generated by our business activities, we recognise that this list may still be incomplete. 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 2022 and 2023, is available at yorkshirewater.com/capitals



Financial capital

Assets	Regulatory capital value £8,715m (2022: £7,746m)	Pension funds £1,092m (2022: £1,529m)	Net debt £6,304m (2022: £5,686m)	Credit rating (lowest) Baa2 (2022: Baa2)
Outputs	Taxes £165m (2022: £159m)	Salaries £157m (2022: £159m)	Pension contributions £14m (2022: £13m)	Operating profit £237m (2022: £242m)

Manufactured capital

Assets	Water mains 32,000km (2022: 32,000km)	Sewers 53,000km (2022: 52,000km)	Renewable energy generation capacity 26MW (2022: 26MW)	
Outputs	Change in asset value -£232m (2022: £1,026m)	Waste diverted from landfill 92% (2022: 96%)	Energy used 735GWh (2022: 732GWh)	Renewable energy generated 224GWh (2022: 340GWh)

Natural capital

Assets	Land ownership 28,000ha (2022: 28,000ha)	Water available for use 1,654MI/day (2022: 1,645 MI/day)	Environmental performance 3 star (2022: 2 star)	Land carbon stock 2,100,000t (2022: 2,100,000t)
Outputs	Abstraction 480,000MI (2022: 489,000MI)	Leakage 103,200MI (2022: 103,300MI)	Pollution incidents 117 (2022: 143)	Net carbon emissions ¹ 90,000tCO₂e (2022: 94,000tCO ₂ e)

Human capital

Assets	Total colleagues 3,674 (2022: 3,922)	Share of colleagues female 27% (2022: 26%)	Share of colleagues BAME 5% (2022: 5%)	Gender pay gap 4.4% (2022: 4.1%)
Outputs	New apprenticeships 67 (2022: 138)	Colleague turnover 14% (2022: 14%)	Sickness absence rate 2.8% (2022: 3.5%)	Lost time incident rate 0.15 (2022: 0.24)

Intellectual capital

Assets	Partnership projects 19 (2022: 16)	
Outputs	Spend on R&D £3.5m (2022: £2.9m)	Employee training 65,000hours (2022: 78,000hours)

Social capital

Assets	Public recreational sites 52 (2022: 52)	Households served 2.3m (2022: 2.3m)	Customers on PSR 109,000 (2022: 89,000)	Customer trust 88% (2022: 89%)
Outputs	Recreational health benefits 336 QALYs (2022: 336 QALYs)	Internal flooding incidents 630 (2022: 664)	Customers financially supported 95,000 (2022: 81,000)	Percentage spend with local suppliers 37% (2022: 37%)

BAME = Black, Asian and Minority Ethnic PSR = Priority Services Register QALYs = Quality Adjusted Life Years R&D = Research and development

¹ Includes scopes 1, 2, and selected scope 3 emissions using market-based reporting in line with the Carbon Accounting Workbook.

7. The value of our impacts

This section shows our estimate of the value created by our impacts in 2023.

Our figures show the net estimate for the impacts we have been able to value. 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 (2023)	Confidence grade
Taxes	£159m	£165m	H
Salaries	£159m	£157m	H
Pension contributions	£13m	£14m	H
Operating profit	£242m	£237m	H
Manufactured capital			
Change in tangible asset value	£1,026m	-£232m	H
Waste to landfill	-£0.2m	-£0.4m	M
Underused resources	£37m	£244m	M
Renewable energy generated	£36m	£25m	M
Increased grid resilience through renewable energy exported	£9m	£1m	M
Natural capital			
Water leakage	-£58m	-£62m	M
Change in bathing water status classifications	£1m	£3m	M
Length of river improved	£6m	£7m	M
Pollution incidents	-£24m	-£21m	M
Phosphorus released to the environment	-£112m	-£121m	M
Change in biodiversity units	£168m	No data	L
Air quality (NO _x and PM emissions)	-£1m	-£1m	L
Carbon emissions	-£28m	-£29m	M
Human capital			
Colleague turnover (voluntary leavers)	-£10m	-£11m	M
Wage inflation	£15m	-£8m	M
New apprenticeships	£31m	£16m	M
Colleague engagement	-£1m	-£6m	L
Health and wellbeing programmes	£1m	£1m	L
Injuries	-£0.6m	-£0.4m	M
Sick days	-£15m	-£13m	M
Gender pay gap	-£2m	-£2m	M
Intellectual capital			
Return on R&D investment	£10m	£13m	L
Colleague training	£8m	£7m	M
Social capital			
Late payments to suppliers	-£3m	-£4m	L
Early payments to suppliers	£2m	£4m	L
Health benefits of providing a public water supply compared to a private supply	£15m	£16m	L
Amenity benefits of visits to Yorkshire Water sites	£6m	£7m	L
Health benefits of exercise on Yorkshire Water sites	£24m	£25m	L
Financial support for customers	£3m	£4m	M
Public educational programmes	£1m	£1m	M

8. 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 2023

Our financial capital metrics demonstrate a generally stable position in comparison to last year. The overall level of net debt, being total debt less available cash, increased to £6,304m (2022: £5,686m). This reflects two main factors. Firstly, new debt raised to refinance debt instruments that matured during the year and contribute to the funding of our capital investment programme that supports improvements in the services we provide to our customers. New debt raised during the year related to execution of a £100m sustainable loan with a bank counterparty and the issue of £500m of sustainable bonds in February 2023 by Yorkshire Water's primary financing subsidiary, Yorkshire Water Finance plc. This brings the total debt issued under our Sustainable Finance Framework to £1.8bn and increases the sustainable finance share of debt to 27% (2022: 21%). Secondly, our debt portfolio includes certain loans and financial instruments that have repayment terms linked to movements in inflation. The current high inflationary environment resulted in these liabilities increasing by £461m during the year.

