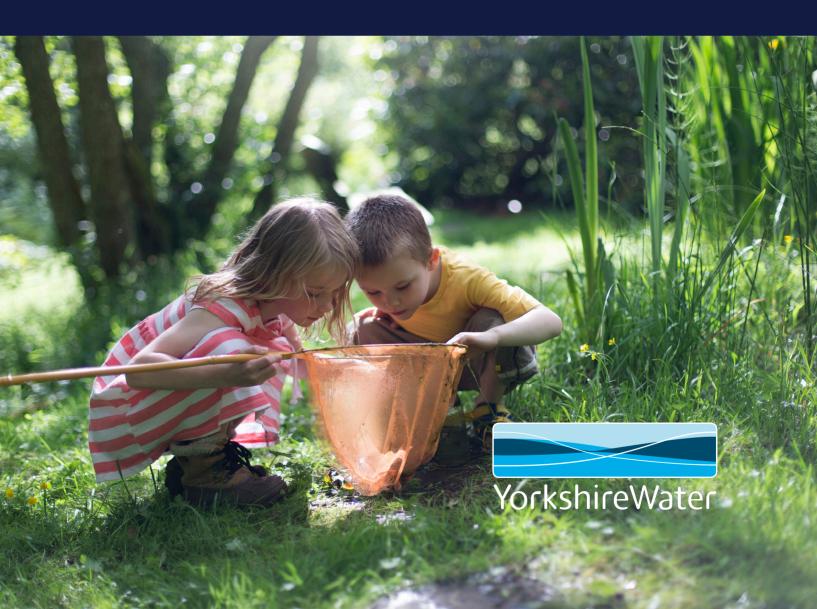
Our Contribution to Yorkshire

A review of our impact and public value

February 2021



We're proud to play water's role in making Yorkshire a brilliant place to be - now and always This is our purpose

What are the six capitals?

The capitals represent the essential resources on which we all rely and impact, both positively and negatively.



Financial



Manufactured Natural capital capital



Human



Intellectual



Social capital

Read more on page 6 and 16.

Headline findings

1. We make a strong and growing net-positive contribution to society

This is the headline finding of our latest six capitals assessment of our impact and value, with the results and methodology shared in this and supporting reports. The assessment shows we are better protecting public health and the environment but further change is critical to secure the long term affordability and resilience of communities and essential water and wastewater services. This is now even more important because of the impact of the pandemic on Yorkshire communities, and we are well placed to support the economic recovery. We are working and collaborating to grow the benefits we deliver for Yorkshire and further reduce areas of negative impact.

2. The six capitals are helping to deliver real benefits

We are applying the concept of the six capitals to provide a broad view of our performance, the risks to our services and the value we create for customers, investors and other stakeholders. We are using this fresh insight to shape our current approach and future strategy to ensure our services are resilient and efficient. We are committed to much more, but our work has already helped us to improve our governance, reporting, and focus on environmental and social issues. For example, we have reduced our carbon footprint, improved how we manage land, and we are supporting vulnerable customers more than ever before. This runs to the heart of our purpose and demonstrates the practical difference we can make for Yorkshire.

3. We've improved our approach in our latest work

We are using the latest and best available data and economic techniques to quantify our impact and value, sharing openly our methodology and the maturity of different aspects. We've extended our previous work to show trends over the five years to March 2020. We've also added new and more accurate indicators in many areas, for example, using the new national "biodiversity metric 2.0". Our approach highlights opportunities to enhance our impact and value, and the inherent trade-offs that need to be considered when making decisions. This work is helping to shape our strategic direction and operational and investment choices by providing fresh insight for us, our customers and stakeholders.

About this report

Yorkshire Water delivers water, sewerage and environmental services to over 5 million people and 130,000 businesses. We are passionate about delivering great value, both in the quality of our services and through the choices we make to maximise our wider social impact. For example, we pay the Living Wage and use only green energy because of the benefits this brings.

This is the main report in a suite of publications sharing the findings and methodology of our latest work applying the six capitals. We call this Our Contribution to Yorkshire. This is the second Our Contribution report and we will be publishing them annually in the future to help you monitor and challenge us. As well as exploring the numeric findings of our latest six capitals analysis, our most comprehensive yet, we also include lots of case studies to help bring this groundbreaking work to life. In the future our reports will help you track our performance over time in a comparable format year on year.

Trusting this information

We always want to provide information you can trust. This report is unlike our traditional publications because we are sharing latest findings and methodologies from a new approach that uses innovative analytical techniques and which continues to develop. We have taken steps to ensure openness and clarity around the different levels of robustness of the various aspects of this work.

A team of experts in impact and value assessment at AECOM helped us ensure a comprehensive and best practice approach, with the detailed methodology shared separately. We also asked an independent third party, DNV GL, to assure our work and they have provided a report on their findings. Links to these reports can be found in the Contents, opposite.

For our investors

We borrow from investors and other lenders to help fund our activities and continuous investments into the business. In early 2019 we introduced a Sustainable Finance Framework in which we committed to follow best practice guidelines that require all debt raised under the framework to be allocated only to activities that benefit people and protect the environment. We will use this framework for virtually all of our debt in the future and have already raised £850m using the framework.

This Our Contribution to Yorkshire publication is designed to meet the commitment we made in the framework to report annually on our environmental and social impact. A range of Key Performance Indicators (KPIs) 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 another report with further information specifically for the investor community, including details of debt allocations. A link can be found in the Contents, opposite.

Find out more about the framework on page 24.

Contact us

We'd welcome your feedback, questions and ideas in response to this report.

Please email us at sustainability@yorkshirewater.co.uk.

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1. Guide to this report

Important terminology

Six capitals

The resources we rely on and that we impact positively and negatively through our activities.



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 enviroment



Human capital

Our workforce's capabilities and wellbeing



Intellectual capital

Our knowledge and processes



Social capital

Our relationships and customers' trust in us

Assets

A stock of resources, for example the land we own. The extent of these resources measures the quantity we own, while the condition measures their ability to provide services over time.

Impact

The flow of positive and negative effects resulting from how we have maintained and used our assets, for example the carbon emissions captured in, or released from, our land.

Value

The amount that something is considered to be important or beneficial. We estimate the economic worth of our impact to Yorkshire Water and to wider society, for example the value of health benefits from recreational visits to our land.

Reporting scope

We focus 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 in which Yorkshire Water is the large'st part. In the future we will extend the scope to our supply chain and value chain.

Symbols used in this report

Where appropriate, trend arrows are used to show whether our impact has improved or deteriorated on average over the five year period of this assessment.



Upward trend positive outcome

Downward trend

positive outcome



Upward trend negative outcome



Downward trend negative outcome



Upward trend unclear outcome





Downward trend unclear outcome Insufficient data to determine a trend

Broadly stable trend

Where appropriate we show the robustness of data and and valuation methods using the following symbols.



Low confidence in data or method



Medium confidence in data or method



High confidence in data or method

Timeframe

In this report and assessment we examine each financial year over the five year period from 1 April 2015 to 31 March 2020. We make clear where we were unable to collect data on the full five year period.

Find out more

Visit our capitals webpage to find the previous Our Contribution to Yorkshire report and a range of case studies on our approach.

www.yorkshirewater.com/capitals

You can also find more information in our traditional performance reports: the Annual Performance Report (APR) and Annual Report and Financial Statements (ARFS).

www.yorkshirewater.com/reports

2. Foreword

It is essential that we secure and continually improve the resilience and sustainability of public water and wastewater services because they are so important to human health and wellbeing, the natural environment and economic prosperity. This is central to Yorkshire Water's purpose and strategy, and we've achieved substantial and tangible improvements in recent years. But we need to go much further and faster if we are to fully play our part in the National Infrastructure Strategy and responding to COVID-19, social deprivation, climate change and the continuing loss of biodiversity. To help us in this, I asked my team to update and advance our use of the six capitals.

More than five years on from first exploring the concept of the capitals and the approach is now used in many parts of Yorkshire Water. Having helped transform our land strategy and shape our new £4 billion investment programme, we are now embedding the approach to shape all our engineering and land management choices. Having introduced an innovative Sustainable Finance Framework and raised the UK's first Sterling sustainability bond, we are committed to raising more sustainable finance in the future. We have also used the capitals to strengthen our corporate governance, shaping the focus and Terms of Reference of our Board Committees, the Board's new set of Key Performance Indicators (KPIs) and our latest executive remuneration arrangements. The more we look, the more we find that the capitals help us to cut across silos and push beyond traditional approaches to prótect and grow the value Yorkshire Water delivers for its customers.

This is our second "Our Contribution" to Yorkshire" report and I hope you find it informative. Our aim in this publication is to go further than our traditional reporting with a fresh and broader view of Yorkshire Water's impact both positive and negative, and the value, risks, and dependencies we are managing. We have made substantial advances in our latest six capitals assessment, looking in more detail and over a longer timeframe, and developing our focus on asset stocks and their condition, as well as the annual flow of benefits from those assets. We have also updated our approach to align with the latest developments by the Natural Capital Committee; the Department for Environment, Food, and Rural Affairs (Defra); the Capitals Coalition; and others.

This report highlights areas of progress, priorities for further attention and opportunities for collaboration and innovation. I also want to help customers and stakeholders understand and shape our direction, and hold us to account. For our investors, this report also delivers on our commitment to provide regular reporting on the impact of our sustainable finance investments. I welcome your feedback and ideas to help shape and improve our approach.

hg Ball

Liz Barber

Chief Executive, Yorkshire Water

3. What others think about our approach

The Yorkshire Forum for Water Customers

"Yorkshire Water's improving ability to measure and report a broad picture of its impact and value is a welcome development. The introduction of an annual Contribution report will help us in our role to scrutinise and influence the Company's approach in the best interests of customers and stakeholders."

Dame Julia Unwin, Independent Non-Executive Director and Chair of Yorkshire Water's Social Value Committee

"This latest progress is further helping the Board to monitor and steer the (ompany's strategic direction to protect and grow the value that truly matters to water consumers and stakeholders across Yorkshire. The (ommittee continues to support and stretch Yorkshire Water's maturing application of the six capitals and I'm looking forward to us doing more."

Mark Gough, CEO, The Capitals Coalition

"Yorkshire Water were early leaders in adopting the multi-capitals approach and it is fantastic to see their continued commitment and advances as part of a growing global community. This latest work is a great example to others of how an organisation can tailor the capitals to practically inform and shape their operations."

Catherine Weller, Programme Manager for Business & Nature, University of Cambridge Institute for Sustainability Leadership

"Recognising the challenges associated with measuring biodiversity impacts, it is good to see the additional detail in Yorkshire Water's latest capitals report. I look forward to further collaboration with Yorkshire Water and others to explore how we might learn from this and go even further."

Petrina Rowcroft, Technical Director - Environmental Economics, Environment & Sustainability, AECOM

"We are delighted to have continued our relationship with Yorkshire Water by supporting this latest application of the capitals approach. This project has been a lengthy and, at times, challenging piece of work, but together we have again pushed boundaries and set a new bar for others to replicate and build upon."

Shaun Walden, Project Director, ESG and Sustainability, DNV GL

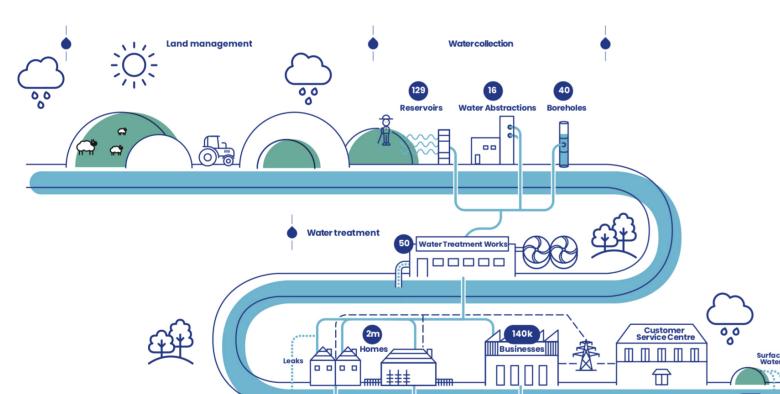
"It is great to see this comprehensive impact and valuation assessment following the launch of Yorkshire Water's holistic and innovative sustainable finance framework in 2019. The detailed and transparent nature of this suite of reports will be welcomed by the growing ESG community and I look forward to seeing the Company's further advances in this space."

