



Enhancing the environment in the North West

We will deliver long-term environmental improvements through delivery of our AMP7 targets, our Better Rivers: Better North West plan, reinvestment of outperformance we have earned, and addressing new and emerging requirements such as the Environment Act 2021, which is likely to drive substantial future investment.

Strategic report

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Our purpose, vision, strategy, values and culture

Our purpose is the reason we exist. Our strategic themes define the way we operate in order to deliver our purpose and work towards our vision, and our core values provide the cultural framework within which we operate.

OUR PURPOSE Why we exist

To provide great water...

Providing great water means delivering our core water, wastewater and customer services, reliably and to the highest quality. It is what our customers expect and deserve.

...and more

Providing 'more' means creating value for our stakeholders by understanding what matters to them through strong and constructive relationships. We do this by:

- supporting communities to be stronger;
- caring for customers through trusted relationships;
- creating a great place to work for all our employees;
- protecting and enhancing the environment;
- delivering a sustainable return to investors; and
- innovating in partnership with suppliers.

...for the North West

We are singularly focused on the North West.



OUR VISION

What we want to achieve

To be the best UK water and wastewater company

This is what motivates us to improve our services and deliver more. To achieve this vision, our strategy has three themes – the best service to customers, at the lowest sustainable cost, in a responsible manner.

OUR STRATEGIC THEMES

How we deliver our purpose and vision



The best service to customers

We put customers at the heart of everything we do. As well as delivering a reliable service of great tasting water and removing wastewater, we proactively keep customers informed about any work we are doing in their area and communicate with them in ways that meet their individual needs. For example, we now use 'push texts' to send updates and alerts to customers within a specified location.

The best service to customers means being available when they need to contact us, always interacting in a friendly and helpful manner, and offering tailored support and assistance for customers when they need it. As well as these day-to-day interactions, it means consulting on what matters to them. This shapes what we do; for example, we redesigned our bills based on customer research and feedback.



At the lowest sustainable cost

To run a resilient business, it is important to ensure cost reductions are sustainable so that we can keep them down without compromising on resilience or the quality of service we deliver.

When we develop our plans and assess different options, we look to minimise the whole-life cost. This fits with the total expenditure (totex) model, because the most cost-effective option can vary between traditional operating expenditure (opex) or capital expenditure (capex) solutions.

Our Systems Thinking approach helps us look holistically at all options, and operating our entire network as a system rather than discrete assets opens up new avenues that otherwise would not have been available.



In a responsible manner

We will only deliver our purpose and create and maintain value for our stakeholders if we act in a responsible manner.

This means protecting and enhancing the natural environment, using natural solutions where possible, and reducing our carbon footprint and waste. It means promoting a safe, healthy and engaging workplace for our employees, supporting their physical and mental health. It drives us to support local communities on issues that matter to them, and to work with local schools and training facilities to promote skills for the future.

Above all, it means we are open, honest and transparent in our dealings and in reporting our performance.

Our strategic themes run through everything we do

How we manage the water cycle, our risk assessment, and our remuneration policy are aligned to these strategic themes.

➔ Read more about [our water cycle](#) on pages 18 to 19

➔ Read more about [our risk management](#) on pages 100 to 109

➔ Read our [remuneration report](#) on pages 160 to 191

OUR CORE VALUES AND CULTURE

Fundamental values that drive decision-making

Customer focused

Customers are at the heart of everything we do, and we aim to provide a great and resilient service at the most efficient cost.

Innovative

We continually look for new ways to make our services better, safer, faster and cheaper.

Trustworthy

We make promises knowingly and keep them, behaving with integrity towards all of our stakeholders.

Culture at United Utilities

As well as our purpose, strategy and core values, we monitor our culture against key categories relating to our people, such as engagement, health and wellbeing, diversity, and development. Read more on pages 125 to 126.

Our strategic themes
 The best service to customers

At the lowest sustainable cost

In a responsible manner

Type of impact
 Increasing positive impact

Minimising negative impact

Collect

Type of impact

Our impact

We collect water from open reservoirs, lakes, rivers and boreholes, which we manage in a sustainable way, protecting and enhancing local habitats. We own and manage 56,000 hectares of land, which we open to the public to enjoy access to nature.

Relevant material issues

- Water resources and leakage
- Drinking water quality
- Climate change
- Land management, access and recreation

Treat

Type of impact

Our impact

The water we extract needs a lot of work in one of our 88 water treatment works before it is safe and clean for customers to drink. We then store the treated water in covered reservoirs ready to be delivered to customers' taps when they need it.

Relevant material issues

- Drinking water quality
- Climate change

Deliver

Type of impact

Our impact

We maintain over 42,000 kilometres of water pipes and deliver an average of 1.8 billion litres of water each day to 7.4 million people across the North West. Our main Haweswater Aqueduct uses gravity to transfer water from Cumbria to Manchester, and our integrated supply network enables us to move water around the region.

Relevant material issues

- Water resources and leakage
- Customer service and operational performance
- Drinking water quality

Remove

Type of impact

Our impact

Wastewater from customers' drains and rain water from roads and rooftops flows into our combined sewers to be taken for cleaning. In excessive rainfall, when sewer capacity is overloaded, storm overflows allow rain water, mixed with wastewater, to flow directly into rivers or the sea through a separate pipe to help prevent flooding of streets, homes and businesses.

Relevant material issues

- Sewer flooding and storm overflows
- Customer service and operational performance
- Climate change

Return

Type of impact

Our impact

Once the water is clean enough to meet stringent environmental consents, we return it to the natural environment through rivers and streams so that the water cycle can begin again.

Relevant material issues

- Political and regulatory environment
- Natural capital and biodiversity

Clean

Type of impact

Our impact

We maintain over 78,000 kilometres of wastewater pipes to transport wastewater from sewers to one of our 566 wastewater treatment works, where it requires separation and treatment before it is returned to the natural environment.

Relevant material issues

- Sewage sludge to land
- Customer service and operational performance

Generate

Type of impact

Our impact

We waste nothing, turning sludge by-product into compost for farmers and capturing gas to generate renewable energy from bioresources. We self-generate around 25 per cent of our energy, helping to reduce our carbon footprint and energy costs.

Relevant material issues

- Energy management
- Environmental impacts

Our business model

We deliver our water and wastewater services in a way that generates long-term value for a range of stakeholders.

Our key resources

Natural capital

We rely on natural resources to supply water and take back wastewater after treatment, as well as to generate renewable energy.

Human capital

We rely on skilled and engaged employees and suppliers to deliver our services, and skills must be maintained through training and development.

Manufactured capital

We invest to maintain and enhance our assets and build long-term resilience, and we use telemetry to monitor and control many assets remotely.

Financial capital

Efficient financing allows us to preserve intergenerational equity for customers while funding necessary long-term capital investment projects.

Social capital

The constructive relationships we have built with regulators, suppliers, and other stakeholders are fundamental to our ability to deliver our purpose.

Intellectual capital

Innovation helps us continually improve, and understanding performance trends in our network helps us spot potential issues early and fix them proactively.

Our external drivers

Natural environment

We must be resilient to changes such as climate change and population growth, and ensure our impact on the natural environment is positive.

Stakeholders

Our work and the huge areas of land we manage impacts a wide variety of stakeholders and we consult them to help develop and execute our plans.

Technology and innovation

New technology and innovations create opportunities for improvements in service and efficiency, but can also create risks such as cyber attacks.

Economic environment

The economy impacts our financing through market rate movements such as interest rates and inflation, and our customers' ability to pay their bills.

Regulatory environment

Environmental and drinking water standards set by our regulators drive what we do, both now and in the long term through future market reforms.

Political environment

This includes regional and national politicians as well as policymakers, and we must understand the key policy issues affecting our industry.

Our approach

Our purpose is to provide great water and more for the North West.

Our strategy and core values

Our strategy sets out how we deliver our purpose, and is broken down into three strategic themes, which govern everything we do.

🗣️ The best service to customers

💰 At the lowest sustainable cost

👤 In a responsible manner

Our core values – customer focused, innovative and trustworthy – provide the cultural framework within which we operate.

Materiality and risk management

We produce a materiality matrix to help us prioritise issues based on the level of stakeholder interest and the potential to affect our ability to create value.

➔ Read more about [what matters most to stakeholders](#) on pages 34 to 39

We manage a wide variety of risks to enable us to deliver a sustainable and resilient service for the long term.

➔ Read more about [our risk management](#) on pages 100 to 109

Systems Thinking

We operate our network as a system rather than discrete assets, and we have a network of telemetry across our system that enables us to remotely monitor and control many of our assets, providing real-time performance data and helping us deliver an efficient, proactive and modern service for customers.

Our commitment to ESG matters

We operate in an environmentally and socially conscious manner and uphold the highest standards of corporate governance. Behaving in a responsible manner is one of our strategic themes, and we actively participate in a broad range of global ESG ratings, indices and frameworks to benchmark our approach against best practice and emerging sustainability challenges.

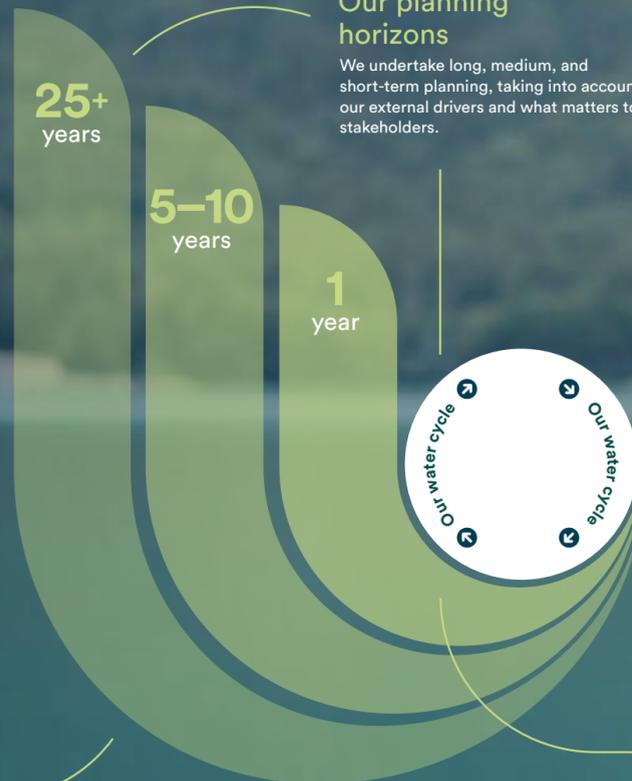
➔ Read more about [our approach as a responsible business](#) on page 12

➔ Read more about [diversity and inclusion](#) on pages 44 to 45

➔ Read our [corporate governance report](#) on pages 112 to 193

Our planning horizons

We undertake long, medium, and short-term planning, taking into account our external drivers and what matters to stakeholders.



Our core activities are to deliver essential water and wastewater services for household and business customers across the North West.

➔ Read more about [how we operate](#) on pages 18 to 19

The value we generate



Communities

We build partnerships to support communities to be stronger. We work with schools and young people to develop skills and help people get back to work. Our land is open to the public and we encourage people to use it responsibly.

How we measure this

- KPI – community investment
- Other metrics include partnership leverage, provision of education, and visitor satisfaction



Employees

We focus on attracting, developing and retaining a diverse workforce, and ensuring we look after their health, safety and wellbeing. We pay the Living Wage and have a secure pension provision.

How we measure this

- KPI – employee engagement
- Other metrics include diversity and inclusion, learning and development, and accident frequency rate



Investors

Many of our investors are pension funds and charities, so millions rely on the income we provide. We manage risk prudently and provide an appropriate return, investing in our assets for growth and resilience.

How we measure this

- KPI – return on regulated equity (RoRE)
- Other metrics include performance across investor indices, gearing and the Fair Tax Mark



Customers

We put customers at the heart of everything we do, providing a continually improving service at an efficient, low cost, and supporting thousands of vulnerable customers through a wide range of assistance schemes.

How we measure this

- KPI – customer experience (C-MeX)
- Other metrics include developer experience (D-MeX), complaints, and vulnerability support



Environment

We protect and enhance reservoirs, catchments, rivers and bathing waters that provide a home for wildlife, areas for recreation, and a major pull for tourism, and we aim to reduce our environmental impact.

How we measure this

- KPI – EA performance assessment
- Other metrics include leakage, clean air, carbon footprint, and natural capital value added



Suppliers

We invest in the North West's infrastructure and generate jobs, skills and income in the local economy through our capital programme. We act fairly and transparently with suppliers and are a signatory to the Prompt Payment Code.

How we measure this

- KPI – percentage of invoices paid within 60 days
- Other metrics include average time taken to pay invoices, and suppliers signed up to our United Supply Chain

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Open the page to see how we deliver our purpose and create value for all our stakeholders



Our business model – our key resources

The six capitals

Natural capital

We rely on water sources, such as reservoirs, rivers and boreholes, from which abstraction licences permit us to take water in a safe and sustainable way to be treated and supplied to customers. We rely on natural watercourses to take wastewater back into the environment. We use bioresources from wastewater and break it down into biogas (which we use to generate renewable energy) and biosolids (which we treat to provide a high-quality fertiliser for farmers). We face risks from both severe dry weather, when we must manage resilience of water supply, and from severe rainfall, when we must cope with the risk of flooding.

How we manage this key resource
Much of the water we abstract originates on land before running off into water. We are stewards of large areas of this land, much of which is managed by tenant farmers or in partnership. We ensure it is well managed to improve water quality and help protect habitats.

We plan and invest for the long term to ensure we have resilient water resources. In the short term, we can bring more supplies online to meet demand, and our integrated supply zone allows us to move water efficiently around the region. We also encourage customers to use water more efficiently with tips, free water-saving devices, and metering initiatives.

When rainfall exceeds the capacity of sewers, storm overflows allow heavily diluted wastewater to be released directly to the environment to minimise the risk of sewer flooding in streets or people's homes. We now need to reduce the use of storm overflows, so we must find alternative ways to cope with excess surface water whilst avoiding flooding. Traditional interventions, such as storage tanks and enlarging sewers, are costly, carbon intensive and subject to space constraints. We are innovating with sustainable drainage and other nature-based solutions that use the urban and rural environment as part of the solution.

We manage the waste from our activities, including sludge, in a sustainable way, with the vast majority going to beneficial use such as recycling or fertiliser for land.

Link to risks



Our principal risks

- 1 Water service
- 2 Wastewater service
- 3 Retail and commercial
- 4 Supply chain and programme delivery
- 5 Resource

Human capital

Our people are essential in delivering services for customers. We believe the most effective decision-making comes from a diverse range of people who feel encouraged to share their views. Having a skilled, engaged and motivated team of employees, suppliers and contractors is fundamental to the performance we deliver and to employee retention, which helps ensure efficient training and better performance.

How we manage this key resource
We support thousands of jobs in the North West, including graduate and apprenticeship programmes, helping to secure a legacy for the future in our region. We are an accredited Living Wage Foundation employer, providing our employees with competitive salaries and benefits, an attractive pension offering, and the opportunity to join the employee healthcare scheme and share incentive plan. We provide comprehensive training and development opportunities, including digital skills to help with our Systems Thinking approach, and enable remote working where practical.

We promote diversity, equality and inclusion, recruiting from all areas of the communities we serve and supporting our employees with equal opportunities. Employee networks, representing groups of employees that may face specific challenges, are overseen by an executive sponsor and support employees through their career progression.

➔ Read more about **diversity and inclusion** on pages 44 to 45

We are committed to protecting the health, safety and wellbeing of our people, and have been awarded the workplace wellbeing charter.

We measure employee engagement through an annual survey, and regularly achieve results higher than UK norms.

We monitor and measure employee performance through annual reviews. Employees at all levels of the company participate in the bonus scheme, with the same bonus performance measures as the executive directors, so everyone benefits from the success of the company.

Link to risks



- 6 Finance
- 7 Health, safety and environmental
- 8 Security
- 9 Conduct and compliance
- 10 Political and regulatory

Manufactured capital

Our network assets and treatment works are essential to delivering our services for customers and protecting public health. Our energy assets enable us to generate renewable energy, which helps reduce costs and minimise our environmental impact. It is important we have the right systems and procedures in place to monitor and control our assets efficiently and effectively.

Many of our assets are very long term in nature, such as our impounding reservoirs that can last hundreds of years. We must invest to maintain these assets in good condition so they can continue to provide for customers in the long term. We need to make improvements to ensure we can meet the needs of a growing population, and increasingly high quality standards and tighter environmental consents driven by our quality and environmental regulators.

How we manage this key resource
Since privatisation, the significant investment we have made in our assets has provided substantial benefits to customers, including reduced supply interruptions, reduced sewer flooding incidents, and improved water quality, and we expect to continue with a substantial investment programme for the foreseeable future as current environmental legislation is expected to drive significant investment needs.

Long-term planning helps us understand where and when we need to invest in our assets, and we monitor the condition, performance and health of our assets.

We manage our assets in a holistic way that seeks to minimise whole-life costs, and we embrace new technology and innovation, which is at the heart of our Systems Thinking approach. This helps us deliver efficient total expenditure (totex) without compromising on quality of service or long-term resilience, saving future operating costs and reducing future customer bills.

Our assets and infrastructure projects can affect people who live nearby. We consult with these communities in the planning stage and work hard to minimise any negative impact, including odours from our wastewater treatment works.

Link to risks



Financial capital

As a result of the long-term nature of our assets, and the need to ensure affordability by spreading the cost fairly between the generations of customers that benefit, it is necessary to raise financing to fund investment in building, maintaining and improving our assets, networks and services. It is important that we are able to raise finance when needed to preserve adequate liquidity, and that we manage financial risks such as our exposure to movements in interest rates and inflation, to ensure we maintain long-term financial resilience.

How we manage this key resource
We maintain a robust capital structure, with a responsible mix of equity and debt financing. We monitor our performance against key credit ratios to help us maintain strong and stable investment grade credit ratings, which gives us efficient access to debt capital markets across the economic cycle.

We maintain relationships with a range of banks and retain access to a broad and diverse range of sources of financing in a number of markets, across which we seek the best relative value when issuing new debt. We periodically refresh our medium-term note programme to enable efficient debt issuance under pre-agreed contractual terms, and the board delegates authority to the CFO, allowing us to respond quickly to attractive financing opportunities. This helps us to consistently raise efficient financing. Our sustainable finance framework allows us to raise debt based on our strong ESG credentials.

We aim to avoid a concentration of refinancing in any one year, and fund long term where possible. Our debt portfolio has a very long average life, and we monitor liquidity forecasts with a policy of having resources available to cover the next 15–24 months of projected cash flows to ensure forward funding needs are met. We have clear and transparent hedging policies covering credit, liquidity, interest rate, inflation and currency risk, and these are aligned with the regulatory model.

Link to risks



Risk exposure

An indication of the current exposure of each principal risk relative to the prior year.

- Decreased
- Stable
- Increased

Stock Code: UU.

Social capital

We work with several capital delivery partners, often on large infrastructure projects that can span multiple years, and these partner organisations form part of the public face of our business. It is important that we build constructive working relationships with our supply chain partners to ensure the smooth delivery of projects and a good all-round service for customers.

Maintaining positive relationships with other stakeholders is really important, such as regulators and community bodies across our region.

How we manage this key resource
We have contracted for around 80 per cent of our base capital programme for the 2020–25 regulatory period, with arrangements in place for sharing of cost overruns to incentivise efficient delivery against the target price.

Our supplier relationship management process ensures regular discussions between our commercial team and existing suppliers to help identify issues and opportunities for a smooth and productive relationship, and we engage suppliers on sustainable and ethical issues through our United Supply Chain (USC) approach.

We actively engage with all our stakeholders, including our regulators with whom we discuss short-term and longer-term priorities and objectives and respond to consultations so we are influencing where we are able to.

Our stakeholder engagement extends to various environmental interest groups and community bodies, whom we keep informed, collaborate and in some instances form partnerships with.

This engagement helps us develop a matrix of the issues that are most material to stakeholders and to our ability to create value, and our assessment of these issues is a key part of our planning approach.

➔ Read more about **engaging with our stakeholders** on pages 30 to 33 and **working in partnerships** on page 55

Link to risks



Intellectual capital

The knowledge and systems we have across our business are critical to effectively running our treatment works and maintaining our assets to ensure a long-term resilient service.

It is important that we keep up to date with new advances in technology. With a growing population, changing climate, finite resources and space constraints, we need to find innovative solutions to help us deliver the best service to customers, protect and enhance the environment, and keep bills affordable.

How we manage this key resource
Innovation is one of our core values, and we use a variety of methods to find novel ideas and solutions – idea scouting, using ideas from other water companies across the world and from other industries. We invite companies to bring innovative solutions to us through our Innovation Lab programme, and we encourage innovation at all levels inside the business, including our CEO Challenge programme where our graduates work in groups to find novel ways to tackle challenges that we face as a business.

These initiatives are a source of fantastic new ideas and often lead to the development of products and software that give us a competitive advantage against our peers in the water industry. Occasionally, new ideas are worth protecting with copyrights, trademarks and patents, and we manage this intellectual property portfolio for short and long-term benefit.

Our Systems Thinking approach involves remote monitoring and control, taking a 'whole system' view of our network and assets, and proactive and preventative optimisation to spot and resolve issues before they impact customers. This requires a network of systems and processes, and at the higher maturity levels we use artificial intelligence to optimise the way we operate. With sensors in our network sending real-time data to our Integrated Control Centre, we develop an understanding of the signature and can predict patterns that enable us to spot anomalies that could signal issues we can then proactively fix.

Link to risks



Our business model – our external drivers

The way we work is impacted by a number of factors external to our business that we must consider and manage.

Natural environment

Our use and return of water to the environment is a continuous cycle, and returning water cleanly and safely, as well as managing our catchment land effectively, allows this cycle to begin again from the best starting point. The natural environment is constantly changing, and we must adapt and prepare for future impacts such as climate change and population growth. We can help mitigate climate change by minimising our own environmental impact, and we must also adapt the way we work to meet the anticipated changes in climate and population across our region to ensure long-term resilience.

Link to material issues

- Natural capital and biodiversity
- Water resources and leakage
- Climate change

Technology and innovation

New technologies and innovative ideas present opportunities for us to make things faster, better, safer and cheaper. These can come from a variety of places – across different industries and countries as well as within our business. We encourage innovation externally and internally at all levels, from our Innovation Lab to our annual CEO Challenge. Technology can also create risks, particularly the threat of cyber attacks on critical national infrastructure such as ours, therefore, it is critical that we maintain a stringent approach to cyber security that evolves with new technological advances.

Link to material issues

- Customer service and operational performance
- Cyber security
- Data security

Economic environment

Our costs are impacted by market rate movements, such as interest rates and inflation, but we seek to manage these prudently to reduce the risk as far as practical. Our financial risk management policies include the fixing of interest rates and target levels of inflation-linked debt. Read more about the impacts inflation has on our business on page 81. As well as these direct impacts on the company, the economic climate impacts our customers and their ability to pay their bills. We operate in an area with high levels of extreme deprivation, so helping vulnerable customers is particularly important for us.

Link to material issues

- Affordability and vulnerability
- Financial risk management
- North West regional economy

Political environment

Political decisions have the potential to significantly impact on our operations. As a responsible business, we ensure that we abide by the directions set by government, and stay flexible to adapt to new developments, such as the requirements of the Environment Act 2021, in particular in relation to river health and the use of storm overflows. We engage closely with politicians and other policymakers to understand developments that will affect our business, and to communicate the value that United Utilities delivers to the North West, and the UK as a whole.

Link to material issues

- Trust, transparency and legitimacy
- Political and regulatory environment
- Sewer flooding and storm overflows

Regulatory environment

Sustainable business means preparing for future market reforms as well as meeting current regulatory commitments. We place great value on our relationships with economic, quality and environmental regulators. We engage actively and regularly, both on our ongoing plans, and on consultations for future reforms where we offer our views and influence where we can. The need to monitor and assess the regulatory environment, and proactively engage with the direction of travel and changing priorities, is constant regardless of where we are in the regulatory cycle at any particular point in time.

Link to material issues

- Trust, transparency and legitimacy
- Resilience
- Political and regulatory environment

Stakeholders

There are many stakeholders who take an interest in the water sector and its role in society. These stakeholders can have conflicting views on priorities for the sector and the region, which can influence what we do. It is important that we understand what matters to these stakeholders and develop constructive relationships built on mutual trust. The nature of our work means we are at the heart of communities across our region, and interact with a large variety of stakeholders, from communities and environmental interest bodies to suppliers and regulators.

Link to material issues

- Trust, transparency and legitimacy
- Land management, access and recreation
- Supporting communities

Regulatory environment

To provide great water and more for the North West, we must consider our economic, quality and environmental regulation and create medium and long-term plans that meet the priorities of each of our regulators.

Our industry and market

Most customers in England and Wales are served by one of 11 large water and wastewater companies or smaller companies providing only water services.

Our regulated entity, United Utilities Water Limited, is the second largest company as measured by Regulatory Capital Value (RCV). RCV represents the net value of accumulated investment in the company's asset base. We serve over seven million people, with over three million household customers making up around two-thirds of our revenue, and over 200,000 businesses. In the non-household marketplace, we provide wholesale services to retailers.

As a monopoly provider of essential services, we are regulated by various bodies (as set out below), and we are subject to sector-specific legislation alongside this regulation.

Our regulators assess our comparative operating performance against the other water and wastewater companies in England and Wales, with the Drinking Water Inspectorate (DWI) assessing performance in water, the Environment Agency (EA) assessing performance in wastewater, and Ofwat assessing customer satisfaction. Both Ofwat's customer satisfaction assessment and the EA's annual performance assessment are included in our operational key performance indicators (KPIs).

Ofwat sets total revenues, service levels that must be provided, and the incentive package for companies for five-year periods, known as Asset Management Plan periods (AMPs).

These packages are based on Ofwat's methodology, which reflects stakeholder and customer priorities, and are confirmed following detailed scrutiny of business plans proposed by the companies. We must, therefore, engage constructively with Ofwat on future priorities and its methodology development and submit high-quality plans to help ensure we receive a determination that targets the best outcomes for us to continue creating value for customers and all our stakeholders, and effectively incentivises us to continue improving performance.

To ensure our plan is robust and balanced, we consult with customers and other stakeholders (including quality and environmental regulators) and factor in long-term planning and resilience needs.

This was the second year of AMP7, covering the 2020–25 period, and our focus has been on delivering and trying to outperform our final determination through:

- achieving higher customer satisfaction than our peers;
- beating the outcome delivery incentive (ODI) targets for operational performance;
- delivering efficient total expenditure (totex); and
- raising debt finance at a cost below the industry allowed cost of debt.

Our vision is to be the best UK water and wastewater company, so we regularly benchmark our performance against our peers, and we benchmark our customer service performance against other leading service providers in our region.

Since privatisation, the water industry has invested a significant amount, contributing to improvements in public health and environmental standards, better quality of services, and superior quality drinking water. In its final determinations for AMP7, Ofwat allowed a further £51 billion across the industry to deliver further improvements, and since this, Ofwat has allowed a further £2.7 billion for green economic recovery.

11

large licensed water and wastewater companies

2nd

largest waste and wastewater company in England and Wales

>£50bn

allowance across the industry to deliver further improvements over the 2020–25 period

Our regulators

We are subject to regulation of our price and performance by economic, quality and environmental regulators, as shown in the diagram.

These bodies exist to help protect the interests of customers and the environment, but they can have competing interests. For example, in agreeing environmental improvements and over what time frame these will be delivered, we must consider how much it will cost and the need to protect customers from bill shocks. Balancing these interests requires open and continuous dialogue.

The regulatory framework can change significantly in the long term and we have seen substantial tightening of laws and regulations since privatisation.

While much is outside our direct control, maintaining good relationships enables us to engage positively with regulators to influence future policy, aiming to achieve the best outcome for all our stakeholders.

➔ Read more about [engaging with stakeholders](#) on pages 29 to 32



* Partnership made up of Ofwat, the Environment Agency and DWI.

Our business model – our external drivers

The North West region

What we do is influenced by several key factors that make our region unique. We are committed to understanding and actively responding to these.



Economic factors

We are building resilience to continue serving our growing population and support jobs and the tourism industry.

7.4m

population expected to grow significantly in the next 25 years

22,700⁽¹⁾

jobs actively supported by our work, with over 5,000 direct employees

Tourism

relied on by Lake District, Manchester, Liverpool and coastal areas

(1) Based on our 2020–25 business plan.

Social factors

We are leading the sector on supporting customers with affordability and vulnerability.

54%

of the most deprived areas in the country

47%

of households have less than £100 savings to cope with unexpected bills

12%

of households are affected by water poverty, more than 50 per cent higher than the national average

Environmental factors

We have a long coastline, protected rural areas and dense urban areas, all of which create different demands.

30%

of land is National Park or Area of Outstanding Natural Beauty or Sites of Special Scientific Interest

25

designated coastal bathing waters

830mm

rainfall each year, higher than the UK average

Engaging with our stakeholders

We actively engage with stakeholders to understand what matters most to them through strong and constructive relationships.

To create longer-term value for all it is essential that we identify and engage with our stakeholders to understand what matters most to them.

We do not operate in isolation and it is not for us alone to determine what the region needs us to deliver. Engaging with stakeholders across the North West enables us to identify shared solutions to shared challenges. We value the diverse perspectives that a broad range of stakeholders, representing different and often competing interests, can bring to our decision-making.