In response to changing economic and regulatory environments, our shareholders have committed further funds to support the business including funding to secure the long-term financial resilience of the company. This will result in repayment of a loan of c.£940m from Yorkshire Water to its parent company Kelda Eurobond Co. Limited through further investment by our investors to Yorkshire Water by 2027. The first instalment of £400m was received in June 2023, shortly after the financial year end.

The reduction in Kelda Group Pension Plan assets over the year was primarily due to the effect of a material increase in gilt yields, particularly following the UK 'mini-budget' in September 2022. This increase in gilt yields acted to reduce the Plan's liabilities and so the Plan's assets, which are invested in such a way as to mirror a significant proportion of the Plan's liability movements, also reduced accordingly.



Our regulatory capital value increased during the year to £8,715m (2022: £7,746m). Lower gearing² represents one measure of financial stability and the growth in our regulatory capital value, being at a higher rate than the increase in net debt, has resulted in a reduction in gearing to 72% (2022: 73%)

Further information about our financial performance and resilience can be found in our statutory Annual Report and Financial Statements available at yorkshirewater.com/reports

²We use a bespoke gearing ratio calculated using adjusted net debt and regulatory capital value. For more information see page 27 of the Annual Report and Financial Statements.

	Financial assets	Investments	Debt	Credit rating
Assets	Regulatory capital value £8,715m (2022: £7,746m)	Pension funds £1,092m (2022: £1,529m)	Net debt £6,304m (2022: £5,686m)	Credit rating (lowest) Baa2 (2022: Baa2)
	Gearing 72% (2022: 73%)		Share of debt invested sustainably 27% (2022: 21%)	
	Expenditure			
Outputs	Taxes £165m (2022: £159m)	Salaries £157m (2022: £159m)	Pension contributions £14m (2022: £13m)	Operating profit £237m (2022: £242m)
Impacts	Financial capital impacts overlap directly with financial capital outputs and are therefore not repeated here.			

9. 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.



Assessment findings for 2023

The value of our tangible assets decreased this year by £232m (2022: increase of £1,026m). This change was driven largely by additions to our asset base offset by a downwards revaluation of our infrastructure assets during the year coupled with depreciation and disposals³. 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 by prolonging asset lifespans wherever possible.

Waste

The total amount of waste we produced decreased to 269,000 dry tonnes (2022: 273,000t) and we sent 19,000t to landfill (2022: 12,000t), resulting in a landfill avoidance figure of 92% (2022: 96%). Our primary waste streams comprise construction, repair and maintenance activity materials (70%) and digested sewage sludge (25%). Other waste streams include grits and screenings from our wastewater treatment works, treatment site general waste, and office waste. Waste associated with construction, repair, and maintenance activities remains proportionately high as expected for this period of our current five-year business cycle that runs from 2020 to 2025. We are working with our contract partners to implement more efficient construction techniques to reduce waste, such as off-site fabrication. However, the overall amount of construction waste we produce may rise in future in proportion with the increased investments we expect to make in our capital programme in coming years.

Much of our waste can be recycled or repurposed for other purposes. For example, we treat 100% of our sewage sludge using anaerobic digestion to generate biogas and renewable energy. This year we have also created £244m in value⁴ from waste and under-used resources (2022: £37m), which stems from a project carried out with our sister company, Keyland Developments, to reduce our operational footprint by developing and selling under-used land next to our Calder Vale sewage treatment works for commercial development. Our plan for the site will generate environmental and social value for the local area by placing a strong emphasis on sustainable development measures such as energy efficient low-carbon building standards, sustainable drainage systems, and a net gain in biodiversity.

³ For further information on revaluation and other movements in tangible assets see page 180 of our Annual Report and Financial Statements.

⁴ 'Value' refers to total value created across the six capitals (i.e. financial capital, natural capital, etc).



Energy

The amount of renewable energy we generated as heat and electricity decreased to 224GWh (2022: 340GWh). 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 decrease in energy generation was driven by a temporary decrease in the availability of our combined heat and power plants, and we expect performance to increase again next year.

Our total energy use remained relatively steady this year at 735GWh (2022: 732GWh). We are targeting energy efficiency improvements across our operational activities. Pumps, for example, are the largest single source of our energy consumption and this year we introduced new technologies to improve the energy efficiency of our pumps by up to 30%. A further advantage of these new pumps is their ability to automatically detect and clear blockages, which has resulted in a 50% reduction in reactive maintenance visits to affected sites. We have now installed nearly 500 pumps on 244 wastewater sites. This represents approximately two-thirds of our overall pump replacement programme, and we expect to complete installing the remaining pumps by early 2024.



Assets	Water assets	Wastewater assets	Energy assets		
	Length of mains 32,000km (2022: 32,000km)	Length of sewers 53,000km (2022: 52,000km)	Renewable energy generation capacity 26MW (2022: 26MW)		
	Renovated, built or relined 0.40% (2022: 0.31%)	Renovated or replaced 0.03% (2022: 0.05%)			
Outputs	Asset value	Waste use and reuse	Energy intensity	Energy use	
	Change in tangible asset value -£232m (2022: £1,026m)	Waste diverted from landfill 92% (2022: 96%)	Energy intensity (water) 825 kWh/MI (2022: 706 kWh/MI)	Energy use 735GWh (2022: 732GWh)	
			Energy intensity (wastewater) 663 kWh/MI (2022: 630 kWh/MI)	Renewable energy generated ⁵ 224GWh (2022: 340GWh)	
Impacts	Change in tangible asset value -£232m (2022: £1,026m)	Waste to landfill -£0.4m (2022: -0.2m)	Value created from waste £244m (2022: £37m)	Renewable energy generated £25m (2022: £36m)	Increased grid resilience £1m (2022: £8.7m)

⁵ Includes electricity and heat.

Case study

Removing phosphorus from treated wastewater

We collect, treat and release millions of litres of wastewater every day to rivers and the sea across the region. Our treatment works are designed to comply with quality standards set by the Environment Agency.