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4. About **Yorkshire Water**

We provide 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, and being custodians of essential infrastructure and the natural environment.

Our operation what we do



Our purpose

why we exist

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

Our resources

what we rely on



Financial capital



Manufactured capital

Intellectual capital



Natural capital



Our behaviours

how we act

we own it

we're always learning²

we're better together

we have heart

Our objectives

our big goals

putting being great love our people first with water environment

being a great partner

keeping services affordable



Our outcomes

the result of our work

We support the Sustainable Development Goals (SDGs) that the global community has formally adopted to define and drive towards sustainable development.



















5. Our assets and our impacts 2019/20

Manufactured capital





644





£123m

Length of

mains

32,000km

Change in

asset value

£1,389m



Length of

sewers

52,000km



Pension funds

Not vet assessed

See page 22



Total debt

£5,605m













Bathing waters 19

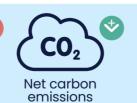




Reservoirs

129





245,000t/co.

Below we provide a visual summary of the findings of our assessment with examples of the extent and condition of the assets on which we rely and the impact we have made through our actions. The figures are for the year 2019/20 and the arrow symbol shows the average trend over the last five years (full definition on page 7). More detail, including a five year view, can be found in the findings section of this report with a chapter on each of the six capitals, and also in the accompanying Methodology Report www.yorkshirewater.com/capitals.



Apprentices





Share of

workforce female

23%



Share of workforce BAME 5%



8.8% Favourable to BAME



Open access data releases 100



Employee training 276,000hrs

Innovative

partnership projects



& Development £4_m



Remote sensor investment £13_m



Human capital

Impacts

Impacts



Recreational visits 2.6m



Households served 2.2m



Customers on PSR 66,000



Suppliers used 1.800



Social capital

incidents 1,600

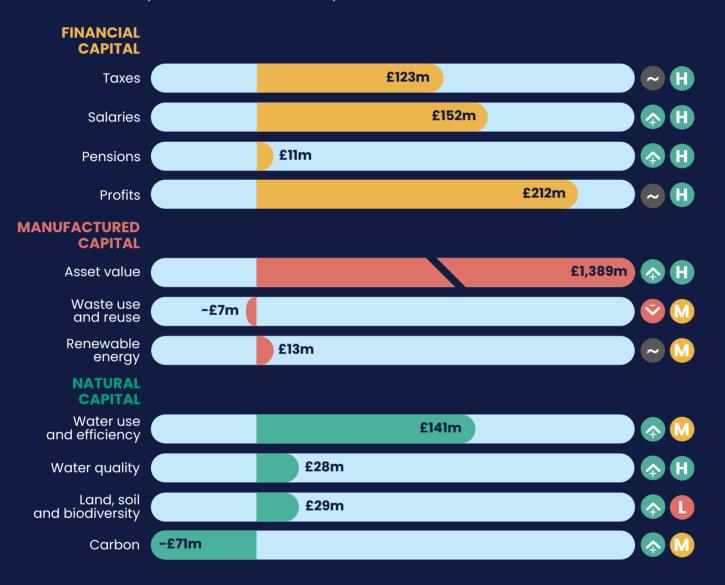


financially supported 36,000



6. The economic value of our impact 2019/20

This diagram shows our estimate of the economic value of our impact in 2019/20. Overall, we deliver a strong and growing net-positive contribution to society. This shows our estimate of our total public value and how we are living our purpose to play water's role in making Yorkshire a brilliant place to be - now and always.



Upward trend

unclear outcome

 $(\mathbf{\vee})$

Downward trend

Broadly stable trend

stable outcome

 $(\mathbf{?})$

Insufficient data to determine a trend

Upward trend

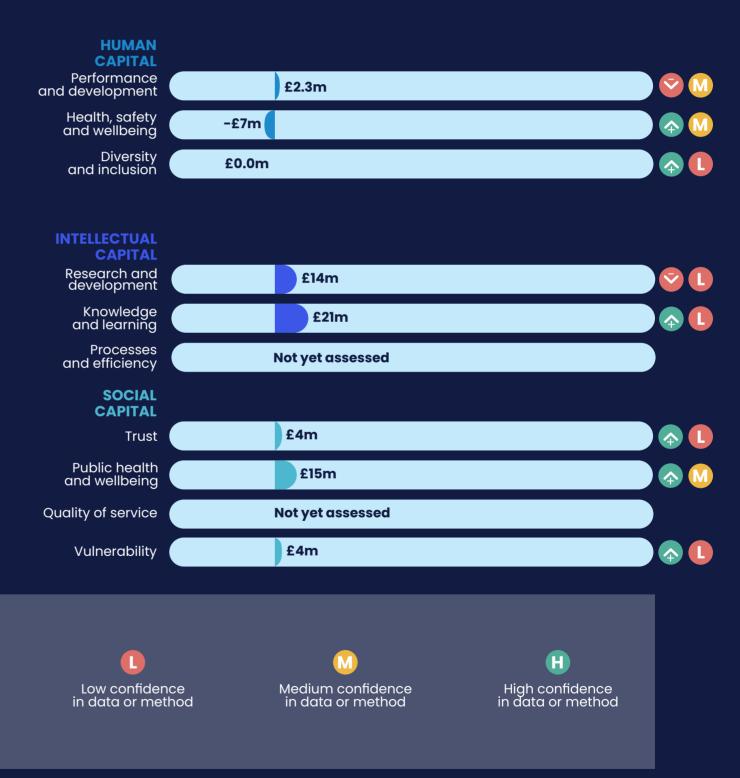
negative outcome

Downward trend

Upward trend positive outcome

Downward trend

While not everything can be reliably valued in monetary terms, we are finding this a useful aid to our decision making by allowing us to compare very different issues. To strengthen our existing processes, we are maturing and embedding our impact quantification and economic valuation to help inform our strategic and investment choices. We show levels of robustness to recognise that economic valuation is only an estimate based on the best available information and in many cases we will not yet have captured the full impact, positive or negative. Our figures show the overall net estimate for the indicators which we have been able to value. The net position can mask important details in the positive and negative impacts within each indicator. There are gaps and weaknesses that we and others are improving as part of a growing global community working to mature the application of cutting-edge environmental and social economics. We provide more detail on each of the capitals later in this report and the full methodology is provided in an accompanying report www.yorkshirewater.com/capitals.



7. The six capitals concept



What

A capitals approach is designed to help organisations become more sustainable and resilient by considering value in the broadest sense. This approach shows the range of resources that we all rely and impact on, but are often overlooked or undervalued in financial accounting and analysis.

We are using a capitals approach to better understand, and therefore better manage, the economic, environmental, and social impacts of our actions. This approach is shaping our thinking, decisions, and investments to help us focus on what really matters.

How

To understand Our Contribution to Yorkshire we completed a six capitals assessment of our impact and dependencies. We developed annual accounts for each of the capitals covering the five year period from 2015/16 to 2019/20. These included a range of indicators showing the extent and condition of our assets, as well as the negative and positive impact of our activities.

This assessment follows, extends, and updates our initial assessment for 2014/15, and continues to evolve to align with business priorities and the latest global and national best practice. You can find a breakdown of our data and process in the in the Methodology Report found at www.yorkshirewater.com/capitals.



So what?

The capitals approach is helping us to protect and grow the public value we create for customers, investors and other stakeholders. You can find practical examples of how we are doing this throughout this report, including through our new land strategy, our decision making framework, and our sustainable finance framework.

This assessment confirms that we have grown our contribution to society over the past five years, by protecting public health and the environment. However, it also identifies areas that need attention, including diversity and inclusion, leakage, water pollution, and carbon emissions. Going forwards we will focus on the areas where we need to do better to ensure the long term resilience of communities and water services.

Striving to turn the dial

Regional contribution

Tactical improvement and change

Corporate governance, strategy and decision making

Reporting and engagement

Collaboration to mature the capitals approach

Why

Knowledge

Growing understanding of our positive and negative impacts, and the things we depend on.

Engagement

Sharing this knowledge to help customers and stakeholders shape our approach and hold us to account.

Service

Applying this knowledge to become more efficient, resilient, and sustainable.

Public value

Using this knowledge to grow our contribution to society, the economy and the environment.



Find out more

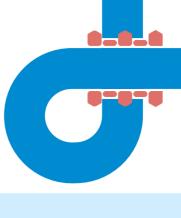
We openly publish our work on the capitals. Find detailed methodologies and case studies at www.yorkshirewater.com/capitals.

8. Developing our approach to the six capitals

We have been working with the capitals approach since 2015 and before that we were at the forefront of piloting ecosystem services assessments (the term ecosystem services is defined on page 30). The diagram opposite summarises how we have used the capitals to create a series of assessments, processes and tools that are shaping our strategy, delivery, governance, and reporting.

In 2015 we were amongst the first globally to apply the Natural Capital Protocol (https://capitalscoalition.org/capitals-approach/natural-capital-protocol/); successfully quantifying and valuing the environmental impacts at a large engineering scheme to enhance the resilience of Rivelin water treatment works in South Yorkshire. From that pilot study we saw how we could expand the natural capital approach to include more of the resources and other factors that are important to our effective decision-making. This led to the award-winning six capitals assessment that we published in the first Our Contribution to Yorkshire report and which we have further developed in this latest assessment and publication.

A notable development is our integration of the capitals into our Decision Making Framework (DMF); our cutting-edge asset management planning system and process. We used the DMF for the first time to help optimise our new business plan for the asset management period that runs from 2020 to 2025. Now, we are embedding its use throughout our day-to-day planning processes to help us shape each of our engineering and investment choices. This is helping in our efforts to fully consider innovative approaches such as behavioural programmes to reduce water demand and sewer blockages, and for nature-based solutions like catchment management to slow the flow in areas of high flood risk.



Pilot test of the Natural Capital Protocol

First total impact and value assessment, focused on 2014/15







Sustainable finance



Business planning



Land

Little Don

and Burnby

Lane

assessments



2015

2016

2017

2018

2019

2020

2021

People

New business model

Social value committee and new long term strategy

Revised Board

committees

and reporting

Sustainable finance framework and UK's first Sterling sustainability bond

Initial

allocation

report

Decision Making Framework shaped £4bn+ operations and investment plan

Esholt integrated resources master plar Human and intellectual capital account

New land strategy and tools for Yorkshire Water and sister company KeyLand

Social capital account

Second total impact and value assessment, focused on the five years to March 2020.

Climate

change risk

valuation

pilot

Continuing to embed and mature the capitals approach throughout our decision-making and reporting

Continual improvement

Developing the capitals approach is a process of continual learning and improvement. For us and the growing number of organisations who are working to use the capitals, ongoing development is working towards the rigour of traditional financial approaches and seamless integration throughout decision making and reporting processes. We have made good progress in our latest work, with significant improvement to the depth, breadth and robustness of our assessment compared to our first Our Contribution to Yorkshire assessment and report.

We have revised our approach to reflect the latest Corporate Natural Capital Accounting (CNCA) (https://www.gov.uk/government/publications/natural-capital-committee-research-corporate-natural-capital-accounting) guidance developed for the Natural Capital Committee. This provides a framework of assets, flows and values that has helped us progress from our previous focus on the flow of impacts in a year, to now also considering the stocks and health (or 'extent' and 'condition' in more technical terms) of the underlying assets which enable those impacts. This gives a more holistic picture of the sustainability of flows into the future and the sustainability of the business and our services given that this depends on many of these assets.