Understanding what matters to stakeholders will only be achieved by building strong, constructive relationships and engaging regularly. This is important to building and maintaining trust. These relationships are subject to robust governance to ensure the insights generated are taken into account in

decision-making at executive and board level. The board's corporate responsibility committee meets four times a year, with stakeholder engagement as one of its standing agenda items, and the chair of the independent customer challenge group (YourVoice) attends board meetings to provide its perspective.

The following pages detail how we engage with, and are influenced by, each of our key stakeholder groups. Our analysis of what matters most to stakeholders, and how these issues affect our ability to create long-term value, is set out in our material issues matrix on page 35.

As shown below, there are nine key stakeholder groups that influence our planning and activities, and six of these groups benefit from the value we create.



Our business model – our external drivers

Engaging with our stakeholders

Our approach to engagement extends across all of our stakeholders, from those who influence what we do and benefit from the value we create, to those who just influence what we do.



Communities

Why we engage

We seek to support communities to be stronger based on mutual trust, respect and understanding the impact and contribution our work has on everyday life. Our work puts us at the heart of local communities, places where customers and employees live and work. We play a constructive role in tackling issues through engagement and investment, and by identifying what matters most to communities we can develop collaborative solutions.

How we engage

- Face-to-face meetings with local and parish councils to discuss projects.
- Online portals for large capital projects to get the views of communities where we are working.
- Facilitated workshops with partners to scope out solutions.
- Public events across the North West to promote sustainable use of our services.

Top three material issues

- Land management, access and recreation
- Supporting communities
- Trust, transparency and legitimacy

What we are doing

- Balancing decisions based on often competing interests of stakeholders.
- Identifying common issues where partnerships could provide a solution.



Customers

Why we engage

We actively seek feedback on what domestic and wholesale customers think about us so we can make our services better and address the issues that matter. To provide a great service in a way that customers value, we need to listen and engage with them to understand both short-term issues, and longer-term expectations of us as their water company. As customer expectations change, we need to evolve our own services to ensure we meet those expectations.

How we engage

- Contacts through our operational call centre and social media channels.
- Visits to customer properties to resolve issues.
- Direct customer research on our service provision.
- Face-to-face engagement with groups representing vulnerable customers, such as MIND.

Top three material issues

- Drinking water quality
- Customer service and operational performance
- Affordability and vulnerability

What we are doing

- Improving services for customers such as GetWaterFit and Priority Services.
- Helping customers who are struggling to pay their bills.



Employees

Why we engage

Our employees are the face of the company and we simply could not deliver our services without them. Employees know our business better than anyone, with a diverse range of views and experience, making them well placed to identify opportunities for improvement. It is essential we build productive relationships with our employees based on trust. In a world of work that is rapidly changing, employee engagement is crucial to develop new ways of working.

How we engage

- Annual opinion survey enabling confidential feedback.
- Regular manager one-to-one meetings providing two-way engagement.
- Employee Voice panel providing a link to the board.
- Monthly trade union forums.

Top three material issues

- Employee engagement
- Diverse and skilled workforce
- Health, safety and wellbeing

What we are doing

- Acting on survey results to create a better place to work.
- Delivering our people plan and encouraging action on inclusivity.



Environment

Why we engage

We depend on the environment and play a key role in protecting and enhancing it across the region. Given the environment has no voice of its own, we engage with interested groups such as environmental regulators, non-governmental organisations, campaigners and local communities to find the best ways to tackle environmental issues, like climate change and land management. Working together is often the best way to find the right solution.

How we engage

- Meetings with national and regional environmental regulators, such as the Environment Agency.
- Customer research to shape our environmental investment plans.
- Workshops with environmental stakeholders.
- Partnerships where we have common interests.

Top three material issues

- Sewer flooding and storm overflows
- Climate change
- Water resources and leakage

What we are doing

- Working with partners to deliver improvements to rivers.
- Delivering our carbon and Better Rivers: Better North West commitments.



Investors

Why we engage

It is important that investors have confidence in the company and how it is managed, given their investment in our business. We provide regular updates to debt and equity investors so they can be assured that the company is being managed responsibly. Increasingly, this includes environmental, social and governance updates alongside financial and performance data as investors take a broader view of value and risk.

How we engage

- Capital market days and investor roadshows.
- Annual General Meeting open to all shareholders.
- Direct dialogue with relationship banks and credit agencies.
- Participation in investor-led ESG ratings and indices.

Top three material issues

- Customer service and operational performance
- Financial risk management
- Corporate governance and business conduct

What we are doing

- Maintaining high levels of corporate governance.
- Performing well across a range of respected ESG indices and ratings.



Suppliers

Why we engage

Good relationships with suppliers help ensure that we get projects delivered on time, to good quality, at efficient costs and can identify and realise innovative approaches and solutions. Awareness of issues throughout the supply chain means we can address them together and become more resilient. We rely on suppliers to deliver our services and create value for all.

How we engage

- Directly through supplier relationship management process.
- Setting challenges through our Innovation Lab.
- Supplier databases such as Achilles, to assess market opportunities.
- Direct discussion through United Supply Chain (USC).

Top three material issues

- Trust, transparency and legitimacy
- North West regional economy
- Responsible supply chain

What we are doing

- Consistently paying suppliers on time.
- Providing access to innovative new products and services.



Our business model – our external drivers

Engaging with our stakeholders

We maintain close relationships with three stakeholder groups that influence what we do and how we do it.



Media

Why we engage

The media is influenced by the issues that matter most to our stakeholders as well as influencing them through what it reports. Many of our stakeholders receive their information about us and our activities from both traditional media and social media. Given the nature of our services, it is important that coverage is fair, balanced and accurate. This requires effective two-way dialogue between the company and the media.

How we engage

- 24/7 press office available to respond to media requests and publish content for direct media use.
- Dedicated social media team covering multiple channels.
- Active media and social monitoring focused on the company and sector.

Top three material issues

- Sewer flooding and storm overflows
- Customer service and operational performance
- Trust, transparency and legitimacy

What we are doing

- Regular press releases and social posts on key activities.
- Providing media training to key senior managers.



Politicians

Why we engage

Politicians influence the long-term national water strategy and environmental priorities, matters that affect how all businesses operate, and champion issues raised by their constituents.

Local government, elected representatives and devolved administrations provide insight into shared social, environmental, economic and governance issues across the North West.

How we engage

- Direct engagement with regional and national politicians across the political spectrum.
- Working groups with devolved administrations and local authorities on common interests.
- Direct engagement with parish councils linked to planning applications.

Top three material issues

- Political and regulatory environment
- Customer service and operational performance
- Affordability and vulnerability

What we are doing

- National and constituency level engagement on common issues.
- Responding to enquiries through corporate affairs team.



Regulators

Why we engage

Through proactive, constructive engagement with economic, quality and environmental regulators, we agree commitments over specified time periods and finalise the expectations they have of our business planning and performance.

We actively engage to shape the policy and regulatory framework within which we operate, covering customer, economic, environmental, social and governance matters.

How we engage

- Regular meetings with all regulators on objectives and performance.
- Responses to consultations where we have something to contribute.
- Joint working on projects to explore how regulation could evolve.
- Support the work of the independent customer challenge group, YourVoice.

Top three material issues

- Political and regulatory environment
- Customer service and operational performance
- Resilience

What we are doing

- Direct engagement with regulators on emerging issues.
- Responses to regulatory consultations on the future of the sector.



We believe that this engagement, alongside community and woodland funds totalling over £1 million, will leave a lasting legacy long after the pipeline is finished, benefiting people and communities across Cumbria for years to come.”

Managing multiple stakeholder interests in West Cumbria

In 2022, we will stop abstracting water from Ennerdale Water and the River Ehen in West Cumbria to avoid the risk of damage to the protected species that rely on these water bodies. To achieve this, we're linking West Cumbria to our regional water network by building a major new pipeline from Thirlmere.

Community involvement and stakeholder engagement have been at the heart of the strategy for West Cumbria. This is the single biggest project to go through the Lake District National Park in recent times and required a sector-leading approach to stakeholder management to ensure a success.

Engagement with stakeholders began in 2013, allowing parties to come together and collaboratively formulate the plan. Core to our stakeholder approach was a planning performance agreement funded by us and created in conjunction with Natural England, the Environment Agency, the three local planning authorities, and Cumbria County Council. We submitted a planning application in January 2016 and in November 2016, four months ahead of schedule, all three local planning authorities voted unanimously to grant full planning permission.

We were clear from the outset that local communities and stakeholders would be encouraged to have their say on any plans, creating opportunities for communities to give their views. It was key that during planning and construction our stakeholders

were on the journey with us and could raise concerns easily. Engagement took many forms, from individual meetings to workshop events, as well as formal consultation and attendance at community events such as agricultural shows.

COVID-19 led to an urgent review of our engagement, as traditional face-to-face exhibitions could not take place. We developed a hybrid engagement plan unique to Cumbria, accounting for the geography and technology challenges across the county. A virtual consultation was developed alongside webinars with real-time, live chat functionality that proved a huge success. As lockdown eased, the virtual sessions were supplemented with a return to face-to-face meetings. The hybrid approach resulted in better overall engagement and will be considered on all future large projects.

As the project approaches completion, and we return the land back to how we found it, engagement continues. By the time the project is complete we will have attended over 150 parish council meetings and held 50 public exhibitions. Continuous engagement has helped minimise the impact that construction inevitably brings to local communities. We believe that this engagement, alongside community and woodland funds totalling over £1 million, will leave a lasting legacy long after the pipeline is finished, benefiting people and communities across Cumbria for years to come.

Delivering value for:

- Communities
- Customers
- Environment



Our business model – our external drivers

What matters most to our stakeholders

We continuously challenge ourselves to make sure we understand what matters most regarding our role in society, the impact that we have and the value we create.

Our materiality assessment process

1. Define

We reviewed current best practice in materiality reporting. The assessment criteria for stakeholder interest and our ability to create value was confirmed. Building on our existing matrix we brought in more stakeholder views and evolved the matrix design. We committed to provide more detailed commentary on the most material issues.



2. Engage

Views were obtained from across all our stakeholder groups. Insight from consultations and data was made available through the engagement processes described on pages 30 to 33. Key internal subject matter experts and stakeholder relationship managers provided further insight on issues.



3. Assess

Comments and data were drawn together to form an initial view of the issues. The rationale for issue selection and its significance was presented to senior management for discussion. This included potential new issues, removal of issues and movement of existing issues.



4. Align

We cross-referenced and aligned identified issues with our principal risks and uncertainties, as set out on pages 104 to 105. Matrix visuals were then created to easily communicate the prioritisation of issues. For the first time an indication of how issues have moved since the previous review has been included.

Our approach to materiality

Understanding what matters most to our stakeholders is fundamental to being a purpose-driven organisation. We consider these stakeholder priorities alongside our own assessment of what has the biggest impact on the company and its ability to create value, and the output is presented in the material issues matrix.

This stakeholder materiality assessment informs decisions about what we report in documents such as this annual report. Setting out issues in this way helps ensure we understand key stakeholder priorities and consider their interests in strategic decision-making, helping us create long-term value.

In defining the strategic relevance of an issue to the company, we have adopted the integrated reporting framework definition of materiality, which states: “a matter is material if it could substantively affect the organisation’s ability to create value in the short, medium or long term”. Value, in this context, may be created internally (for the company and employees) and there can be external value (for customers, communities, investors, suppliers and the environment). Value may be financial or non-financial.

Our 2021/22 assessment

This year we carried out a thorough review of our material issues and matrix design.

Striking the right balance between different interests and views is not easy but our assessment process consolidated feedback based on a balance of views obtained from all our stakeholders.

Material matters in 2021/22

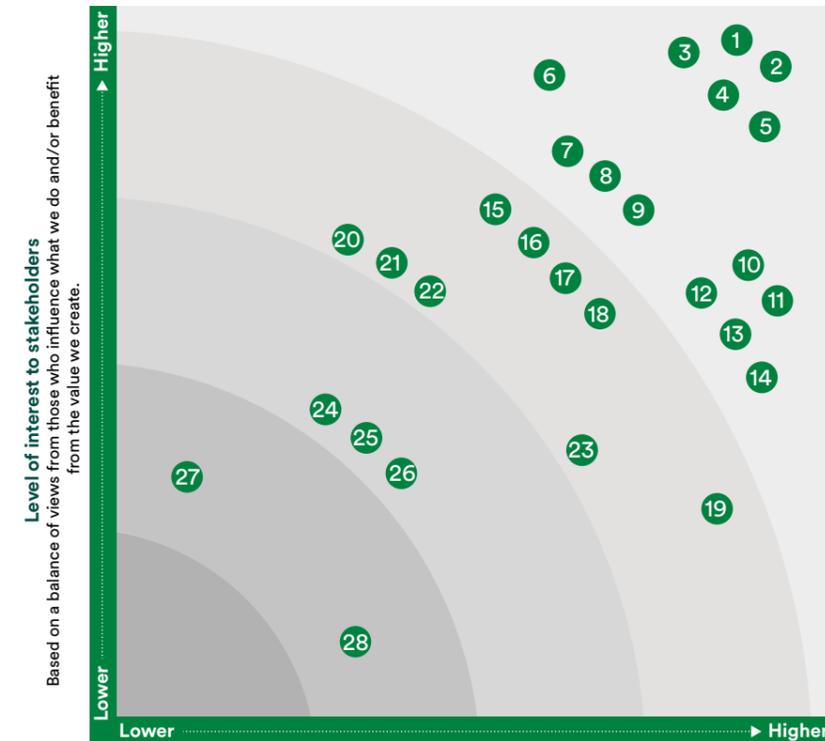
The assessment process identified 28 material issues. More information about the most material issues can be found on the following pages. We describe the issue, provide our response to managing the issue, explain how the issue links to our strategic themes and how it is included in our plans for the future.

Materiality matrix

Issues are plotted on the matrix from lower to higher in terms of level of interest to stakeholders and how much it can affect our ability to create value.

Independent review

Our approach has been reviewed by responsible business consultancy Corporate Citizenship, which commented that “United Utilities has set out the orderly, balanced and comprehensive process by which it has arrived at its refreshed materiality assessment. The detailed coverage of the six most material issues fosters public understanding. It sets out the links to strategic themes, risks and future actions. It shows how United Utilities recognises the most important issues and acts upon them”.



Key
 = Issue with no change in significance
 ↗ Issue with increased significance
 ↘ Issue with decreased significance
 N New issue in 2021/22 assessment

Effect on our ability to create value
 Based on the potential effect on our ability to create value over the short, medium and long term. Value can be created for United Utilities and our stakeholders. Value can be financial and non-financial.

Material issue	Movement relative to previous review	Material issue	Movement relative to previous review
1 Trust, transparency and legitimacy	=	15 Health, safety and wellbeing	↗
2 Resilience	=	16 North West regional economy	=
3 Customer service and operational performance	=	17 Land management, access and recreation	↗
4 Climate change	↗	18 Sewage sludge to land	N
5 Political and regulatory environment	=	19 Energy management	=
6 Affordability and vulnerability	=	20 Environmental impacts	=
7 Drinking water quality	N	21 Data security	=
8 Sewer flooding and storm overflows	↗	22 Diverse and skilled workforce	↗
9 Water resources and leakage	↘	23 Responsible supply chain	=
10 Financial risk management	=	24 Employee engagement	↗
11 Corporate governance and business conduct	=	25 Supporting communities	↗
12 Nature capital and biodiversity	=	26 Competitive markets	=
13 Innovation	=	27 COVID-19	↘
14 Cyber security	=	28 Human rights	=



United Utilities recognises the most important issues and acts upon them.”



Our business model – our external drivers

What matters most to our stakeholders

Understanding and responding to the most material issues affecting our business is key to delivering our purpose. Addressing these issues over the short, medium and long term is an integral part of our strategic themes and risk management.

1. Trust, transparency and legitimacy

Description

Strong stakeholder relationships are based on trust. Being open, honest and transparent is key to building and maintaining trust and legitimacy. As well as reporting openly, this means setting out commitments and delivering on them. Our stakeholders want to know that we are treating employees fairly, protecting customer data, and paying our fair amount of tax.

The societal trend of mistrust in governments, and media, is crossing over into the corporate world. This has led to growing calls for companies to demonstrate how they are contributing to society as a whole and operating in the public interest.

In recent years, the UK water sector has faced challenges to its legitimacy, amplified by some specific issues at a small number of companies. Consequently, trust has been eroded and questions raised about the ownership structure of the sector, and Ofwat has called for further transparency and disclosure around board leadership and decision-making processes, as well as starting discussions on companies' contribution to public value.

Our response

Being open about our purpose and transparent about how we are delivering for all of our stakeholders is key to operating in a responsible manner.

We aim to maintain high ethical standards of business conduct and corporate governance. We apply the principles and report against the provisions of the 2018 UK Corporate Governance Code. Additional governance and assurance is applied to our regulatory reporting.

We have open and transparent reporting around all of our equity and debt financing arrangements, do not use offshore financing vehicles, and we have secured the Fair Tax Mark independent certification since 2019.

We maintain a comprehensive set of policies, linked to and including, human rights, modern slavery and whistleblowing.

Cybercrime has been on the increase and, as the holder of customer information, it is a threat we take very seriously through our policies and dedicated data protection team.

We work with suppliers and contractors whose principles, conduct and standards align with our own. Our key suppliers have committed to our United Supply Chain approach (read more on page 73). We are a signatory to the Prompt Payment Code, and fully comply with rules on reporting payments to suppliers.

Link to strategic themes

 We engage on a continual basis with customers to understand their expectations in relation to service and behaviour, through activities like our quarterly brand tracker.

 We maintain stable credit ratings with key agencies, which helps us to retain efficient access to the debt capital markets.

 We set qualitative and quantitative performance targets across all of our stakeholders to evidence how we are delivering on our purpose.

Future plans

Operating in a responsible manner is a key driver of trust with our stakeholders. Our continued compliance with the corporate governance requirements of a listed company helps ensure the transparency of our reporting and behaviour. We will continue to use ESG indices as benchmarks of best practice to drive further improvements in transparency and disclosure.

Link to risks



2. Resilience

Description

Resilience is a broad and interconnected topic that is of interest to many of our stakeholders. A resilient company will embed resilience throughout its operations, financing and corporate systems of governance and control. Providing essential services to customers requires long-term planning to manage future challenges, such as population growth and climate change, to ensure they are provided effectively to meet increasing expectations.

Long-term financial resilience starts with a robust balance sheet and management of financial risks. Companies have to be aware of their own financial situation and make sure that they understand the financial resilience of others, such as suppliers and former employees.

As the world becomes increasingly digital, companies need to have the right people and skills to manage in the modern world. Increasingly, stakeholders are interested in the ability of an organisation's governance, accountability and assurance processes to help avoid, cope with and recover from disruption and to anticipate trends and variability in all aspects of their business.

Our response

It can take many years and require substantial investment to increase the resilience of existing assets or build new ones, which is why our long-term planning is so important. We have detailed plans in place to anticipate future challenges and understand what we need to do to address these. We build these needs into our business plans for each five-year regulatory period to anticipate the future funding we need to allocate in order to act at the right time. Our Systems Thinking approach provides opportunities for us to increase our operational resilience further.

We have a strong balance sheet, a secure pension position, and take a prudent approach to financial risk management, which delivers long-term predictability and resilience to financial shocks. As a public listed company, we consistently adhere to the highest

levels of governance, accountability and assurance. We have a robust risk management framework for the identification, assessment and mitigation of risk.

We maintain good relationships with employees, and employee representatives, to ensure an engaged and motivated workforce, and we continually strive to build diversity across all types of role and all levels within our business. We build skills resilience internally through training and development, including digital skills. We have graduate and apprentice schemes, and ambassadors that work with schools and education institutions to encourage the younger generation to pursue science, technology, engineering and mathematics (STEM) careers.

Link to strategic themes

 Through innovative approaches we are improving the reliability and resilience of our assets, helping to reduce unplanned service interruptions, and enabling us to be more proactive.

 Our robust capital structure, relatively low gearing and strong pensions position provide long-term financial resilience and future financial flexibility.

 We launched our Digital Skills Academy, a new learning portal for employees to access digital learning content to upskill them for their roles now and in the future.

Future plans

Our Haweswater Aqueduct Resilience Programme (HARP) will be progressed through direct procurement for customers in AMP7 and AMP8, addressing one of our biggest operational risks in a critical pipeline that transports water from the Lake District to Greater Manchester. Read more on page 106.

Link to risks



Risk exposure

An indication of the current exposure of each principal risk relative to the prior year.

-  Decreased
-  Stable
-  Increased

Our principal risks

- | | | |
|---|--|--|
|  Water service |  Resource |  Conduct and compliance |
|  Wastewater service |  Finance |  Political and regulatory |
|  Retail and commercial |  Health, safety and environmental | |
|  Supply chain and programme delivery |  Security | |

3. Customer service and operational performance

Description

In an increasingly digitised and instant economy, customers expect more from services than ever before. This includes the water sector, with high expectations for the reliability and responsiveness of services.

Since the pandemic, more people have come to appreciate the environment and there is increasing stakeholder focus on the operational performance of companies that rely and impact on the environment.

Ensuring a reliable service in the face of a growing population, changing climate and increasing expectations of service requires integrated long-term thinking and targeted investment to ensure both short and longer-term reliability.

Many of our assets are ageing compared to other utilities. To meet the expectations of customers and regulators, it is critical that we combine modern technology into our networks and management of customer service.

Our response

To provide great water and more is reliant on delivering good operational and customer performance. Our pollution incident reduction plan and reinvestment of regulatory outperformance has improved our environmental performance.

We have improved customer service provision through both traditional and digital channels, measuring ourselves against key external benchmarks such as securing the Institute of Customer Service accreditation with distinction. This is alongside making new services available to customers, such as 'Get Water Fit' which is helping over 95,000 customers learn more about their water usage.

Our culture of innovation and Systems Thinking drives us to adapt our assets and the way we operate to use modern technology and the best new ways of working. Examples include sensors across our network that allow remote monitoring and control from our Integrated Control Centre, and our fleet of alternative supply vehicles (ASVs) that can inject treated water directly into supply while we undertake repairs.

We monitor the performance and health of our assets, with the help of sensors across the network, and this allows us to be proactive. For example, by monitoring pressure in the water network we can spot issues and fix them before we get a burst, saving costs and sparing customers the impact.

We have a substantially enhanced social media presence to respond quickly to stakeholders. Over one million customers now engage with us digitally, whether this is through our website, our mobile app or on social media.

Link to strategic themes

 Our Systems Thinking approach is delivering operational excellence – benefiting customers and the environment.

 We balance our capital and maintenance expenditure to ensure affordability and reliability over the short, medium and long term.

 Our Better Rivers: Better North West commitments and additional £65 million investment in our Green Recovery proposals will deliver improvements for customers and the environment by 2025.

Future plans

Wider deployment of Systems Thinking, for instance through Dynamic Network Management (read more on page 43), will deliver further improvements in the reliability of services. We have a number of challenging targets for the 2020–25 period that will help improve the reliability of our services, including helping and encouraging customers to use less water.

Link to risks



Key

-  The best service to customers
-  At the lowest sustainable cost
-  In a responsible manner

Our business model – our external drivers

What matters most to our stakeholders

4. Climate change

Description

Greenhouse gas emissions and how they are affecting the earth's climate is important to many stakeholders. There is a growing expectation on companies, across all sectors, to take action to reduce their carbon emissions and to adapt to the impacts of climate change.

Weather is fundamental to the delivery of water and wastewater services, and so climate change will always be of strategic and operational importance to the water sector and its stakeholders.

Already, we are seeing the effects of climate change on the North West's weather, with increasing summer temperatures, wetter winters and more extreme rainfall events. With these trends set to continue, unless we take action there will be increasing impact on the services we provide to the communities we serve.

Companies must plan well into the future to understand what changes are likely to occur, and continually adapt to meet the risks and opportunities this presents.

Our response

Our response to climate change risk involves mitigation (minimising our greenhouse gas emissions) and adaptation (ensuring our services are resilient to a changing climate). Where practical, we generate renewable energy on our sites through solar panels, wind turbines, and the use of bioresources at wastewater treatment works, helping to reduce our emissions. We have reduced our carbon footprint considerably since 2005/06 and have set ambitious science-based targets as part of our continued efforts to reduce emissions. We have committed to six pledges to help us achieve significant further reductions in emissions and from this year the long-term incentive outcomes for our executives will be linked to these.

We have detailed plans that set out how we will adapt our services to meet the challenges of climate change such as the 25-year Water Resources Management Plan, and we are targeting a 15 per cent reduction in leakage over AMP7, one of our actions to address the risk of water sufficiency events.

We work with third parties to encourage sustainable drainage solutions to help cope with surface water in periods of heavy rain and are finalising a Drainage and Wastewater Management Plan with key authorities across the region.

We have reported against the recommendations of the Task Force on Climate-related Financial Disclosures for the past three years to provide transparency of our approach.

Link to strategic themes

We help customers use less water, with advice and free water saving gadgets, saving them money and water.

Generating our own renewable energy helps to reduce our reliance on purchasing energy and, therefore, saves costs.

Our six carbon pledges, including science-based targets covering all of our emissions, demonstrate our commitment to reducing our footprint.

Future plans

We have a detailed 25-year Water Resources Management Plan, a Drought Plan, and we published our third adaptation report in 2021 setting out how we aim to adapt to meet the challenges of climate change. Read more about our approach to climate change on pages 86 to 97.

Link to risks

1 2 4 5
6 7 9 10

5. Political and regulatory environment

Description

The UK Government's current goal is to be the first generation to leave the environment in a better state than we found it. The Environment Act, which became law in 2021, includes commitments to improve water management, and the water sector has a leading role to play to implement its requirements. This could drive significant increases in investment in the future which will need to be balanced with customer affordability.

Environmental and quality regulators set stringent consents for water company activities to ensure the environment and water quality is protected. In meeting these obligations, companies need to work hard to maintain compliance. This requires striking a balance with other environmental impacts, such as the use of natural resources and emissions of greenhouse gases. Read more about our regulators on page 27.

Our response

We welcome the Environment Act and the inclusion of aspects relating to storm overflows. Many of our Better Rivers: Better North West pledges will be delivered over the next three years, including investment in wastewater systems, enhanced data monitoring and sharing, greater innovation and more use of nature-based solutions. Read more about Better Rivers: Better North West on page 67.

The Environment Agency assesses water companies' performance across a basket of measures, and we are one of the best-performing companies over the last five years. Our regulatory framework shapes the way we manage natural resources and our interaction with the environment, and we work with our environmental regulators to agree long-term plans.

Alongside this, we need to deliver other core regulatory obligations – such as those set out by Ofwat – and compliance with ever increasing drinking water quality standards. This year we launched our Water Quality First programme with

the aim of providing our customers with industry-leading water quality.

A phased, long-term approach to address all of the concerns and interests of our many stakeholders, including environmental regulators, ensures that the necessary work can be delivered without placing too much pressure on customer bills by spreading some of the spend over several years.

We work with partners to improve the quality of rivers and bathing waters in our region, providing access to the recreational benefits of the natural environment and boosting the local tourism industry.

Link to strategic themes

We balance customers' bills against longer-term investment.

By using natural-based solutions and innovative markets to deliver outcomes we are delivering more for customers' money.

Engaging political stakeholders on matters relevant to the water industry and our operations in the North West.

Future plans

Engaging with local authorities and devolved administrations on the important role they play in addressing water management issues including surface water management and river water quality.

New legislation, such as the Environment Act 2021, could drive significant increases in investment, which will need to be balanced with customer affordability.

Link to risks

1 2 3 5
6 7 9 10

Risk exposure

An indication of the current exposure of each principal risk relative to the prior year.

- Decreased
- Stable
- Increased

Our principal risks

- 1** Water service
- 2** Wastewater service
- 3** Retail and commercial
- 4** Supply chain and programme delivery
- 5** Resource
- 6** Finance
- 7** Health, safety and environmental
- 8** Security
- 9** Conduct and compliance
- 10** Political and regulatory

6. Affordability and vulnerability

Description

The socioeconomic situation in the UK remains challenging. Many people across the region are facing real challenges as we emerge from a global pandemic and are faced with significant rises in the cost of living, so water poverty continues to be an important issue.

Maintaining trust and confidence in the sector in the years ahead will be crucial. The North West already suffers high levels of acute deprivation with twelve per cent of households affected by water poverty, higher than the national average. Research indicates that many customers who struggle with water charges are behind on other bills and many have a pay-day loan.

Our stakeholders are interested in how we provide support for customers in vulnerable circumstances beyond just financial distress, such as disability, first language not being English, or temporary vulnerability brought on by illness or a life event.

Our response

Our industry-leading approach to collections and innovative affordability offerings have enabled us to respond to the pandemic and the emerging cost of living crisis. The temporary extension to the social tariff we secured at the start of the COVID-19 pandemic to support those customers most affected has now been made permanent, so we have an additional £15 million of support available per annum for each of the remaining years of AMP7.

We have the sector's widest range of affordability and vulnerability schemes. Through these schemes over 77,000 customers were lifted out of water poverty over the past two years. Our extensive affordability schemes are providing £280 million of support over AMP7.

We led the sector in establishing our Priority Services scheme, with dedicated teams providing additional support to customers with physical, mental health, or financial difficulties during an incident. This scheme is accredited by the British Standards Institute and over 150,000 customers are now registered for this support, with more joining every day.

Link to strategic themes

We will continue to invest in our assets and people to meet the stretching customer support targets in our regulatory contract.