Nonetheless, we recognise that treated wastewater discharging from our works represents a key pathway for phosphorus to enter the environment, along with other pathways such as poor agricultural practices, runoff from urban areas and lawns, and leaking septic systems. In high concentrations, phosphorus can have a detrimental impact on aquatic environments, causing excessive algal growth and leading to the loss of freshwater biodiversity.

To reduce the amount of phosphorus we release to freshwater environments, we are investing almost £800m over the 2020–25 period to upgrade or install new phosphorus removal technologies at our wastewater treatment sites. This includes a mix of chemical removal, advanced biological treatment, or nature-based solutions such as treatment wetlands. Once complete, these technologies will reduce the phosphorus we release to the environment each year by around 45% by 2025 compared to 2020. Additional investments in future will drive further reductions, and by 2037 we expect to achieve the national target of an 80% reduction in phosphorus in treated wastewater against a 2020 baseline.



10. 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 2023

Land and biodiversity

More than two-thirds of our estate is used for agricultural purposes. 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 7,700ha (2022: 6,300ha) to help to protect the Yorkshire landscape for future generations.

We carry out many activities to protect habitats and enhance biodiversity across our land holdings and the wider region. The total area of land we have conserved or enhanced now stands at 9,800ha (2022: 6,700ha). We have achieved this through restoration activities at Sites of Specific Scientific Interest, Local Wildlife Sites, and farmland covered by Beyond Nature™ management plans.

Water use and efficiency

The total volume of water we abstracted from the environment decreased this year to 480,000MI (2022: 489,000MI). Extremely dry weather conditions in the summer of 2022 caused severe challenges for the UK water industry and led to the implementation of a temporary use ban for the first time since 1995. In line with our [Drought Plan](#), we implemented a range of measures to secure water supplies and reduce demand for water across the region. These included maximising our river and groundwater abstractions to help protect reservoir stocks, stepping up our programme of leakage detection and repairs, and increasing our customer facing communications campaign to encourage customers to use water wisely.

As a result of the 2022 summer drought, coupled with our ongoing activities to reduce water demand, average water consumption per head of population (known as per capita consumption) decreased to 123.9 l/p/d (2022: 131.5 l/p/d). However, due to dry ground conditions increasing the risk of water pipe leakage, total leakage remained in line with last year at 103,000MI (2022: 103,000MI). Additional investment is planned for 2024 to help drive further improvements in leakage performance.

Local air quality

This year we have estimated the impact on local air quality caused by nitrous oxides and particulate matter emissions from the use of combustible fuels. This includes emissions from our vehicle fleet and from the use of generators and other equipment on our operational sites. We are transitioning away from fossil fuels towards renewable energy sources and electrifying our assets where possible, and in future this is expected to result in improvements to local air quality and also reduce our operational carbon emissions.

Environmental water quality

Our bathing water sites have improved in quality this year with 11 out of our 19 coastal sites rated as 'excellent' (2022: 7 sites). We also have one inland bathing water site on the River Wharfe in Ilkley, which is currently in 'poor' condition.

We are currently laying a new sewer in Ilkley to accommodate higher flows of wastewater during periods of heavy and prolonged rainfall. When completed, this will help to reduce the number and volume of storm overflow discharges into the Wharfe and help to improve the water quality of the river. We also recently installed enhanced disinfection measures, similar to our approach on the coast, at our Grassington, Draughton and Beamsley sewage treatment works upstream of Ilkley to remove faecal pathogens in wastewater before it is returned to the River Wharfe.

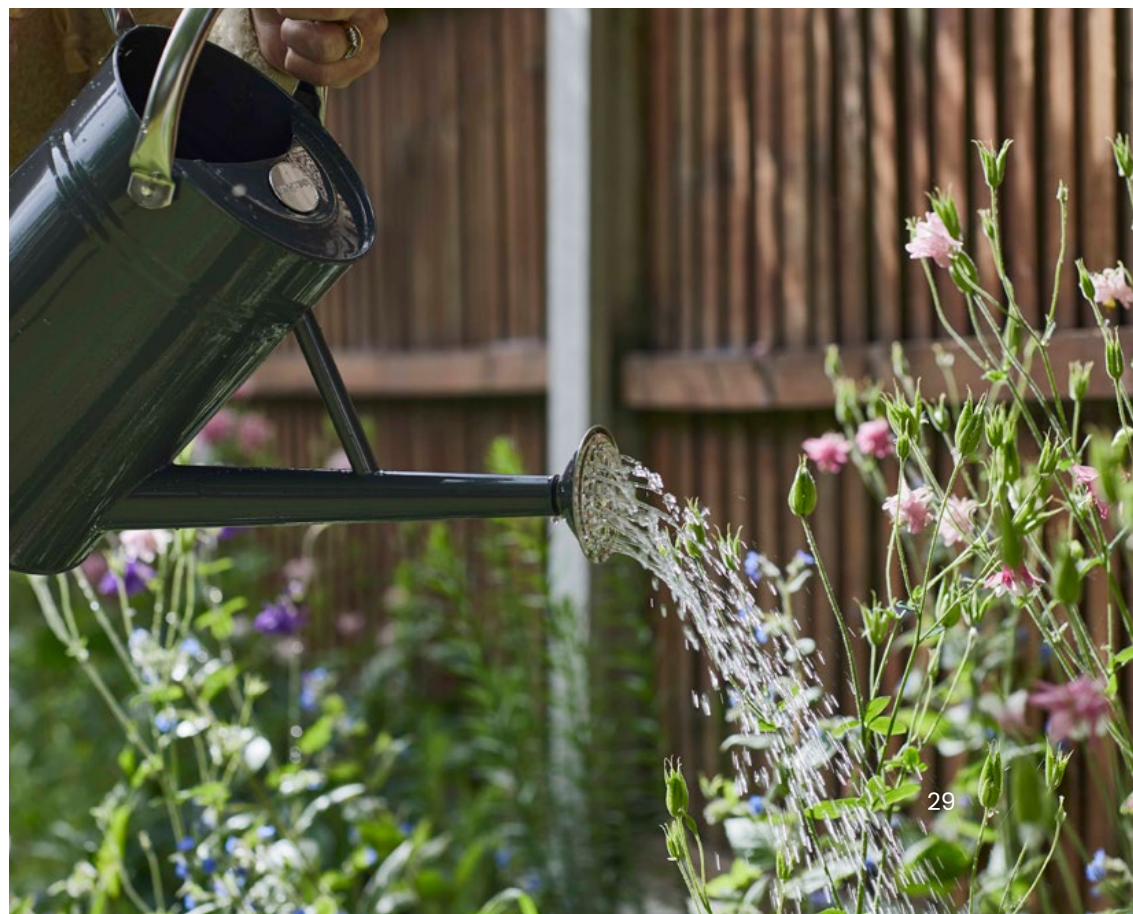
More generally, our environmental performance has improved this year and we have received an Environmental Performance Assessment of 3 stars (2022: 2 stars). The rating considers our performance on environmental commitments such as pollution incidents and treatment works compliance, both of which have improved since last year (2023: 117 total pollution incidents and 99.7% treatment works compliance; 2022: 143 total pollution incidents and 99.0% treatment works compliance).