We have extended the CNCA approach to cover all six capitals. To our knowledge, this is the first time this has ever been done. To do this, we gathered a more comprehensive set of data than in our first Contribution assessment, including many new indicators. We addressed some weaker aspects of the previous assessment through the development of new models and metrics. Some of the indicators we included in the first version have been removed where we found them to be immaterial. We have also identified several new indicators that we have not yet been able to quantify, which will be a focus in future developments. The specifics can be seen in the Methodology Report available at www.yorkshirewater.com/capitals.

We have established an approach that we can now repeat annually and that aligns with other six capitals applications we have developed and continue to develop, such as our DMF and our land management decision making tool. While we still expect some change each year, this should now be reduced into the finer details.

We focus on our direct impact in this latest assessment because this is where we are most able to deliver change and where we have best available data. In our previous assessment we also explored our indirect impact in the supply chain and the wider impact we enable others to deliver. We will return to consider indirect and enabled impacts once we have further embedded our comprehensive and mature approach to our direct impact.

Ensuring accuracy and transparency

We have taken steps to ensure openness and clarity about the different levels of robustness in this work because we are sharing latest findings and methodologies from a new approach that uses innovative analysis techniques and which continues to develop.

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, our processes have used assumptions and estimations. In our work to date we have prioritised the impacts which we understand to be the most significant. Our figures do not yet represent the entire 'value' of nature, people or society. For example, while we might express a value to the company of our colleagues' wellbeing in terms of reduced sickness rates, 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. Published our data and methodology in a report accompanying this one available at www. yorkshirewater. com/capitals.

Used robustness ratings to show the reliability and maturity of each measure. Worked alongside an independent expert, AECOM, to review our original approach and to support and challenge us in developing this further.

Asked for independent expert assurance on our work from DNV GL. Their report on our work can be found at www. yorkshirewater. com/capitals.

9. 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, for example money, 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. This runs to the heart of the capitals concept for the need to take a broad view of value.

We consider our total impact and value in our new financial capital account by including the components of a common measure of financial contribution called Gross Value Added (GVA). This includes salaries, profits and taxes. We also add other indicators of our financial resilience including our credit rating, gearing ratio and the proportion of our debt that is classed as sustainable. We have also identified the potential to add a measure of the ethics or resilience of our pension funds in future developments of our capitals approach.

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 our essential services to current and future customers and the environment.

For society and the economy, we play an essential role as a large and permanent provider of essential services, known as an anchor organisation. Water and wastewater infrastructure underpins the economy and we have further impact through our large supply chain. We also make a significant and direct financial contribution through the salaries and taxes we pay, and the profits we generate.

What does our assessment tell us?

The headline indicators of our financial capital account remained broadly static over the period 2015/16 to 2019/20. Our gearing ratio started and ended the five year period at around 77% despite total borrowings increasing, which was due to substantial shareholder support and sensible management of our financial position. We borrowed more to continue investing in services and infrastructure, which in turn helped increase our overall Regulatory Capital Value. Our contribution through salaries grew over the five year period and our total tax contribution increased the last two years while our profits decreased.

Looking ahead, we observe growing pressure from the need to retain affordable customer bills while also investing to maintain ageing assets, and respond to population growth, new legal requirements and worsening climate change. Over recent months, the pandemic has been adding pressure on bill income and operating costs. We have escalated our long standing focus on efficiency and innovation in response to these short and long term

Transparency and legitimacy remain priorities because we are a privately owned business delivering essential public services. In response, we increased our public reporting and disclosures, and closed numerous companies in our group to simplify our financial structure. We also introduced a Sustainable Finance Framework which is described on page 24.

In the future we will explore the ethics and sustainability of Yorkshire Water's pension funds as part of our impact and value assessment. The pensions are held in separate trusts so the Company's influence is limited, but we hope an analysis would yield useful management insight we can share and discuss with the independent trustees who govern the pensions in the interests of all members.

We have embraced our role as an anchor institution in Yorkshire to further grow how we support the region. We explore examples of how we are growing our social value through the rest of this document.

Find a full break down of our six capitals financial capital account in the Methodology Report available at www.yorkshirewater.com/capitals. Also find more about our financial performance and resilience in our statutory Annual Report and Financial Statements available at www.yorkshirewater.com/reports.



Financial

Regulatory capital value £6,951m

> Gearing 77%



Investments

Total pension funds **Not yet** assessed

Share invested sustainably Not yet assessed



Debt

Total debt



Share invested sustainably 15%



Expenditure

ğ



Taxes

£123m



Salaries

£152m



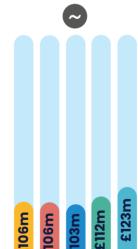
Pensions

£11m



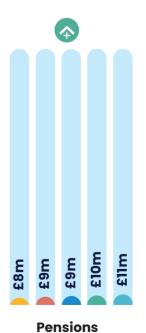
£212m





Taxes







• 2015/16 • 2016/17 • 2017/18 • 2018/19 • 2019/20

Case study

Our Sustainable Finance Framework

We fund a proportion of our expenditures through debt in order to spread the cost over time and keep water bills affordable. In January 2019 we introduced an innovative 'whole business' Sustainable Finance Framework (SFF). All debt raised through the SFF can only be allocated to activities which deliver benefits for people (eg social bonds), the environment (eg green bonds) or a blend of both (eg sustainability bonds). The framework aligns our financing arrangements with our social and environmental responsibilities and ambitions.

The framework was enabled by our six capitals approach and was one of several measures we have taken to secure responsible and resilient corporate financial management. We have also, for example, closed legacy offshore companies, complied with the Global Reporting Initiative (GRI) Core Standard, and become an early adopter of the reporting recommended by the Taskforce for Climate–Related Financial Disclosures (TCFD). Through the framework we also commit to reporting annually on the impact of our investments, which is enabled through our six capitals approach in this document and the supporting reports.

At the time of publication, we have raised £850m of finance using the SFF. This equates to just over 15% of our total debt. In April 2019 we issued our first public bond using the framework, followed by further bond issues in November 2019, including the first ever Sterling sustainability bond from a UK corporate. Going forward we aim to raise the majority of our future financing using the SFF.

Independent assurance is important to demonstrate the integrity of the framework and the associated impact reporting. The framework and subsequent public bonds were reviewed by DNV GL who are experts in this field. They agreed that our framework aligned with the global best practice Green Bond Principles, Social Bond Principles, Sustainable Bond Principles and the Green Loan Principles. DNV GL have also assured our latest six capitals impact assessment and this report, with their assurance report available at www.yorkshirewater.com/capitals.

Find the SFF on our parent company website at https://www.keldagroup.com/investors/sustainable-finance/sustainable-finance-framework/.



Opening the London Stock Exchange in 2019 as we launched our Sustainable Finance Framework

10. Manufactured capital

What is manufactured capital?

Manufactured capital includes the human-made physical objects 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. Manufactured capital also includes a wide range of goods such as tools and vehicles.

Why is manufactured capital important?

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

We are investing and innovating to reduce waste from our operations to be financially efficient, minimise environmental impacts and to support resilience. We are introducing 'circular' approaches that create new value by keeping resources in continual reuse and avoiding the creation of waste. For example, we are an increasingly large generator of renewable energy from human waste and other under used resources.

What does our assessment tell us?

With an estimated replacement value of over £53 billion, the scale of our infrastructure is enormous. The graph on the opposite page shows the annual change in the total financial value of our infrastructure, with the year-on-year growth an indicator of effective maintenance and enhancement. However, this growth is partly a result of inflation and the overall position can mask important details in different areas of our infrastructure. For example, less than 0.5% (approximately 140km) of the water network was being repaired or replaced each year of the last five years, and less than 0.1% (30km) of the sewer network.

To determine the optimal approach to maintenance and enhancement requires detailed consideration of many factors. There is a balance to be struck between financial and carbon efficiency, generally achieved by maximising the use of existing assets as far as possible, while also ensuring reliability and performance by making interventions where and when necessary. There is also an intergenerational consideration to ensure the fair and optimal balance of investment needed today and in the future. Careful planning, engineering and innovation helps to ensure the best overall outcomes for customer service, social affordability and environmental impact.

Our total energy use and waste production grew over the five year period covered in this assessment. The latter was partly a result of improved monitoring and reporting. We made improvements to divert the majority of waste from landfill and dramatically grow the amount of waste recovered to generate renewable energy. We explore this further over the page.

Find a full break down of our manufactured capital account in the Methodology Report at www.yorkshirewater.com/capitals. Also find more about the nature of our assets, investments and service performance in our Annual Performance Report at www.yorkshirewater.com/reports.

Assets

mpacts

Values



Water

Length of mains
32,000km

Share renovated 0.4%



Wastewater assets

Length of sewers
52,000km

Share renovated 0.05%



Waste assets

Waste produced
7m tonnes

Diverted from landfill
99.6%

Waste use

and reuse



Energy assets

Energy used
642GWh

Self-generated enewable electricity
15%

Renewable energy

Asset value



£1,389m



27,000tonnes



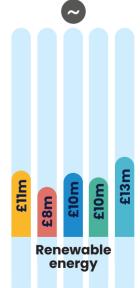
166GWh

4



Waste use and reuse

#63



• 2015/16 • 2016/17 • 2017/18 • 2018/19 • 2019/20

Creating value from under used resources

The six capitals approach is helping us to embrace circular approaches that grow value from under used resources. What was previously something to be disposed of, is now seen as an important resource. We now consistently send less than 1% of our waste to landfill and we have committed to creating at least £65m of new value from under used resources by 2025. This will be measured using our six capitals approach. We give some examples below.

Turning human waste into renewable energy

We will achieve a transformational milestone in 2021 when, for the first time, we will recover virtually all our sewage sludge for renewable energy generation and nutrient recycling. Sewage sludge is what's leftover at the end of our wastewater treatment processes. It is our largest area of what used to be thought of as waste, previously disposed of through four incinerators which we have been able to shut by instead installing anaerobic digestion (AD) facilities. The digestion process turns human waste into a renewable, low carbon source of energy that we use to power our treatment works. In 2021 we will complete our latest AD investment, at Dewsbury treatment works, to further grow our generation capacity by approximately 6% to around 94 gigawatt hours (GWh) a year.

Ongoing investment

We see benefits from further growing the amount of renewable energy we generate. This delivers financial and carbon savings while also improving operational resilience. As well as trialling cutting edge ways to increase the amount of energy we can generate from sewage sludge, we are also developing a large programme of new solar power that can be installed on our land, buildings and reservoirs.

Energy consumption

The movement and treatment of water is energy intensive, with upward pressures from population growth, climate change and ageing assets. Over the next few years, new legal environmental water quality standards will significantly increase our energy use because they force the addition of new energy and carbon intensive treatment processes. We seek support for innovative nature-based solutions that can deliver better value with benefits for the air, land and water environments as well as for customers.

Our total energy use reduced from a peak of 679 GWh in 2018/19 to 642 GWh in 2019/20, although this was still higher than in 2016/17 when we used 624 GWh. Our response to the weather causes annual variability, with periods of drought and heavy rainfall requiring extra pumping and treatment of water and wastewater. Most of our energy is used in the form of electricity with a small proportion from other fuels. We are increasing our focus on energy efficiency to support our financial efficiency and our commitment to net zero carbon

In 2019/20

consumed 600GWh of electricity

We sourced 100% from certified green energy



We generated 85GWh of our own renewable

electricity

supplied 15%

of our own



This produced £13m

of value for electricity needs Yorkshire Water



Case study

Showcasing the circular economy at **Esholt wastewater** treatment works

We have used our six capitals approach to design bold plans for the large Esholt site that offers many opportunities for reuse of resources including redundant brownfield land, waste heat and treated wastewater. Offering a great example of sustainable economic regeneration, the first phase of work is already delivering financial, social and environmental benefits, and further phases are progressing well.