We are the first UK utility company to harness real-time open banking as part of our processes to verify customer eligibility for reduced-rate social tariffs.

Backing the Consumer Council for Water's drive to launch a national social tariff.

Future plans

We will continue to provide substantial affordability assistance through support tariffs and other forms of support, while extending our Priority Services offering to over 210,000 customers by 2025, improving the quality and scale of the support we provide.

Link to risks

1 2 3 5
6 10

Key

- The best service to customers
- At the lowest sustainable cost
- In a responsible manner

Our business model – S172(1) Statement

Our key decisions during the year to 31 March 2022

Introduction

Throughout this annual report, we provide examples of how we have thought about the likely consequences of long-term decisions and how we:

- build relationships with stakeholders and balance their needs and expectations with those of the business;
- understand the importance of engaging with our employees;
- understand the impact of our operations on the communities in our region and the environment we depend upon;
- are mindful of the interactions we have with our regulators; and
- understand the importance of behaving responsibly and being consistent with the company's purpose, vision and values.

Haweswater Aqueduct Resilience Programme

Link to strategy



The decision

In December 2021, the board agreed delivery of the replacement of six of the existing tunnel sections of the Haweswater Aqueduct (the aqueduct) and connections to existing multilane siphons between the tunnel sections and associated facilities had the potential to be delivered as a Direct Procurement for Customers (DPC) project rather than through the traditional UUV procurement route. Under DPC the CAP* will be responsible for the detailed design and build of the project and, crucially, for securing the project finance. The CAP will also be responsible for maintaining and inspecting the new tunnels for a period of 25 years post construction. In November 2020, the replacement of the Hallbank section of the aqueduct was successfully completed by UUV, which was delivered via a traditional approach working with a design and build contractor.

How we engaged with stakeholders

Our regulator, Ofwat, has introduced the new DPC approach for companies to consider when delivering large infrastructure projects. (More information on the DPC approach can be found on Ofwat's website.) Ofwat 'believe that by outsourcing the delivery of infrastructure projects using DPC, water companies can achieve significant benefits for customers. This includes both through innovation and lower whole life costs of the project'. The company

has been working with Ofwat on developing the detail of the DPC approach for this complex project since proposing the delivery of HARP via DPC in its AMP7 business plan.

In developing this project, we have sought customers' views and worked with their representatives through YourVoice to develop a solution to balance risk reduction and the cost of delivery. We have completed initial design work and submitted all planning applications taking into account impacts on local communities and the environment, and have sought to minimise this as much as possible. We have actively engaged stakeholders through the planning process, undertaking extensive public engagement including an innovative 'virtual public exhibition' when face-to-face interactions were restricted due to the pandemic. We have also completed environmental impact assessments and are seeking a ten per cent biodiversity net gain from the project.

Read more at ofwat.gov.uk/regulated-companies/markets/direct-procurement/direct-procurement-for-customers/

The board's view

The aqueduct is a critical asset in being able to deliver our purpose to provide great water and more for the North West. It is a major part of our water supply network serving our customers in parts of Cumbria, Lancashire and Greater Manchester. The board does not underestimate the complexities of the project to replace six sections of tunnel in some remote stretches of countryside and with sections of the tunnel at a depth of up to 370 metres. As well as the technical challenges, the complexities of the new and untested DPC approach have added to the challenge of a

Statement by the directors in performance of their statutory duties in accordance with S172(1) Companies Act 2006

The board of directors of United Utilities Group PLC consider, both individually and together, that they have acted in the way they consider, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole and having regard (amongst other matters) to factors (a) to (f) s172 Companies Act 2006, in the decisions taken during the year ended 31 March 2022 including:

project estimated to require investment of over £1 billion and take circa 9–10 years to complete.

The board has been kept fully apprised of progress at key stages of the project through regular presentations at board meetings, 'deep-dive' sessions and as part of strategy discussions.

The board approved the submission of the Outline Business Case to Ofwat under DPC having evaluated and considered the DPC approach and identified, and sought to mitigate as far as possible, the known and likely risks associated with the DPC approach. The board is cognisant of the many challenges ahead including amongst other things: the appointment of the CAP through a new DPC tender process, the implications for the group of the different commercial construct and financing of the project, and the critical nature of the aqueduct to the business.

Under the current circumstances, the board considers that the DPC delivery approach has the potential to be most likely to promote the long-term success of the company for the benefit of its members as a whole. This is based on the information currently available, which suggests that the DPC route has the potential to offer the best value for customers and, therefore, supports the position that this should be tested through the market through progressing HARP through a DPC procurement process.

In April 2022, Ofwat gave its consent for UUV to procure HARP through a DPC procurement process under Condition U of its licence.

* CAP means a limited company which has been competitively appointed to be the provider in accordance with a DPC Procurement Process in respect of a DPC Delivered Project.

operational performance; and reduced travel costs and carbon emissions. Increased hybrid working provides opportunities including: the ability to attract employees from a wider and potentially more diverse talent pool; being the catalyst to improve our digital capabilities and in time shape the workplace of the future; and potentially make savings on accommodation.

Our plans have seen 2,000 employees adopting hybrid ways of working. In terms of the non-hybrid roles which are typically directly supporting our customers and critical operations, we are continuing to look at providing additional flexible opportunities and changing workplace practices to retain, attract and stay aligned to the employment market. The board concluded that the incorporation of a hybrid way of working alongside the traditional approach would be most likely to promote the long-term success of the company for the benefit of its members as a whole. This way of working will be monitored closely to ensure it remains efficient and effective.

Hybrid working

Link to strategy



The decision

The COVID-19 pandemic has changed the world of work. United Utilities is an organisation where, pre-pandemic, the majority of our employees routinely travelled to work on a daily basis to attend one of the group's offices or sites. As the pandemic progressed, the need to evolve our ways of working to face the future became evident. The board was fully involved in the development of the group's next ways of working, including the pilot project prior to rolling out the hybrid way of working for roles which fulfilled specific criteria within the organisation.

How we engaged with stakeholders

Weekly online webinars were established during the early stages of the pandemic in

order to communicate with line managers prior to the cascade of information to their teams, and with these resources being made available to all employees via the intranet. Our Employee Voice panel has been a valuable mechanism for employees to provide feedback, particularly on how they felt they have been supported during the pandemic. Over 1,000 employees, including those based out in the field or at one of our many operational sites, provided their views, which were taken into account when formulating the plans for our next ways of working. Feedback from the teams involved in the pilot project have helped shape our current approach to hybrid working.

The board's view

Our employees are fundamental to fulfilling our purpose of providing great water and more for the North West. We have seen a number of positive benefits relating to work during the pandemic including: reductions in employee sickness absences; improvements in engagement and wellbeing; improvements in

Our strategic themes

The best service to customers

At the lowest sustainable cost

In a responsible manner

River health

Link to strategy



The decision

The group has committed to deliver £230 million in environmental improvements within our base capital programme, supporting at least a one-third sustainable reduction in the number of spills recorded from our storm overflows by 2025 compared to the 2020 baseline, leading to 184 kilometres of improved waterways across the region.

How we engaged with stakeholders

There has been much negative press coverage regarding river health and bathing water quality aimed primarily at the wastewater sector,

with the Environment Agency (EA) and Ofwat currently investigating whether wastewater companies' treatment works have been operated in line with their environmental permits. We have written to all our stakeholders including the EA, Ofwat, The Consumer Council for Water and MPs in our region. We announced that we would be launching a community fund to support local rivers initiatives, work alongside The Rivers Trust, RSPB and local authorities to deliver projects, and launch a new partnership to protect watercourses with farmers to incentivise farming practices that reduce impact to river health.

The board's view

The group has co-operated fully with the EA/Ofwat investigation. The board is cognisant that United Utilities needs to do more to play its part in improving river health in the North West, and amongst other things, we will:

- aim to publish investigations and plans for all overflows that operate frequently;
- ensure all storm overflows are monitored by 2023;
- aim to provide near real-time data when an overflow operates and ensure this data is easily accessible by 2023;
- aim to deliver a significant reduction in impact caused by storm overflows and sewage treatment works by 2030; and
- aim for there to be no serious pollution incidents from our assets.

The board, in committing to playing its part in improving river health, believes this would be most likely to promote the long-term success of the company for the benefit of its members as a whole.

Non-financial information statement

The table below constitutes the company's non-financial information statement, produced to comply with sections 414CA(1) and 414CB(1) of the Companies Act 2006. Our purpose-driven approach, as described on pages 16 to 17, sets out how we act as a responsible business and is applicable to the areas of disclosure required by s414CB(1). The performance tables we publish for each stakeholder that we create value for, so that we can demonstrate we are fulfilling our purpose (see pages 52 to 75), include data in relation to the areas of disclosure required by s414CB(1).

Read more about our purpose on our website at unitedutilities.com/corporate/about-us/what-we-do/our-vision

Reporting requirement	Information necessary to understand our business and its impact; policies and due diligence activities; and outcomes	Policies, guidance and standards which govern our approach (some of which are only published internally)
Environmental matters 	Reflecting the needs of the environment: <ul style="list-style-type: none"> • Natural resources – see page 24 • Natural environment – see pages 26 and 31 • Reducing our carbon footprint – see pages 86 to 97 	<ul style="list-style-type: none"> • Waste and resource use policy • Environmental policy – see the responsibility pages on our website • Water Resources Management Plan – see page 48 • Emissions target – see pages 86 to 97
Employees 	Reflecting the needs of our employees: <ul style="list-style-type: none"> • Health and safety – see page 62 • Mental wellbeing – see pages 61 to 62 • Competitive base salaries and benefits – see page 183 • Gender pay report 2021 – see page 44 • Engagement – see pages 7, 30, 60 to 62 and 196 • Board diversity – see pages 133 to 134 	<ul style="list-style-type: none"> • Health and safety policy • Mental wellbeing policy • Equality, diversity and inclusion policy • Flexible working arrangements • Agency worker policy • Human rights policy – see page 36 • Board diversity policy – see pages 133 to 134
Respect for human rights 	Reflecting the needs of our stakeholders: <ul style="list-style-type: none"> • Suppliers – see page 31 • Diversity within our workforce – see pages 7, 44 to 45, 60 to 63, 133 to 134, and 137 to 138 	<ul style="list-style-type: none"> • Employee data protection policy • Slavery and human trafficking statement • Human rights policy – see page 36
Social matters 	Reflecting the needs of our stakeholders: <ul style="list-style-type: none"> • Customers – see page 30 • Communities – see page 30 • Environment – see pages 31 and 86 • Suppliers – see page 31 • Regulators – see page 32 	<ul style="list-style-type: none"> • YourVoice – see page 29 • Charitable matched funding guidance • Volunteering policy • United Supply Chain – see pages 36 and 73 • Commercial procurement policy
Anti-corruption and anti-bribery 	Reflecting the needs of employees and suppliers: <ul style="list-style-type: none"> • Employees – see pages 61 and 154 • Suppliers – see page 73 	<ul style="list-style-type: none"> • Anti-bribery policy • Fraud investigation and reporting processes • Whistleblowing policy • Internal financial control processes • Commercial procurement policy

Our business model – our approach

Systems Thinking

Our Systems Thinking approach enables us to better manage our end-to-end water and wastewater systems, optimising our decision-making and helping us move away from the traditional reactive approach to address problems proactively before they affect customers. This creates long-term value, improving our asset reliability and resilience, reducing unplanned service interruptions, and delivering cost savings.

Systems Thinking capability maturity

We assess new opportunities against five capability maturity levels.

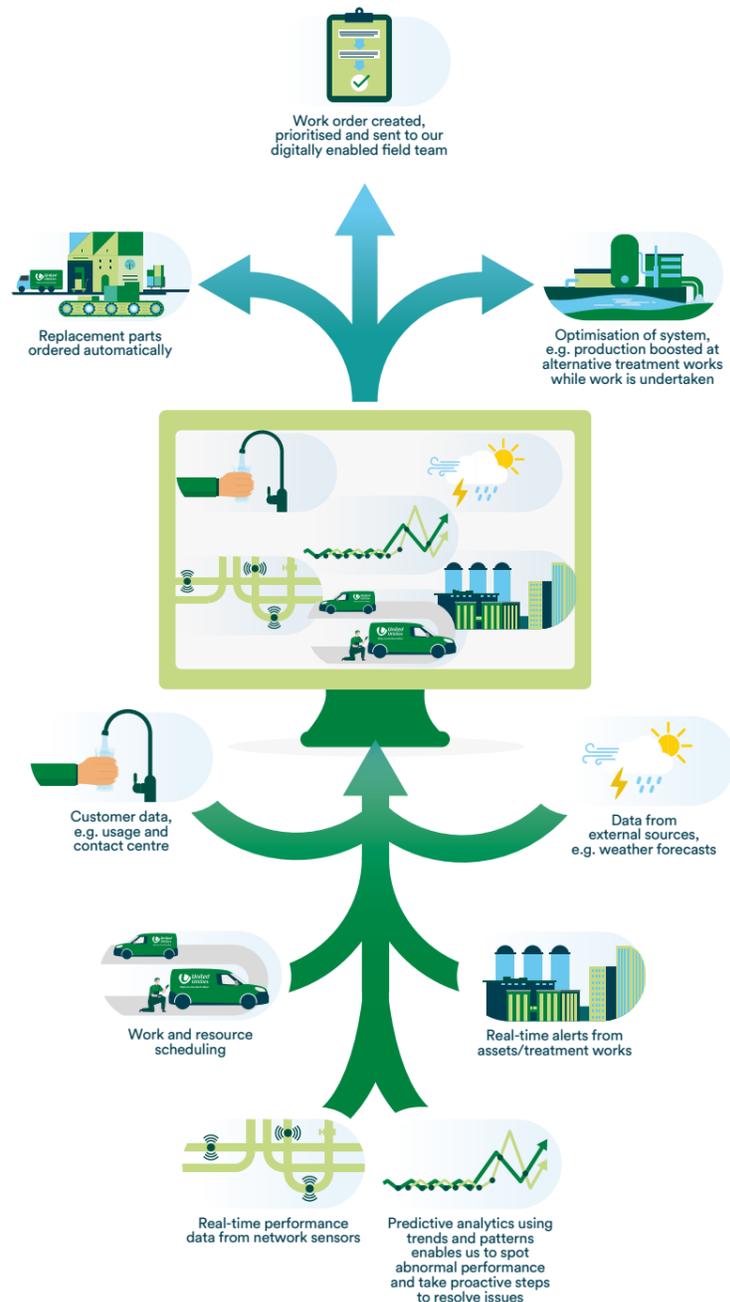
At the lower levels there is a high degree of human intervention and reactive behaviour.

At the higher levels there is a high degree of predictive analytics, use of artificial intelligence to process vast amounts of data, joined up decision-making across the system, and higher levels of automation.

It requires time and investment to reach the higher levels, and we are at different levels in different areas of our business as we continue to embed and progress our approach.

Central system management from our Integrated Control Centre

Systems Thinking involves looking at the entire system and all of its linkages, rather than individual assets or sites in isolation, to find the best all-round solutions. Our digital backbone sends vast amounts of real-time data to our Integrated Control Centre (ICC), from which we plan, monitor and control our operations. We also factor in other source data such as weather forecasts and customer demand, and at the higher capability maturity levels we use artificial intelligence and machine-learning to identify trends and anomalies that could signal potential issues.



“

We're harnessing data on a huge scale across our region, and combining that with the advancements in AI to really understand that complete system.”

Resolving potential issues proactively with Dynamic Network Management

Dynamic Network Management (DNM) is an innovative programme of work that has been developed to help us become more proactive in managing our sewer network, by installing the latest technology across a large number of 'hot spot' areas in the North West.

The artificial intelligence (AI) we use has a neural network that learns trends in the system, predicting future behaviour of the assets, as well as current activity. It identifies patterns in customer behaviour, for example, or in river levels as a response to rainfall, and allows us to predict where and when bigger problems might develop.

Network business manager, Sam Sloan, said: "The programme's combination of artificial intelligence and machine-learning puts us in a leading position when it comes to Systems Thinking. We're harnessing data on a huge scale across a large region, and combining that with the advancements in AI to really understand that complete system."

A growing population, ageing infrastructure and more erratic weather conditions due to the effects of climate change all combine to create a challenge for our vast sewer network. There are certain places along the network where incidents such as blockages, flooding and pollution are more prone to occur, and many incidents are not traditionally detected until they are experienced first-hand by customers. Our goal was to create a smarter network – one that allows us to truly understand how our drainage systems perform.

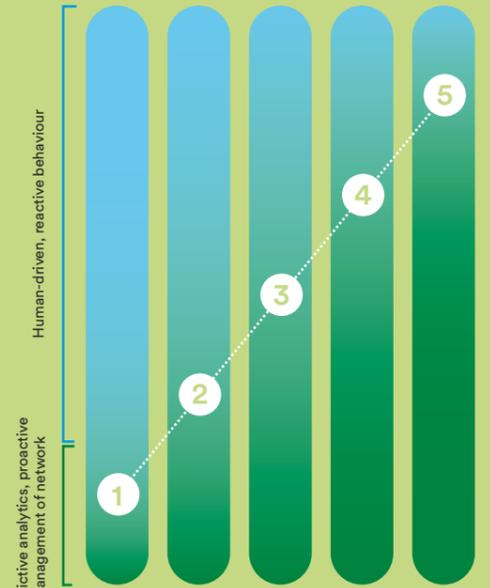
We have already installed over 10,000 of the digital sensors, and the data produced by this system means we are finding and fixing issues within the sewer system before they cause an incident. As a result, our customers have seen a year-on-year reduction in internal flooding of a third in this last year with our performance significantly ahead of the original target we set ourselves.

To help reduce the risks of flooding and pollution, over 20,000 digital sensors are being installed in manholes across the expansive sewer network, and also at a large number of pumping stations. The sensors identify when the sewer network flow is not operating as usual for that particular part of the network, or if a pumping station is not working as it should. The sensors send an alert back to a central system, meaning we can respond in real time to any deviation in performance, identifying and resolving issues before they impact customers or the environment.

Delivering value for:

- Customers
- Environment
- Investors

Predictive analytics, proactive management of network



- Maturity level 1**
Event-led human-driven analytics
- Maturity level 2**
Centralised view of system performance
- Maturity level 3**
Technology-enabled, standardised analytics and insight
- Maturity level 4**
Machine-led system analytics and system management
- Maturity level 5**
Machine intelligence provides full system control

Our business model – our approach

Diversity and inclusion

Creating a diverse and inclusive culture

We want our workforce to reflect the communities we serve by reaching and recruiting from every part of our community, and we want all employees to feel valued and included, regardless of their gender, age, race, disability, sexuality or social background.

Our customer services and people director sponsors our overall diversity and inclusion plan and tracks its progress with the executive team. We have completed a further maturity audit with our specialist inclusion partner, the Clear Company, who has independently measured progress against our plans and recognised our strong focus on education.

We again ranked in the top 1 per cent of over 850 companies across Europe in the Financial Times' Statista Survey for Diversity and Inclusion Leadership, and were the leading utility company in the Top 50 Inclusive UK Employers Index. We have been included in the Bloomberg Gender Equality Index 2022, showing our commitment to more equal and inclusive workplaces.

Ethnicity

We continue to build on our diversity data, collecting information as part of our ongoing processes. We launched our first diversity survey, with over 2,000 employees sharing data about themselves beyond their role. The percentage of employees who choose not to disclose their ethnic origin has decreased from 15 per cent to 9 per cent. We have moved from 2.5 per cent of our workforce identifying as from an ethnic background to 2.7 per cent.

We have become a patron member of the BAME Apprenticeship Alliance and have an active multicultural network that supports colleagues and educates the wider workforce on cultural differences. Our drive to build an inclusive culture has seen us focus on educating, raising awareness, and celebrating cultural events. We recruited 25 university students onto the 10,000 Black Interns programme, and have committed to offering 120 placements over the next five years.

We have put efforts into developing a diverse leadership pipeline by introducing a new talent programme for employees from ethnic minority backgrounds, giving them the opportunity to develop personal and leadership skills that will help them fast-track their careers with us.

We've made good progress in recruiting apprentices from more diverse backgrounds, with 16 per cent of new apprentices this year from an ethnic minority background. This is a positive result against a backdrop of low attrition levels, regional variations in ethnic diversity, and difficulties attracting females for science, technology, engineering and mathematics (STEM) roles.

Gender

Our workforce profile remains static at 66 per cent male and 34 per cent female. We recognise the need to attract diverse and talented individuals with an interest in STEM

and have a focused approach to improving the gender diversity of our workforce. To help us inspire young people into STEM careers, we continue to run our 'Engineering your future' competition with secondary schools from the local area, working closely with our apprentice ambassador, Warrington Wolves women's rugby captain Michelle Davis. Sixty per cent of participants are female.

We have strong female role models succeeding at all levels of the organisation, including the board, executive leadership team, and key operational roles. Sixty-two per cent of all senior leader vacancies this year were filled by females. We offer targeted support for future female talent through our Female Leadership Pipeline and Aspiring Manager Programme. Sixty-four per cent of employees currently on our Aspiring Manager Programme are female.

In the last 12 months, we have welcomed 26 graduates onto our schemes, and 51 apprentices have joined us on operational, service and future-facing digital and environmental schemes. Thirty-seven per cent of new apprentices and 36 per cent of new graduates are female, higher than the UK average of 24 per cent females in STEM roles.

We are proud that 96 per cent of our current female workforce would recommend us as an employer and 92 per cent of female employees say that we support diversity and inclusion in the workplace.

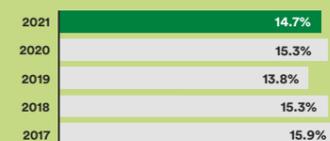
Gender pay reporting (from the 2021 gender pay report)

We're making good progress in reducing our gender pay gap and gender bonus gap, continuing a positive downward trend over the last five years. At 14.7 per cent, our median gender pay gap is lower than the national average of 15.4 per cent. This year, the changes in our median gender pay gap are mainly due to a reduction in the number of females in lower-paid roles, which has increased the median salary for women.

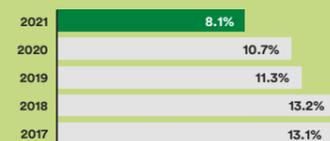
Our mean gender pay gap has reduced significantly since 2017, mainly due to an increase in the number of women progressing into more senior roles within the company and the success of our talent management programmes. Due to changes in our workforce, last year we also saw more men in lower-paid roles within the company.

Although women are still under-represented in the top three pay quartiles, we have seen more women in the upper middle quartile this year. This is mainly due to more women than men being promoted into higher-paid roles as a result of our talent management programme, which has helped to reduce the pay gap. However, there is still more work for us to do, for example in our main operational roles, where it is more difficult to achieve a gender split that is representative.

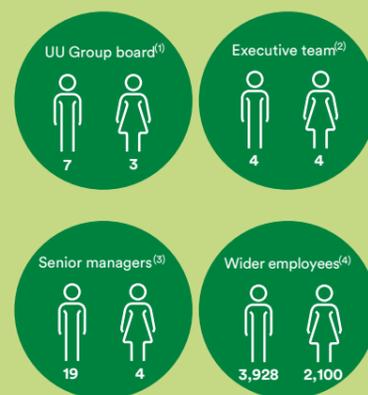
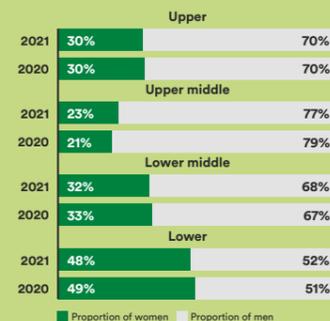
Our median gender pay gap over the last five years



Our mean gender bonus gap over time



Percentage of women and men overall and in each quartile of the pay range (figures for 2021 and 2020)



- (1) Group board as at 31 March 2022.
- (2) Executive team excludes CEO and CFO, who are included in group board figures.
- (3) As at 31 March 2022, there were eight male and three female employees appointed as statutory directors of subsidiary group companies but who do not fulfil the Companies Act 2006 definition of 'senior managers'.
- (4) Wider employees as at 31 March 2022.

LGBT+

We celebrate and value the diversity of all our people. We are committed to ensuring any Trans or non-binary people are respected and valued and that we provide a working environment free from discrimination, harassment and victimisation based on gender identity. We worked with our colleagues from the LGBT+ network and our trade union representatives to produce a transitioning at work policy.

We are pleased to have partnered with The Proud Trust, a north west-based LGBT+ youth charity. We have sponsored a youth group worker to work with LGBT+ young people in Oldham, a 'cold spot' as defined by the social mobility index. We have funded LGBT+ inclusive educational resources, linked to the English national curriculum. In 2021, we continued to roll out our 'Pride in the workplace' training, designed to help break down barriers and improve confidence to talk about LGBT+ in the workplace. Over 150 employees completed the training course. We received a Bronze award in Stonewall's Workplace Equality Index for our efforts to support LGBT+ inclusivity.

Disability

We are driving forward our commitment to The Valuable 500's nine recommendations for creating a disability-aware workplace. The Value 500 is a global movement to put disability on the business leadership agenda. We are a Disability Confident employer, one of over 20,000 UK employers to have signed up to the government scheme.

Together with our ability employee network, we have identified key focus areas, including neurodiversity, deaf awareness and menopause. We have also committed to support the Employ Autism programme, through which we will offer paid placements to autistic students from local universities.

The percentage of employees who have declared a disability has increased from 2.2 per cent to 8.4 per cent. Of this year's apprentice intake alone, 21 per cent disclosed a disability or learning difficulty.

Supporting under-represented communities

We are supporting those traditionally overlooked groups in our communities, with 44 per cent of the young people we recruited onto the Government's Kickstart Scheme now transitioning into employment, and a further six being supported with applications for our award-winning apprenticeships.

Our 'Tap into your future' virtual work experience programmes targeted under-represented communities across the North West, offering over 500 students an exclusive insight into our business and our fantastic early careers opportunities. One hundred per cent of attendees now think United Utilities is a diverse and inclusive employer and 76 per cent said they were extremely interested in applying for an apprenticeship after completing the programme.

We successfully implemented an award-winning engineering masterclass, with around 300 students having been taken through the curriculum, inspiring the next generation of diverse students from disadvantaged backgrounds to pursue a STEM-related career.

Armed Forces

We were proud to again achieve the Ministry of Defence's Employer Recognition Scheme Gold Award, the highest level of recognition for commitment to supporting the Armed Forces community, and have become one of the first 300 companies to be re-accredited. The accolade is awarded to companies that can demonstrate considerable commitments and 'forces-friendly' action, including signing the Armed Forces Covenant, making necessary adjustments to HR policies, and fostering a more inclusive work culture for Armed Forces personnel, past and present.

Our inclusion plan

Inclusive leadership

With workshops, masterclasses, and talks on inspirational topics from external speakers, we're leading a fresh approach to diversity and inclusion.

Encouraging openness

We launched our 'About Me' campaign to find out more about our employees' needs and improve our employee records.

Improving our policies

We have a number of policies in place to support our employees in achieving the balance between home and work life, with enhanced family-friendly leave options and maternity benefits that are better than those required by UK law.

Increasing awareness

Our 'We are better together' video shows our employees that we want to create and maintain a working environment where we value and respect one another's unique contribution.

Supporting inclusion

Through our gender equality network we've been focusing on normalising some tricky conversations.

We have created over **£300,000** of social/local economic value (TOMS Social Value Portal)

62% of those recruited to senior leader roles in 2021 were female and **35%** of our combined board and executive team is female

34% of our employees are female and **25%** of these are in STEM roles

41% of our graduates and **27%** of our apprentices are female

15% of our graduates and **13%** of our apprentices have told us they have a disability or learning difficulty

Our business model – our planning horizons

Our approach to long, medium and short-term planning horizons helps us continue fulfilling our purpose in a sustainable and resilient way.

Materiality and risk assessment

Our plans take into account the issues that have been identified as material, and our assessment of principal risks and uncertainties.

➔ Read more about **what matters most to stakeholders** on pages 34 to 39 and **our risk management** on pages 100 to 109

Monitoring performance

We continuously assess our performance against our plans using key performance indicators (KPIs) and other performance metrics of interest to our stakeholders.

➔ Read more about **how we measure our performance** on pages 50 to 51

Our approach to planning

We take an integrated approach to everything we do. To help us create and prioritise our plans, we consider:

- what the material issues are, both in terms of the level of interest to stakeholders and the effect they may have on our ability to create value;
- our assessment of principal risks and uncertainties;
- our environmental, social and governance (ESG) commitments; and
- how our plans will fit with our Systems Thinking approach.

We undertake planning for long, medium and short-term horizons.

Long-term (25+ years) planning helps us identify what we need to do to address challenges and opportunities that may arise, building resilience so that we can ensure we are able to provide our essential services to customers far into the future.

These long-term plans influence our medium-term (five to ten years) planning, which sets out how we will deliver the commitments of our final determination for each regulatory period, as well as our non-regulatory activities.

Short-term (one year) planning enables us to monitor and measure progress against our five-year plans and regulatory targets. We retain flexibility in our one-year plans to meet our five-year targets in the most effective and efficient way as circumstances change.