However, we recognise the increased scrutiny placed on water companies with respect to our environmental impacts and know we need to improve our performance further in future. This year we published our long-term [Drainage and Wastewater Management Plan](#), which is designed to help us to maintain a robust and resilient drainage and wastewater system for customers and communities into the future. It outlines the long-term needs and requirements of drainage, wastewater, and environmental water quality, and demonstrates how we will address priority areas such as sewer flooding and environmental protection.

In particular, our plan sets out how we intend to achieve a reduction in the use of storm overflows to ensure that no storm overflows discharge more than an average of ten rainfall events per year by 2050, in line with the government's Storm Overflows Discharge Reduction Plan. In the shorter term, we are investing £180m before 2025 to improve 190 storm overflows that we know are operating much more than they should.

This will be achieved by building more capacity to store wastewater in our wastewater network, creating nature-based solutions to slow the flow of rainwater before it enters our network, and optimising how our whole wastewater system operates. By 2025, we intend to reduce spills by at least 20% against our 2021 baseline.

At our treatment works, we recognise that we impact the environment through the release of phosphorus and other chemicals in treated effluent to rivers and coasts. We have included this as a material impact in this year's report, having recognised it previously as a gap in our assessment methodology. We are investing almost £800m over the 2020-25 period to remove phosphorus from treated wastewater and reduce the environmental impact it causes. Further details on our plans can be found in the Manufactured Capital case study on page 24.