- 1. Recovering brownfield land and old filter media With our partner, Thompsons of Prudhoe, we have so far (at the time of publication) processed and sold 395,000 of the 450,000 tonnes of filter media from 13 hectares of filter beds which were made redundant several years ago. The filter media provides a construction aggregate that has been used instead of virgin materials in a range of nearby projects. The five year programme to recover the filter media and beds is expected to complete in 2021 and has successfully turned a £20m disposal liability into a financially and environmentally positive approach.
- **2. Developing sustainable housing and industry** We have been engaging with the local authorities, communities and other stakeholders about our proposal to build 150 exemplar homes and Im square feet of innovative employment space that will have ultra-low water and energy use. These will be built on the brownfield land mentioned above, and also on an area of redundant storage tanks. Our sister company, Keyland Developments, is leading the work and hopes to secure planning permission in early 2021.
- 3. Further opportunities Our plans for the site extend even further, with future phases of work being developed with various potential partners. For example, an old stately home could be brought back into use and areas for nature and recreation could be enhanced through links with local charities to offer new training and development opportunities along with support for physical and mental health.



Our vision for sustainable housing at Esholt

11. Natural capital

What is natural capital?

Natural capital is the stock of environmental resources that people manage, use, and depend on. We all benefit and rely on a wide variety of 'ecosystem services' that nature provides. These services can be considered in four categories:

> Provisioning services such as water, food, and timber

Regulating services such as carbon absorption to regulate the člimate.

Supporting ervices such as soil formation and nutrient cycling.

Cultural services such as recreation tourism, and spiritual value.

Why is natural capital important?

Public water services fundamentally rely on water and other resources from nature, and also have substantial impacts upon it, both positive and negative. Our core duties involve taking water from the environment to supply customers, moving wastewater out of harm's way and treating it for safe recycling back to the environment. The transport and treatment of water and wastewater relies on large amounts of energy and chemicals produced from different forms of natural capital, and results in a large carbon footprint. Our pipes, pumps, and other equipment are all made from materials taken from the environment.

Yorkshire Water is a large landowner with an estate covering approximately 28,000 hectares. We own and manage this land with our farm tenants and other partners to protect sources of water while delivering other benefits for flood management, recreation, farming, wildlife and carbon storage. We also work closely with many other landowners and influencers as we don't own most of the land from which we source water for public supplies. Understanding how natural and human landscapes, habitats and processes interact, and how we can preserve and enhance them for future generations, is vital for the sustainability and resilience of our business.

What does our assessment tell us?

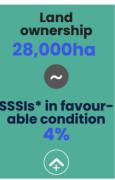
Our environmental impact was generally stable and improving over the five year period to March 2020, with annual variability. Over the last two years, many indicators in our natural capital account show we are more effectively protecting different aspects of the water environment. For example by reducing the water lost through leaks in 2019/20 we were able to reduce the amount of water we needed to abstract from the environment. We also grew the area and effectiveness of the land we are conserving and enhancing. We sharply reduced our operational carbon footprint.

Despite this improvement, we recognise that much more action is needed by us and others. We continue to grow the scale and pace of our programmes and partnerships to help restore and protect the natural environment on which we rely for our water services and many other needs. We are also championing national policy change to help us and others go further by using holistic approaches, like the six capitals, to help avoid the unintended consequences of a current legislative imbalance that drives improvements in the water environment without sufficient consideration for other environmental and social priorities.

We have advanced our natural capital account with new measures. For example, for the first time we have estimated our biodiversity 'units' and the area of our land providing benefits for water quality regulation, flood regulation and pollination. We are working to further address remaining gaps and areas of lower confidence.

We explore priority aspects of our natural capital over the following pages and the full account can be found in the Methodology Report at www.yorkshirewater.com/reports.

Assets



Water withdrawn from enviroment



Water use and

efficiency





Lifetime carbon emissions Carbon emissions oer megalitres (Ml water provided (†

Carbon emissions

Land, soil & biodiversity



Biodiversity units 644





abstracted 446,000MI Leakage 99,000MI





Environmental

water quality

Pollution River incidents improved 166 459Km



245,000 t/CO_e/yr

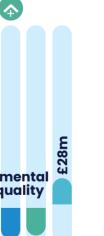


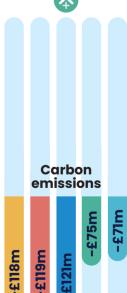








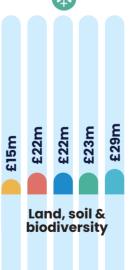




• 2015/16 • 2016/17 • 2017/18 • 2018/19 • 2019/20

Values

pacts



Water use and efficiency

Environmental water quality -£34m

Water use and efficiency

Water is essential to life and this precious resource is under increasing pressure from climate change, population growth and pollution. Careful management is needed to reliably source enough water for the needs of society without damaging nature and with minimum carbon emissions. Yorkshire Water currently takes approximately 450 billion litres of water each year from a mix of boreholes, rivers and reservoirs to provide the public water supply.

We comply with permits governed by the Environment Agency (EA) to protect habitats and wildlife, regularly reviewing limits and standards to improve environmental protections. Carefully managing water sources and dramatically improving water efficiency in our operations and across society is critical to the resilience of water services and wildlife.

By all using less water we can reliably supply the growing population in the changing climate without taking more from the environment.

To help put these huge figures in context

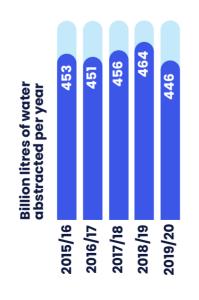
An Olympic swimming pool holds 2.5m litres.

A bath holds around 80 litres of water. The Royal Albert Hall could store over 86m litres.

Sourcing water supplies

From 2018/19 to 2019/20 there was a reduction in water abstraction of approximately 18 billion litres of water. The overall trend for water abstraction is reported as stable over the five-year period as this included an upward trend to 2018/19 that was followed by the drop in 2019/20. This drop was in part achieved by reducing water lost through leaks, as shown opposite. Levels of water abstraction also change each year in response to consumer demand which is influenced by the weather.

Our estimate of the overall economic impact of abstraction shows an increasing net positive position over the five year period, growing from £121m to £141m. This value reflects the financial income generated for Yorkshire Water and the environmental cost.



Leakage

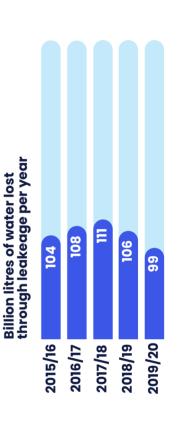
Reducing leaks from our network and customer-owned pipes plays a critical role in securing resilient water supplies for Yorkshire and supports our credibility in helping customers to use water wisely. We have escalated our focus on reducing leakage over recent years by growing our teams of leakage inspectors and trialling many innovative techniques including satellite detection technology, for example. We have installed thousands of extra sensors on the water network to help us identify, avoid and fix leaks more quickly. Our approach has helped us reduce leakage to near lowest ever recorded levels in 2019/20 and we have plans to go much further over the coming years. This is a strategic priority because over 20% of water abstracted from the environment is ultimately wasted through leakage.

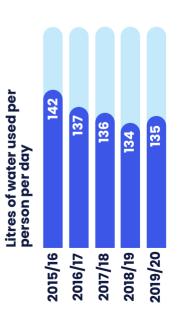
Our economic assessment estimates the impact of this level of leakage costs approximately £50m per year. This value is determined by the amount our customers said they would be willing to pay to reduce leakage.

Per Capita Consumption (PCC)

PCC is an indicator of society's overall water efficiency. It is the technical term for the average water use per person. PCC in Yorkshire is amongst the lowest in the country and continues a general trend of reduction in recent years after decades of growth, albeit with a slight increase in 2019/20 compared to the previous year.

Yorkshire Water helps customers to save water by providing a wide range of advice, services and water saving devices. In the past we used national guidelines to measure the amount of water saved from different devices. However, we are reviewing our approach after it became clear these guidelines were overestimating the savings. We will share more data on the impact of our water saving support interventions in the future once more accurate approaches are available.





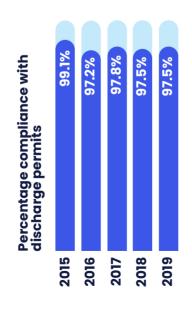
Returning water to the environment

We collect and treat around a billion litres of wastewater every day, maintaining and enhancing over 600 treatment works and a vast public sewer network to play our part in reducing the risks from flooding and pollution. Extensive investment has upgraded the region's wastewater treatment works and sewer overflows to improve the quality of Yorkshire's rivers and coasts, thereby better protecting river life and amenity value. We continue to invest and are working with customers and a wide range of organisations to go much further because many pressures continue to face Yorkshire's water environment.

Compliance with discharge permit requirements

To protect the water environment, the EA set minimum standards on what we and others can discharge. At our wastewater treatment works we consistently maintained compliance protection standards at over 97% across the five year period, with a slight reduction from 99.1% at the start of the period.

We are continually investing to maintain and further improve this performance. Permitted compliance standards are reviewed regularly to strengthen protections. For example, significant investments over the next few years will reduce levels of phosphorus from many of Yorkshire's treatment works.



Pollution incidents

Programmes of operational improvement and infrastructure investment have delivered a declining trend in the total number of pollution incidents from our activities since 2016. However, the number of the most serious incidents was higher in the last two years of the five year period. We responded to this dip in performance with a new reduction plan and extra resources. This helped deliver improvement in 2019 and latest incident numbers show further progress in 2020 with 3 serious incidents and an overall total of 130 incidents, subject to final regulatory confirmations. We have plans to further reduce incidents over the next five years and we want to consistently achieve zero serious incidents.

Our assessment suggests the economic cost of the incidents in 2020 was £31.5m.

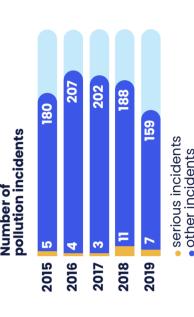
Improving Yorkshire's rivers and coasts

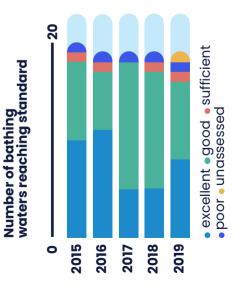
Between 2015 and 2020 we invested through a wide range of activities to improve and better protect almost 500km of river. For example, we enhanced the treatment capabilities at many wastewater works and improved numerous overflows on the sewer network. Our economic assessment suggests this activity has a positive impact worth £53m in 2020. This figure represents the recreational value of visitors to Yorkshire's rivers, as well as the broader environmental value.

Following the completion in 2015 of a £110m improvement programme, the water quality at nearly all of the region's 19 bathing waters was consistently better than the minimum legal standard over the five year period. However, the data shows annual fluctuation and some deterioration. We continue to invest and work in partnership with stakeholders to maintain and improve coastal water quality.

One bathing water was declassified by the Defra during the period because it is not used sufficiently to be considered a formal bathing water.

Looking ahead, the River Wharfe near Ilkley in Yorkshire has recently been classified as a bathing water, the first inland bathing water to be classified in the UK. We will explore this further in our future assessments.