Our planning horizons

1 year

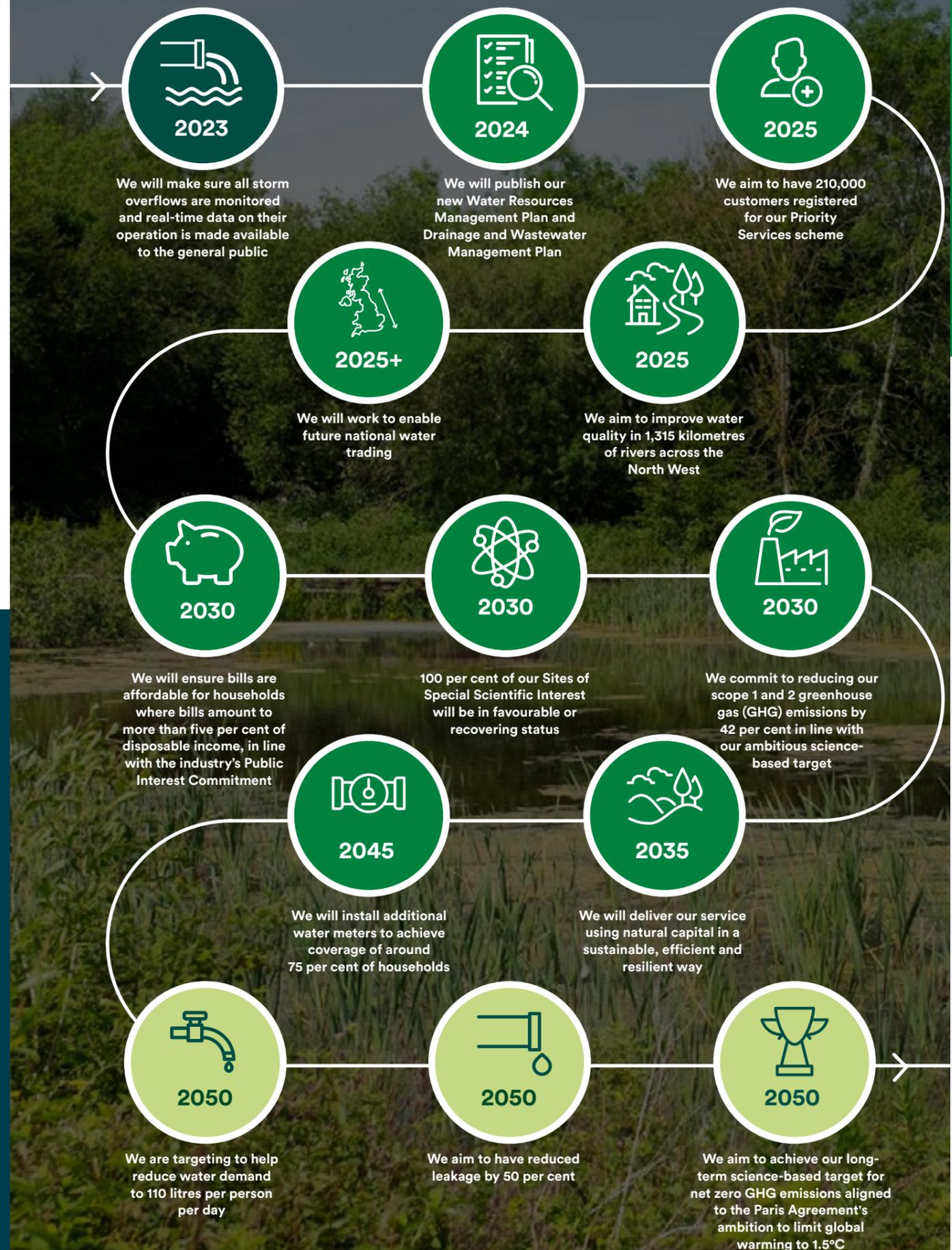
We set annual targets, but retain flexibility in these to respond to challenges and meet our five-year goals in the most effective and efficient way possible.

5–10 years

Medium-term planning reflects our five-year regulatory periods, and aims to help us work towards our long-term plans.

25+ years

Our business is very long term by nature and we must build resilience to ensure we can continue to provide this essential service.



Our business model – our planning horizons



25+ years

Long-term planning

Our approach to long-term planning ensures we are responding to challenges and opportunities that may arise far into the future.

To maintain a reliable, high-quality service for customers far into the future, we have to look a long way ahead to anticipate and plan for the changes and core issues that are likely to impact on our activities.

This involves looking at a lot of current and predictive data from various sources, such as economic forecasts, expectations for population growth, climate and weather predictions, legal and regulatory consultations and changes, as well as the age and condition of our assets, and keeping track of innovations and technological advancements. We review this information as part of our long-term planning and risk management processes.

Over the next 25+ years we have identified many challenges and opportunities that we are likely to be faced with, including:

- Climate change;
- Population growth;
- A more open, competitive market;
- Water trading;
- More stringent environmental regulations;
- Developments in technology; and
- Combining affordable bills with a modern, responsive service.

There is a section of our website dealing with our future plans, where we examine these challenges and how we will focus our resources and talents to meet them.

Our 25-year Water Resources Management Plan (WRMP) covering the 2020–45 period, was developed and published in 2019 following consultation with stakeholders. We will publish our new WRMP in 2024 covering the next period.

Our last Drought Plan was published in 2018. We have a new draft on which we have consulted with stakeholders, and the final plan will be made available on our website once approved by Defra and the Environment Agency.

We will publish a Drainage and Wastewater Management Plan (DWMP) for the first time in 2024, and more information will be made available on our website as we launch this.

These long-term plans set out the investment needed to ensure we have sufficient water to continue supplying our customers, taking into account the potential impact of climate change, the actions we will take to manage the risk of a drought, and the risks around flooding, pollution, storm overflows, and wastewater treatment.

We create long-term value for stakeholders by:

- Systems Thinking and innovation;
- long-term planning and responding to challenges and opportunities;
- sustainable catchment management;
- disciplined investment, based on a sustainable whole-life cost modelling approach, to ensure the resilience of our assets and network;
- investing in our employees to maintain a skilled, healthy and motivated workforce;
- close collaboration with suppliers; and
- maintaining a robust and appropriate mix of debt and equity financing.

Read more at unitedutilities.com/corporate/about-us/our-future-plans



5–10 years

Medium-term planning

Our medium-term planning aligns with delivery of our plans as set out in Ofwat's final determination.

The majority of the group's activities sit within our regulated water and wastewater business, therefore, our medium-term planning predominantly sets out how we will deliver against the final determination (FD) we receive from Ofwat for each five-year period. Historically, we have submitted business plans which were focused mainly on the subsequent five-year asset management plan (AMP) period, while providing a high level view of the following AMP. This provided medium-term planning visibility of between five and ten years at any one point in time, although Ofwat is proposing a longer-term planning approach for the next business plan submission in 2023.

It is important that our plans deliver for all stakeholders including customer preferences and environmental requirements. We, therefore, align our plans to these priorities in line with key published methodologies in order to deliver the best overall approach to stakeholder value.

Our business plans are designed to help us work towards our long-term plans, build and maintain resilience, and ultimately fulfil our purpose. We engage in extensive research to ensure the plans we put forward are robust and balanced, targeting the best overall outcomes for all our stakeholders.

Following scrutiny and challenge from Ofwat, we receive the final determination (FD), which sets the price (in terms of total expenditure and customer bills), level of service, and incentive package that we must deliver over the five-year period, and an allowed return we can earn.

Our business plan submission for 2020–25 was awarded fast-track status by Ofwat and we were given one of the lowest cost challenges in the sector, reflecting the efficient total expenditure (totex) proposals we put forward.

The acceleration of our capital programme during the 2015–20 period helped us deliver improvements early and we are adopting the same strategy in this regulatory period, with around £500 million of total expenditure brought forward over the first three years of the AMP, helping us make a strong start to our 2020–25 plans.

Our total expenditure for this period will be extended by £765 million beyond the scope of the FD, with this investment delivering improvements in environmental performance, accelerating delivery of the new Environment Act, and providing an enhanced level of service that will deliver better performance against customer outcome delivery incentives (ODIs).

Our strategy helps us create value for our stakeholders by delivering or outperforming the FD. Since 2015, we have published an annual performance report (APR), which reports our regulatory performance in a format that helps customers and other stakeholders understand it and compare it with other companies in the sector. This includes reporting of Return on Regulated Equity (RoRE), which comprises the base allowed return and any out/underperformance, on an annual and cumulative basis for each AMP.

Our APR is published in July each year at unitedutilities.com/corporate/about-us/performance/annual-performance-report

Information on companies' regulatory performance can be found at discoverwater.co.uk



1 year

Short-term planning

In the short term we set annual, measurable targets, but we retain flexibility to enable us to respond to challenges that may arise.

Short-term planning helps us work towards our medium and long-term goals and provides us with measurable targets so that we can continually monitor and assess our progress, which helps us ensure the long-term resilience and sustainability of our business.

Before the start of each financial year, which runs from 1 April to 31 March, we develop a business plan for that year, and this is reviewed and approved by the board. This business plan sets our annual targets, which are designed to help deliver further improvements in service delivery and efficiency, and to help move us towards achievement of our five-year and longer-term goals.

Performance against these annual targets determines the annual bonus percentage that is awarded. Executive directors and employees right through the organisation are remunerated against these same bonus targets.

As well as these annual bonus targets, in order to avoid encouragement of short-term decision-making and ensure management is focused on the long-term performance of the company, executive directors are remunerated through long-term incentive plans (LTP). The LTP assesses three-year performance, and is measured during the 2020–25 period through RoRE and a basket of customer measures.

See details of the [annual bonus and Long Term Plan arrangements](#) on pages 178 to 182

The executive directors hold quarterly business review meetings with senior managers across the business to monitor and assess performance against our annual targets, helping to ensure that we are on track to deliver our targets for the year, and longer term.

It is vital that we retain flexibility within this short-term planning so we can adapt to meet challenges that may arise during each year, and deliver high-quality and resilient services to customers in the most effective and cost-efficient way possible. This may involve bringing enhancements forward to deliver improvements for customers early, investing further into the business to maintain service, or delaying projects to occur later in the regulatory period in order to prioritise expenditure and allow our people to spend their time dealing with any unexpected challenges that arise.

The challenges presented by COVID-19 were a clear example of why this flexibility is crucial. We enacted our robust contingency plans, enabling us to quickly and efficiently move thousands of our people to home working and introduce additional safeguarding measures for those that remained on sites or in the field, while maintaining reliable water and wastewater services that were especially critical for public health at this time.

Our business model – the value we generate

How we measure our performance

To measure progress on delivering our purpose and creating value for our stakeholders, we monitor and measure our performance against each of the stakeholder groups that we create value for.



Find out more about our external accreditations

In addition to our KPIs and regulatory targets, we monitor our performance against an assortment of ESG metrics that are of interest to our many stakeholders.

We report against these within this report on page 13 and on our website at

unitedutilities.com/corporate/responsibility/our-approach/cr--performance

Our key performance indicators

We measure our performance against a selection of key performance indicators (KPIs), both operational and financial. These are unchanged from last year.

Bonuses (for executive directors and employees right through the business) and long-term incentives for executive directors, are closely aligned to many of our operational and financial KPIs.

Operational KPIs

Our purpose drives us to create long-term value for all our stakeholders, and we report against one operational KPI for each of the six stakeholders for whom we create value. More detail on these operational KPIs, including our targets and performance this year, can be seen on pages 8 to 9.

Financial KPIs

We have selected financial KPIs that assess both profitability and sustainability of our business from a financial perspective.

More detail on these financial KPIs, including our targets and performance this year, can be seen on pages 10 to 11.

Our other performance indicators

Our six operational KPIs are by no means the only metrics by which we monitor and assess our performance. We report against many other metrics both internally and externally. As discussed on pages 29 to 33, our stakeholder engagement gives us a view of what matters most to them. We report on a selection of other metrics on pages 52 to 75 of this report, based on the measures shown to be of highest interest to our stakeholders.

For example, on performance for customers, our KPI is Ofwat's measure of customer experience, C-MeX, but on page 58 we report on Ofwat's measure of developer satisfaction, D-MeX, the level of customer complaints, vulnerability support, customers lifted out of water poverty, and the impact of water efficiency measures.

We regularly report on numerous corporate responsibility performance measures on our external website as detailed on page 50.

All these performance indicators have received an appropriate level of assurance, such as independent third-party verification, regulatory reporting assurance processes, or through our own internal audit team.

Our annual performance report (APR)

Performance against our regulatory contract is monitored and assessed each year, and reported within the annual performance report (APR), as required by our economic regulator Ofwat.

We cover several regulatory performance measures within this report. Our APR provides more details, as well as further narrative, about our regulatory performance during the year.

There is financial information contained within the APR. This relates only to the regulated company, United Utilities Water Limited, and its appointed activities, and is calculated in accordance with the regulatory accounting framework. This differs from IFRS reporting, and a reconciliation to IFRS reporting is provided in the APR. For the purposes of clarification, our financial KPIs relate to our performance at the group level, and are calculated within the definitions given in this report.

Our APRs for previous years are available on our external website, and the APR for 2021/22 will be published in July 2022.



Our annual performance reports can be viewed on our website at unitedutilities.com/corporate/about-us/performance/annual-performance-report

Return on Regulated Equity (RoRE)

Return on regulated equity (RoRE) measures the regulatory returns (after tax and interest) that companies have earned by reference to the notional regulated equity (which is calculated as 40 per cent of the regulatory capital value (RCV), while the other 60 per cent of the RCV is notional net debt).

RoRE comprises a base allowed return, which is set by Ofwat, plus or minus any out or under performance earned. It is reported on an annual and cumulative basis throughout the AMP.

As well as being a key regulatory measure, RoRE is one of our operational KPIs and is linked to executive remuneration through its inclusion in the Long Term Plan.

The three key areas through which we can earn a higher RoRE are:

- delivering efficiency savings versus our cost allowance (total expenditure (totex) outperformance);
- earning outperformance payments for service delivery against our performance commitments (customer outcome delivery incentive (ODI) rewards); and
- raising finance at a lower cost than the industry allowed cost of debt (financing outperformance).

RoRE can also be higher or lower as a result of the outturn tax position versus the allowance.

The main areas that could detract from RoRE, therefore, are:

- overspending versus our total cost allowance (totex underperformance);
- incurring underperformance payments for failure to meet our performance commitments (customer ODI penalties); and
- incurring higher finance costs than the industry allowed cost of debt (financing underperformance).

Our efficient financing has given us a history of financing outperformance. We strive to deliver efficient costs, but our strategy for AMP7 has been to prioritise operating performance and ODI rewards over totex savings, as this drives better long-term value for all our stakeholders.



Communities

Supporting communities to be stronger –
our work puts us at the heart of local
communities in the North West.

How we measure performance

Our key performance indicator to measure value created for communities during 2020–25 is community investment, and we target increasing our investment by at least 10 per cent compared with the average between 2010 and 2020.

Community investment

Definition

Total community investment as measured by the Business for Social Impact* (B4SI) method (* previously LBG).

Target

The average community investment between 2010 and 2020 was £2.56 million per annum. We target community investment to be at least 10 per cent higher than this between 2020 and 2025.

Status

● Achieved/confident of achieving target

Link to material issue

- Land management, access and recreation
- Supporting communities
- Trust, transparency and legitimacy

➔ Read more about [our approach to materiality](#) on pages 34 to 35

Link to risks

- Conduct and compliance

➔ Read more about [our principal risks](#) on pages 104 to 105

Performance

This year our direct community investment totalled £2.82 million.

This was higher than the previous year as a result of increased activity with partners, such as payments from our £300,000 Catchment Systems Thinking (CaST) fund, and returning to customer-facing events such as the RHS Tatton Flower Show.



“
We generate value for
communities across the
North West through
local investment,
partnerships
and educational
programmes, as well as
employee involvement.”

How we deliver value to communities

Short term

- We look after some beautiful rural landscapes and pockets of urban green space, and open much of our land to the public, supporting regional tourism and offering communities health and wellbeing benefits through access to relaxation and recreation.
- Working in partnership with others means we can accomplish more in tackling mutual issues, such as partnering to develop employability skills for those who need it most.
- Our operations and projects are often near homes and businesses, and we engage with these communities to build understanding and trust.

Long term

- Early career and outreach schemes break down barriers to employment and increase social mobility, reducing welfare costs.
- Managing land responsibly means we leave the North West environment in a better condition for future generations.
- We work with teachers and children to raise awareness about water and the natural environment, giving the next generation an understanding of the true value water brings and how we can all play our part in protecting the services nature provides.

Link to strategic themes

- Promoting our support services and campaign messages places us at the heart of communities and builds trust with hard-to-reach groups.
- By working with community partners we can share resources, access new funding opportunities and achieve more together.
- Providing access to our land enables communities to enjoy the physical and mental wellbeing benefits that green spaces can bring, which in turn helps reduce the burden on health services.

Overview

Our work puts us at the heart of local communities in the North West of England, where our customers and employees live and work. We understand the impact our work can have on everyday lives across our region, and we seek to play an active role in tackling the issues that matter most to these communities. Our approach is to develop strong relationships and build partnerships where we work to generate solutions together. Our employees also get involved in local communities through volunteering, fundraising, and giving.

Our region has a broad mix of rural and urban landscapes, and we look after some beautiful areas of land, from the rolling hills of Cumbria to nature reserves and other green spaces in towns and cities. We open much of our land to the public, which supports the regional tourism industry and offers physical and mental health and wellbeing benefits for communities through access to relaxation and recreation. We also promote sustainable drainage solutions to help avoid flooding in built-up urban areas.

Community investment beyond the B4SI method of calculation

In addition to the £2.82 million of community investment calculated using the B4SI method, we contribute to our Trust Fund to help those struggling to pay their bills, with further support available to help customers reduce their water bill to an affordable amount through our social tariff. We have extended the additional £15 million per annum of support provided through our social tariff during COVID-19 to 2025.

Partnerships

We invest in community partnerships to tackle issues more effectively, to find new solutions to the challenges we face, and to access new funding streams, driving efficiency and a better overall outcome. Last summer we signed two memoranda of understanding with the Royal Society for the Protection of Birds (RSPB) and The Rivers Trust – partners held in high esteem by local communities with a broad membership base, enhancing the credibility of what we do.

As part of our £300,000 CaST fund, we provided funding to community groups across the North West to deliver elements of our catchment management approach, focused in particular on community engagement with nature or helping shape and promote natural capital markets.

One of the first projects to receive funding is led by the Mersey Rivers Trust and focuses on establishing community participation on the lower catchment area of the River Bollin. It aims to increase the number of people connecting with nature and accessing local blue-green space for health and wellbeing. The project will engage volunteers and landowners in restoring the reed bed habitat at Tatton Mere, a popular recreational site in Cheshire.

Helping young people

In addition to our ongoing graduate and apprentice schemes, we have supported the Government's Kickstart programme by providing placements in various roles across the North West. This scheme helps support those traditionally overlooked groups in our communities. Each Kickstarter has had a dedicated skills coach and received job-related and employability skills training. Since April 2021, 55 Kickstarters have joined our business and 24 have found full-time employment with us or our suppliers. A further six have applied, or are being supported with applications, for our apprentice programme.

As part of our work to promote skills for the future, we once again joined forces with five high schools from Warrington to help attract potential engineers. Our partnership with The Challenge Academy Trust (TCAT), now in its fifth year, was set up to inspire young people to pursue a career in science, technology, engineering and mathematics (STEM) fields. Sixty students from the five schools, who are part of TCAT, worked with our engineering mentors over a period of 16 weeks, gaining a real insight into what working life as an engineer is like.

The programme builds up to a 'Dragons' Den' style business competition to showcase the work the students have done, in front of judges from the business. The project provides more than just STEM experience, as the challenges allow pupils to develop valuable skills including teamwork, problem solving, influencing others, and public speaking.

As the water industry deals with the challenge of climate change, and we drive towards carbon neutrality, attracting the next generation of creative, skilled people is key to the success of our business.

➔ Read more about [our partnerships](#) on page 55

Our performance in 2021/22

Operational performance

Feedback from students has been positive, with 90 per cent saying they would now pursue a STEM-related career, and 100 per cent stating that they had a better understanding of engineering at United Utilities. Students rated the overall experience ten out of ten.

As COVID-19 restrictions have been lifted, our free 'All about water' sessions have returned to classrooms across the region. Consequently, we have seen a reduction in the number of children benefiting from our online education resources, which increased significantly during lockdown. We are reviewing our approach to education and, as part of this, we will consider the most practical way to deliver educational resources.

Community engagement

Direct engagement with communities provides the opportunity to hear what customers think and to explore ways we can work together to address issues.

For example, to highlight inappropriate use of sewers and the problems created by that, we held a family-friendly interactive exhibition at the Arndale Shopping Centre in Manchester during February half term. Engaging 'Sewer Monster' posters, competitions, fun activities and free giveaways, including fat traps, were all part of our Stop the Block campaign.

At the RHS Tatton Flower Show, we talked to customers about water saving tips and sponsored a garden of resilience. The garden addressed the challenges of extremes of weather and the stresses and strains of the pandemic. It gave visitors ideas for making outdoor spaces better able to cope with too much or too little rain, such as a rainwater planter and a slimline water butt disguised as a bench, and incorporated ideas to encourage people to take time out and contemplate their own personal resilience. Plants were chosen for their resilience to extremes and prolonged spells of dry and wet weather, while their colours complemented the hard landscaping materials. The garden was well received by visitors and won three awards at the show, receiving prime time television exposure on BBC One and social media coverage, helping to raise awareness to a much wider audience. It will continue to inspire gardeners at its new permanent home at RHS Bridgewater in Salford.

Access to our land for recreational use

We encourage the public to access our land and regional bathing waters, and to enjoy them safely. Since the first COVID-19 lockdown in spring 2020, there has been an increase in anti-social behaviour on our catchment land, with issues such as wild camping, illegal fires and littering. We have been working with local groups at several sites to address this.

At Macclesfield Forest, we have joined forces with the rural crime team from Cheshire Police and rangers from the Peak District National Park to tackle anti-social behaviour by undertaking joint patrols at busy times to remind visitors to enjoy the area responsibly.

In spring 2021, we launched a new podcast series entitled 'Acres of Nature' to connect people with the North West's outdoor spaces. Each themed episode takes an in-depth look at the land we manage – such as the Davyhulme Millennium Nature Reserve in the heart of Urmston, Manchester – through the eyes of people who live, work and visit there. Available to all on Spotify, Acres of Nature is all about bringing people closer to nature, and podcast themes have included history, nature and wellbeing.

Measure	2025 target	Performance	Status	
			Annual performance	Against 2025 target
KPI:				
Community investment	10% increase (£2.82m)	£2.82m £2.15m	●	●
Partnership leverage	1:4	1:7	●	●
Percentage of participants who remain employed six months after completing an early careers or outreach scheme with United Utilities	50–60%	75% 83%	●	●
Number of children benefiting from education materials	20,000	12,998 19,120	●	●
Percentage of visitors to our recreation sites who view United Utilities more positively after their experience	Maintain position above 50%	57.3% Baseline year	●	●

Status key:

Annual performance	Against 2025 target
● Met expectation/target	● Confident of meeting target
● Close to meeting expectation/target	● Some work to do
● Behind expectation/target	● Target unobtainable

Performance key:

2021/22
2020/21



It is the first time a partnership has set about designing a framework to bring together everyone with an interest in the health of rivers from source to sea.”

Working in partnerships to accomplish more together

Working together for water, nature and people.

We cannot change the water environment on our own. Only by working in partnership with others can we deliver for water, wildlife and local communities. This year, we have committed to two major partnerships aimed at improving the environment of the North West.

Our ground-breaking strategic partnership with The Rivers Trust aims to tackle the big challenges facing rivers in the region. It is the first time a partnership has set about designing a framework to bring together everyone with an interest in the health of rivers from source to sea. It will build better competence for more urgent action to tackle challenges that are increasingly important to society, such as pollution, flooding and water abstraction and help deliver adaptations and resilience to combat the extremes of climate change.

The partnership formalises the existing strong relationship between the water company and the non-governmental organisation, which is the umbrella body for one of the fastest growing environmental movements in the UK.

Both parties expect the new partnership to facilitate longer-term planning of investment priorities, beyond the current water sector five-year regulatory cycle, allowing faster adoption of nature-based solutions and other collaborative ventures.

A new shared vision with the Royal Society for the Protection of Birds (RSPB) builds on joint work at our Haweswater estate over the past ten years. This has demonstrated that nature-based solutions make a very real contribution to meeting the challenge of a changing climate and the economic pressures facing upland farmers.

We already work together at Bowland in Lancashire, Dove Stone Reservoir near Oldham, and Lake Vyrnwy in North Wales. The memorandum of understanding signed in 2021 commits us to explore areas of opportunity by working together, such as helping farming tenancies, creating and managing new wetland, peatland and woodland, and working to improve the visitor experience. Together we intend to tap into natural capital markets including green finance initiatives and the Environmental Land Management scheme to fund beneficial land management projects.

Delivering value for:



£300k
Catchment Systems Thinking (CaST) funding for community groups

55
Kickstarters have joined the business through the government programme

90%
Of students on TCAT STEM programme say they are more likely to pursue a STEM-related career



Customers

Caring for customers through trusted relationships – we put customers at the heart of everything we do.

How we measure performance

Our key performance indicator to measure value created for customers during 2020–25 is Ofwat’s C-MeX measure, in which we target being in positive reward territory.

C-MeX

Definition

Ofwat’s customer measure of experience (C-MeX), comprising two surveys – the customer service survey, and the customer experience survey.

Target

To be in positive reward territory, following the comparison of our C-MeX score with those of our peers seeing us above the industry median.

Status

● Achieved/confident of achieving target

Link to material issue

- Drinking water quality
- Customer service and operational performance
- Affordability and vulnerability

➔ Read more about [our approach to materiality](#) on pages 34 to 35

Link to risks

- Water service
- Wastewater service
- Retail and commercial

➔ Read more about [our principal risks](#) on pages 104 to 105

Performance

For 2021/22, we expect to receive a reward of £2.3 million on C-MeX. We continue to be the highest performing listed company, ranked fourth out of the water and wastewater companies, and seventh overall out of all 17 companies.

On Ofwat’s D-MeX measure, for developer customer satisfaction, we are consistently in the top half and expect to receive a small reward for 2021/22.



As we emerge from the global pandemic, with significant increases in the cost of living, the affordability support we provide to customers is more important than ever before.”

How we deliver value to customers

Short term

- We focus on providing continuous, resilient and reliable water and wastewater services for customers, ensuring clean water is available at their taps when they need it, and wastewater is taken away when it goes down their drains.
- When customers need to contact us, we are helpful, friendly and supportive, talking and listening to them so that we can understand and meet their expectations.
- We maintain bills that are good value for money, providing help and support for those who are struggling to pay.

Long term

- Our water and wastewater services make a major contribution to the long-term health and wellbeing of customers in the North West.
- Through long-term financing and the regulatory framework, we are delivering multi-million pound infrastructure projects to improve services and resilience for the long term. We ensure the cost of this is shared fairly and affordably between those that benefit now and in the future.
- Providing additional help to vulnerable customers builds long-term trust relationships.

Link to strategic themes

- We will continue to invest in our assets and people to meet the stretching customer support targets in our regulatory contract.
- By achieving sustainable cost reductions we can provide an efficient service, keeping bills low and maintaining good value for money.
- We provide assistance schemes to those who need it most and provide practical advice on how to manage water in the home.

Overview

We put customers at the heart of everything we do, with one of our core values being to be customer-focused. The continuous improvements we have driven in recent years saw us enter the 2020–25 period as a leading water and wastewater company, and our level of operational performance and customer satisfaction remain high.

Serving many of the most economically deprived areas in England and Wales, we are always mindful of the need to help customers who struggle to pay their bills, and this has never been more important than it is right now as we emerge from a global pandemic with high levels of inflation increasing the cost of living.

We are providing sector-leading support for vulnerable customers, supporting over 200,000 households this year, with around £280 million⁽¹⁾ of affordability support being given over the 2020–25 period (AMP7).

Operational performance for customers

We have continued to improve performance for customers this year, earning our highest ever one-year net reward against customer outcome delivery incentives (ODIs) at £25 million⁽²⁾ for 2021/22.

We delivered a strong performance against our ODI in relation to voids, having reduced voids to 4.78 per cent of billable properties, against a target of 5.24 per cent, as a result of which we earned a £6 million reward this year. Reducing voids not only helps economically, but it enables us to keep bills lower for other customers because revenue is spread between more billable properties, making things fairer and more affordable for all customers.

Some of the other commitments for which we achieved rewards were our strong performance in reducing pollution incidents, removing over 3,500 homes completely off lead supply pipes, and lifting more than 77,000 customers out of water poverty.

In areas where we incurred penalties, such as internal sewer flooding incidents and customer contacts in relation to taste and smell, the additional investment we are making over the remainder of AMP7 will help improve our performance for customers in future years.

Our strong performance on customer service metrics this year has helped drive a 14 per cent reduction in written complaints, achieving our lowest ever volume.

We have achieved recertification to the new and enhanced BSI standard 18477:2010 for our Priority Services scheme, which supports over 180,000 customers, and we are proud to have been reaccertified this year with the Institute of Customer Service – Service Mark with Distinction award, one of only 18 brands to achieve the distinction status.

Affordability

We have an extensive range of schemes available to help customers, providing a sector-leading level of customer support. We supported more than 200,000 households with affordability in 2021/22, with over 180,000 on discounted tariffs and grants, and a further 20,000 having received support through our payment matching scheme.

The financial support we committed to in our AMP7 business plan was the largest of any water company, and over the five-year period we are providing around £280 million⁽¹⁾ of customer support.