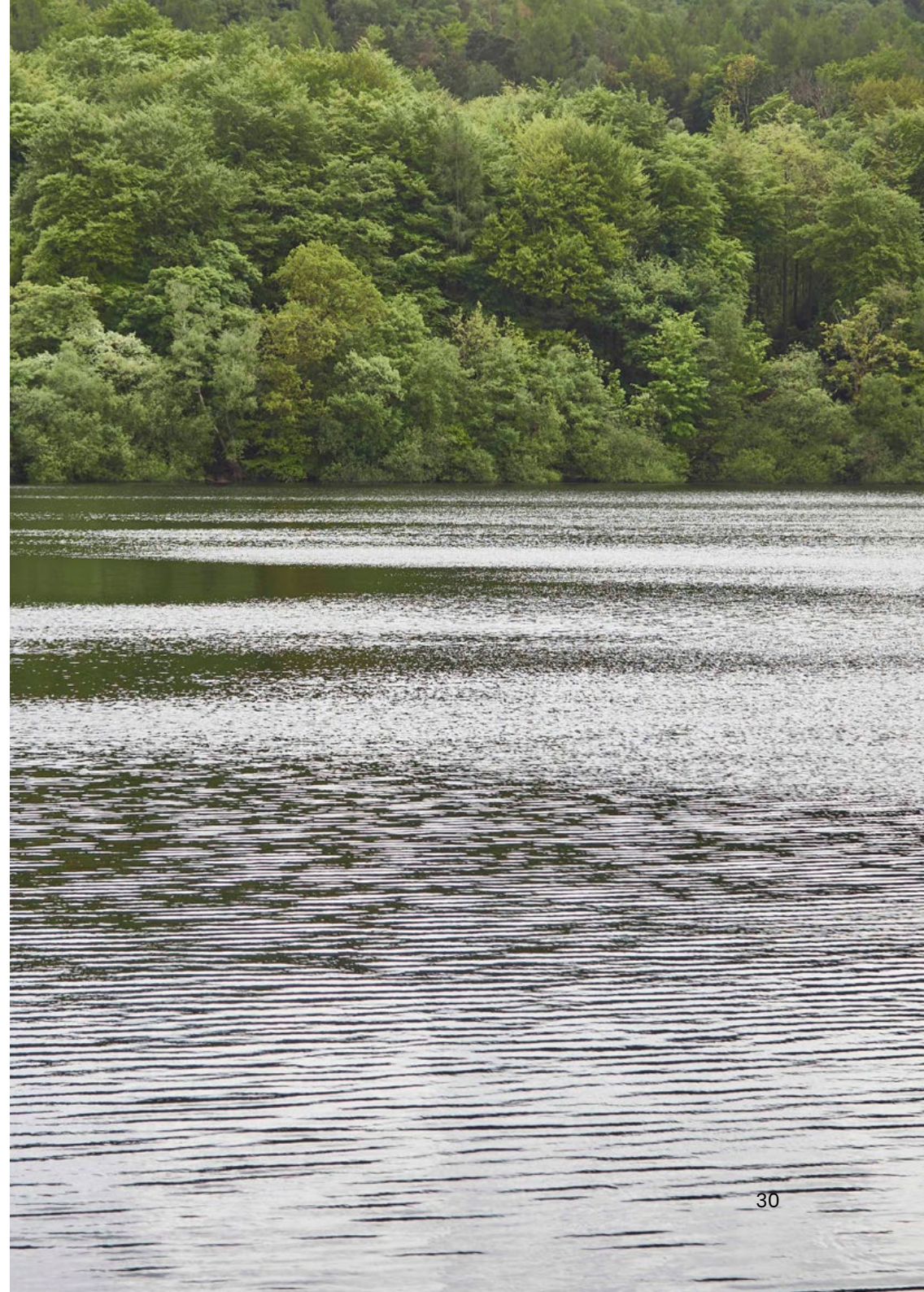


Carbon

Net carbon emissions decreased this year to 90,000tCO₂e (2022: 94,000tCO₂e). Since our last publication we have updated our approach to carbon reporting to align with our other annual publications and regulatory reporting standards. Our net carbon emissions include operational emissions (scopes 1 and 2) and selected scope 3 emissions using a market-based approach. These are derived from the Carbon Accounting Workbook, an industry standard tool used by all water companies in England and Wales. Further details on our carbon reporting can be found in the methodology document that accompanies this report.

Reducing our carbon 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. We are currently focusing on the following activities to drive down our carbon emissions further:

- Understanding the measures we can put in place to tackle nitrous oxide and methane process emissions at our larger wastewater treatment works.
- Transitioning our fleet to electric vehicles.
- Optimising our chemical and energy use across our asset base.
- Deploying renewable energy generation equipment, such as solar arrays, across our estate.
- Driving whole life carbon reduction by including the cost of carbon (both embedded and operational) in design processes for new and upgraded assets.



	Land	Water availability	Water quality	Land carbon
Assets	Land ownership 28,000ha (2022: 28,000ha)	Total water available for use 1,654MI/day (2022: 1,645MI/day)	Bathing waters 20 (2022: 20)	Land carbon stock 2,100,000t (2022: 2,100,000t)
	Land under Beyond Nature™ schemes 7,700ha (2022: 6,300ha)		Environmental performance rating 3 star (2022: 2 star)	
	Land and biodiversity	Water use and efficiency	Environmental water quality	Emissions to air
Outputs	Biodiversity units created No data⁶ (2022: 14,600)	Abstraction 480,000MI (2022: 489,000MI)	Pollution incidents 117 (2022: 143)	Net carbon emissions ⁷ 90,000tCO₂e (2022: 94,000tCO ₂ e)
	Per capita consumption 123.9 l/p/d (2022: 131.5 l/p/d)	Leakage 103,200MI (2022: 103,300MI)	River improved 54km (2022: 50km)	NO _x and PM emissions 103t (2022: 120t)
Impacts	Leakage -£62m (2022: -£58m)	Change in bathing water status £3m (2022: £1.4m)	Length of river improved £7m (2022: £6m)	Pollution incidents -£21m (2022: -£24m)
	Phosphorus released to environment -£121m (2022: -£121m)	NO _x and PM emissions -£1m (2022: -£1.4m)	Carbon emissions -£29m (2022: -£28m)	

⁶ New guidance on biodiversity reporting by water companies was released recently by Ofwat and we are currently updating our reporting methodology in response. We have not reported a figure for biodiversity units this year to avoid the potential for confusion associated with reporting biodiversity using two different methodologies.

⁷ Includes scopes 1, 2, and selected scope 3 emissions using market-based reporting in line with the Carbon Accounting Workbook.

Case study

Reducing the spread of invasive non-native species

Floating pennywort is native to Central and South America and was brought to the UK in the 1990s as an ornamental plant for the aquatic trade. Since then, it escaped and spread to natural habitats including several locations across Yorkshire. This invasive non-native species grows rapidly and forms dense mats in slow-flowing rivers and water bodies, posing a threat to our pipes and pumping assets and increasing the risk of blockages and flooding.

This year, in collaboration with the Centre for Agriculture and Bioscience International (CABI), Leeds City Council, and other stakeholders, we introduced floating pennywort weevils at two sites in West Yorkshire to control the growth of floating pennywort. The weevils have co-evolved alongside floating pennywort and feed on the leaves and stems of the plant, reducing its ability to grow and spread further. They have been approved for release in England following years of safety testing and research by CABI.

The introduction of these specialist weevils should help manage and reduce the spread of floating pennywort without the need for mechanical or chemical interference in the watercourses. They will now be closely monitored to understand their effect on the impact and spread of floating pennywort in future.

Floating pennywort



Floating pennywort weevil on a leaf



Case study

Catchment management to improve raw water quality

Much of the drinking water we provide to customers is sourced from moorlands in upland catchments in the west of our region. The condition of these moorlands has a strong influence on the quality of the water that runs off them into drinking water reservoirs.

In some of our upland catchments, wildfires and land drainage schemes have caused a deterioration in raw water quality in recent years. Poorer water quality requires more expensive treatment before it can be supplied to customers. In extreme cases, it may not be treatable at all, which poses a risk to the security of our water supplies.

In response to this risk, we are investing £8m into 16 catchment management schemes between 2020 and 2025 to improve the quality of raw water entering our water treatment works. Working with the Yorkshire Peat Partnership and Moors for the Future, we are installing a variety of nature-based solutions in upland areas. These include leaky dams to trap sediments and slow the flow of water, and planting seedlings on bare areas to stabilise the ground and reduce soil erosion.

By tackling water quality issues directly at source, we aim to allow nature to improve the quality of raw water leaving the moor while also creating additional benefits such as enhanced upland biodiversity and carbon storage in peatland soils. We are also investing in our treatment plants to improve our ability to treat water of varying quality from upland areas.