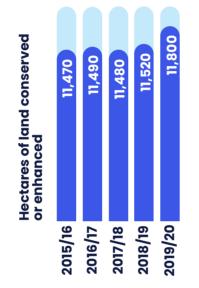


Land, soil and biodiversity

Biodiversity means the variety of life. It is critical to people's health and wellbeing and the resilience of communities and economies for the services and resources to air, climate, food, water and more. Yorkshire Water has an important role to play in protecting biodiversity in Yorkshire through the way we manage land and water systems. Having explored several aspects of our impact on biodiversity in the water environment over the previous pages, here we focus on the impact of our approach to land management. We also consider the carbon emissions associated with our estate on the next page and the value of access for recreation on page 61.

Area of land conserved and enhanced

We deliver a wide range of programmes to protect and restore our 28,000 hectare estate and other land across Yorkshire. We lead our own programmes and have a long history of working in partnership with others to increase the many benefits to water services and wider society. To go even further we recently established the Yorkshire Land Network with many other land owners and influencers. The graph opposite shows that the total area of land in our conservation programmes grew by over 300 hectares during the five year period. Having recently developed a new land strategy we have been expanding our programmes in order to ensure continued improvement.



Sites of Special Scientific Interest (SSSI)

SSSIs are formally designated for their ecological importance. Yorkshire Water owns approximately 11,300 hectares of SSSI, much of this is peat upland that is iconic in the Yorkshire landscape. Natural England monitors the health of SSSIs, assessing them on a scale from 'favourable' to 'destroyed'. Almost 96% of our SSSIs remained in the 'unfavourable recovering' category throughout the five year period. The proportion in 'favourable' status grew from 2.67% in 2015/16 to 4.01% in 2019/20. The 0.35% in 'unfavourable declining' status at the start of the period was reduced to just 0.03% in 2019/20. Natural England have recently been reviewing and strengthening how they assess and classify the health of SSSIs, which we will explore in our next impact and value assessment. It is a priority of our new land strategy to deliver substantial further improvement as this supports water quality, carbon storage and many other benefits.

Measuring biodiversity

The varied and complex makeup of biodiversity makes it hard to measure. To address a known gap in our previous six capitals assessment we have used a new national measure to estimate the overall biodiversity value of our estate. Using the Biodiversity Metric 2.0 and best available land data, we estimate the biodiversity value of our estate grew each year of the five year period, from 352,034 biodiversity units in 2015/16 to 354,610 units in 2019/20. We estimate the economic value of that growth was worth approximately £7m each year.

Biodiversity Metric 2.0 has been developed by Defra with input from a variety of organisations to account for gains and losses resulting from development or changes to land management. This is a new and evolving approach that we will support and apply to help monitor the biodiversity impact of our land strategy. We are also improving the quality of land-related data to help inform our reporting and management choices. We have introduced measures of the benefits of several land-based ecosystem services, including the regulation of flood risk and support for pollinators. Going forward we will further develop these metrics and data to help better monitor and manage these impacts.

Sustainable farmina

We work on our estate and across Yorkshire with farmers and environmental organisations to help move to more sustainable ways of managing land that produces healthy food while also protecting water and wildlife, storing carbon and enabling recreation.

Beyond nature

In 2015 we started an innovative programme to develop a new and collaborative approach to farming that protects and grows the many benefits delivered for a farm business, for Yorkshire Water and for society. We have matured and grown the programme to nine Beyond Nature farms covering nearly 5,000 hectares of our estate, and we continue to expand the approach with more of our tenant farmers.

Starting at Humberstone Bank Farm, the programme has better protected peatland SSSIs, created new wetland and woodland, and new collaborative space for local communities. The programme has been so successful it won the Land and Rural category of the Royal Institute for Chartered Surveyor's (RICS) 2020 Social Impact Awards.

Sustainable Landscapes

While the above programme is currently focused on our estate, we also work with other land owners. We are collaborating with Birds Eye, Future Food Solutions, and Hull and Teesside universities on the Sustainable Landscapes Humber Project. This initiative is helping farmers to grow cover crops in the period between harvesting and sowing to improve soil health and carbon storage. Trials have shown the plants can increase soil organic matter by up to 40 tonnes per hectare, which can store over four tonnes of atmospheric carbon per year. As soil organic matter has fallen by 50% over the past 60 years, using cover crops to restore these levels can improve soil health to improve the resilience of the farm and the environment.



The catchment around Baitings reservoir

Carbon emissions

The UK water sector is playing a leading role in reducing carbon emissions because affordable and resilient water supplies and flood management services fundamentally rely on a stable climate. Delivering our services is traditionally carbon intensive because of the energy required to move and treat water, and the concrete and other resources needed to maintain and improve our pipes, pumps and treatment works. However, we and other water companies have dramatically reduced emissions and have bold commitments to go much further.

We use the term 'carbon' as shorthand for all greenhouse gasses, measured as carbon dioxide equivalent (CO₂e). 1,000 tonnes of carbon is known as a kilotonne (kt) and is about the same as driving about 3.6 million miles in an average car. That's the same distance as going to the moon and back seven times!

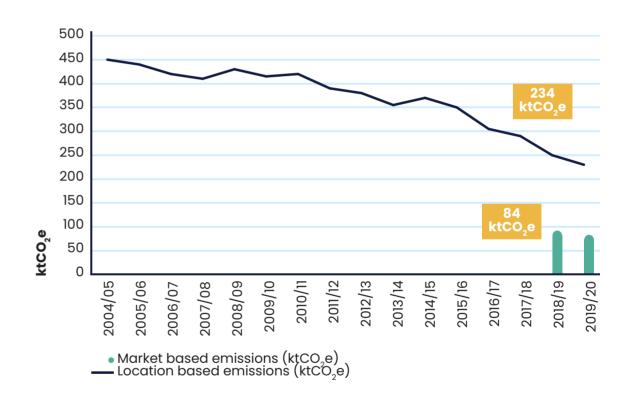
Our operational footprint

We have reduced the carbon footprint of our day-to-day operations by around 80%. We describe on page 28 how we have transformed the way we source energy to reduce the largest source of our emissions. We have invested in new technologies that help us generate around 15% of our own energy needs by digesting sewage sludge. We buy the rest from only certified green energy providers. We estimate the carbon avoided through our energy improvements was worth approximately £40m to society in 2019/20.

The graph shows how we monitor our operational emissions using two good practice approaches. The market-based approach recognises our overall position including the reduced emissions we enable by buying only green energy. We have started measuring and reporting the market-based approach to carbon accounting for the last two years, having introduced a green energy purchasing approach. The location-based approach uses the average emissions of national electricity supplies, recognising the value of reducing energy use regardless of how it is generated.

In 2019 we committed to achieving net zero operational emissions by 2030. To achieve this, we have escalated our focus on all our sources of operational emissions, including:

- Exploring how we can reduce our energy use and further grow our renewables, including the installation of solar panels across many of our sites.
- Switching our fleet to low carbon options, including electric cars and vans. We are
 also the first water company to install hydrogen power in a water tanker to test feasibility
 for heavier vehicles where more power is needed.
- · Trialling alternative approaches where we use gas oil and other fossil fuels.
- Researching how to better measure and reduce the emissions from our biological treatment processes which are currently less well understood.
- Embedding carbon throughout our decision making processes and reporting.



Storing carbon in our land

Expert consultants recently helped us to create a cutting-edge accounting and modelling tool to help us monitor the carbon emissions across our estate. We estimate a baseline stock of more than 13,000 kilotonnes of carbon in our estate today. We also used the tool to estimate that latest changes to our estate enabled a net increase in carbon storage of 9.7 kilotonnes in 2019/20, with a social value of about £2.8m in the year.

We will use this new insight to shape our land management choices so we can grow the amount of carbon we store. With the help of volunteers and environmental partners we have now planted nearly 250,000 of the million trees we pledged to introduce by 2028. We also continue our long standing programmes to support protection and restoration of Yorkshire's peatland. Activities like these are not only good for carbon but also achieve wider benefits for water quality, wildlife and flood risk.

Case study

Capital carbon

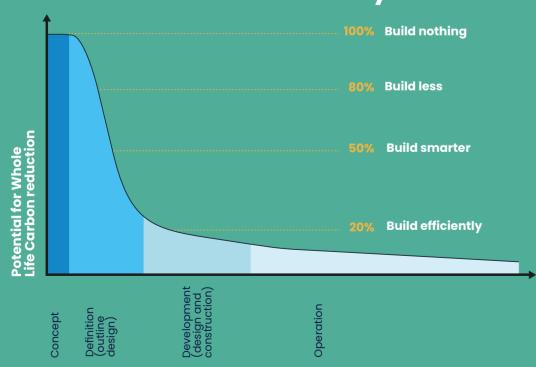
Investing to maintain and enhance Yorkshire's water infrastructure results in a carbon footprint from the materials used, especially concrete and metals. We call this capital carbon. To help monitor and reduce the impact of our investment choices we have integrated carbon into our main asset management planning system and governance process. We continue to mature and fully embed a culture of carbon decision-making and have recently completed independent assurance that our approach follows the best practice Publicly Available Specification (PAS) 2080.

Our approach to capital carbon is helping us go further than the traditional focus on only operational emissions, but capital carbon is more complicated to record and reduce because it is less in our direct control. Much of the activity is carried out in our supply chain by a wide range of organisations and strict legal requirements have a strong influence on the scale and pace of our infrastructure improvements. Capital solutions can also reduce or increase long term operational emissions by locking in energy or chemical intensive approaches.

We observe a bias in legislative requirements that has delivered significant improvements in the water environment at the expense of the atmospheric. We seek to lead by example and work collaboratively and innovatively with the government, regulators and suppliers to achieve the optimal balance between social affordability of water services, protection for the water environment and carbon reduction. For example, we have been required in our new investment programme to reduce levels of phosphorus found in treated sewage effluent. The strict standards and compliance deadlines will make it hard to avoid traditional approaches which are concrete, energy and chemical intensive, and financially expensive. With collaboration and innovation we think there are alternative approaches that would deliver much greater value on all fronts.

We estimate that taking a 'business as usual' approach to our new five year programme will create approximately 745 kt of capital carbon. However, we have set ourselves a target to reduce this by at least 23% by being innovative. The PAS2080 carbon reduction hierarchy is helping guide our approach.

Carbon reduction hierarchy



An example approach to secure water quality in the town of Hessel

Build Smarter

Nearly 17km of water mains in the town of Hessle needed attention following concerns about discoloured water supplies. A traditional approach would be to replace the mains, however we were instead able to extend the life of the existing pipes by using a spray lining technique which avoided the need to dig trenches along the route of the mains. This reduced the capital carbon from 674 tonnes to 206 tonnes.

Build Less

We were able to go even further by taking a total expenditure (totex) approach that blended capital and operational interventions. By only lining the biggest mains and introducing a pipe flushing routine in the area we were able to protect water quality for customers and further reduce the capital carbon from 206 tonnes to 36 tonnes. This combination of options achieved a total saving of 638 tCO₂e from the traditional solution.



An indication of the scale of our infrastructure - installing huge new pumps at Bransholme Pumping Station in Hull

12. 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 encompasses their workforce's health, productivity, and experience. Human capital is not 'owned' by an organisation, but essentially 'leased' in exchange for salaries and other employment benefits. Human Capital is closely related to Intellectual Capital, which we examine in the next section.

While it can be useful to monetise the value of human capital to help inform decision making and the business case for investment, 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 grow people.

Why is human capital important?

Our people are the heart of Yorkshire Water: without them we would not be able to function. Ensuring that we have a safe, healthy, and skilled workforce is essential for us to continue providing our services. Additionally, as a large employer in Yorkshire, our approach to human capital has a role to play in social cohesion and we are committed to increasing our diversity to more closely reflect the society we serve.

Assessing our human capital helps us to understand and manage risks and opportunities presented by factors such as an ageing workforce, sickness rates, and diversity and inclusion programmes. We have of course been considering and managing these matters for many years. However, through our work in this area we have now been able to value issues and interventions to aid our decision making. This has helped shape our new corporate ambition 'to put people at the heart of everything we do'.