We are exploring innovative ways to help customers more efficiently. We are the first utility company to harness open banking, which helps us identify and support customers to get access to the right affordability tariffs more quickly and easily. A process that traditionally would have taken weeks can now be done in minutes with the use of open banking, and we have received positive feedback from customers that used the service.

We carried out 39,000 affordability visits, taking our financial support to the customer’s doorstep, and we promote our Back on Track scheme via partner organisations and the Hardship Hub, as well as directly to customers.

There is always more we would like to be able to do, and we are a leading supporter of the Consumer Council for Water’s drive to introduce a national social tariff, which would help to provide a more equitable sharing of support for customers across the country that are struggling to pay their bill, regardless of where people live.

➔ Read more about [our use of open banking](#) on page 59



More information about our ODI performance will be published in July 2022 in our APR, available on our website at: unitedutilities.com/corporate/about-us/performance/annual-performance-report

- (1) 50 per cent company funded.
- (2) Excluding per capita consumption, which Ofwat will be revisiting at the next price review once there is a better understanding of the impact of COVID-19 and any enduring effects.

Our performance in 2021/22

Operational performance

Cash collection

Cash collection performance has been good this year, and our household bad debt charge has returned to the pre-pandemic level of 1.8 per cent of regulated revenue, reduced from 2.2 per cent in 2020/21.

We have a high level of Direct Debit penetration, with 72 per cent of customers paying by Direct Debit, and overall we have over 80 per cent of customers on payment plans. This helps to provide a high degree of collection certainty and to spot any potential affordability issues early, at the point of the first missed payment, so that we can make contact swiftly.

For customers that need affordability support, we can quickly get them onto the right scheme to help them get back on track. For those customers that can afford to pay but choose not to do so, we have a comprehensive data-led approach to collections that helps us to accurately pursue payment in an efficient and timely manner. This includes a range of techniques, such as 'nudging' customers through email or text if a payment is late, enhanced credit reference sharing, and credit reporting.

Only £4 million of our net household debtors are aged by more than one year, indicating that we are not storing up a problem for future bad debts.

Our best-in-class approach to collections continues to receive external recognition. This year we have won five awards across the Credit Awards, Utilities and Telecoms Awards, and Utility Week Awards, including 'Utility Team of the Year' and 'Best Use of Technology' at the Credit Awards. We have been recognised for our use of data and technology to provide financial support to those who needed it most during the pandemic and for the introduction of open banking.

Digital transformation

Through a significant increase in the availability and performance of our digital channels, over 1.2 million customers engaged with us digitally, driving both service improvements and cost efficiencies, and we achieved strong customer sentiment scores.

We have been proactive using targeted communications with customers to offer support to those impacted financially by the pandemic and struggling to pay.

To underpin our contact centre operations, we have implemented new technology in the form of a new workflow system linking billing and operational customer service activities.

Measure	2025 target	Performance	Status	
			Annual performance	Against 2025 target
KPI:				
C-MeX	Above industry median	Above industry median Above industry median	●	●
Additional service measures:				
D-MeX	Above industry median	Above industry median Above industry median	●	●
Market Performance Standards	Upper quartile	Second quartile Second quartile	●	●
Operational Performance Standards	Upper quartile	Upper quartile Upper quartile	●	●
Managing complaints:				
Number of household written complaints compared to WASCs	Upper quartile	Second quartile ⁽¹⁾ Upper quartile	●	●
Speed of resolution	5 days	3.5 days 3.5 days	●	●
Vulnerability:				
Number of households registered for Priority Services	In excess of 220,000 (7%)	186,224 (5.9%) 128,831 (4.1%)	●	●
BS18477 'Inclusive service provision' certification for Priority Services	Maintain certification	Maintained Maintained	●	●
Affordability:				
Number of customers lifted out of water poverty	66,500	77,312 71,057	●	●
Helping customers look after water in their home	10% increase	23.85% 13.75%	●	●
Status key:				
Annual performance		Against 2025 target		
●	Met expectation/target	●	Confident of meeting target	
●	Close to meeting expectation/target	●	Some work to do	
●	Behind expectation/target	●	Target unobtainable	
Performance key:				
2021/22				
2020/21				

(1) Latest comparative data available 2020/21.



“

Open banking means we can help customers get the right affordability support in minutes, when the traditional process would have taken weeks.”

Using open banking to help customers faster

Recognising the need for affordable bills, we have implemented a range of industry-leading support schemes including lower tariffs, capped bills, and payment matching schemes. Tailoring payment plans to customer affordability is a key goal and the advent of improved data availability from open banking stimulated an innovative method of improving our customer journey.

Our idea was to utilise open banking technology to verify customer income in real time to improve the accuracy and efficiency of our customer affordability assessments. We implemented an improved customer journey in three key steps:

- Gaining agreement to use open data for the affordability assessment;
- Obtaining customer consent via an online consent portal; and
- Receiving a summarised view of a customer's income straight from their bank account, including evidence of benefit payments.

Open data now forms a key part of one of our most sensitive customer journeys, and initial results showed 45 per cent of customers who were offered the option to use open banking accepted.

Customer feedback on their experience of open banking is very positive, with customers saying it was easy to use and 88 per cent saying they would use it again, despite never having used it before.

The use of open banking has streamlined customer eligibility for reduced-rate social tariffs. Were it not for this solution, customers applying for help with payment of their water bill would have had to manually collate their income and expenditure information, including evidence of benefit receipt, in preparation for their telephone affordability assessment.

What previously would have taken weeks, can now be done in minutes, with the added benefit of increased accuracy.

Open banking improves first-time completion rate, meaning customers are given a decision on tariff eligibility there and then and a sustainable payment plan can be agreed.

Open banking could help facilitate the introduction of a national social tariff, as proposed by the Consumer Council for Water: the efficiency we've delivered into our affordability assessment process will help us manage the expected increases in volume of applications for support, meaning we can help more customers with payment of their water bill.

Delivering value for:

 Customers

£280m
Affordability support being given in total over the 2020–25 period

>200k
Customers helped through our extensive suite of affordability schemes

>80%
Of our ODI performance commitment targets met or outperformed this year



Employees

Creating a great place to work for all our employees – our employees are essential for us to deliver our services, and are the face of the company.

How we measure performance

Our key performance indicator to measure value created for employees during 2020–25 is our engagement score, in which we target upper quartile against UK utilities norm benchmark.

Employment engagement

Definition

Level of employee engagement as measured by our annual employee opinion survey.

Target

Upper quartile against UK utilities norm benchmark.

Status

● Achieved/confident of achieving target

Link to material issue

- Employee engagement
- Diverse and skilled workforce
- Health, safety and wellbeing

➔ Read more about [our approach to materiality](#) on pages 34 to 35

Link to risks

- Resource
- Health, safety and environmental

➔ Read more about [our principal risks](#) on pages 104 to 105

Performance

Our overall engagement is at 87 per cent, equal to UK high performance levels, which we have now been equal to or above for the last three years.

We are 11 per cent better than the UK norm and 5 per cent better than the UK utilities norm.



“We are committed to investing in training and development, promoting diversity and inclusion, and focusing on health, safety and wellbeing.”

How we deliver value to employees

Short term

- We have a strong focus on health, safety and wellbeing. We firmly believe that nothing we do is worth getting hurt for, and we aim to ensure all employees go home safe and well at the end of the day.
- We invest in training and development to enable our employees to grow their skills and to keep them motivated.
- Listening to our employees helps to create an engaged workforce, increasing job satisfaction, and through employee communications and conferences we update our people on business developments so they feel part of a team.

Long term

- Investing in the development of current, and future, employees means we will have a workforce with the right skills for the future.
- Health, safety and wellbeing extends to mental as well as physical health. We promote awareness of stress and other mental health issues, promoting an all-round healthy lifestyle in the long term which, in turn, reduces the burden on healthcare services.
- We provide pension offerings that support employees in later life.
- Promoting diversity and inclusion means we have a workforce that truly represents the region.

Link to strategic themes

- Improving our performance creates employee pride in a job well done, enhancing employee satisfaction and a desire to do more.
- Encouraging innovative ideas from employees can lead to cost reductions, and high employee satisfaction reduces turnover, which ensures training and development costs are efficient.
- We take a responsible approach to protecting the health, safety and wellbeing of our employees, ensuring we send everyone home each day safe and well.

Overview

Our people are critical to the success of our business and it is important we give them the opportunity to develop their skills and knowledge and support them with the most effective technology. We have continued to invest in skills training and accelerate our digital strategy. The health and wellbeing of our employees is paramount and keeping them safe remains our primary concern with 89 per cent of our employees believing our organisation supports their health, safety and wellbeing. We continue to build on our diversity and inclusion agenda, which underpins all aspects of our organisation. Increasing the diversity of our workforce ensures we have access to a broader set of views and we want colleagues to feel valued, supported and respected in the workplace.

We facilitated a smooth return of all employees working from home to the workplace in line with the government roadmap out of lockdown, transitioning around 1,800 staff into hybrid working between the office and home. The transition was well structured with robust governance, including a policy for employees setting out expectations for working in this way and upskilling and support for managers with remote teams.

We are rated 4.6 out of 5 by former and current employees on Glassdoor, and 92 per cent of our employees would recommend United Utilities as a great place to work. We are delighted to be recognised for our efforts, ranking again in the top 1 per cent of over 850 companies across Europe in the Financial Times' Statista Survey for Diversity and Inclusion Leadership, and we were the leading utility company in the Top 50 Inclusive UK Employers Index. We have been included in the Bloomberg Gender Equality Index 2022, one of 418 companies, showing our commitment to more equal and inclusive workplaces.

Committed to equality, diversity and inclusion

We want fantastic people to enable us to deliver a great service now and into the future. We are supporting employees to achieve their full potential and to feel valued and included, regardless of their gender, age, race, disability, sexual orientation or social background, and we make sure we are reaching and recruiting from every part of our community. We are making good progress against our refreshed diversity and inclusion strategy, validated by a recent independent audit, which recognised our strong

focus on education, awareness and growing our four employee network groups with great progress in all audited areas.

We offer targeted support for future talent through our focused 'Female Leadership Pipeline' and 'Aspiring Manager' programmes, which have been designed to support employees into leadership positions. We have put efforts into developing a diverse leadership pipeline by introducing a new talent programme, the 'Stepping up programme', for employees from ethnic minority backgrounds, giving them the opportunity to develop personal and leadership skills that will help them fast-track their careers at United Utilities.

In the last 12 months, we have welcomed 28 new graduates onto our schemes, and 52 new apprentices have joined us on operational, service and future-facing digital and environmental schemes. Thirty-seven per cent of our new apprentices and 39 per cent of our newly recruited graduates are female. This is higher than the UK average of 24 per cent for females in science, technology, engineering and mathematics (STEM) roles. We have made great progress in recruiting apprentices from more diverse backgrounds, working with our specialist recruitment partner, with 15 per cent of apprentices who joined us this year being from a minority ethnic background. In addition, 21 per cent of new apprentices disclosed a disability or learning difficulty. This represents continued success in our efforts to recruit a more diverse talent pipeline and is a positive result against a backdrop of low attrition levels, regional variations in ethnic diversity, and difficulties attracting females for STEM roles.

We made a public commitment to support the 10,000 Black Interns Programme and we will be welcoming 26 university students for placements this summer, with a further commitment for 120 placements over the next five years. We will welcome university students with autism as part of our support for the 'Ambitious about Autism' programme.

Training and development

Our technical training academy, established in February 2014, continues to go from strength to strength. We are the only employer provider in the water sector to have been inspected by Ofsted and received an overall 'Good' rating. We launched our Digital Skills Academy, a new learning portal for employees to access digital learning content to upskill

➔ Read more about [our approach to diversity and inclusion](#) on pages 44 to 45

➔ Read more about [our talent pipeline](#) on page 63

Our performance in 2021/22

Operational performance

them for their roles now and in the future. In the last 12 months, we have delivered 15,000 classroom training events as well as around 40,000 e-learning modules. We launched a new water quality awareness e-learning module to around 4,000 employees as part of our wider 'Water Quality First' programme, which has been designed to ensure water quality remains at the heart of our operations.

Ensuring everyone goes home safe and well

Over the last few years we have introduced 'home safe and well', which focuses on the behavioural aspects of our health, safety and wellbeing culture. Home safe and well is a core thread that flows through our health, safety and wellbeing strategy, which covers our sites, assets and people using three core pillars: personal safety; process safety; and health and wellbeing. Over the last 12 months there has been a focus on employee mental health, expanding our capability in this area.

Since its launch in 2018, we have trained around 5,500 colleagues in home safe and well and continue to do so with new starters. We are now in the third year of our cultural journey where we have seen improvements in our health and safety performance year on year. We continue to create an environment where we look out for ourselves and each other to ensure all our colleagues go home safe and well.

Our commitment to health, safety and wellbeing has recently been externally acknowledged. In early 2022, we were awarded our tenth consecutive Royal Society for the Prevention of Accidents (RoSPA) gold standard medal, which now means we have achieved the RoSPA President's award, which is only awarded to companies who have "achieved a very high level of performance, demonstrating well developed occupational health and safety management systems and culture, outstanding control of risk and very low levels of error, harm and loss."

We continued to see improvement against a number of important performance measures, reducing the number and the severity of accidents, and increasing the proportion of hazards and near misses reported. Our employee accident frequency rate for 2021/22 was 0.073 accidents per 100,000 hours worked, lower than the previous year and amounting to nine accidents reported. Our contractor accident frequency rate also showed significant improvement, with 0.043 accidents per 100,000 hours worked, another improvement on the previous year and representing only five contractor accidents. Our aim is that no one will be harmed while working on our behalf, and we continue to promote, support and improve the wellbeing of our people.

Measure	2025 target	Performance	Status	
			Annual performance	Against 2025 target
KPI:				
Employee engagement	Upper quartile against UK utilities norm	Upper quartile against UK utilities norm Upper quartile against UK utilities norm	●	●
Employee opinion survey diversity and inclusion questions score	UK high performance norm	UK high performance norm UK high performance norm	●	●
Employee opinion survey learning and development category score	UK high performance norm	UK utilities high performance norm UK utilities high performance norm	●	●
Living Wage accreditation	Secure and retain	Retained accreditation Secured accreditation	●	●
Pension Quality Mark +	Retain accreditation	Retained Retained	●	●
Health and safety:				
AFR employees (per 100,000)	0.064	0.073 0.094	●	●
AFR contractors (per 100,000)	Year-on-year improvement in score	0.043 0.087	●	●
Wellbeing Charter accreditation	Retain accreditation	Retained Retained	●	●

Status key:

Annual performance	Against 2025 target
● Met expectation/target	● Confident of meeting target
● Close to meeting expectation/target	● Some work to do
● Behind expectation/target	● Target unobtainable

Performance key:

2021/22
2020/21



We have continued to build on our award-winning apprenticeship schemes, significantly increasing our range of apprenticeships to align to core operational roles and address future skills gaps."

Growing a resilient and diverse talent pipeline

We are passionate about investing in young people and in our local communities. Our early careers opportunities are focused on attracting talent for our core operational and technical roles and for key emerging skills such as digital and green jobs.

Shahbaz, a process controller apprentice who joined us in September 2021, is enjoying the variety an apprenticeship brings. He's developing new skills and says he's proud to work for a company that values diversity and inclusion. "From my first day, I have felt welcomed and part of a large extended family" he said. "The company's stance on diversity and inclusion is amazing to see and be part of. Issues raised aren't just listened to; they're actually heard, and small things like being offered a halal packed lunch on my training course make me feel included."

We have continued to build on our award-winning apprenticeship schemes, significantly increasing our range of apprenticeships to align to core operational roles and address future skills gaps. We have created eight pathways for green jobs, a total of 31 apprenticeship vacancies for 2022/23, and these new roles will support our ambition to become carbon-neutral by 2030. We went from eight apprenticeships in 2017 to 26 in 2022.

New apprenticeships pathways created include Systems Thinking, digital user experience, cyber security and data scientists.

We are pioneering a new Heavy Goods Vehicle (HGV) apprenticeship, and twenty-two-year-old Gabi Ord is our first HGV apprentice. Gabi has completed many hours of training, including fuel-efficient driving and handling an excavator and telehandler – skills she needs in her role transporting sludge cake from wastewater treatment works to farmers and landowners. "Gabi is now performing to a really high standard in terms of safe driving style and fuel efficiency" said her manager, Martin Shaw. "She has set a high benchmark for any future apprentices that follow."

We are supporting those traditionally overlooked groups in our communities, with 44 per cent of the young people we recruited onto the Government's Kickstart Scheme now transitioning into employment. A further six Kickstarters are currently being supported with applications for our award-winning apprenticeships. One of them, who has recently started an apprenticeship in our customer services department, shared the support she's received: "I find that, having dyslexia, it can get quite tiring" she said. "However, I've been given a screen for my monitor, documents are printed off for me, and everyone I meet is so helpful – putting things across in a simple way so I can fully understand."

Delivering value for:



4.6/5

Rating on Glassdoor by former and current employees

Top 1%

Financial Times' Statista Survey for Diversity and Inclusion Leadership

10th

Consecutive RoSPA gold standard medal, achieving RoSPA President's award

Environment

Protecting and enhancing the environment – we rely on the natural environment and play a key role in improving the water, land and air of the North West.

How we measure performance

Our key performance indicator to measure value created for the environment during 2020–25 is our performance against the Environment Agency’s annual performance assessment (EPA), in which we target being an upper quartile performer.

EPA

Definition

The Environment Agency’s annual assessment across six key sector environmental performance measures.

Target

Upper quartile performance within the water industry each year.

Status

● Achieved/confident of achieving target

Link to material issue

- Resilience
- Environmental impacts
- Climate change

➔ Read more about [our approach to materiality](#) on pages 34 to 35

Link to risks

- Water service
- Retail and commercial
- Resource

➔ Read more about [our principal risks](#) on pages 104 to 105

Performance

The Environment Agency (EA) will publish its annual performance assessment for 2021 in July 2022. The EA’s most recent annual assessment was for 2020, and we achieved our best ever performance, as we were green across all measures. We are the first water company to achieve this level of performance since 2015. We were awarded the maximum 4 star rating, meaning we were classed by the EA as an industry-leading company.



“Our environmental performance is strong, but new requirements could drive significant investment needs, which will need to be balanced with affordability.”

How we deliver value to environment

Short term

- We meet increasingly stringent environmental consent levels, which help to improve the quality of rivers and bathing waters and so support tourism in the region.
- Our investment in renewable energy generation is reducing our carbon footprint and contribution to climate change.
- We have invested in new infrastructure, such as our West Cumbria project, to allow us to transfer water around the region more efficiently to avoid depletion of individual water sources.

Long term

- Promoting campaigns to educate the public and younger generations on water usage helps protect this valuable resource and reduce usage now and for years to come.
- We innovate and invest in new technologies to solve environmental challenges for future generations.
- We manage our land in a way that safeguards habitats and protects wildlife that makes its home in rivers and other water bodies.
- We plan far ahead to ensure our activities and investment enhance the long-term resilience of the rural and urban environment in our region.

Link to strategic themes

Many customers care about the environment, so providing the best service to customers involves protecting the places they live in and love.

Many ways we protect the environment reduce cost. For example, renewable energy generation reduces our energy costs as well as our carbon footprint.

We manage water and wastewater in a responsible way that protects the environment and enhances its resilience.

Overview

The North West has a diverse mix of densely populated and built-up urban areas as well as many rural areas of outstanding natural beauty, and there are different environmental considerations needed for each. It is of great importance that we continue to protect and enhance the environment across our region, and manage our land responsibly to preserve and improve it for future generations.

We delivered a number of environmental improvements over AMP6, including improving 338.5 kilometres of rivers, significantly reducing our carbon footprint, and increasing our renewable energy production. We have agreed an environmental improvement programme for AMP7 that will continue to improve the river, bathing and shellfish water quality in the North West. Our investment in AMP7 is expected to result in an improvement in water quality in 1,315 kilometres of rivers. Having completed the first two years of the period, we remain on track to deliver the improvements we have committed to.

Environmental Performance Assessment and pollution reduction

In 2020, we had no serious pollution incidents for the second year running. We have been green in our serious incident performance for the last seven consecutive years – the only company to have ever achieved this. We had our best ever performance on total number of pollution incidents (categories 1–3), with a reduction of 31 per cent compared with the previous year. This is our largest ever reduction in pollution incidents, and was delivered while we maintained our excellent self-reporting performance. We expect to be green for serious pollution incidents and the total number of pollution incidents measure again in 2021.

We had no wastewater treatment works classed as failing by the EA – something that has only ever been achieved in the sector once before. With only one failing water treatment works, this represents our best ever combined water and wastewater performance, and our largest ever one-year performance improvement. We expect to remain green on this measure for 2021.

There has been increased public interest in the use of storm overflows across the industry this year, and the Environment Act 2021 requires water companies to secure a progressive reduction in the impact caused

by storm overflows, one of several new and emerging requirements. We have made good progress in many of these areas, and launched our Better Rivers: Better North West plan that sets out how we will deliver further improvements. The additional investment we are making will help accelerate environmental outcomes, but there is more needed and this could drive significant increases in future investment, which will need to be balanced with customer affordability.

Greenhouse gas emissions and climate change – carbon reduction

We have committed to six carbon pledges across priority areas of our carbon strategy, including the setting of science-based targets to align with global best practice, switching to low carbon electricity, greening our fleet, restoring peatland and creating woodland. We have made substantial progress, and continue to mature our long-term carbon plans to ensure we achieve our commitments by 2030 and 2050. We are part of the global movement of ‘Business Ambition for 1.5°C: Our Only Future’, are signatories to the UN Race to Zero campaign and are proud to be contributing to the UK water industry’s commitment to be net zero from 2030.

Climate resilience

In AMP6 we invested an additional £250 million to increase resilience to climate change, and we continue to invest to protect and enhance the climate resilience of our assets, processes and customer services. We are working to further develop our understanding of climate risk. In December 2021, we published a comprehensive assessment of our climate risks and plans in our latest climate change adaptation report. We are now further developing our approach to climate resilience, including engagement with stakeholders, as we take account of these risks in our long-term business planning process.

Biodiversity and natural capital

We continue to develop our approach to natural capital and improve our understanding to influence investment decisions, allowing us to assess the full value of our activity. We have an outcome delivery incentive (ODI) on enhancing natural capital value for customers, which encourages assessment of the added natural capital value we deliver by pursuing nature-based and catchment solutions, and we expect to outperform against our performance commitment this year. Understanding this value is a key element of driving

➔ Read more about [our Better Rivers: Better North West plan](#) on page 67

➔ Read our [TCFD and TNFD sections](#) on pages 86 to 99

Our performance in 2021/22

Operational performance

partnership working and our Catchment Systems Thinking (CaST) approach, which seeks to understand the broader needs of a catchment and deliver these across multiple stakeholders to achieve the outcomes that are needed. As part of this approach, we worked with consultants and stakeholders to develop a north west natural capital baseline to understand the natural assets the North West has, the benefits they provide and the value of them.

Biodiversity is a key pillar of natural capital, and ensuring the preservation and enhancement of biodiversity is a key element of our CaST approach. As a large land owner, with a significant amount of land designated as sites of special scientific interest (SSSI), and a business delivering significant development in the North West, we will strive to play our part in nature recovery and the delivery of biodiversity net gain. We have delivered significant investment to improve the condition of habitats on our land, aiming to have 100 per cent of our SSSI land in either favourable or recovering status by 2030. We are reviewing our approach to biodiversity management and how we can better manage and enhance biodiversity through our land ownership and in the delivery of capital projects.

Leakage reduction

Water is a precious resource and reducing leakage is important in ensuring its resilience. 2021/22 was the sixteenth year we outperformed our leakage target and we have reached a new low in leakage levels. We continue to deliver leakage reductions supported by a network of around 70,000 acoustic sensors, installed over the last two years.

We experienced a relatively mild winter, but the changing COVID-19 restrictions had the potential to impact leakage performance. Resourcing became a particular challenge through December, due to isolation periods, so we increased contractor resources to tackle this. The changing patterns of night use, due to changes in working from home guidance and the return to offices, created uncertainty with leakage levels. We addressed this with additional meter readings and analysis which gave better insight into usage pattern change, enabling more efficient targeting of leak detection activity.

Over AMP7, we plan to reduce total leakage by at least 15 per cent. We actively look to trial new techniques to understand how these can be scaled and embedded in the most effective way, and this gives us opportunities to accelerate and target those interventions which are demonstrated to be the most effective. One such example is our smart water network trial in the Macclesfield area, where we have linked together

hundreds of monitors and sensors on the town's water mains. This created a machine-learning Artificial Intelligence (AI) 'brain' that supported enhanced leakage targeting, as well as detecting and preventing other non-leakage problems. We are using the learning from these trials to refine our approach to reducing leakage and applying this to our Dynamic Network Management approach for wastewater.

Measure	2025 target	Performance	Status	
			Annual performance	Against 2025 target
KPI:				
EA EPA	Upper quartile	Upper quartile ⁽¹⁾ Upper quartile	●	●
Leakage reduction	15% ⁽²⁾	8% 5%	●	●
% waste to beneficial use	98%	97.8% 97.3%	●	●
Enhancing natural capital for customers	£4m	£3.234m Delivery scheduled from 2022	●	●
Number of trees planted	500,000	244,639 216,601	●	●
Better air quality: nitrogen oxides (NOx) emissions per GWh of renewable electricity generated	1.42 NOx/GWh	1.19 NOx/GWh 1.3 NOx/GWh	●	●
Climate change mitigation: % change scope 1 & 2 emissions ⁽³⁾	14% decrease	2.2% decrease 1.5% increase	●	●
Climate change adaptation: multiple metrics	See TCFD section, pages 86 to 97			

Status key:

Annual performance	Against 2025 target
● Met expectation/target	● Confident of meeting target
● Close to meeting expectation/target	● Some work to do
● Behind expectation/target	● Target unobtainable

Performance key:

2021/22
2020/21

- (1) Based on the latest assessment, which was for 2020. 2021 performance will be reported in July 2022.
- (2) As measured against a 2017/18 baseline.
- (3) As measured against Science Based Target baseline year 2019/20.



We have committed to deliver £230 million in environmental improvements, leading to 184 kilometres of improved waterways.”

Better Rivers: Better North West

As more people have come to appreciate the environment since the pandemic, there's a real drive to improve our rivers and waterways. People want to swim, to enjoy riverside walks and get back to nature, and we have an important role to play by upgrading the sewerage infrastructure in the region.

In March 2022, we published a series of commitments to kick start a river revival over the next three years. Better Rivers: Better North West is a four-point plan setting out our commitments to:

- make sure the company's operations progressively reduce impact to river health;
- be open and transparent about our performance and plans;
- make rivers beautiful and support others to improve and care for them; and
- create more opportunities for everyone to enjoy rivers and waterways.

Most of these pledges will be delivered over the next three years, including investment in wastewater systems, enhanced data monitoring and sharing, greater innovation and more use of nature-based solutions.

We have committed to deliver £230 million in environmental improvements, supporting at least a one-third sustainable reduction in the number of spills recorded from our storm overflows by 2025 compared to the 2020 baseline. This investment at sites across the region will lead to 184 kilometres of improved waterways. We will make sure that all storm overflows are monitored by 2023 and real-time data on their operation is made available to the general public.

In addition to the £230 million within our base capital programme, part of the additional investment we are making outside the scope of our final determination allowance will help accelerate these plans.

But that's only part of the solution; we can't do this on our own. Members of the public will be able to get involved too with the launch of a community fund to support local river health initiatives and, working alongside The Rivers Trust, there will be the opportunity for people to volunteer as citizen scientists to collect data on river health, which will help inform further improvement work.

We also continue to engage with the ongoing industry-wide investigations by Ofwat and the Environment Agency into possible unpermitted sewage discharges.

Delivering value for:

- Communities
- Environment

More detail can be found on our website at unitedutilities.com/corporate/responsibility/environment/reducing-pollution

1,315km
Rivers expected to have improved water quality from our AMP7 investment

4 star
Industry-leading company in the EA's performance assessment for 2020

6
Carbon pledges underpinned by ambitious science-based targets



Investors

Delivering a sustainable return to investors – through prudent financial risk management and a strong track record of performance across a suite of environmental, social and governance metrics.

How we measure performance

Our key performance indicator to measure value created for investors during 2020–25 is Return on Regulated Equity (RoRE).

Return on regulated equity (RoRE)

Definition

Key measure encompassing regulatory out/underperformance across financial and operational efficiency, customer satisfaction, and regulatory performance targets. Read more on page 51.

Target

Our targets will be updated throughout the period in line with guidance on the individual components of RoRE.

Status

● Achieved/confident of achieving target

Link to material issue

- Customer service and operational performance
- Financial risk management
- Corporate governance and business conduct

➔ Read more about [our approach to materiality](#) on pages 34 to 35

Link to risks

- Finance
- Political and regulatory

➔ Read more about [our principal risks](#) on pages 104 to 105

Performance

Reported RoRE for 2021/22 was 7.9 per cent on a real, RPI/CPIH blended basis, double the base return. Underlying RoRE was slightly lower at 7.7 per cent, and excludes the tax that will be recovered through the regulatory sharing mechanism. Cumulative RoRE for the first two years of AMP7 is 6.2 per cent on both a reported and underlying basis.



“As a responsible business, we are sharing our success with customers, as we have done previously sharing over £600 million between 2010 and 2020.”