Examples of newly planted seedlings and sediment traps



11. 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 2023

We undertook a restructuring of some areas of our business this year that resulted in a reduction in our workforce to 3,674 colleagues (2022: 3,922). As a partial consequence of this period of uncertainty for colleagues, our engagement score decreased to 63% (2022: 72%). Our new ten-year corporate strategy provides a clear ambition for our business at all levels and aims to deliver improved performance for customers. A key aspect of this strategy is to develop our culture to create engaged, high-performing teams within an inclusive workspace, and we hope to see the benefits of this approach reflected in engagement scores in future.

This year 67 new apprenticeships started across Yorkshire Water (2022: 138), representing a mix of new and existing colleagues. Apprenticeships bring benefits both to our business and also to individual colleges through the provision of training, development and career progression opportunities. Sickness absence decreased this year to 2.8% (2022: 3.5%). This reflects the reduced impacts of Covid-19 on colleagues' health this year as the impact of the virus continued to recede across the world.

Our lost time incident rate (LTIR) is calculated as the number of hours lost per 100,000 hours worked. This year's performance of 0.15 (2022: 0.24) is our lowest rate ever recorded. Health, safety, and wellbeing is paramount in all that we do, and our LTIR performance is indicative of our drive for continual improvement in this area.

This year our mean gender pay gap increased to 4.4% favourable to male colleagues (2022: 4.1% favourable to male colleagues). This was driven by a shift in our demographic split: whilst the representation of males and females remained relatively consistent across upper pay quartiles, female representation in the lowest pay quartile increased. We are committed to providing an equal, diverse, and inclusive working environment and are currently developing a new Equality, Diversity and Inclusion strategy to drive progress in this area.



Assets	Colleagues 3,674 (2022: 3,922)	Gender pay gap 4.4% (2022: -4.1%)	Share of colleagues female 27% (2022: 26%)	Share of colleagues BAME 5% (2022: 5%)
	Colleague engagement 63% (2022: 72%)	Percentage of colleagues receiving a real living wage 100% (2022: 100%)	Share of senior managers female 32% (2022: 32%)	Share of senior managers BAME 5% (2022: 5%)
Performance & development		Health, safety & wellbeing		
Outputs	New apprenticeships 67 (2022: 138)	Colleague turnover 14% (2022: 14%)	Sickness absence rate 2.8% (2022: 3.5%)	Lost time incident rate 0.15 per 100,000 hours (2022: 0.24 per 100,000 hours)
Impacts	Colleague turnover -£11m (2022: -£10m)	Wage inflation -£8m (2022: £15m)	New apprenticeships £16m (2022: £31m)	Gender pay gap -£1.9m (2022: -£1.7m)
	Colleague engagement -£6m (2022: -£1m)	Health and wellbeing programmes £0.6m (2022: £1.2m)	Injuries -£0.4m (2022: -£0.6m)	Sickness absence -£13m (2022: -£15m)

Case study

Women in Engineering

In the UK and across the world, women are underrepresented in the water sector with careers, training and decision-making being dominated by men. Recognising the importance of building space for women in this industry, we recently created a new Women in Engineering group, comprising members from Yorkshire Water and our 24 capital delivery partners.

The group aims to share successes and discuss challenges women face as a minority in the water construction sector with a view to addressing this gender balance and ensuring our capital programme is delivered by a diverse and inclusive workforce who can thrive and reach their full potential.

Events held to date have discussed best practice, lived experiences, and ideas from participating organisations, and provide a safe space and supportive network where women can openly discuss topics of interest. The sessions have been sponsored by Yorkshire Water's Director of Asset Delivery and supported by senior leaders from other organisations.

The key outcomes from the events have been to build a supportive network and sense of community, establish a series of working groups to address specific challenges, and create actions to increase and retain more women within the water sector. As a result of these events, we are thrilled to have been recently shortlisted for the Water Industry Awards – Diversity Initiative of the Year 2023.



12. 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 2023

The number of training hours completed by colleagues this year decreased to 65,399 (2022: 78,488). This was due to a reduction in training budgets driven by business cost pressures coupled with a lower colleague headcount and increased need for colleagues to attend urgent operational incidents, such as those related to the summer drought. Training focused predominantly on health and safety and other business-critical training to ensure colleagues received the qualifications required to carry out their roles in a safe and compliant manner.



Spend on research and development (R&D) activities increased this year to £3.5m (2022: £2.9m)⁸. We work in partnership with suppliers, academia, and the wider R&D community to develop new technologies and processes to deliver our services more efficiently and reduce pressure on customer bills. Examples of R&D initiatives we are currently exploring include:

- Trialling continuous river water quality monitors on the River Wharfe to understand how discharges from storm overflows and other factors impact water quality. If successful, we hope to provide near real-time water quality insights to people looking to swim in the river at Ilkley.
- Testing the feasibility of using insect bioconversion to manage sewage sludge and help us develop a circular, nature-based and cost-effective approach to address the volume of sewage sludge and its associated disposal challenges.
- Using the latest genomic techniques to monitor algal communities in reservoirs to understand the triggers for algae-related water quality risks.

⁸ Some R&D spend is capitalised and therefore also reflected in the value of our fixed tangible assets (see Manufactured Capital section).

	Partnerships	
Assets	Partnership projects ⁹ 19 (2022: 16)	
	Knowledge and learning	Research and development
Outputs	Colleague training 65,000 hours (2022: 78,000 hours)	Spend on R&D £3.5m (2022: £2.9m)
Impacts	Colleague training £7m (2022: £8m)	Return on R&D investment £13m (2022: £10m)

⁹ 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.

Case study

Real-time monitoring of sewer flood risk

Preventing sewer flooding is a top priority for us and our customers. This year, we began to install 40,000 customer sewer alarms in high-risk properties across the region to help detect blockages that could lead to sewage flowing back inside our customers' homes.