What does our assessment tell us?

The value of our human capital increased over the five year period to April 2020. The overall size of Yorkshire Water's workforce grew from 2,451 to 3,480 colleagues through a mix of external recruitment, insourcing of contracted services and restructuring within the Kelda Group of companies of which Yorkshire Water is the largest part. This growth created high quality roles for job seekers, and training and promotion opportunities for colleagues, as well as fresh energy and perspectives for business performance. For example, there was expansion of our leakage team and an annual intake of apprentices. There were also significant levels of staff turnover which has benefits to a point but can cause a net cost to the business from lost skills, experience, and recruitment needs. This is one the biggest factors in the economic value of the Performance and Development theme in the graph opposite, along with costs of wage inflation/deflation.

Our performance management remained strong, for example with high levels of colleague engagement and all colleagues receiving at least the Living Wage. A company-wide and long-term escalation of focus on health, safety and wellbeing was introduced at the start of the five year period following a tragic fatality. Relative to the size of the workforce, rates of both injuries and sickness absence showed overall improvement until a dip in 2019/20. New plans and targets have been agreed to drive further progress in supporting physical and mental health, and reducing the risk of accidents.

The workforce became more diverse over the five year period with a higher proportion of colleagues now coming from a Black, Asian and Minority Ethnic (BAME) background, and including growth in senior roles. However, we know there is more to do as our workforce, including our Board, remains under-represented for both women and ethnic minorities.

We explore priority aspects of our human capital over the following pages and the full account can be found in the Methodology Report at www.yorkshirewater.com/capitals. Also find more detail in our Diversity Report at https://www.yorkshirewater.com/careers/working-for-yorkshire-water/diversity-inclusion/ and discussed on page 48.

Assets



Employees 3,480



erformance and development



Health, safety and wellbeing



Share of workforce female 23%

Share of senior managers female 35%

Share of workforce BAME 5%

Share of senior managers BAME 9%

Diversity and inclusion

Apprentices

27



74



gap
0.5%
Favourable to female colleagues



8.8%
Favourable to BAME colleagues

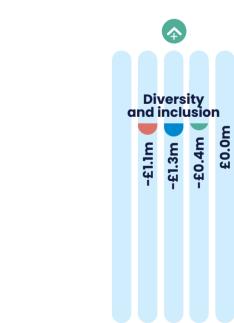
qap



Values

Impacts





• 2015/16 • 2016/17 • 2017/18 • 2018/19 • 2019/20

42

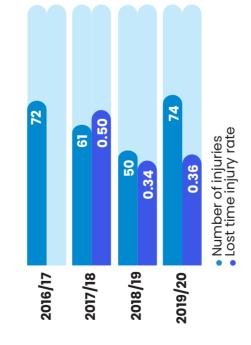
Occupational health, safety and wellbeing

Our first priority is always people's safety and wellbeing. The spread and complexity of our operations presents a range of challenges, including both high-hazard activities that present a risk to a life, and other activities that can contribute to chronic illnesses and mental health problems if poorly managed. We take a highly proactive approach to reducing risk through a comprehensive occupational health and safety improvement plan. Our approach is underpinned by ten Life Saving Rules and a continually evolving programme of colleague engagement to keep safety front of mind for everyone.

Injuries

The overall number of injuries resulting in time off work increased sharply in 2019/20 having shown strong reductions following a fundamental review and escalation of our approach in 2015. We started measuring a Lost Time Injury Rate per 10,000 working hours in 2017/18 to enable annual and external comparison. The rate reduced in 2018/19 followed by a small increase in 2019/20. It is a priority to further improve this performance and we have recently reviewed and refreshed our plan and targets.

We estimate the cost of injuries was £0.7m in 2019/20. This figure is calculated based on an estimate of the human and financial cost of each injury. This includes the productivity costs incurred by Yorkshire Water as a result of injuries to our staff, the loss of wellbeing to the individuals who are injured, and the wider societal costs such as those incurred by the NHS in dealing with any injuries. For further information see: https://www.hse.gov.uk/economics/eauappraisal.htm.



Sickness absence

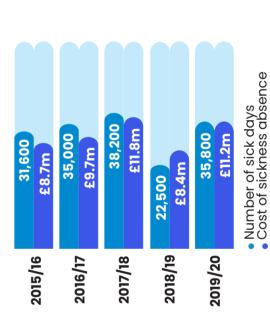
The total number of recorded sick days shows annual fluctuation and the overall rate of sickness absence is relatively low. We suspect our current reporting fails to capture an accurate picture and we have recently introduced new systems to help us improve this. In the next assessment we can explore the impact of Covid-19 on sickness absence.

The annual cost of sickness absence grew over the period, and was estimated to be £11.2m in 2019/20. This figure is calculated based on an estimate of the human and financial cost of each incident. This includes the productivity costs incurred by Yorkshire Water as a result of staff absences, the loss of wellbeing to the individuals who are sick, and the wider societal costs such as those incurred by the NHS in dealing with any illnesses.

Health and wellbeing programmes

Beyond our ongoing focus on safety, we have also been growing our investment in colleague health and wellbeing. We have introduced a range of measures for both muscular-skeletal conditions and mental health which our data shows are common issues in our workforce, and some of our largest causes of sickness absence. For example, we have been training colleagues in mental health first aid for several years with positive and powerful feedback from attendees.

We have therefore mandated this course for all our managers. The value generated through our health and wellbeing programmes increased over the period and shows a strong return on investment of more than 2 to 1.





Diversity and inclusion

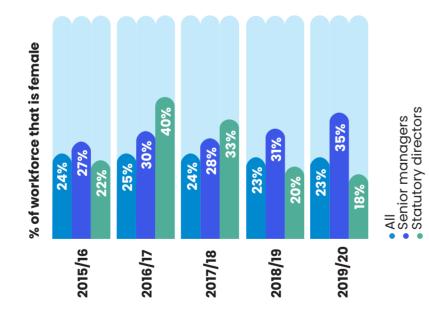
We're committed to providing a diverse and inclusive working environment which reflects our diverse customer base. We believe that an innovative and effective equality and diversity strategy is essential to strong business performance and we recognise the impact of our approach as a large employer in Yorkshire.

Over the page we describe our Diversity Report, and provide a link to it. Below, we explore some key headlines and the related findings of our latest impact and valuation assessment.

Gender

Overall, most of our workforce is male with a historical dominance of long-serving roles in engineering and technical operations. The average masks variability across different teams, with a higher proportion of women in our back-office functions and contact centre. We are keen to improve the gender balance of our core operational teams.

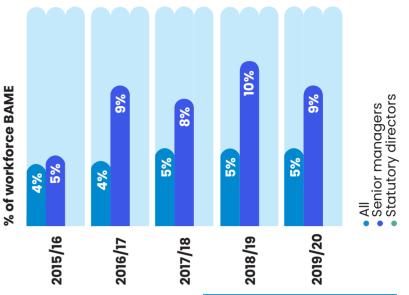
The mean and median gender pay gap has steadily reduced since 2017. This improvement can largely be attributed to a steady change in the profile of our workforce with a growing number of women in higher paid, more senior positions. While the number of women in senior roles has increased, the proportion of women on our Board has approximately halved over recent years and this is something we have targets to increase. We estimate the mean gender pay gap was closed in 2019/20.



In 2019/20 our mean gender pay gap turned favourable to women, improving to -0.5% from 1.5% the previous year.

Ethnicity

Based on data from those colleagues who have disclosed their ethnicity, the proportion of Black, Asian and Minority Ethnic (BAME) colleagues has grown in our workforce and senior leadership over the five year period to 2020, albeit with annual variability. None on our Board disclose their ethnicity as BAME.



Overall, we see lower BAME representation in our workforce than the regional average and in those cities where we have our main offices. According to the 2011 census, 11.2% of the Yorkshire region in BAME. However, there is a wide variability at a more local level, with 32.5% of the Bradford population being BAME, 16.3% in Sheffield, 15.0% in Leeds, and 5.9% in Hull. We voluntarily report the ethnicity pay gap in our workforce. This has reduced since we first estimated it in 2018, with the mean now -8.8% and the median gap is 2.1%.

In 2019/20 our mean ethnicity pay gap grew more favourable to minorities, increasing to -8.8% from -3.3% the previous year.

Data quality

Showing an accurate picture depends on having high quality comprehensive data. Our gender data is mature, but our ethnicity data has some gaps in declarations, although is stronger than many organisations. We have poor data on many other aspects of diversity and inclusion, such as religion and belief, sexual orientation and gender reassignment. For example, our disability declaration numbers are lower than national estimates while our occupational health data suggests we have a much higher instance of disability in our workforce.

We have recently implemented a new system to help improve the data over time, but we still need to make it easier for colleagues to declare diversity. Especially as the data we do have shows we need to make significant improvements if we are to achieve a truly diverse and inclusive workforce.

Improvement action

In addition to a focus on improving our data and reporting, we have also:

- Offered internships and work experience in partnership with organisations who support those with varying needs, such as The Lighthouse Trust who help young people with autism.
- Run leadership programmes for female and BAME colleagues, receiving positive feedback. Having recently launched the fifth cohort of the women's leadership programme, 60% of participants have progressed their career through a promotion or sideways move.
- Identified ways to make our recruitment processes more inclusive, including the need to improve how we engage local communities.
- · Committed to the Social Mobility Pledge, along with all the English water companies.
- Worked with a Diversity & Inclusion Steering Group of colleagues from across the organisation to help us engage colleagues, celebrate diversity and shape relevant policies.

Case study Diversity report

In December 2020 we published a second Diversity Report on the nature of our workforce and how it compares to the communities we serve. This goes beyond legal requirements for gender reporting to also share our ethnicity pay gap and data on the gender, age, disability and ethnic profile of our colleagues, where they have declared it to us.

In publishing this report we want to let the data speak for itself while also engaging openly with our colleagues, the communities from whom our workforce is derived, and with other stakeholders. We have been talking with other large employers in Yorkshire, such as the NHS, education bodies and local authorities, to align our efforts to improve the diversity of our workforce and ensure we are working collaboratively. For example, we are part of a group of employers in Leeds that have committed to publishing diversity data in a common format. In the future, it should be possible to show a city-wide position of the employment profile of the city's largest employers, supporting collective improvements.



We currently have a set of diversity objectives which are set out in the report. Part of the purpose of openly sharing our diversity report is to help us ensure that these objectives are the right ones and that they meet the expectations of colleagues and stakeholders. Once we've completed that dialogue we'll commit to a new set of objectives and then publish our progress against them on an annual basis. In the short term, our priority continues to be improving our data so that next year's report shows an even more comprehensive picture.

Find our gender and diversity reports at: www.yorkshirewater.com/careers/working-for-yorkshire-water/diversity-inclusion/.

13. Intellectual capital

What is intellectual capital?

Intellectual capital is knowledge and information: our people's skills and know-how, the data and information we manage and generate as an organisation, and the technologies and innovations that we use and share with society. Intellectual capital is closely related to human capital, since knowledge, skills, and experience are often characteristics of, or 'owned' by, individual people. However, it goes beyond our employees, and includes the intellectual capital we share outside of the organisation through information disclosures, partnership working, investments in research and development (R&D), and education

Why is intellectual capital important?

We maintain, advance, and deploy our knowledge through our people, systems, and processes in order to deliver efficient and reliable water and wastewater services. Furthermore, we are continually improving our ways of working and finding quicker, cheaper, or better approaches to save money and keep bills low for customers while delivering and improving the service we offer.

What does our assessment tell us?

Our assessment shows positive performance on the aspects of our intellectual capital we are currently able to measure. We have substantially increased the volume of information we are sharing publicly. We have also grown our involvement in partnerships and our role in public education on the value of water and the environment. We have invested significantly in technology and innovation, for example by installing large numbers of remote sensors in both the water and wastewater networks to help us better manage leaks and blockages. We have also grown the amount of training and development we have delivered for our colleagues.