How we deliver value to investors

Short term

- Since many of our investors are pension funds, charities and employees, the income we provide through dividends benefits millions of people every year.
- We are committed to high ethical standards of business conduct, strong corporate governance and acting with integrity so investors can have confidence in the way we do business.
- We maintain a high level of quality and transparency in what we report.
- Our innovation culture drives continuous improvements, enabling us to be at the frontier of our industry.

Long term

- The majority of shares in our company are typically held for the long term, and we provide an appropriate return to investors through a combination of short-term dividend income and long-term growth.
- We plan far into the future and invest in our infrastructure to ensure sustainability.
- We manage risk prudently so investors can have confidence in our stability and resilience in the round.
- We link investor returns to our environmental and social projects through our sustainable finance framework.

Link to strategic themes

- By delivering better performance for customers we are able to achieve greater regulatory incentives, aligning improved service with investor returns.
- By reducing costs in a sustainable way through innovation and efficiency, we can meet our allowed expenditure without compromising operational performance.
- Our strong corporate governance, prudent risk management, and clear and transparent reporting create a lower risk investment and build trust.

Overview

We have delivered a strong Return on Regulated Equity (RoRE) performance this year, driven by our continued improvements in operational performance together with good performance on financing and tax. As a responsible company, we believe in sharing our successes and have increased the additional investment we are making outside the scope of our Final Determination (FD) total expenditure (totex) allowance by £400 million to a total of £765 million, which will deliver environmental benefits and improved performance against customer outcomes.

Return on Regulated Equity (RoRE)

Reported RoRE of 7.9 per cent for 2021/22 comprises the base return of 3.9 per cent (including our 11 basis point fast-track reward that we receive in each of the five years of the AMP), tax outperformance of 2.7 per cent, financing outperformance of 1.6 per cent, and customer ODI outperformance of 0.5 per cent, partially offset by the total expenditure (totex) impact on RoRE of -0.8 per cent as a result of our additional investment. Underlying RoRE of 7.7 per cent has a lower tax outperformance of 2.5 per cent as it excludes the tax that will be recovered through the regulatory sharing mechanism.

Total expenditure (totex)

The totex impact on RoRE of -0.8 per cent, on both a reported and underlying basis, largely reflects the year two impact of the additional investment we are making outside the scope of our FD, for example our investment in Dynamic Network Management.

Our AMP7 business plan was assessed by Ofwat as being amongst the most efficient in the sector, and our performance improvements over AMP6 meant we started AMP7 at a totex run rate that supported delivery of the stretching efficiency challenge in our FD allowance. We are not immune to the impact of inflation, both directly and indirectly through our supply chain, with many of our costs rising above the headline rate. Our totex allowance does increase with inflation, which helps to mitigate some of this cost pressure, and we continue to exploit technology and innovation to help us deliver our investment efficiently.

In this second year of AMP7, we have invested £645 million in net regulatory capital expenditure (excluding infrastructure renewals expenditure), representing the continued acceleration of our AMP7 investment

programme and early expenditure against the extension to our original totex plans. Cumulatively, this is £1.3 billion in the first two years of the period, which represents a good start to the delivery of our AMP7 programme. We have been able to deliver this expenditure effectively, maintaining our high performance scores against our Time, Cost and Quality index (TCQi) at over 95 per cent.

Our investment strategy delivers long-term efficiency and sustainable performance improvements, and the additional £765 million investment we are making beyond the scope of our FD will drive further enhancements for customer and environmental performance. £265 million of this investment we expect to be fully recovered through regulatory mechanisms, including Green Recovery and projects that form part of our Water Industry National Environment Programme (WINEP). £250 million of this investment is improving environmental outcomes, funded through investment of outperformance, and subject to regulatory sharing mechanisms. The final £250 million of this investment will drive improved performance against customer outcomes and is supported on a business case basis, delivering improved customer ODI performance.

While we continue to strive to deliver our investment efficiently, as we have demonstrated through this additional investment, we will invest where we are confident we can deliver improved customer or environmental outcomes and better customer ODI performance.

Customer outcome delivery incentives (ODIs)

Customer ODI outperformance of 0.5 per cent, on both a reported and underlying basis, reflects a net reward of £25 million*. This is our highest ever one-year net reward against customer ODIs, reflecting our continued improvements in performance for customers.

Our customer ODI performance has been strong across the board, meeting or beating over 80 per cent of our performance commitments, giving us the confidence to increase our total AMP7 ODI guidance by a third, targeting a cumulative net ODI reward over the five-year period of around £200 million.

* Excluding per capita consumption, which Ofwat will be revisiting at the next price review once there is a better understanding of the impact of COVID-19 and any enduring effects.

➔ Read more about [our £765 million additional investment](#) on page 71



More information about our RoRE performance will be published in July 2022 in our APR, available on our website at: unitedutilities.com/corporate/about-us/performance/annual-performance-report

Our performance in 2021/22

Operational performance

The additional investment we are making will help improve performance in areas where we want to do better. This includes £100 million investment in Dynamic Network Management, which will help us improve performance on sewer flooding, and around £100 million investment in improving water quality.

Customer ODI rewards and penalties in AMP7 will be adjusted in revenues on a two-year lag in accordance with the regulatory mechanism, therefore, the net reward earned this year will be reflected in an increase to revenue in 2023/24 through allowed increases in the rates charged to customers in that financial year.

Financing outperformance

We earned financing outperformance this year of 1.6 per cent, on both a reported and underlying basis, compared with 1.2 per cent last year. This increase mainly results from recent high levels of inflation, which increases the benefit of the roughly £3 billion fixed rate debt we have locked in.

We have consistently issued debt at efficient rates that compare favourably with the industry average, thanks to our leading treasury management, clear and transparent financial risk management policies, and ability to act swiftly to access pockets of opportunity as they arise. This delivered significant financing outperformance during AMP6 and the rates we have locked-in for AMP7 compare favourably with the price review assumptions.

Tax outperformance

The 2.7 per cent outperformance on tax on a reported basis reflects our optimisation of available government tax incentives, including research and development tax allowances and the temporary capital allowance “super deductions”, net of the tax impact of financing outperformance. The 2.5 per cent outperformance on tax on an underlying basis excludes the tax that will be recovered through the regulatory sharing mechanism.

ESG performance

We are upper quartile across a suite of investor indices. With a score of 76 per cent we were proud to again be included in the S&P Global Sustainability Yearbook 2022, and we have been included in the FTSE4Good Index Series, which measures the performance of companies who demonstrate strong ESG practices against globally recognised responsible business standards, since June 2001. In March 2022, we were assessed by Sustainalytics to be at low risk of experiencing material financial impacts from ESG factors, with our management of ESG material risk rated as strong. We received an ESG Risk Rating of 12.8.

Measure	2025 target	Performance	Status	
			Annual performance	Against 2025 target
KPI:				
Underlying RoRE	Assessed annually	7.7% 4.6%	●	●
Reported RoRE	Assessed annually	7.9% 4.3%	●	●
UK Corporate Governance Code	Maintain compliance	Compliant Compliant	●	●
Maintain performance across a range of trusted investor indices	Upper quartile	Upper quartile Upper quartile	●	●
Credit rating UUW (Moody's, S&P, Fitch)	A3, BBB+, A-	A3, BBB+, A- (stable outlook) A3, BBB+, A-	●	●
Gearing	55–65%	61% 62%	●	●
Maintain sustainable finance framework	Available/continued issuance	Available Available	●	●
Fair Tax mark	Retain annual accreditation	Retained Retained	●	●
Sustainable dividend	Grow by CPIH	In line with commitment In line with commitment	●	●
Risk maturity	Year-on-year improvement	Met expectation Met expectation	●	●
Anti-bribery:% of identified employees completing required training	100%	100% 94%	●	●
Investor engagement:% met or offered to meet by value (active targetable institutional shareholder base)	75%	80% 81%	●	●

Status key:

Annual performance	Against 2025 target
● Met expectation/target	● Confident of meeting target
● Close to meeting expectation/target	● Some work to do
● Behind expectation/target	● Target unobtainable

Performance key:

2021/22
2020/21



“

The additional investment we are making will improve services for customers and accelerate long-term environmental aims.”

Investing £765 million to deliver customer and environmental outcomes

The £765 million additional investment we are making over the 2020–25 period beyond the scope of our final determination will help to accelerate environmental benefits, improve performance for customers, and deliver growth in our regulatory capital value (RCV), while maintaining gearing within our target range.

£265 million of this investment is delivering projects that have been agreed with our regulator to help deliver environmental and customer outcomes. These projects are approved additions to our base investment programme, including Green Recovery investment and the Water Industry National Environment Programme (WINEP), and are subject to regulatory mechanisms.

A further £250 million is being targeted at improving performance for customers, including £100 million investment in Dynamic Network Management, a Systems Thinking implementation in our wastewater network that is driving improvements in sewer flooding and pollution performance, as well as projects that will improve water quality.

This investment is supported on a business case basis, and will deliver improved customer outcome delivery incentive (ODI) performance in the current period. The sustainable performance improvements it will deliver also help to support better service for customers, and therefore, better ODI performance, in future periods,

providing additional benefit and creating long-term value for all stakeholders.

The remaining £250 million will help us improve environmental outcomes, such as accelerating implementation of the Environment Act 2021, including delivery of the commitments we set out in our Better Rivers: Better North West plan, and delivering improved water quality and resilience.

This is reinvestment of outperformance we have earned, and is subject to regulatory mechanisms. As a responsible company, we believe in the importance of sharing our successes for the benefit of all our stakeholders. This is in line with the approach we have taken historically, sharing over £600 million in 2010–20, and that investment has helped us to deliver the performance improvements we have achieved to date.

As well as delivering significant environmental and customer benefits, this additional investment is contributing to higher growth in our RCV, which is now expected to grow by over 10 per cent more on a nominal basis over the 2020–25 period than we expected at the beginning of the period. This, together with our financial strength and balance sheet headroom, means we expect gearing to remain within our target range of 55 to 65 per cent, retaining financial flexibility and resilience.

Delivering value for:



7.9%
Return on Regulated Equity for 2021/22, double the base return

£25m
Highest ever one-year reward against outcome delivery incentives (ODIs)

£200m
Anticipated total reward against ODIs over the 2020–25 period



Suppliers

Innovating in partnership with suppliers – we rely on suppliers to deliver our services and to help identify ways to make them better.

How we measure performance

Our key performance indicator to measure value created for suppliers during 2020–25 is payment within 60 days, and we target at least 95 per cent of invoices to be paid within this time frame.

Invoices paid within 60 days

Definition

Percentage of invoices paid within 60 working days of issue.

Target

At least 95 per cent, in line with the requirements of the Prompt Payment Code.

Status

● Achieved/confident of achieving target

Link to material issue

- Trust, transparency and legitimacy
- North West regional economy
- Responsible supply chain

➔ Read more about [our approach to materiality](#) on pages 34 to 35

Link to risks

- Supply chain and programme delivery

➔ Read more about [our principal risks](#) on pages 104 to 105

Performance

This year continued to pay suppliers above our target, with over 99 per cent of our invoices paid within 60 days, and our average time to pay was 13 days.



“We act fairly and transparently with all our suppliers and are a signatory to the Prompt Payment Code, fully complying with the reporting requirements.”

How we deliver value to suppliers

Short term

- We spend significant amounts of money with our suppliers each year to help deliver maintenance and enhancement projects across our asset base, and this helps support thousands of jobs in our region.
- Paying suppliers on time gives them confidence in us and allows companies to maintain cash flow and become more resilient.
- While our operations and suppliers are mainly UK and European, they work closely with us to address human rights, in particular modern slavery.

Long term

- Supporting jobs through our supply chain in the short term catalyses the development of skills and jobs in the North West, providing a stimulus to benefit the regional economy in the long term.
- Working together to develop technologies means we can identify solutions that will make our services better in the future.
- We act with integrity, giving suppliers confidence in the way we do business, which translates to transparency and fairness for our suppliers.

Link to strategic themes

- Suppliers work on our behalf, so ensuring they are motivated to deliver good quality work helps us deliver the best service to customers.
- Developing innovations with suppliers, and ensuring they deliver goods and services efficiently, contributes to a sustainable low cost for customers.
- Working with responsible suppliers who share our sustainability objectives helps us achieve more in tackling environmental and social issues.

Overview

Our activities support around 17,700 jobs in the supply chain, and the acceleration of around £500 million of capital expenditure into the first three years of AMP7 will continue to play a part in helping to generate jobs and income for the North West economy.

This comes at a critical time as the country recovers from the effects of the COVID-19 pandemic and are faced with significant rises in the cost of living.

Suppliers and contractors play an important role in delivering our services and, alongside our employees, often act as the face of our business for many customers and communities.

The pandemic has shown the importance of our relationships with our supply chain partners and we want this to grow as part of our United Supply Chain approach.

Prompt Payment Code

As a signatory to this Code, in addition to the commitment to pay at least 95 per cent of invoices within 60 working days, we are working to pay 95 per cent of our small and medium-sized enterprise (SME) suppliers within 30 days, a new guideline that came into effect in July 2021.

Our efforts have not gone unnoticed and we were awarded one of the first ‘Fast Payer Awards’ by Good Business Pays. This award recognises FTSE350 companies who are fast payers of their invoices and can demonstrate that over the past 12 months they have paid their suppliers in less than 30 days as well as paying 95 per cent or more of all invoices on time.

Responsible sourcing through our United Supply Chain

Our new approach to responsible supply chain management for AMP7, called United Supply Chain (USC), was launched in 2020 and we continue to embed this strategy across our supply chain.

USC recognises suppliers as an extension of the United Utilities family and suppliers are asked, as a minimum, to become a signatory to our Responsible Sourcing Principles. For those suppliers that are integral to our operations, we encourage them to become leaders and to work jointly with us to deliver improvements across ESG areas and to improve value for customers.

In September 2021, we held a USC event to acknowledge the efforts of our suppliers and awarded our first USC awards in Customer, Innovation and Integrity. We worked closely with one of our partner suppliers, Sapphire Utility Solutions Ltd, and awarded them our first USC accreditation badge.

By March 2022, 90 per cent of our targeted suppliers had signed up to our Responsible Sourcing Principles. We continue to engage with the remaining suppliers to reach our target of 100 per cent.

Through our partnership with Supply Chain Sustainability School, we have been able to offer our commercial colleagues and supply chain partners free resources to learn more about the Responsible Sourcing Principles.

In light of the sanctions regime introduced by the UK Government in relation to the conflict in Ukraine, we continue to review our supply chain on an ongoing basis for any potential exposure, and have taken action to mitigate this where necessary by securing alternative sourcing.

Fostering innovation

Our Innovation Lab gives suppliers, often small start-up businesses who might be in the early stages of developing their idea or just starting out on their business growth journey, the opportunity to test solutions in a live environment over a 12-week programme.

This helps us find ideas where others aren’t looking – in different sectors, other countries, and with suppliers we may not otherwise have worked with.

It does all this whilst being fully compliant with procurement legislation – allowing for rapid idea testing and adoption/contract award – an obstacle that most regulated companies struggle with.

The open, collaborative nature means that feedback is given more frequently and ideas get tailored for adoption by us faster than traditional product testing.

We set categories for which we are looking for solutions, all of which are designed to help develop our Systems Thinking plans and enable us to deliver a better service for customers.

➔ Read more about [the world-first water treatment process that came out of our Innovation Lab](#) on page 75

Our performance in 2021/22

Operational performance

We are currently in our fourth Lab programme, which has the following categories:

- Ideas to help us get to the next level in digital connections across our network;
- Ideas to help us analyse data and use it to improve our energy efficiency;
- Ideas to help us reach our net zero target and use nature-based solutions, for example in biodiversity, natural flood management, and community engagement; and
- Wildcard – a catch-all category for transformative ideas that we feel are worth pursuing despite not fitting into one of the above specific categories.

We are working with 12 suppliers in this programme, with ideas ranging from faster ways to detect water quality issues to drones for water sampling in hard-to-reach areas.

We have worked with more than 20 suppliers in this way in the past, and seen some high profile success. FIDO, which emerged from our second Lab programme to help tackle leakage detection, is becoming known as a disruptor in the global water sector, and we have first mover advantage on new developments. Following development with Typhon, we have recently completed installation of the world's first ever municipal UV LED disinfection system in operation at one of our water treatment works near Carlisle.

Measure	2025 target	Performance	Status	
			Annual performance	Against 2025 target
KPI:				
Invoices paid within 60 days	At least 95%	99.34% 99.55%	●	●
Average time taken to pay invoices	<28days	13 13	●	●
% suppliers in high risk categories, as identified by sustainability risk assessments, covered by enhanced due diligence audits	5%	Delivery scheduled from 2022 Delivery scheduled from 2021	●	●
% of partner and strategic suppliers that have sustainability risk assessment in place	75%	72% 35%	●	●
Supplier relationship management score	90%	54% 69%	●	●
% of targeted suppliers signed up to United Supply Chain	100%	90% 38%	●	●
CIPS ethical mark	Retain annual accreditation	Retained	●	●
Savings delivered through innovation and efficiency	£40m	£6.388m cumulative	●	●

Status key:

Annual performance	Against 2025 target
● Met expectation/target	● Confident of meeting target
● Close to meeting expectation/target	● Some work to do
● Behind expectation/target	● Target unobtainable

Performance key:

2021/22
2020/21



We were delighted to help showcase what can be achieved when industry fully invests in the next generation of talent and ideas.”

Innovating with world-first water treatment process

His Royal Highness The Prince of Wales visited our Cumwhinton Water Treatment Works, near Carlisle, to see how ultraviolet LEDs are making ripples in the field of low energy water treatment. Developed by Penrith firm Typhon, the technology is the only one of its kind capable of disinfecting drinking water supplies on a large scale.

Ultraviolet (UV) light is widely used in the drinking water treatment process to remove bacteria or tastes and odours caused by algae. However, until now, UV LED treatment systems had only been effective at treating small amounts of water for very low flows or domestic use. This project, two years in development, sees the world's first ever municipal UV LED disinfection system in operation at the site.

His Royal Highness met employees from both Typhon and United Utilities and discussed how the award-winning system, with its advantages of superior safety, energy efficiency and low running costs, could help address safe access to water globally.

Typhon CEO, Matt Simpson, said: “We were honoured that His Royal Highness was interested to come and learn more about this hugely important leap for UV technology in the water industry. It was wonderful to be able to share the story of how a small local firm

and the local water company have worked together to take the idea all the way through from demonstration scale to a marketable industrial application right here in Cumbria.

“We explained how the process works, the challenges involved in developing such a unique disinfection solution, and the potential future benefits for the water industry globally and for high skilled employment opportunities in the North Lakes area.”

Our head of innovation, Kieran Brocklebank, said: “United Utilities is proving to be quite a force for innovation in the UK water sector thanks to our Innovation Lab programme, where we identify and incubate the best emerging technologies. Our relationship with Typhon is a real success story and we were delighted to help showcase what can be achieved when industry fully invests in the next generation of talent and ideas.”

Delivering value for:



>17,000

Jobs in the supply chain supported through our activities

90%

Targeted suppliers signed up to our United Supply Chain

>20

Suppliers we have worked with through our Innovation Lab process

Our performance in 2021/22

Financial performance

Revenue for the year to 31 March 2022 increased by 3 per cent, mainly driven by higher non-household consumption as business activity has returned to pre-pandemic levels. Household bad debt has returned to 1.8 per cent of regulated revenue, lower than the 2.2 per cent last year and consistent with the level we were achieving prior to the pandemic, helped by our wide ranging affordability schemes and effective approach to managing cash collection. Operating profit was up £8 million as the increase in revenue was largely offset by inflationary increases in power and other core costs.

While inflation has increased our operating costs and net finance expense this year, it has also led to a higher level of financing outperformance and, together with the £765 million additional investment we have announced beyond the scope of our final determination, will deliver higher regulatory capital value (RCV) growth over the 2020–25 period.

We have doubled our base return on regulated equity (RoRE) for 2021/22, delivering strong performance on financing, tax and customer ODIs.

We benefit from having one of the strongest balance sheets in the sector, with an industry-leading, fully funded pension scheme on a low dependency basis, a low level of customer debtor risk, and RCV gearing supporting a stable A3 credit rating with Moody's.

Revenue

2021/22	£1,863m
2020/21	£1,808m
2019/20	£1,859m
2018/19	£1,819m
2017/18	£1,736m

Underlying operating profit⁽¹⁾

2021/22	£610m
2020/21	£602m
2019/20	£732m
2018/19	£678m
2017/18	£639m

Reported operating profit

2021/22	£610m
2020/21	£602m
2019/20	£630m
2018/19	£635m
2017/18	£636m

Revenue



Revenue was up £55 million, at £1,863 million, largely reflecting higher consumption as business activity returns to pre-pandemic levels.

In 2021/22 we have had a £14 million reduction in the revenue cap, incorporating a 1.5 per cent real reduction in allowed wholesale revenues partly offset by a 0.6 per cent CPIH-linked increase.

With many more businesses able to operate compared with last year, when the impact of the initial lockdown was significant, non-household revenue has increased by £106 million. In contrast, consumption from households, although higher than pre-pandemic norms, has decreased £58 million this year. This is due to significantly higher consumption particularly during the first half of last year reflecting the initial impact of people being locked down at home through the warm weather of late spring 2020.

Operating profit



* £8m COVID-related costs was an estimate in the year ended 31 March 2021 because, with the passage of time and as conditions brought about by the pandemic have become embedded into normal business processes, the usefulness of tracking COVID-related costs specifically has diminished.

Underlying and reported operating profit at £610 million was £8 million higher than last year. The £55 million increase in revenue was mostly offset by higher power costs and inflationary pressures increasing our underlying cost base, predominantly in respect of materials and labour.

We have a reduction of around £8 million in operating costs as last year saw additional one-off costs incurred in adapting to operate through the pandemic.

The £17 million of additional costs driving ODI performance are targeted at improving performance against specific customer ODIs, such as spend associated with Dynamic Network Management.

Power costs have increased by £16 million this year, largely in relation to higher prices. Power is a significant cost for our business, which is why we manage this risk through a progressive policy of hedging the commodity price element of power costs to minimise short term volatility (commodity price makes up around half of our annual power costs, with the other half relating to the use-of-system charge and other levies). Through this hedging policy and self-generation, we locked in the cost on the majority of our consumption for 2021/22 before the most recent energy price rises, securing an average rate of £65 per megawatt hour (MWh) for the year, which is

significantly lower than the current market rate of over £200 per MWh for next year and has been fundamental to our ability to minimise the impact on our cost base. We are also locked-in on over 90 per cent of expected consumption for 2022/23, and around two-thirds of expected consumption across the final two years of AMP7, at rates that compare favourably to the current market rate.

Cost increases of £16 million largely stem from higher inflation in the period. We are not immune to the impact of the current high inflation environment, but through hedging, constructive cost challenge and commercial negotiations, we have managed to mitigate much of the cost increase to date.

During the year, the IFRS Interpretations Committee (IFRIC) published clarifications on how arrangements in respect of a specific part of cloud technology – Software as a Service – should be accounted for, resulting in £6 million of costs that would previously have been accounted for as fixed asset additions now being treated as operating costs.

Household bad debt is back at our lowest ever level of 1.8 per cent of regulated revenue, having reduced from 2.2 per cent in the year to 31 March 2021 as we return to pre-pandemic levels.

Profit before tax

Underlying profit before tax was £302 million, £158 million lower than last year. This reflects the £8 million increase in underlying operating profit and a decrease in the share of losses of joint ventures of £8 million, more than offset by a £174 million increase in underlying net finance expense. Underlying profit before tax reflects consistently applied presentational adjustments as outlined on pages 82 to 83.

Reported profit before tax decreased by £111 million to £440 million reflecting the £8 million increase in reported operating profit and an £8 million decrease in the share of losses of joint ventures, more than offset by a £90 million increase in reported net finance expense (including fair value movements), and the inclusion last year of a £37 million profit on disposal of our share in the joint venture AS Tallinna Vesi.

Net finance expense

The underlying net finance expense of £306 million was £174 million higher than last year, mainly due to the non-cash impact of significantly higher inflation on our index-linked debt.

The indexation of principal on index-linked debt, excluding the impact of inflation swaps, amounted to a net charge in the income statement of £228 million, compared with a net charge of £53 million last year, resulting in an increase of £175 million. Interest on non index-linked debt of £110 million is consistent with last year, while various smaller year-on-year increases and decreases broadly offset against one another when considered together.

The £306 million underlying net finance expense included in the income statement for the year compares with £118 million net cash interest paid included in the statement of cash flows. This £188 million difference is due to non-cash inflation uplifts on index-linked debt and derivatives of £256 million, less capitalised borrowing costs of £53 million and net pension interest income of £14 million, both of which are non-cash items.

Reported net finance expense of £168 million was £90 million higher than last year, reflecting the £174 million increase in underlying net finance expense, partially offset by an £84 million increase in net fair value gains on our debt and derivative portfolio, excluding interest on derivatives and debt under fair value option, from £54 million last year to £138 million this year.

Joint ventures

For the year to 31 March 2022, we recognised a £2 million loss in the income statement relating to our joint venture Water Plus, compared with a £9 million net share of losses from joint ventures last year, which included a share of profits from the AS Tallinna Vesi joint venture prior to its disposal. In the year to 31 March 2021, we also recognised a £37 million profit on disposal of our share in AS Tallinna Vesi, which was completed on 31 March 2021.

Further details can be found in note 12 of the consolidated financial statements.

Regulatory capital value (RCV) gearing⁽²⁾

61%

(1) A guide to APMs and a reconciliation between underlying profit and reported profit is shown on pages 82 to 83.

(2) Gearing calculated as group net debt/United Utilities Water Limited shadow RCV (adjusted for actual spend and timing difference).

Total dividend per ordinary share (pence)

43.5p

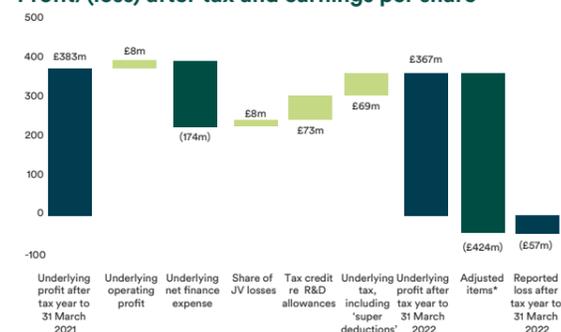
Household bad debt as a proportion of regulated revenue

1.8%

Our performance in 2021/22

Financial performance

Profit/(loss) after tax and earnings per share



* Adjusted items are set out on pages 82 and 83

Underlying profit after tax of £367 million was £16 million lower than last year, and underlying earnings per share decreased from 56.2 pence to 53.8 pence, as the £158 million reduction in underlying profit before tax is partly offset by £142 million lower underlying tax (moving from a charge of £77 million last year to a net credit of £65 million this year). The reduction in underlying tax reflects a £73 million tax credit relating to optimising the available research and development UK tax allowances on innovation-related expenditure we had incurred in prior years, and the impact of the capital allowance 'super deductions' announced in the March 2021 Chancellors Budget, which lowers the current tax charge significantly in the current period.

The group has a reported loss after tax of £57 million this year, compared with a £453 million reported profit after tax last year. This £510 million difference reflects the £111 million decrease in reported profit before tax, and a £544 million increase in deferred tax largely due to a one-off charge to restate the brought forward deferred tax liability at the new 25 per cent future headline rate, partially offset by a £145 million positive movement in current tax primarily as a result of adjustments in respect of optimising available tax incentives on our innovation-related expenditure in prior years. Reported basic earnings per share decreased from 66.5 pence to (8.3) pence.

Tax

The group continues to be fully committed to paying its fair share of tax and acting in an open and transparent manner in relation to its tax affairs and we were delighted to have retained the Fair Tax Mark independent certification for a third year, having been only the second FTSE 100 company to be awarded the Fair Tax Mark in July 2019.

In addition to corporation tax, the group pays significant other contributions to the public finances on its own behalf as well as collecting and paying over further amounts for its over 5,000 strong workforce. The total payments for 2021/22 were around £230 million and included business rates, employment taxes, environmental taxes and other regulatory service fees such as water abstraction charges as well as corporation tax.

In 2021/22, we paid corporation tax of around £9 million, which represents an effective cash tax rate on underlying profits of 3 per cent, which is 16 per cent lower than the headline rate of corporation tax of 19 per cent. The key reconciling item to the headline rate of corporation tax continues to be allowable tax deductions on capital investment including the new temporary capital allowance 'super deductions', where the current year tax benefit was around £40m representing a 13 per cent reduction to the effective cash tax rate. We expect a similar tax benefit from the temporary super deduction regime for 2023 as well.

We have expressed the effective cash tax rate in terms of underlying profits as this measure excludes fair value movements on debt and derivative instruments and thereby enables a medium-term cash tax rate forecast. We expect the average cash tax rate on underlying profits to remain below the headline rate of tax for the medium term.

For 2021/22, the group recognised an overall current tax credit of £66 million in 2021/22. This includes a current tax charge relating to 2021/22 of £7 million this year, compared with £80 million in the previous year, key reconciling items being the lower taxable profits and the availability of capital allowance 'super deductions' for 2021/22. In addition, in the current year, there were prior period tax credits of £73 million, compared with £1 million in 2020/21. The current year credit mainly relates to optimising the available research and development UK tax allowances on our innovation-related expenditure for multiple prior years.