Each device measures the water level within the sewer pipe in which it is installed. When the water level rises, the device sends an alarm through the mobile phone network to let us know. We then manage alerts across the region through our control centre and send technicians to remove blockages from the network. Depending on the cause of the alert we may raise further work to prevent repeat incidents.

Data from customer sewer alarms provide important insights into the performance of our wastewater network, allowing our teams to monitor sewage flows, understand network performance, and proactively tackle potential issues before they have an impact on our customers or the environment. As of 31 March 2023, we had installed 20,000 loggers across the region, which led to us clearing 537 blockages and preventing over 200 sewer flooding incidents since the start of the project.



Example of a customer sewer alarm, which sits within a sewer pipe and sends an alert if it detects a rise in water level.

13. 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 the water sector has declined in recent years. We focus on this by providing our customers with the high-quality services they expect and deserve, looking after those in vulnerable circumstances, and setting ourselves challenging targets to improve outcomes for the Yorkshire region. We also work to improve our wider impacts on society, such as through our public education programme and by working in partnership with other organisations in the region to tackle the shared challenges we face together.



Assessment findings for 2023

Public health and wellbeing

Drinking water quality in the UK is among the highest in the world and providing safe, clean, reliable water supplies and effective sanitation for our customers plays a key role in safeguarding public health across our region. However, we also support the health and wellbeing of local communities through other activities. For example, we provide public access to our 52 recreational sites across Yorkshire, which receive millions of visitors each year and are supported by a dedicated team of countryside rangers to engage with visitors and promote public safety, access and conservation.

Service delivery

It is essential that the water we provide to customers is clean and safe to drink. 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 decreased to 4.61 (2022: 4.83). 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, decreased to 10.2 per 10,000 customers (2022: 10.9). This improvement was driven mainly by our ongoing work to flush pipes across our network to remove any sediment that may have accumulated over time. Our flushing activities are helped through our collaborative work with the University of Sheffield 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 630 (2022: 664), but the number of external sewer flooding incidents increased to 5,375 (2022: 4,578). We know sewer flooding is one of the worst experiences for our customers. This year we invested £10m in proactive schemes to prevent sewer flooding, carried out sewer investigations at almost 100,000 properties, and found and repaired almost 2,000 defects. We also installed customer sewer alarms (see Intellectual Capital case study on page 43) and expanded our network protection team to engage with customers and reduce the risk of unsuitable substance entering our wastewater network.

Our customers are at the heart of everything we do, and we are constantly striving to improve the service we provide. Our customer experience score provides a measure of how satisfied our household customers are with the level of service we provide. This year, our customer experience score decreased to 78.25 (2022: 80.41). To address this, we have developed an action plan to improve service journeys for customers who contact us regarding an issue. For example, we will provide customers with real time updates on resolution timescales, introduce new working patterns to allow for faster resolution times, and introduce a new scheduling system to allow us to send the right person with the right skills to the right job.

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 109,194 (2022: 88,702), representing 4.8% 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 recognise that some of our customers are increasingly finding themselves in financial difficulties due to the ongoing national rise in the cost of living. We try to ensure our bills remain affordable for customers. Although our average combined bill increased this year to £446 (2022: £419), we provided financial support to 95,138 customers (2022: 80,778) to make their bills more affordable through mechanisms such as our social tariff options, debt schemes, and domestic water meters. Our shareholders have committed an additional £15m for support with bills through to 2025. To date, this funding has provided cost-of-living payments to around 60,000 customers of up to £70 per customer and reduced the social tariff annual bill for next year by over £90 per customer.

Trust

Customer trust decreased slightly this year to 88% (2022: 89%) but remains relatively high compared to previous years. Trust is a complex issue that can be affected by a range of factors, and 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 spent over £950m this year on goods and services, playing 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 (2022: 37%), which includes both large suppliers headquartered in Yorkshire as well as small- and medium-sized enterprises. The share of invoices we paid late decreased to 70% (2022: 74%), although this is nonetheless higher than we would like it to be.

We are working with our suppliers to identify shared opportunities to address existing and emerging social, economic, and environmental challenges and drive positive change across our value chain. This includes, for example, running training sessions for our suppliers to increase their awareness of the risks of modern slavery in their supply chains. We also launched our [Sustainable Procurement Code](#) this year, which outlines our areas of focus on sustainability-related issues and details our expectations and requirements for suppliers and contractors when undertaking work on our behalf.

Public education

We carry out a range of virtual and in-person activities to raise awareness of the value of water. This year saw 26,000 participants in our education programmes (2021: 21,000), which includes visitors to our education centres as well as visits we carry out to schools across the region.



	Public health and wellbeing	Household customers	Vulnerability	Trust
Assets	Public recreational sites 52 (2022: 52)	Households served 2.3m (2022: 2.3m)	Customers on PSR 109,000 (2022: 89,000)	Suppliers used 1,200 (2022: 1,200)
		Customer satisfaction 78.25% (2022: 80.41%)	Awareness of PSR 51% (2022: 47%)	Customer trust 88% (2022: 89%)
	Public health and wellbeing	Service delivery	Vulnerability	Trust
Outputs	Recreational site visits 2.8m (2022: 2.8m)	Drinking water contacts 10.2 per 10,000 population (2022: 10.9 per 10,000 population)	Customers financially supported 95,000 (2022: 81,000)	Share of invoices paid late 70% (2022: 74%)
	Recreational health benefits 336 QALYs (2022: 336 QALYs)	Internal flooding incidents 630 (2022: 664)		Percentage spend with local suppliers 37% (2022: 37%)
Impacts	Recreational visits to Yorkshire Water sites £6.9m (2022: 6.4m)	Health benefits of providing a public water supply compared to a private supply £16m (2022: £15m)	Public educational programmes £0.7m (2022: £0.6m)	Early payments to suppliers £4.4m (2022: £1.5m)
	Health benefits of exercise on Yorkshire Water sites £25m (2022: £24m)	Financial support for customers £3.8m (2022: £2.8m)		Late payments to suppliers -£3.8m (2022: -£3.4m)

Case study

Boosting disability access to our reservoirs

Millions of people visit our public recreational sites each year for exercise, wildlife watching, beautiful natural views, and access to open spaces and fresh air. However, for some disabled people, accessing these spaces can be challenging due to unsuitable parking, rough terrain, and physical barriers such as gates and stiles.