In our latest assessment we reviewed and expanded our intellectual capital account with a range of new measures, such as a focus on our deployment of latest 'smart' technologies, for example. We want to go even further because we recognise there are still gaps in this account, for example we want to develop measures to help us better understand the efficiency and maturity of our processes, and the value and impact of our investment in innovative technologies. We are monitoring external developments as the understanding and measurement of intellectual capital continues to develop internationally.

We explore several aspects of our intellectual capital over the following pages and the full account can be found in the Methodology Report at www.yorkshirewater.com/capitals.

Partnerships

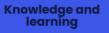
Assets

Impacts

Values



Condition not vet assessed







training 276,000hr











Ideas and

innovation



Research and development



Data and technology

Smart network sensors



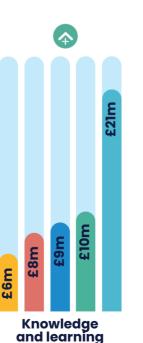
Condition not yet assessed

Processes and efficiency



investment £13m





Research and



• 2015/16 • 2016/17 • 2017/18 • 2018/19 • 2019/20

development

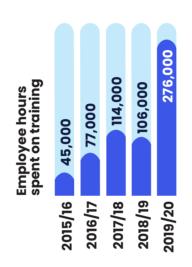
Education, training and development

A range of ongoing and evolving programmes help maintain and promote the knowledge, skills and behavioural change that support the safety, efficiency, quality and resilience of our operations and essential services. This includes technical and leadership training, development for our colleagues and also engagement activities with customers to raise awareness of the importance of the water environment and how we can all protect it.

Colleague training and development

The total number of hours our employees spent in training increased considerably as we spent more time and resources supporting and training our workforce. The figures are likely to be an under-estimate as they include only training logged in our learning management system, and are therefore missing more informal and 'on the job' training and development.

We estimate the value of this training to the Company, our people and society has also grown over the period, reaching £20.9m in 2019/20.

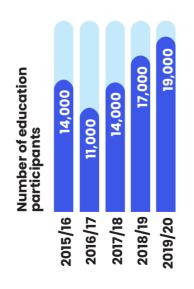


Public education

We have grown the numbers of people we are engaging with about the water environment and how to better protect it. This data includes the direct engagement activities we undertake at our education centres, in schools, and with community groups. Feedback from parents, teachers and pupils is nearly always very positive.

Further education value is achieved through communication campaigns to save water and use sewers appropriately. We will look to add this into our future assessments to provide a complete picture. To better demonstrate quality and depth we have started to measure the hours of engagement received.

Our assessment suggests the value of our education activities grew to £0.5m in 2019/20. This presents a strong payback for the investment we make to deliver these activities, with approximately a 3 to 1 return. We have plans to grow our activities further in the period to 2025 as we know consumer engagement is an important part of securing the long-term affordability and resilience of water and wastewater services.



Case study

Delivering water education through Covid-19

Traditionally our public education programmes have been delivered at our specialist centres, and in schools and community groups. Visitors learn about the value of water through a range of activities including site tours, interactive journeys through the water treatment process, and guided experiments and games. Visitors also learn about the process to supply and recycle water, and ways they can play their role in using water and sewers wisely. Whilst our visitors range from 7 years old to 70 plus, we focus our programmes on primary school children by offering free visits that support the national curriculum at KeyStage 2.

Our normal face to face approaches were greatly restricted through the pandemic so our education advisors had to rethink how we could achieve the same learning outcomes in a different way. We embraced latest technologies and launched a range of online education resources, including lessons covering a suite of water-related topics for primary students, and virtual career talks for secondary schools and colleges. When circumstances allowed, we delivered new family focused environmental workshops outdoors at our Tophill Low Nature Reserve, with great feedback received from those who took part.



Teaching about the water environment at Tophill Low Nature Reserve

Our series of online lessons, which are delivered via YouTube, have been designed for teachers whose pupils are at home or in school. The lessons include pre-recorded videos filmed at our operational and catchment sites across Yorkshire, along with teacher guidance, student worksheets and extension activities. We also offer the direct support of our education advisers to those schools registering to deliver the classes to their students. Our team can provide advice and further information on the lesson topics and detailed information about Yorkshire Water. They can also take part in live or recorded student question and answer sessions.

These new resources have been supplemented by a series of social media education 'shorts' that have had views totalling over 23,400 hours and which have consistently over performed the benchmark engagement rates. Our education team have also been able to participate in water themed virtual events, both regionally and nationally.

We are keen to welcome back visitors to our education centres so they can see the scale and complexity of the treatment processes for themselves, when and where we can operate safely. In addition, our new digital learning tools add to our suite of education resources to help us reach new and more diverse audiences by giving more options for teachers and other users.

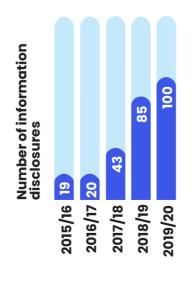
Innovation, data and technology

It is an ongoing task to make the most of rapidly evolving technology and other forms of innovation, and also to lead and support new areas of innovation. Like all aspects of intellectual capital, this is a critical part of securing high quality and affordable services for the long term. Below we examine a few priority measures of our impact and value in this area.

Openly sharing information

Following our commitment to be 'open by default' we have voluntarily published an increasing number of information disclosures through our partnership with Data Mill North. For example, we shared millions of lines of data on leaks from our network.

We see value in encouraging wider scrutiny to help hold us to account and to enable fresh innovation. We have not yet been able to estimate this value in economic terms, but this is an area we hope can be improved in future assessments.



Research and development (R&D)

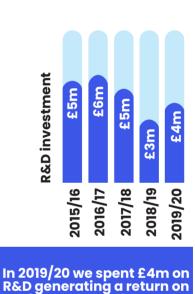
The levels of investment in R&D reduced over the five year period but started to increase again in 2019/20. It is important to note that this focuses on the main area of our investment, led through our innovation team, and may not capture other R&D activities led in other parts of the business.

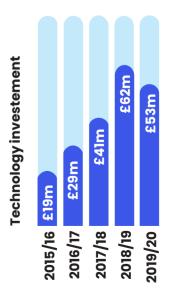
In our assessment of the impact we estimate the benefit of this investment, which shows a strong rate of return. Based on our internal calculations, we estimate that every £1 we invest in R&D produces a further £4.60 in value to our business and customers through improvements in our service delivery and through efficiencies and cost savings – allowing us to provide a better service more efficiently.

Applying latest technology

We have substantially increased our investment in latest technologies to help support the efficiency and quality of our operations. For, example we installed over 40,000 sensors on the water and wastewater networks in 2018/19 and 2019/20. This greatly improves our ability to monitor and manage the networks in our efforts to reduce leaks, supply interruptions and pollution incidents.

These figures show our main investment in maintaining and enhancing our software and hardware. We have not yet been able to estimate the six capitals value and impact of this investment, but this is something we will focus on in the future.





investment of £14m

Building a smarter network

In Sheffield we have been working on an ambitious pilot study involving 15 companies working together to develop the largest and most extensive smart water network pilot in the UK. Cutting-edge water meters, sensors, advanced analytics and telecommunications channels are being deployed to enable near real time data from across the water network, If the pilot is successful, this will help to revolutionise the way we can manage leaks and interruptions to supply and therefore reduce the amount of water we need to take from the environment.

The project will utilise state-of-the-art technologies including the NB-IoT (Narrow Band Internet of Things) network, which was brought to the area after BT switched on its first upgraded masts in the UK as part of the project. BT's NB-IoT solution has the potential to deliver significant improvements in data quality and battery life, enabling Yorkshire Water to identify and prevent leaks and network incidents more accurately than ever before. The NB-IoT could also support local economic growth with opportunities for local businesses to take advantage of the advancement in IoT technology.

Yorkshire Water and partners have recently deployed almost 4,00 acoustic, flow, pressure and water quality monitors for this project. The smart water network pilot will integrate the rich data from multiple new and existing sources and present it in a single visualisation platform. This will provide a virtual model of the physical assets across the network, referred to as a digital twin. Using machine learning and artificial intelligence, clustering data sets and removing false positives, this will inform asset and operational decision making. We hope this will allow our analysts to prioritise repairs instantly, enabling leaks to be repaired quicker and reducing water lost.

The 12-month pilot and the outputs will be used as part of the wider Yorkshire Water's digital strategy to determine future dynamic control and system optimisation capabilities.



A colleague installs a new logger

14. 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 its customers and suppliers. It also relates to the impacts that an organisation can have on people and society; for example, by providing a valuable service, or through contributions to charities and the local community.

Why is social capital important?

As a private company providing a public service, our social capital is essential - our 'social license' to operate is every bit as important as our legal one. Maintaining strong levels of trust and integrity is a priority for us at a time when surveys show that public confidence in large organisations is low. We achieve this by doing the right thing for our customers and other stakeholders, by looking after those in vulnerable circumstances, and by consistently delivering our high quality, highly reliable services.

We also pay close attention to our wider impacts on the region and the world, such as through our volunteering programme and our charitable work with WaterAid which works for a world where everyone has safe water and sanitation.

What does our assessment tell us?

According to our latest assessment and the measures we have been able to include, our social capital has grown substantially over the five years from 2015 to 2020.

Our ability to support public health and wellbeing has been advanced through improvements in water services that protect public health, through investment in high quality access to our land for recreation, and through our focus on enhanced support for those in vulnerable circumstances. The large increase in the 2019/20 value for public health and wellbeing shown in the graph opposite is primarily because we have been able to add a value estimate for the health benefits of exercise from recreation on our land (£7.9m).

The quality of our service has improved over the period although we are still developing metrics to measure these impacts. A notable challenge is the need to work collaboratively and innovatively to reduce the risk of flooding with growing pressures from urban development and climate change.

Measures show we are protecting and growing trust in the business. Having maintained and further improved many areas of customer service we have retained high and broadly stable levels of customer satisfaction and value for money perceptions. In our supply chain we have taken steps to help smaller suppliers through the economic challenges during the pandemic and we have improved the proportion of invoices paid on time, but we need to do even better on this in the future. The sharp increase in 2019/20 trust values, as seen in the graph opposite, is caused by our growth in early payments to suppliers.

Social capital is hard to measure and we continue to monitor external developments as the understanding matures internationally. In this latest assessment we have updated and expanded the indicators of our social capital, although we recognise that further work is needed in this area. For example, in the future we want to develop measures of the role we play in contributing to a good quality of place in Yorkshire.

Over the following pages we review several priorities within our social capital and the full account can be found in the Methodology Report at www.yorkshirewater.com/capitals.

Assets

pacts



visitors

Recreational visits 2.6m ?

Share of site visitors who are BAME



Public health

and wellbeing



Household customers

Households served 2.2m

92%



~

Satisfaction

~



Vulnerable customers

Awareness of PSR

Quality of service



Customers on PSR 66,000

~





Trust

Early payments

to suppliers

76,000

Suppliers

Suppliers used

1,800



Recreational health benefits 315QALYs









Internal flooding incidents 1,600





















•2015/16 •2016/17 •2017/18 •2018/19 •2019/20

PSR = Priority Services Register

BAME = Black, Asian and Minority Ethnic **QALY** = Quality Adjusted Life Years

Supporting public health and wellbeing

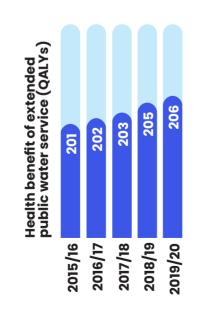
Water and wastewater services are an essential health service and underpin civil society. The health and sanitation benefits of our services dwarf everything else in our impact assessment. We do not seek to quantify it here because this is ultimately our core duty that someone has to deliver whether or not it is Yorkshire Water in its current form, and which uses over a hundred years of investment in public infrastructure. We think it is more useful to focus on where we can add additional health benefits through choices in how we deliver our services, for example by providing open spaces for recreational exercise and through the many ways we support customers in vulnerable circumstances. Also note the section on occupational health and safety in the chapter on Human Capital.