For 2021/22, the group recognised a deferred tax charge of £562 million, compared with £18 million for 2020/21. For 2021/22, £403 million relates to the government's planned increase in the rate of corporation tax from 19 per cent to 25 per cent from 1 April 2023. Subject to any legislative or tax practice changes, we would expect the total effective tax rate to continue to be broadly in line with the headline rate of corporation tax for the medium term.

In 2021/22, there are £136 million of tax adjustments recorded within other comprehensive income, primarily relating to remeasurement movements on the group's defined benefit pension schemes. As in the prior year the rate at which the deferred tax liabilities are measured on the group's defined benefit pension scheme is 35 per cent, being the rate applicable to refunds from a trust.

Dividend per share

The board has proposed a final dividend of 29.0 pence per ordinary share in respect of the year ended 31 March 2022. Taken together with the interim dividend of 14.5 pence per ordinary share, paid in February, this results in a total dividend per ordinary share for 2021/22 of 43.5 pence. This is an increase of 0.6 per cent compared with the dividend relating to last year, in line with the group's dividend policy of targeting a growth rate of CPIH inflation each year through to 2025. The 0.6 per cent increase is based on the CPIH element included within allowed regulated revenue for the 2021/22 financial year (i.e. the movement in CPIH between November 2019 and November 2020).

The final dividend is expected to be paid on 1 August 2022 to shareholders on the register at the close of business on 24 June 2022. The ex-dividend date is 23 June 2022. The election date for the Dividend Reinvestment Plan is 11 July 2022.

Cash flow

Net cash generated from continuing operating activities for the year to 31 March 2022 was £934 million, £75 million higher than £859 million last year. The group's net capital expenditure was £627 million, principally in the regulated water and wastewater investment programmes. This excludes infrastructure renewals expenditure, which is treated as an operating cost.

Pensions

As at 31 March 2022, the group had an IAS 19 net pension surplus of £1,017 million, compared with a surplus of £689 million at 31 March 2021. This £328 million increase principally reflects an increase in credit spreads during the year, partially offset by a higher inflation assumption. The group has de-risked its pension schemes through hedging strategies applied to the underlying interest rate and future inflation. The IAS 19 position remains volatile to changes in credit spread and changes in mortality, neither of which have been hedged at this current time. This is primarily due to difficulties hedging against credit spread volatility over long durations, and, for mortality, there is lower volatility in the short term and relatively high hedging costs. The scheme specific funding basis does not suffer volatility due to credit spread movements to the same extent as it uses a prudent, fixed credit spread assumption.

Further detail on pensions is provided in note 18 ('Retirement benefits') of the consolidated financial statements.

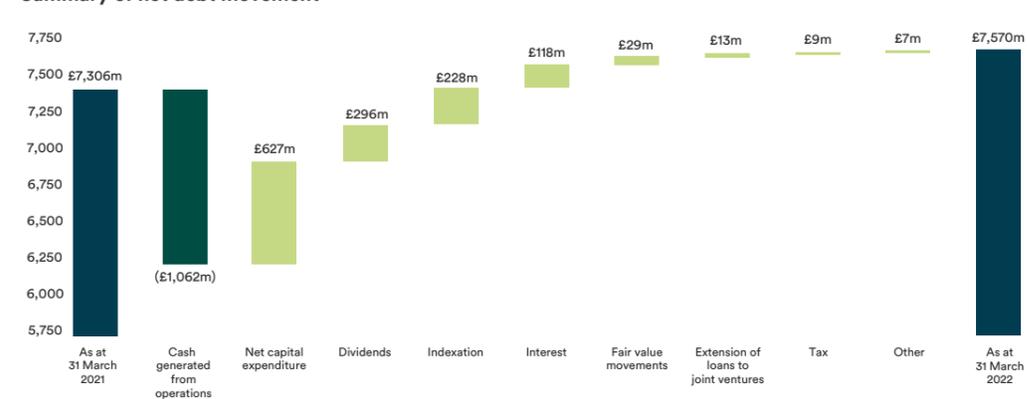
Financing

Net debt at 31 March 2022 was £7,570 million, compared with £7,306 million at 31 March 2021. This comprises gross borrowings with a carrying value of £7,980 million net of cash and short-term deposits of £241 million and net derivative assets hedging specific debt instruments of £169 million.

Underlying movements in net debt are largely a result of net operating cash inflows offset by our net capital expenditure, dividends, indexation and cash interest.

Gearing, measured as group net debt divided by UUV's shadow (adjusted for actual spend and timing difference) regulatory capital value of £12.4 billion, was 61 per cent at 31 March 2022. This is slightly lower than gearing of 62 per cent as at 31 March 2021, and remains comfortably within our target range of 55 to 65 per cent.

Summary of net debt movement



Cost of debt

As at 31 March 2022, the group had approximately £3.2 billion of RPI-linked instruments and £0.4 billion of CPI or CPIH-linked instruments held as debt. In recent years, in response to Ofwat's decision to transition away from RPI inflation linkage, the group has entered into a number of transactions swapping RPI-linked cash flows to CPI-linked cash flows or swapping floating rate cash flows to CPI-linked cash flows. As a result, including these swaps, the group has RPI-linked debt exposure of £3.1 billion at an average real rate of 1.3 per cent, and £1.1 billion of CPI or CPIH-linked debt exposure at an average real rate of -0.6 per cent.

A significantly higher RPI inflation charge compared with the same period last year contributed to the group's average effective interest rate of 5.1 per cent being higher than the rate of 2.5 per cent last year. The average underlying interest rate represents the underlying net finance expense adjusted for capitalised borrowing costs and net pension interest income, divided by average notional debt. More information on this can be found on page 83.

The group has fixed the interest rates on its non index-linked debt in line with its 10-year reducing balance basis at a net effective nominal interest rate of 2.2 to 2.4 per cent for the remainder of the AMP7 regulatory period.

Our performance in 2021/22

Financial performance

Credit ratings

UW's senior unsecured debt obligations are rated A3 with Moody's Investors Service (Moody's), A- with Fitch Ratings (Fitch) and BBB+ with Standard & Poor's Ratings Services (S&P) and all on stable outlook. United Utilities PLC's (UU PLC's) senior unsecured debt obligations are rated Baa1 with Moody's, A- with Fitch and BBB- with S&P, all on stable outlook.

Debt financing

The group has access to the international debt capital markets through its £10 billion medium-term note (MTN) programme. The MTN programme is updated at least annually and this year's update was completed in November 2021, at which time the previous €7 billion euro programme limit was increased and redenominated to £10 billion. The MTN programme does not represent a funding commitment, with funding dependent on the successful issue of the notes.

In total over 2020–25, we expect to raise around £2.7 billion to cover refinancing and incremental debt, supporting our five-year investment programme. So far in AMP7, we have raised around £1.4 billion, taking advantage of attractive rates available and extending our liquidity position (as at 31 March 2022) out to February 2025.

In November 2020, we published our new sustainable finance framework, through which we expect to raise financing based on our strong ESG credentials alongside conventional issuance. This replaces the green funding we have previously secured through the European Investment Bank (EIB), which is no longer available post-Brexit. We issued our debut sustainable bond in January 2021, raising £300 million maturing in October 2029 and subsequently swapped to CPI-linkage.

In August 2021, we raised around £74 million of term funding via the issue of our MTN programme of a JPY11 billion privately placed note swapped to GBP with a nine-year maturity, and in September 2021 we priced a £100 million fixed note with a seven-year maturity, the proceeds of which were received in early October.

In April 2022, we raised £100 million of term funding with an eight-year maturity via a bilateral loan with Export Development Canada (EDC). AAA-rated EDC is the Canadian Government's Export Development Agency that looks to promote trade with Canadian firms worldwide. This follows collaboration with EDC in relation to some of the innovation activities that we have undertaken, and we expect such collaboration to continue.

Since March 2021, we have extended £100 million of revolving credit facilities for a further year, renewed £100 million of revolving credit facilities for a further five-year term and entered into £50 million of new revolving credit facilities for a five-year term. The group has also amended the documentation for all of its existing revolving credit facilities to remove references to LIBOR and replace with SONIA.

Interest rate management

Long-term borrowings are structured or hedged to match assets and earnings, which are largely in sterling, indexed to UK price inflation, and subject to regulatory price reviews every five years.

Long-term sterling inflation index-linked debt provides a natural hedge to assets and earnings. At 31 March 2022, approximately 41 per cent of the group's net debt was in RPI-linked form, representing around 25 per cent of UUW's regulatory capital value (RCV), with an average real interest rate of 1.3 per cent. A further 15 per cent of the group's net debt was in CPI or CPIH-linked form, representing around nine per cent of UUW's RCV, with an average real rate of -0.6 per cent. The long-term nature of this funding also provides a good match to the company's long-life infrastructure assets and is a key contributor to the group's average term debt maturity profile, which is around 18 years.

Our inflation hedging policy is to target around 50 per cent of net debt to be maintained in index-linked form. This reflects a balanced assessment across a range of factors.

Where nominal debt is raised in a currency other than sterling and/or with a fixed interest rate, the debt is generally swapped to create a floating rate sterling liability for the term of the debt. To manage exposure to medium-term interest rates, the group fixes underlying interest costs on nominal debt out to ten years on a reducing balance basis.

Liquidity

Short-term liquidity requirements are met from the group's normal operating cash flow and its short-term bank deposits and supported by committed but undrawn credit facilities. Our MTN programme provides further support.

At 31 March 2022, we had liquidity out to February 2025, comprising cash and short-term deposits, plus committed undrawn revolving credit facilities. This gives us flexibility in terms of when and how further debt finance is raised to help refinance maturing debt and support the delivery of our regulatory capital investment programme. In October 2021, UUW prepaid a £100 million floating rate loan a year ahead of its scheduled maturity, this being efficient use of our available liquidity.

We consider that we operate a prudent approach to managing banking counterparty risk. Counterparty risk, in relation to both cash deposits and derivatives, is controlled through the use of counterparty credit limits. Our cash is held in the form of short-term money market deposits with prime commercial banks.

We operate a bilateral rather than a syndicated approach to our core relationship banking facilities. This approach spreads maturities more evenly over a longer time period, thereby reducing refinancing risk and providing the benefit of several renewal points rather than a large single refinancing requirement.

Outlook

We have delivered another good year of performance, maintaining high levels of customer satisfaction underpinned by our Systems Thinking approach, improving operational performance, and long-term financial resilience, giving us confidence in our ability to continue to create value for customers, the environment, and other stakeholders.

We are accelerating our AMP7 capital programme and investing an additional £765 million over the regulatory period to help us deliver even more sustainable improvements in customer and environmental performance, and to get ahead of the requirements coming into force through the Environment Act. This investment, together with latest views of inflation, contributes to RCV growth over AMP7 of 21 per cent on a nominal basis, more than 10 per cent higher than we expected at the beginning of the period.

Our sustained high level of operational performance is earning outperformance, and we have increased our target of cumulative net outperformance against customer ODIs by a third to around £200 million in total over AMP7. As a consequence of our performance in AMP7 and the additional investment we are making, we are generating around £750 million of value that we expect to receive through an RCV uplift and additional revenues in the 2025–30 period (AMP8).

2022/23 full-year guidance

- Revenue is expected to be around 1 per cent higher than 2021/22, largely reflecting the November 2021 CPIH inflation of 4.6 per cent, largely offset by the regulatory revenue reduction of 1.3 per cent and over-recovery in the current year due to higher than anticipated consumption.
- Underlying operating costs are expected to be around £100 million higher year-on-year. Approximately half of this increase relates to inflationary cost pressures on labour, chemicals and other contract costs, while the other half largely reflects the 2022/23 operating cost impact of the £765 million additional investment.
- Underlying finance expense is expected to be around £150 million higher year-on-year based on our current inflation forecast. As at 31 March 2022, we had £4.3 billion of index-linked debt exposure, therefore every 1 per cent increase in inflation equates to an around £43 million higher interest charge. Our cash interest in 2021/22 was £118 million and we expect this to be broadly the same in 2022/23, with the overall increase in underlying net finance expense largely relating to the non-cash indexation of our index-linked debt. Our cash metrics therefore remain strong and the higher inflation will also apply to our RCV, of which 70 per cent is exposed to the benefits of higher inflation, giving shareholders around a 1.75 times leveraged position to inflation.
- Underlying tax is expected to be a small charge of up to £10 million in 2022/23, as we continue to optimise the use of capital allowance 'super deductions'.
- Capital expenditure (capex) in 2022/23 is expected to be in the range of £640 million to £690 million, including the 2022/23 element of incremental capital expenditure in relation to the £765 million additional investment.
- We are targeting a net customer ODI reward of around £30 million, which is consistent with our updated investment plans and guidance of around £200 million reward in total over AMP7.
- Our AMP7 dividend policy is to grow the dividend in line with CPIH inflation out to 2025, which for 2022/23 would equate to an increase of 4.6 per cent based on November 2021 CPIH inflation.



A3

credit rating with Moody's

18 years

average term debt to maturity

Liquidity to
February 2025

Our performance in 2021/22

Financial performance

Guide to Alternative Performance Measures (APMs)

The underlying profit measures in the following table represent alternative performance measures (APMs) as defined by the European Securities and Markets Authority (ESMA). These measures are linked to the group's financial performance as reported in accordance with UK-adopted international accounting standards and the requirements of the Companies Act 2006 in the group's consolidated income statement, which can be found on page 210. As such, they represent non-GAAP measures.

These APMs have been presented in order to provide a more representative view of business performance. The group determines adjusted items in the calculation of its underlying measures against a framework which considers significance by reference to profit before tax, in addition to other qualitative factors such as whether the item is deemed to be within the normal course of business, its assessed frequency of reoccurrence and its volatility which is either outside the control of management and/or not representative of current year performance.

In addition, a reconciliation of the group's average effective interest rate has been presented, together with a prior period comparison. In arriving at net finance expense used in calculating the group's effective interest rate, underlying net finance expense is adjusted to add back net pension interest income and capitalised borrowing costs in order to provide a view of the group's cost of debt that is better aligned to the return on capital it earns through revenue.

Adjusted item	Rationale
Adjustments not expected to recur	
Profit on disposal of joint ventures	This relates to the disposal of the group's 35.3% stake in its Estonian joint venture, AS Tallinna Vesi, which represents a significant, atypical event and as such is not considered to be part of the normal course of business.
Consistently applied presentational adjustments	
Fair value (gains)/losses on debt and derivative instruments, excluding interest on derivatives and debt under fair value option	Fair value movements on debt and derivative instruments can be both very significant and volatile from one period to the next, and are therefore excluded in arriving at underlying net finance expense as they are determined by macro-economic factors which are outside of the control of management and relate to instruments that are purely held for funding and hedging purposes (not for trading purposes). Included within fair value movement on debt and derivatives is interest on derivatives and debt under fair value option. In making this adjustment it is appropriate to add back interest on derivatives and debt under fair value option to provide a view of the group's cost of debt which is better aligned to the return on capital it earns through revenue. Taking these factors into account, management believes it is useful to adjust for these fair value movements to provide a more representative view of performance.
Deferred tax adjustment	Management adjusts to exclude the impact of deferred tax in order to provide a more representative view of the group's profit after tax and tax charge for the year given that the regulatory model allows for cash tax to be recovered through revenues, with future revenues allowing for cash tax including the unwinding of any deferred tax balance as it becomes current. By making this adjustment, the group's underlying tax charge does not include tax that will be recovered through revenues in future periods, thus reducing the impact of timing differences.
Tax in respect of adjustments to underlying profit before tax	Management adjusts for the tax impacts of the above adjusted items to provide a more representative view of current year performance.

Underlying profit

	Year ended 31 March 2022 £m	Year ended 31 March 2021 £m
Operating profit		
Operating profit per published results	610.0	602.1
Underlying operating profit	610.0	602.1
Net finance expense		
Finance expense	(187.7)	(103.5)
Investment income	19.4	25.0
Net finance expense per published results	(168.3)	(78.5)
Net fair value (gains) on debt and derivative instruments, excluding interest on swaps and debt under fair value option	(138.0)	(54.3)
Underlying net finance expense	(306.3)	(132.8)
Share of (losses) of joint ventures per published results	(1.8)	(9.3)
Profit on disposal of joint ventures per published results	–	36.7
Profit on disposal of AS Tallinna Vesi joint venture	–	(36.7)
Underlying profit on disposal of joint ventures	–	–
Profit before tax per published results	439.9	551.0
Adjustments in respect of operating profit	–	–
Adjustments in respect of net finance expense	(138.0)	(54.3)
Adjustments in respect of profit on disposal of joint ventures	–	(36.7)
Underlying profit before tax	301.9	460.0
(Loss)/Profit after tax per published results	(56.8)	453.4
Adjustments in respect of profit before tax	(138.0)	(91.0)
Deferred tax adjustment	562.5	18.4
Tax in respect of adjustments to underlying profit before tax	(0.7)	2.2
Underlying profit after tax	367.0	383.0
Earnings per share	£m	£m
(Loss)/profit after tax per published results (a)	(56.8)	453.4
Underlying profit after tax (b)	367.0	383.0
Weighted average number of shares in issue, in millions (c)	681.9m	681.9m
Earnings per share per published results, in pence (a/c)	(8.3)	66.5
Underlying earnings per share, in pence (b/c)	53.8	56.2
Dividend per share, in pence	43.50p	43.24p
Average effective interest rate		
In arriving at net finance expense used in calculating the group's effective interest rate, management adjusts underlying net finance expense to add back pension income and capitalised borrowing costs in order to provide a view of the group's cost of debt that is better aligned to the return on capital it earns through revenue.		
	31 March 2022	31 March 2021
Underlying net finance expense	(306.3)	(132.8)
Net pension interest income	(14.3)	(17.5)
Adjustment for capitalised borrowing costs	(52.7)	(30.4)
Net finance expense for effective interest rate (a)	(373.3)	(180.7)
Average notional net debt (b)	(7,368)	(7,315)
Average effective interest rate (a/b)	5.1%	2.5%

Alignment to wider goals



The Sustainable Development Goals (SDGs) comprises 17 global goals to be achieved by the year 2030, and were adopted by a summit of the United Nations (UN) in 2015. They are designed to be the blueprint to achieve a better and more sustainable future for all.

Our approach to responsible business aligns quite naturally with the goals and we have identified six that are most material to our business and where we contribute the most. We contribute to the delivery of a wider selection of the SDGs through our investment projects and these are described in our sustainable finance framework.

Read our sustainable finance framework on our website at unitedutilities.com/globalassets/z_corporate-site/investor-pdfs/sustainable-finance-framework-2020-final.pdf

Clean water and sanitation

Part of our purpose is to provide great water and is the reason we exist, ensuring customers in the North West have safe, resilient and affordable water and wastewater services.

This includes avoiding wasting water, and we promote water efficiency through campaigns, advice, education and free water saving gadgets for customers.

We protect and enhance water-related ecosystems across our region through initiatives such as our Catchment Systems Thinking approach.

Delivering value for:



Decent work and economic growth

Our daily operations provide direct, indirect and induced employment for 22,700 people, and we are a significant contributor to the north west economy.

We provide training and development opportunities in safe, secure working environments, graduate and apprentice opportunities, programmes for young people experiencing difficulties securing employment, offer equal opportunities to all and value diversity among our employees.

Delivering value for:



Industry, innovation and infrastructure

We invest heavily in infrastructure, including plans for over £4 billion between 2020 and 2025 to improve the performance and resilience of our assets and operations to impacts such as those arising from climate change.

We embrace innovation, especially in an increasingly digital world, to ensure the region where we operate has reliable, sustainable and resilient infrastructure, now and into the future.

Delivering value for:



Sustainable cities and communities

We use our understanding of customer needs and priorities to deliver services that meet their expectations and engage with communities to enhance participation in what we do. We plan at least 25 years into the future to prepare for increases in the population and new housing that will need connections for water and wastewater services. We are exploring ways to do this using natural solutions to manage water and wastewater, such as Sustainable Drainage Systems (SuDS).

Delivering value for:



Climate action

Responding to the climate emergency is an imperative for us all.

Delivering against our six carbon pledges and science-based targets whilst ensuring that we, and the region we serve, are resilient to the impacts that a changing climate might bring, is key to our long-term planning.

Read more about our approach to climate change on pages 86 to 97

Delivering value for:



Peace, justice and strong institutions

We run our business in a responsible manner, and being trustworthy is one of our core values.

We maintain high standards in corporate governance and ethical standards of business conduct – those systems and processes through which our organisation is managed, controlled and held accountable. We are committed to open, honest and transparent corporate reporting.

Delivering value for:



Our approach to climate change

Task Force on Climate-related Financial Disclosures (TCFD)

Climate change and extreme weather events are critical to our service delivery because of our reliance on a stable climate and the natural environment. Here we report on our latest progress and plans on cutting emissions to reduce future climate change, known as climate mitigation, and how we are maintaining and improving our resilience to climate change, known as climate adaptation.

Our business, and the communities we serve, has already experienced the impacts of climate change, including several record-breaking weather events that caused impacts such as flooding, power cuts and travel disruption. Risks associated with flooding are heightened in the North West because it is the wettest region in the country, and this is projected to increase with climate change. There is overwhelming evidence that we need to prepare for more severe weather events more often, as well as gradual trends for wetter winters, hotter drier summers and rising sea levels. We integrate past and projected climate data throughout our plans to ensure an effective and evolving

response. We are committed to playing our part in securing the global goal to curb climate change to no more than 1.5°C.

In the following pages we share our greenhouse gas emissions (GHGs) and progress towards meeting our six carbon pledges and science-based targets (SBTs). We present our six most sensitive climate risks and our new adaptation report. In this section, supported with content elsewhere in this integrated report and on our website, we include disclosures consistent with the TCFD Recommended Disclosures all sector guidance.

Where to find our TCFD recommended disclosures

Governance	Pages	Topic
Board's oversight of climate-related risks and opportunities.	88 120	TCFD governance Governance structure
Management's role in assessing and managing climate-related risks and opportunities.		
Strategy	Pages	Topic
Climate-related risks and opportunities identified over the short, medium, and long term.	24–25 34	Creating value Our approach to materiality
Impact of climate-related risks and opportunities on our businesses, strategy, and financial planning.	46–49 86–87 90	Business planning horizons Pledges and targets Climate sensitive risks
Resilience of our strategies, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	91–93, 94 100–109	TCFD strategy TCFD metrics and targets Our risk management

Risk management	Pages	Topic
Processes for identifying and assessing climate-related risks.	89–90 100–109	TCFD risk management Our risk management
Processes for managing climate-related risks.		
How processes identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management		
Metrics and targets	Pages	Topic
Metrics used to assess climate-related risks and opportunities in line with our strategy and risk management processes.	52–83 86–87 94	Our performance Pledge progress TCFD metrics and targets
Scope 1, Scope 2, and Scope 3 GHG emissions, and related risks.	95–97 161–191	Energy and carbon report Remuneration
Targets used to manage climate related risks and opportunities and performance against targets.		

Pledge 1

Reduce scope 1 & 2 emissions

↓2.2% compared to baseline

We are making good progress towards our science-based target to reduce scope 1 and 2 emissions by 42 per cent from our baseline by 2030.

2021/22: 135,936 tCO_{2e}
2019/20: 138,961 tCO_{2e} (baseline year)

Pledge 2

100% of electricity used from renewable sources

We achieved this pledge from October 2021

From October 2021 the electricity we purchased was from guaranteed renewable sources. In addition, we generated a record 210 GWh of renewable energy in 2021/22, equivalent to 26 per cent of our total electricity consumption.

Pledge 3

100% green fleet by 2028

27 fully electric vehicles (EV) now deployed in our fleet with plans for 200 low carbon vehicles by 31 March 2025

We have installed advanced telematics to improve understanding of travel patterns and are trialling options for larger vehicles. We are enabling employees to shift to EV through changes to the company car policies and launch of a salary sacrifice scheme 'EVolve'.

Pledge 4

1,000 hectares of peatland restoration by 2030

Restoration activity well underway

We have restoration projects across the North West at different stages of maturity. As well as continuing our site work to completion, we aim to become an early pioneer in applying the Peatland Code at scale to independently verify the carbon benefits.

Pledge 5

Create 550 hectares of woodland by 2030

9 hectares planted and validated to the Woodland Carbon Code

Planting in 2021 was postponed due to weather and tree disease. The remaining 541 hectares have been planned and the funding identified.

Pledge 6

Set scope 3 science-based target

Targets verified by SBTi

Emissions from our value chain are the most challenging to address so we are working with our supply chain. We are exploring how to improve our calculation methods for scope 3 emissions so that we can consider and openly report the impact of our management choices.

Examples of our activities to respond to climate change

Haweswater Aqueduct Resilience Programme (HARP)

The Haweswater Aqueduct plays an important role in moving large volumes of water from the Lake District to supply Greater Manchester. The aqueduct was originally completed in 1950 and since 2005 we have been planning how to secure its continued and long-term resilience.

Following extensive planning and stakeholder engagement we are ready to start delivery of a solution designed to meet future demand whilst maintaining a gravity-fed, low carbon water supply. The proposed tunnelling solution has been assessed as having one of the lowest environmental and carbon impacts of all options considered, with further opportunities identified to recycle materials to local sites thus reducing impacts from vehicle movements.

Surface water separation – Blackpool south

We have invested over £30 million to address the combined challenges of climate change, an ageing Victorian sewer network, and increasing urbanisation in Blackpool.

The primary objective of this project was to separate surface water from the combined sewer system. New infrastructure was constructed, including a storm water interception tank, pumping stations, and a new sea outfall to provide a sustainable discharge point for surface waters. This will prevent over 800,000m³ of surface water from entering the combined sewer system during wet weather. By diverting the surface water away, the flooding risks posed by storms due to the resulting excess volume of wastewater have been significantly reduced.

Transparency and disclosures

We have a long track record of public carbon and climate change disclosures having estimated and reported our carbon footprint since 2006 and participated in CDP's Climate Change Programme for 12 years. Our reporting is fully compliant with UK Government Environmental reporting guidelines and applies international best practice such as Greenhouse Gas Protocol Corporate Accounting and Reporting Standards (2015). The Science Based Targets initiative (SBTi) assessed and verified our four science-based targets in July 2021 and commended our ambitious 1.5°C aligned scope 1 and 2 target.

We confirm that our annual report includes all climate-related financial disclosures required to be consistent with the TCFD recommendations and recommended disclosures and is in line with the current Listing Rules requirements (as referred to in Listing Rule 9.8.6R(8)). Corporate Citizenship, a leading sustainability consultancy, has reviewed this disclosure and provided an ISAE assurance against the Principles of Effective Disclosure to ensure that consistency with TCFD recommendations including the implementation guidance published in the 2021 Annex.



2021 performance

CDP is known for setting the standard for companies on their environmental leadership. In 2021 we achieved an overall B rating, with category scores of A in targets, governance and risk management. We are working to improve the other categories towards achieving an overall A list rating. We were proud to be recognized as a 2021 Supplier Engagement Leader, raising the level of climate action across our value chain.

Governance

TCFD definition

The organisation's governance around climate-related risks and opportunities.

Progress this year

- Oversight and scrutiny of climate change matters by the board and its committees, including approval of our new science-based targets, and review of the adaptation progress report and carbon commitments risk.
- Strengthened governance by expanding our director-led climate change mitigation steering group and introduced six new cross-business working groups.
- Introduced carbon measures into the executive remuneration framework.
- Expanded our internal carbon and climate change teams.
- Supplemented public disclosures through conversations with investors and participation in new climate-related indices and assessments.

Future focus

- Communication and engagement programme with all stakeholder groups.
- Deploy whole-life carbon costing using an internal carbon price aligned to government carbon values.

➔ Read more about the [governance structure of the board, its committees and management committees](#) on page 120

➔ Read more about the [board and management committees' responsibilities and activities](#) on pages 120 to 123

Board oversight of climate-related risk and opportunities

2021 saw increased global attention on the climate change emergency summit in Glasgow. As board members, our Chief Executive Officer and Chief Financial Officer both show personal leadership for the impact of climate change on our capacity and capability to deliver our services. Climate change-related matters have always been of interest to the corporate responsibility committee in its role to scrutinise environmental topics and initiatives. This year, climate change matters have also been discussed by the audit committee (review of carbon commitments risk) and remuneration committee (linking long-term incentive outcomes to the delivery of carbon pledges).

Management role

CEO Steve Mogford has ultimate responsibility for the group's preparedness for adapting to climate change and driving our mitigation strategy. CFO Phil Aspin has executive responsibility for risk management and is supported in this role by the head of audit and risk and the corporate risk manager. Along with the executive team, they are tasked with managing the risks and mitigating actions, for example by ensuring the company has the

necessary financial resources and skilled people are in place to achieve its climate-related objectives.

Our climate change mitigation strategy starts with 'vision and visibility', reflecting that consideration of climate is becoming an essential factor in both day-to-day and strategic decision-making and behaviours. All of the principal management committees have discussed climate-related matters this year. For example, our leadership team has tracked the delivery of our carbon pledges as part of the quarterly business reviews and initiated a trial of a low emission fuel HVO as a result. The capital investment committee is working to integrate climate issues into its decision-making processes including a carbon reduction incentive for capital programme delivery partners.

In 2021/22, we held two deep-dive workshops to build executive team knowledge and awareness of carbon. This resulted in a refresh of our climate change mitigation governance and the creation of new director-led working groups. These focus on maturing our decision-making and delivering reductions of all greenhouse gas (GHG) emissions while developing our future climate-related strategy and engagement.

Risk management

TCFD definition

How the organisation identifies, assesses and manages climate-related risks.