To address these issues, we have established a partnership with Experience Community, a not-for-profit community interest company, to support people with disabilities in accessing our recreation sites across the region.

Through our partnership, we have now improved opportunities for disabled access at several sites across Yorkshire such as Scammonden, Swinsty and More Hall reservoirs. This has been achieved through physical improvements to facilities and paths, and the development of videos and an app to provide route details and guidance. We have also run a series of events to provide new opportunities for disabled people to meet, socialise and gain confidence in accessing the countryside using off-road adapted wheelchairs.



Case study

Improving digital connectivity for rural communities

Rural areas often suffer from poor digital connectivity, making it harder for communities in these locations to access online services for work and leisure activities compared to those in better connected urban areas.

Many of our reservoirs are also located in rural areas. The quality of water entering our reservoirs from the surrounding land can vary from day-to-day due to changes in rainfall, temperature, and other factors. Monitoring the quality of this raw water helps us manage reservoir intakes to ensure we select only the best-quality water sources for onwards transfer to our water treatment works. However, limited connectivity in such areas poses a challenge to real-time data availability.

To improve monitoring capacity at some of our rural sites, this year we partnered with a telecommunications operator to install a new 5G mast near Scar House reservoir in Nidderdale. In addition to providing Yorkshire Water with access to real-time water quality data, the mast presented an opportunity to improve mobile phone coverage for the local area. As a result, our work has helped to improve digital connectivity for up to 1,000 local residents, businesses, and visitors.



14. Conclusions

This report assesses the outputs and impacts, both public and private, created by Yorkshire Water's business activities during the 2023 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 demonstrate the environmental and social value we create through our work by allowing us to understand the positive and negative impacts of our activities, 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

Appendix 1. Independent limited assurance report

Independent Assurance Report to the Directors of Kelda Group Limited

DNV Business Assurance Services UK Limited (“DNV”, “us” or “we”) were engaged by Kelda Group Limited to provide limited assurance to Yorkshire Water Services Ltd (“Yorkshire Water”) over Selected Information presented in Yorkshire Water’s ‘Our Contribution to Yorkshire’ Annual Impact and Public Value Report 2023 (the “Report”) for the reporting year ended 31 March 2023.

Selected Information

The scope and boundary of our work is restricted to the metrics included within the Report from 1 April 2022 to 31 March 2023 (the “Selected Information”), listed below:

- Spend on research and development (R&D) (£m)
- Percentage spend with local suppliers (%)
- Total colleague hours spent on training (hours)
- Number of new Yorkshire Water apprentices (#)

To assess the Selected Information, which includes an assessment of the risk of material misstatement in the Report, we have used Yorkshire Water’s [Methodology Report](#) (the “Criteria”), which can be found here yorkshirewater.com/reports We have not performed any work, and do not express any conclusion, on any other information that may be published in the Report or on Yorkshire Water’s website for the current reporting period or for previous periods.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information is not fairly stated and has not been prepared, in all material respects, in accordance with the Criteria. This conclusion relates only to the Selected Information, and is to be read in the context of this Independent Limited Assurance Report, in particular the inherent limitations explained overleaf.

Basis of our conclusion

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information; our work included, but was not restricted to:

- Conducting interviews with Yorkshire Water’s management to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report the Selected Information;
- Performing limited substantive testing on a selective basis of the Selected Information to check that data had been appropriately measured, recorded, collated and reported;
- Reviewing that the evidence, measurements and their scope provided to us by Yorkshire Water for the Selected Information is prepared in line with the Criteria;
- Assessing the appropriateness of the Criteria for the Selected Information; and
- Reading the Report and narrative accompanying the Selected Information within it with regard to the Criteria.

Respective responsibilities of the Directors and assurance provider

The Directors are responsible for:

- Preparing and presenting the Selected Information in accordance with the Criteria;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the Selected Information that is free from material misstatements;
- Measuring and reporting the Selected Information based on their established Criteria; and
- Contents and statements contained within the Report and the Criteria.

Our responsibility is to plan and perform our work to obtain limited assurance about whether the Selected Information has been prepared in accordance with the Criteria and to report to Yorkshire Water in the form of an independent limited assurance conclusion, based on the work performed and the evidence obtained. We have not been responsible for the preparation of the Report.

Standard and level of assurance

We performed a limited data only assurance engagement using DNV's assurance methodology VeriSustain™, which is based on our professional experience, the 'Greenhouse Protocol – A Corporate Accounting and Reporting Standard' (revised 2015) and international assurance best practice including the International Standard on Assurance Engagements (ISAE) 3000 – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' (revised) issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance. The engagement was carried out from May 2023 to August 2023. DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2015 – Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

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 the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion, so that the risk of this conclusion being in error is reduced but not reduced to very low.

Inherent limitations

All assurance engagements are subject to inherent limitations as selective testing (sampling) may not detect errors, fraud or other irregularities. Non-financial data may be subject to greater inherent uncertainty than financial data, given the nature and methods used for calculating, estimating and determining such data. The selection of different, but acceptable, measurement techniques may result in different quantifications between different entities.

Our assurance relies on the premise that the data and information provided to us by Yorkshire Water have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Limited Assurance Report.

Our competence, independence and quality control

DNV established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV holds other audit and assurance contracts with Yorkshire Water, none of which conflict with the scope of this work. Our multidisciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

DNV Business Assurance Services UK Limited
London, UK

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yorkshirewater.com

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