Quality Adjusted Life Years (QALYs) is a commonly used economic measure showing the change to the quality and quantity of people's health.

Protecting health through our core services

By extending water supplies to more customers over the last five years we have further improved the underlying public health benefit we provide to Yorkshire. We estimate this improvement is worth just over £5m each year.

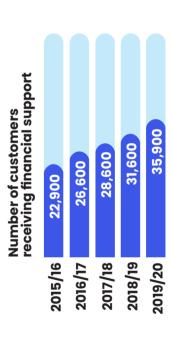
We have introduced this new measure to explore the health benefit of avoiding water borne illnesses by extending our public water service to the growing population rather than choosing a private supply. We used a national average rather than Yorkshire-specific figure in this estimation because of data availability. While this is broadly comparable we can look to improve the accuracy with local data in the future.



Supporting the vulnerable

We have grown the quality and quantity of financial and other support measures we provide. It is our ongoing priority to help those struggling to pay their water bill, both to proactively help customers stay out of debt in the first place, and to manage the debt when it starts. This has become even more important with the economic impacts of the pandemic.

We have substantially increased the number of people we help with direct financial support and we are working to increase this further over coming years. We have estimated the value of the mental health benefits of reduced stress achieved through our ability to help. This has grown to over £4m a year in 2019/20. This is an improvement on our approach in our first impact assessment when we looked at the cost of our financial support, rather than the value created.



Recreational exercise

We have long been a champion of open access to our recreational sites because customers tell us they value these opportunities. Surveys show visitor satisfaction was consistently around 98% over the five year period. While the diffuse nature of our sites and visitors makes recreational activities hard to measure, we have estimated our impact for this assessment This suggests there were over 2.5m visits to our sites to undertake exercise in 2019/20, generating approximately 315 QALYs of health benefits worth an estimated value of £7.9m.

A priority of recent years has been to make our land even more appealing to everyone, tackling barriers that restrict access and increasing the range of opportunity for all sections of society. Working with organisations such as Experience Community we have won awards for our work to improve paths and remove steps and stiles to ensure better access for visitors with a pram or using a wheelchair or mountain trike. We also want to improve the ethnic diversity of visitors and recognise this is an area for further attention.

In the Natural Capital chapter we explore the wider impact and value associated with our estate.

Case study

Dementia Friends

Some customers need additional help from us. This could be because they are older, or because a disability or an illness means they need extra help during a water shortage, or they need help to read their bills by receiving them in different font sizes or braille. Some customers may temporarily need additional help during pregnancy, or while recovering from medical treatment. Whatever the reason, we want to reassure those customers that we are here to help and have a range of priority services for them. One area of focus for us is to better support those with dementia. Research by Alzheimer's Society shows that 850,000 people in the UK have a form of dementia, and this is growing fast. That's why we are working to become a Dementia Friendly business as part of our work to better tailor our services to individual needs.

We have been raising awareness amongst our colleagues by rolling out training to help volunteers become Dementia Friends. This is an initiative led by Alzheimer's Society to help people understand more about dementia and the little ways they can help. So far we have trained nearly 900 of our workforce and we want to go even further. The outcome for our customers is that we have staff that can have direct contact in a way that is better for them, as well as allowing staff to improve all aspects of our business to suit people who may have different needs.



A group of colleagues become Dementia Friends

Securing trust

We continually strive to secure high levels of trust from our customers and other stakeholders by delivering reliable, quality services at a fair price and by working openly and collaboratively in the best interests of the Yorkshire region. Trust is especially important to Yorkshire Water because we are a privately owned company delivering an essential public service. This means we need to maintain strong support for continued investment in the region's water infrastructure and services.

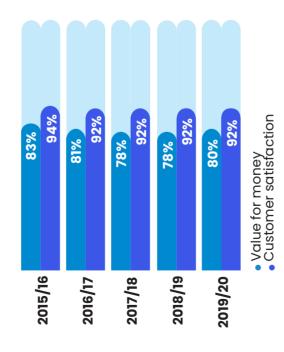
Many of the activities explored elsewhere in this report also contribute to levels of trust, such as being open with our data, found in the chapter on Intellectual Capital, and reflecting the society we serve, discussed as part of Human Capital.

Customer perceptions

The Consumer Council for Water (CCW) regularly survey customers for their perceptions of each water company to provide an independent benchmark. These surveys consistently report strong levels of customer satisfaction and perceptions of value for money in Yorkshire Water's services.

These results were supported by our ability to keep water bills low while improving performance in most of our core service measures. Average water bills in Yorkshire were amongst some of the lowest in the country throughout the five year period, rising by less than the rate of inflation each year to deliver real terms price reductions.

We are working to maintain and further improve services over the new five year period, recognising we need to do more to reduce interruptions to supplies, leakage, pollution and risk of flooding from the sewers for example.



Paying our suppliers on time

We have used the number of late and early invoice payments as one indicator of how we support suppliers' trust in us and our effectiveness in being a highly responsible business. Over the five year period we saw an overall increase in the number of invoices we paid, following an increase in investment to improve performance. The number of invoices we paid late reduced towards the end of the period but we need to do more as they remain proportionately high. However, we also saw a larger increase in the number of early payments.

For 2019/20, our assessment estimates the cost of late payments reduced to £1.7m while the benefits of our early payments increased to £5.9m.

The amount we spent with smaller suppliers increased in absolute terms and remained broadly stable as a proportion of our overall spend with suppliers, at around 9%. We offered immediate payment terms to smaller suppliers in 2020 to help with their cashflow pressures that many experienced because of the pandemic.

In the future we would also like to expand our assessment to include the amount we spend with local businesses in Yorkshire to help monitor our role in supporting the local economy where goods and services can be procured at the necessary quality and price.

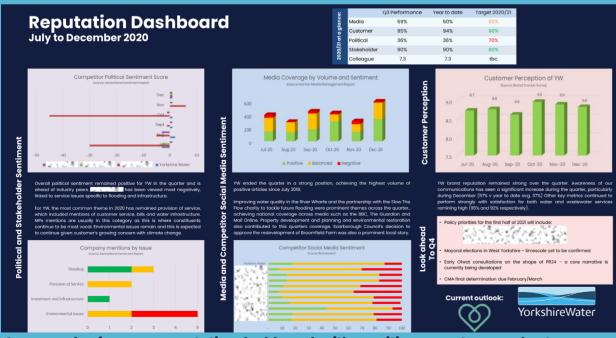
| | 2015/16 48% | 48% | 3% | 48% |
|-----|--------------|------------------------------------|---|-----|
| | 2016/17 75% | 75% | 15% | %II |
| | 2017/18 | 29% | % L | 40% |
| | 2018/19 31% | | % | %89 |
| | 2019/20 | 38% | %0 | %19 |
| 0.5 | 5 5 5 %%% | f invoices f invoices f invoices f | % of invoices paid late % of invoices paid on time % of invoices paid early | |

Case study Reputation dashboard

We have introduced a new performance dashboard to help us better monitor and manage several key aspects of our social capital. The dashboard is tracked and communicated to management on a regular basis to provide latest insight on a mix of headline indicators of the strength of our brand, trust and relationships with customers and other stakeholder groups.

The dashboard is structured around three themes of customer, media and political sentiment, including the balance of positive, negative and neutral feedback. We compare our performance against that of other's in the sector as well as our own targets. We continue to develop our measurement of aspects of social capital and recently developed a process to estimate customer emotions about our service and performance.

This is all part of our ongoing commitment to great customers service and it supports our new vision to put people at the heart of everything we do. In practice we are able to use the indicators and the more detailed information behind the dashboard to shape our operational approach, customer service and long term strategic direction.



An example of our new reputation dashboard, with sensitive aspects greyed out

15. Conclusions

Protecting and growing our impact and value

This runs to the heart of our purpose-led approach to business at Yorkshire Water. Our latest assessment shows generally stable or increasing performance across each of the six capitals. In economic terms, we estimate net growth in the overall public value we are managing and creating for customers, shareholders and wider society. To draw out just some examples, we have increased our financial support to customers in need and increased the environmental value of our estate, while reducing carbon emissions significantly. We also maintained strong levels of colleague engagement and grew levels of training and development.

The assessment also highlights areas needing further attention if the business and its essential public services are to be sustainable and resilient for the long term. We need to continue to address leakage and water pollution issues. We also need to continue our transformational, multi-agency collaboration to protect and restore our Sites of Special Scientific Interest (SSSI) where 96% currently fail to achieve 'favourable' condition. We need to further embed and evolve our new payment systems to help ensure we reliably pay our suppliers on time. And our enhanced focus on diversity needs to achieve measurable change in the representative makeup of our workforce and Board. Furthermore, we observe many opportunities where we are well placed to make a substantial contribution to regional and national priorities such as the economic recovery from the impacts of the pandemic, the leveling-up agenda, and climate change.

This report includes many further examples of strong and improving performance, and areas where more action is needed. Improvement and investment plans to 2025 are in place to protect and enhance current performance and continue the positive trend for improvement. We are also engaging in Yorkshire and nationally to collaborate on the wider systemic changes needed across the water sector and wider society. Our recognition for the imperative of resilience and sustainability will be further strengthened in our new corporate strategy as we develop this through 2021 and beyond. In the future, we'll be able to align our six capitals assessment to help us openly demonstrate our progress and performance against our new strategy and defined priorities.

Further improving our measurement, reporting and decision-making

We remain committed to further developing and embedding the six capitals approach throughout our decision-making, corporate governance and reporting. As we continue to mature our approach, priorities include:

Public reporting of Our Contribution to Yorkshire will be released annually from now on to support our openness and enable scrutiny. As well as considering a highly accessible and customer-friendly summary of this work we will also further advance our 'integrated reporting' approach to reporting through careful alignment with our Annual Performance Report (APR) and Annual Report and Finançial Statements (ARFS). In the longer term we may no longer need a Contribution report as this further matures and we can fully integrate the work into our formal annual reporting.

Internal reporting will be supported with the introduction of a new capitals dashboard. Amongst others, this will help our Board and Social Value Committee in their role to scrutinise and stretch the Company's approach. Having matured our approach in this latest work we can stabilise the structure and key performance indicators in the assessment for Our Contribution to Yorkshire, with the need for future change only in the finer detail.

Data and measurement We are embedding the required data reporting needs to become 'business as usual'. We are also working on remaining gaps and areas of lower confidence in our capitals accounts and indicators. For example, we want to further develop our intellectual capital account, continue the improvements we made on measuring biodiversity and net gain, and better understand the value of water to us, our customers, and the environment. Further specifics can be found in the Methodology Report. We also want to explore the dependencies between the capitals and our impact and value under each capital. This will support our understanding and management of risk and resilience.

Consistent, widespread application - We have developed cutting-edge tools and processes, and started to apply them in several areas of Yorkshire Water. Our focus now is to use our capitals processes and tools to assess and optimise all our asset management needs and investment choices. We are working to fully embed the six capitals functionality in our new Decision Máking Framework. We are also finalising a new tool and process specifically for land management. These tools are supporting us in comparing a richer view of the costs and benefits of traditional and innovative approaches, thereby growing our focus on nature-based and behavioural-change techniques that help address issues at source with many benefits beyond the immediate water service objective at hand.

Alignment and collaboration on developing best practice in applying the capitals concept and evolving environmental and social economics. We are working with other water companies and more widely as part of a growing community applying multi-capitals approaches. Several government departments and agencies are also leading in this space.

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