Progress this year

- Published our third adaptation report, including the outcome of a progress review of climate-related risks across the organisation.
- Greater recognition of transitional risks in our corporate risk management system, in particular the investment needed to meet our carbon commitments and the potential costs to the business if we do not.

Future focus

- Produce our PR24 business plan with full integration of carbon reduction and climate resilience priorities.
- Finalise and publish our 2022 Drought Plan.
- Improve our long-term strategic plans for water resources and drainage, integrating advanced climate change analysis to shape our investment and operational approaches in the short, medium and long term (up to 80 years).
- Embed climate change impacts into corporate decision-making tools and processes.

➔ Read more about [how we are managing the risks that are sensitive to climate change](#) on page 90, with more detail in our adaptation progress report

Climate risk identification and assessment

We have a mature risk and resilience framework for the identification, assessment and mitigation of risks, as described on pages 100 to 101. This framework is used to identify and assess climate-related risks. We consider both physical risks, identified as those related to climate change impacts on our operations or assets, and transitional risks, which are those associated with the necessary transition to a low-carbon economy (e.g. changes to policies, regulation and legislation).

We use a variety of approaches to assess risks, such as risk breakdown structures and PESTLE. We use complex modelling of the physical impacts of climate change in our water resources and drainage management planning, and incorporate Met Office UK climate projections. In our assessment of materiality we recognise that some risk events may happen multiple times so we compare impacts over a long-term (40-year) horizon. This accentuates where climate change, and other demographic changes, influence the frequency of events as well as the consequences.

We have found that horizon scanning for industry research and emerging legal and regulatory changes are particularly useful when considering transitional risks. In our revision of the carbon commitments risk, we incorporated the updated carbon values provided by the department for Business, Energy and Industrial Strategy (BEIS). Applying these values resulted in an escalation of the risk to the executive team and board who re-evaluated our response to ensure we continue to effectively manage the risk. Incorporating longer-term climate change impacts explicitly in our corporate risk framework has raised the profile of climate change, allowing the board to consider our appetite and capacity to mitigate and control the risks from within existing risk management processes and with the same thresholds for materiality.

Managing climate-related risks

By recognising the causes and consequences, and assessing the likelihood and the severity of impact (both financial and reputational) should the event occur, we are able to prioritise climate-related risks and take proactive and early action to reduce the frequency and severity.

As climate change is a common causal factor for our principal risks (see pages 104 to 105), a review of all event-based risks in our business risk profile was undertaken to assess their sensitivity to climate change. The most sensitive risks are outlined on page 90 and more details, including discussion and examples of activities to mitigate and control for these risks, can be found in our latest adaptation progress report.

Organisational resilience to climate change

In preparing each of our three adaptation progress reports, we assessed the organisation's resilience to specific outcomes of climate change, such as hotter, drier summers and more extreme weather events. We identified over 90 risks that could impact a single business area, for instance wastewater, but we also noted business-wide risks, interdependencies and transitional risks. The outcome of the latest assessment was 79 new or existing mitigating actions listed in our adaptation report along with an update on what has been done to manage the risk to date.

We are maturing our understanding of risk and uncertainty to build and maintain long-term resilience across the corporate, financial and operational structures of the group. Looking ahead, we will explore how innovation can help us to learn more about the profile of risk events, their causes and consequences, and to identify opportunities to improve our capacity and capability. This will help us to identify where climate risks remain uncertain or where existing controls might be inadequate to manage the risk in the long term. This will help us to be better prepared by prioritising issues.

Introducing carbon to our executive remuneration

Four carbon measures have been agreed by the remuneration committee for the three-year period ending 31 March 2025, together forming ten per cent of the Long Term Plan (LTP) against which stretching targets have been set. These measures are:

- green fleet vehicles;
- woodland creation;
- peatland restoration; and
- supply chain engagement.

Including targets within our executive remuneration arrangements recognises the importance of our carbon commitments. We have designed these measures to reinforce delivery of our ambitious carbon pledges and science-based targets. We are working to mature these incentive measures in future years, ultimately to align with our science-based emission reduction targets for 2030 and beyond.

➔ Read our [remuneration report](#) on pages 160 to 191



Our adaptation progress reports can be viewed on our website at unitedutilities.com/corporate/responsibility/environment/climate-change/climate-change-adaptation

Our approach to climate change

Task Force on Climate-related Financial Disclosures

Our risks most sensitive to climate change

Last year, we presented the outcome of a special risk assessment on the sensitivity of all our event-based risks to climate change. We have updated this assessment through our corporate risk process and the results are shown below. Likelihood and impact are based on the Met Office climate projections using the most likely global emissions scenario known as RCP 6.0, in which emissions peak around 2080 and average temperatures will have risen to between 3 and 3.5°C by 2100.

Risk categorisation

- Chronic physical risk – changing trends in weather patterns, such as rising temperatures, sea level and rainfall.
- Acute physical risk – chance of severe weather events, such as storms, heat waves and floods.

* One of the most significant event-based group risks (see pages 106 to 107).

Control effectiveness

Controls are the activities we undertake to reduce risk or realise an opportunity.

- Largely insufficient to mitigate risk
- Somewhat sufficient
- Mostly sufficient

Water sufficiency event

Prolonged dry periods can cause supply challenges. Warmer temperatures intensify these pressures because of increased water usage and evapo-transpiration.

Controls

- Reduce leakage.
- Support customers to use less water.
- Install more meters in domestic properties.
- Develop new sources of water, particularly boreholes.
- Long-term water resources management planning.
- Facilitate water trading between the North West and other regions of the UK.

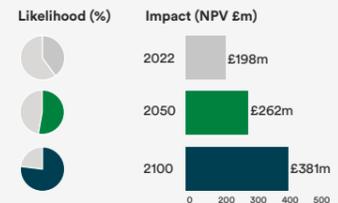


Failure of wastewater network (sewer flooding)

More frequent and intense storms can overload the wastewater network and lead to severe sewer flooding. Urbanisation makes this worse due to quick run-off from hard surfaces.

Controls

- Implement and encourage 'slow the flow' and sustainable drainage solutions.
- Support customers to use sewers responsibly.
- Increase sewer capacity and build storm water holding tanks.
- Use technology to monitor and better control flows in the sewer system.
- Install flood protection devices to at-risk properties.

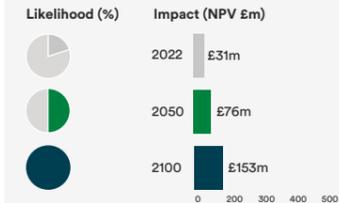


Land management

Deterioration in land quality due to climate change has both direct and indirect impacts. Hotter, drier summers lead to fire, flood, subsidence and landslip events which in turn have associated health, safety and environmental impacts.

Controls

- Catchment Systems Thinking and proactive land management, including nature-based solutions.
- Deliver net gain in biodiversity from our construction projects.
- Directly restore peatland and woodland.
- Work in partnership with farmers, regulators and others to improve upland watercourses.



Failure to adequately treat wastewater

Extremely heavy rainfall, which is projected to happen more often, can exceed our wastewater treatment works capacity and result in use of overflows to prevent flooding of assets, streets and homes.

Controls

- Investment to meet legislated environment and treatment capacity requirements.
- Inclusion of climate change growth parameters in long-term adaptive plans.
- Controls for failure of wastewater network will support this risk.



Failure of above-ground water and wastewater assets (flooding)

Average winter rainfall is projected to rise, increasing the frequency of extreme events where operational sites are flooded from sea, river or surface water sources.

Controls

- Install permanent flood defences at most flood-prone sites.
- Improve flood forecasting capabilities.
- Build better network connectivity to maintain water supplies during floods.
- Invest in quick recovery once flooding subsides.



Recycling biosolids to agriculture

Water logging resulting from more persistent rainfall will limit options for recycling biosolids to land for a greater part of the year. Uncovered sludge stores and stockpiles will be more vulnerable in persistent wet, winter weather, increasing the risk of environmental pollution from run-off.

We are currently updating our assessment of this risk following recently proposed legislative changes included within the Farming Rules for Water. We expect this will significantly restrict the window of permitted recycling of biosolids to agriculture, and therefore exceed the climate change impact we have previously assessed.

Strategy

TCFD definition

How climate-related risks and opportunities impact the organisation's businesses, strategy and financial planning.

Progress this year

- Built relationships with key suppliers to reduce environmental impact by sharing best practice and collaborating on how to reduce GHGs.
- Further developed our multi-capital approach to enhance decision-making processes, integrating both GHG impact and attributes of climate resilience.
- Implemented climate change resilience plans (both physical and transitional) across AMP7, incorporating natural capital solutions.

Future focus

- Further develop our mitigation and adaptation strategies and delivery plans.
- Include low carbon and climate adjustable approaches in our PR24 business plan.
- Assess and limit the carbon impact of our PR24 business plan.

➔ Read more about [how our climate-related risks, opportunities and commitments are shaping our strategy and financial planning](#) on pages 91 to 93



Our climate change mitigation strategy

Planning horizons

Our assets typically have long, even very long, lifespans so we are vulnerable to physical climate risks over the long term, and we are already experiencing the impacts of climate change in the North West. We undertake planning for long (25+ years), medium (5–10 years), and short-term (one year) horizons, enabling us to account for external drivers including climate change, while continuing to fulfil our purpose in a resilient and adaptable way. Our planning horizons are further described on pages 48 to 49.

Short-term climate issues

Extreme weather events such as periods of hot and dry weather, cold snaps and heavy rain events impact our ability to deliver our services. Climate change is already increasing the frequency of these events (see page 93), exacerbating the impact of existing risks such as sewer flooding, asset flooding and asset deterioration as can be seen in the current top ten event-based risks shown on pages 106 to 107.

The North West has felt the significant damage caused by numerous extreme storms over recent years. The region has 28 per cent more rainfall than the average for England and Wales and climate change will further increase the likelihood and severity of intense storms. There is also a significantly higher proportion of combined sewers so, together, this means more pressure on sewerage and treatment infrastructure, and relatively more risk from sewer flooding and/or pollution from storm overflows. Managing the risk of flooding is a priority for us and other agencies in the North West.

Medium and long-term impact of climate change

Predicting the effects of climate change is complex, with greater uncertainty about how our infrastructure will respond to the challenges presented by both climate and demographic changes. We considered the implications of climate change to our business risk profile to ascertain which risks were sensitive to climate change in that climate change would increase their likelihood or severity. To quantify the risk we used the highly respected and relevant Met Office UK Climate Projections 2018 (UKCP18) for

weather in the North West. There are four main pathways used for climate modelling and research, each describing climate futures related to the volume of greenhouse gases emitted. For our climate sensitivity assessment we chose the Met Office climate projections for the representative concentration pathway, RCP 6.0, which has an emissions peak occurring in 2080 and an expected 3.0–3.5°C increase in global mean temperatures from pre-industrial levels.

Impact of climate-related risks and opportunities on our business strategy and planning

We have taken a twin track approach to addressing climate change in our business strategy and planning (see page 93). We account for the costs and benefits, of both mitigation and adaptation and in this way manage both physical and transitional climate risks as we deliver our services in a sustainable and resilient way.

Adapting to physical risks

All six of the risks most sensitive to climate change are physical risks, meaning they are disruptive or destructive to our operations or assets. This means there are tangible controls that can be put in place to improve our resistance to weather events, enhance our response and recovery preparations and realise opportunities.

We are applying a systems thinking approach which recognises the complex interdependencies within our business functions and externally across society. This means that interventions to address one risk have multiple benefits. For instance, sustainable drainage systems (SuDS) to slow down or divert rainwater run-off both reduce the risk of sewer flooding and optimise wastewater treatment capacity. Green infrastructure solutions such as SuDS provide an opportunity to deliver wider social value in the community and local environment.

Our approach to climate change

Task Force on Climate-related Financial Disclosures

Strategies for a changing climate

Alongside our focus to address the climate-related risks to our service delivery, we recognise the critical need to secure a stable climate and minimise the need for adaptation over the long term. We are part of the global leadership community that is working to encourage everyone to contribute to achieving the global goal to curb emissions.

In response, our climate change mitigation strategy has four pillars (see page 91). Our focus this year has been to consolidate our ambition and commitments and to enhance the visibility and understanding of climate impacts both within the organisation and to our external stakeholders. We were proud to be the first UK water company to have its targets verified by the Science Based Targets initiative (SBTI) and used this to drive communication and engagement. We held deep-dive sessions with the executive team, developed and launched an employee e-learning module, and had net zero as a theme in our latest Innovation Lab, in which we challenge and collaborate with new suppliers.

Climate change was a topic in our CEO graduate challenge. A team of graduates focused on helping mature plans towards a net zero future by developing a tool to estimate process emissions on a site-by-site basis, promoting our carbon pledges to employees through a social media campaign, and compiling a database of over 200 potential emission reduction opportunities that we are now exploring as part of our mitigation delivery plans.

Resilience of our strategies

Weather is fundamental to how our water, wastewater and bioresources operations function so it is critical we make our assets, systems and strategies climate-ready. More frequent extreme weather events increase the risk of cascade impacts. Multiple different extreme weather events can occur in a single short time frame, such as storms Dudley, Eunice and Franklin in February 2022. Our ability to recognise the compound physical impacts to our system, and have various recovery tactics, is increasingly vital in effective climate change adaptation.

Our public Water Resources Management Plan (WRMP) and Drainage and Wastewater Management Plan (DWMP) are examples of where adaptive planning, incorporating climate change scenarios and advanced modelling, are used to shape our plans for the long term (25+ years) whilst staying aligned with our short-term needs. In these plans we describe how we have used complex models to test how resilient our services would be against a range of possible future climate change and demand scenarios (population growth and movement, economic trends and patterns of water use). Understanding these impacts allows us to adapt our plans to improve performance and resilience across key topic areas such as water supply, leakage, sewer flooding and pollution. For example, we have decided to invest to ensure certain drought options are always available, minimising the time it takes to bring them online during dry weather conditions. This will enable us to react more quickly and make supplies more resilient during dry weather. Together with reducing demand through leakage and water efficiency, this has reduced the likelihood of requiring drought permits and temporary use bans.

As well as targeted scenario analysis in WRMP and DWMP, we have developed three company-wide alternative scenarios for 2050, incorporating combinations of key factors that are both highly relevant and uncertain. These scenarios, named 'climate chaos', 'green guardianship' and 'public purpose', have associated metrics to define possible futures for water and wastewater services in the North West. The scenarios recognise climate change as one of the most critical factors shaping future services and use RCPs 2.6, 4.5 and 8.5 (GHG concentration pathways adopted by the Intergovernmental Panel for Climate Change) to describe how well climate change has been mitigated by society in each case. These different scenarios have provided a simple way to understand the interaction of multiple factors so we can enhance resilience, help manage future uncertainty and shape long-term decisions.

Note: The forward-looking scenario analyses above reflect uncertainties about the timing and magnitude of climate change in specific contexts and efforts to mitigate and adapt to climate change, which are without historical precedent. Scenarios are hypothetical constructs and are not intended or designed to represent a full description of the future or deliver precise outcomes; they are not forecasts or predictions, nor are they sensitivity analyses.

Twin track approach to climate change

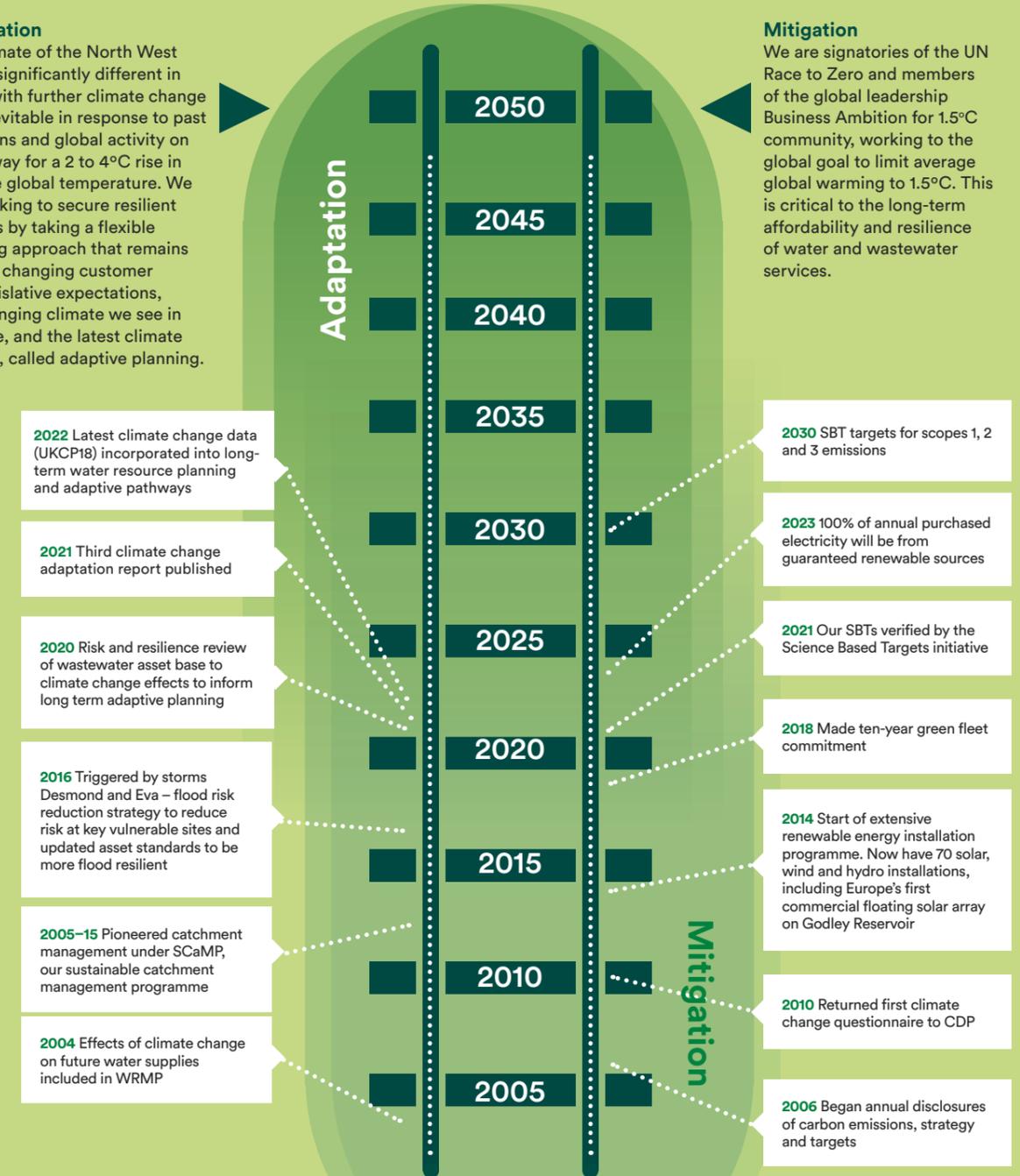
We have been managing adaptation and mitigation for many years, aligning our approach to become more efficient and effective in our response. Our twin track approach to climate change is central to our purpose to provide great water and more for the North West.

Adaptation

The climate of the North West will be significantly different in 2050, with further climate change now inevitable in response to past emissions and global activity on a pathway for a 2 to 4°C rise in average global temperature. We are working to secure resilient services by taking a flexible planning approach that remains agile to changing customer and legislative expectations, the changing climate we see in practice, and the latest climate science, called adaptive planning.

Mitigation

We are signatories of the UN Race to Zero and members of the global leadership Business Ambition for 1.5°C community, working to the global goal to limit average global warming to 1.5°C. This is critical to the long-term affordability and resilience of water and wastewater services.



Extreme weather events



Metrics and targets

TCFD definition

The metrics and targets used to assess and manage climate-related risks and opportunities.

Progress this year

- The first UK water company to have targets verified by the SBTi, including for scope 3 emissions. Achieved our pledge 6.
- Delivered pledge 2: 100 per cent of electricity purchased has been renewable since October 2021.
- Reduced scope 1 and 2 emissions by 2.2 per cent (gross) and 3.5 per cent (net) compared to our baseline year 2019/20.
- Improved data collection and tracking of fuel use enabling targeted interventions.

Future focus

- Data improvements for scope 3 emissions with more supplier and product-based estimates, rather than spend-based.
- Work to validate our long-term net zero ambition to the new SBTi Net Zero Standard.
- Use BEIS carbon values as an internal carbon price in our planning for medium and long-term investments, including PR24 (e.g. for 2030 we use the low case value of £140/tCO₂e).

➔ Read more about [delivery of our six carbon pledges](#) on pages 86 to 87

➔ Read more about [2021/22 greenhouse gas emissions and performance against our SBTs](#) on pages 96 to 97

➔ Read more about our [2021/22 operational performance](#) on pages 52 to 75 and also in our annual performance report on our website

Metrics to assess climate-related risks

Our vulnerability to climate-related risks is determined by two factors: the physical and transitional impacts we experience and the control measures we have put in place to manage the risks and realise opportunities. To manage our physical risks effectively we must track and understand patterns of weather, and weather events, and learn how they can affect us operationally. To do this we have been working with the Met Office to use both their short-term forecasts and longer-term projections, planning for up to a 4°C change in global temperature. We monitor factors relating to transitional risks, including energy pricing (of both fossil fuels and low carbon alternatives), carbon pricing (through purchasable credits, offsets and certificates), and the marketplace for the availability and cost of alternative fuelled vehicles, batteries and for emerging technologies to reduce process and fugitive emissions.

Metrics to manage climate-related risks

We manage our climate-related risks by putting in place controls such as those as set out on page 90 and in Appendix A.3 of the climate change adaptation report. The effectiveness of these controls is seen in our operational performance metrics. The following metrics are recognised as key to our resilience to a changing climate and are reported in the annual performance report:

- External flooding incidents;
- Hydraulic external flood risk resilience;
- Hydraulic internal flood risk resilience;
- Internal sewer flooding;
- Leakage;
- Per capita consumption;
- Raising customer awareness to reduce the risk of flooding;
- Areas of low water pressure;
- Risk of severe restrictions in a drought;
- Risk of sewer flooding in a storm;
- Sewer collapses;
- Unplanned outages;
- Water service resilience; and
- Water supply interruptions.

Science-based targets

We have a strong track record of playing our part to mitigate climate change and have reduced scope 1 and 2 emissions by over 70 per cent since 2005/06, largely through our substantial investment in renewable power generation and green energy procurement. Our ambition and commitments are based on international guidance and climate science and we were delighted in July 2021 that our four near-term science-based targets were verified by the Science Based Targets initiative (SBTi). In October, the remainder of our purchased electricity switched to a renewable tariff backed by Renewable Energy Guarantees of Origin certificates, meaning that in the future 100 per cent of our purchased electricity will be from renewable sources enabling us to deliver on our carbon pledge and our SBT. The SBTi Net Zero Standard was launched in late 2021 and we have committed to validate our 2050 ambition to this standard when we revise and revalidate our near-term targets in advance of 2025.

As well as our company-specific science-based targets, we share the UK water sector ambition for key operational emissions to be net zero from 2030. Note that this target has a smaller scope than SBTi and allows use of purchased credits, using agreed offsetting principles.

SBT 1 – scope 1 and 2

Reduce scope 1 and 2 emissions by

↓42%



66%

construction services suppliers by emissions have SBTs by 2025



SBT 3 – scope 3 supplier engagement

SBT 2 – scope 2 electricity

100% renewable electricity

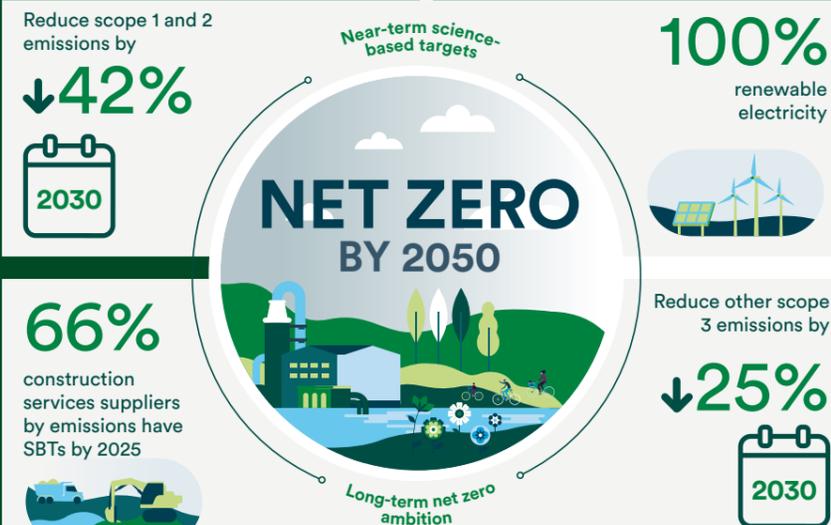


Reduce other scope 3 emissions by

↓25%



SBT 4 – scope 3 emissions reductions



Energy and carbon report

The Companies Act 2006 (Strategic Report and Directors' Reports) Regulations require us to publish this energy and carbon report applying the 2019 UK Government Environmental Reporting Guidelines, including the Streamlined Energy and Carbon Reporting Guidance (SECR).

We use the financial control approach so our energy and carbon accounting is aligned with the consolidated financial statements for United Utilities Group PLC for 1 April 2021 to 31 March 2022. This includes subsidiaries listed in section A8 on page 260.

Energy strategy

Our energy management strategy has four objectives:

- Efficient use of energy;
- Maximising self-generation and direct supply opportunities;
- Reducing costs (through time of use); and
- Supply resilience to ensure we can deliver our services.

In 2021/22, we set a record for renewable energy generation of 210 GWh through focus on end-to-end performance of our bioresources operations, which produce electricity, heat and biomethane. We completed more solar installations during the year.

Each year we serve a growing population, driving increased energy use as we strive to achieve environmental performance targets. We seek to mitigate this through our energy management programme and in recent years have maintained consistent energy use in the face of these considerable upward pressures.

Energy efficiency actions taken

Our approach to energy efficiency is based on continuous improvement of:

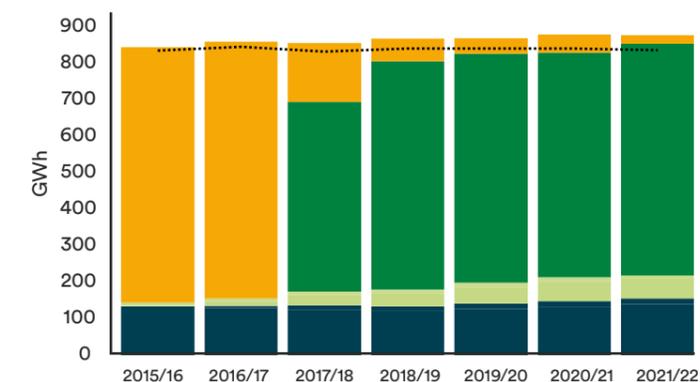
- people – optimising ways of working;
- systems – improving visibility of use and analysis of data systems; and
- technology – targeted investment to remove technological inefficiencies.

Our Energy Management Programme is now firmly established and working well after activities were restricted during COVID-19. The programme carries out site-based workshops and develops ways of working to optimise operations at sites and local area and is underpinned by e-learning packages and a comprehensive energy performance reporting and analysis capability.

To support reporting and analysis, we have invested over recent years to capture data from our fiscal meters and have installed thousands of sub-meters. The resulting data is used to identify opportunities, assess impacts and benefits of trials and maintain good performance. We are piloting analytics to support pump optimisation interventions.

We have a dedicated investment programme to implement targeted energy saving opportunities for existing operations and we focus on ensuring efficient outcomes from our capital programme. Examples of invest-to-save projects include pump optimisation, time-of-use actions and improved control of wastewater treatment.

Electricity use, purchase and self generation⁽¹⁾



Generated: CHP plus gas to grid
Generated: solar, wind and hydro
Purchased: non renewable
Purchased: renewable
..... Total electricity used

⁽¹⁾ Electricity purchased plus self generated is in excess of that used. The difference is what was exported to the grid.

	2021/22 GWh	2020/21 GWh	2019/20 GWh
Energy use			
Electricity	803.3	807.3	802.3
Natural gas	33.8	40.0	38.3
Other fuels ⁽¹⁾	123.1	104.0	116.3
Total energy use	960.2	951.3	956.9
Electricity purchased			
Renewable tariff – half hourly ⁽²⁾	589.4	591.4	602.9
Standard tariff – non-half hourly ⁽³⁾	22.3	47.8	40.8
Renewable tariff – non-half hourly ⁽³⁾	21.6	–	–
Total electricity purchased	633.3	639.2	643.7
Renewable energy generated			
CHP	133.8	127.6	121.5
Solar	47.8	50.7	42.6
Wind	4.8	5.3	5.7
Hydro	7.2	6.9	6.8
Biomethane ⁽⁴⁾	15.9	14.8	14.2
Total renewable energy generated	209.5	205.3	190.8
Renewable energy exported			
Electricity ⁽⁵⁾	23.5	22.4	18.1
Biomethane ⁽⁴⁾	15.9	14.8	14.2
Total renewable energy exported	39.4	37.2	32.3

⁽¹⁾ Other fuels includes liquid fuel purchased for processing and transport plus business mileage in private vehicles converted to GWh using 2021 UK Government GHG Conversion Factors for Company Reporting.

⁽²⁾ Half hourly supply has been on a renewable tariff with 0g CO₂e/kWh emissions since June 2017.

⁽³⁾ Non half hourly metered supplies were on a standard tariff up to the end of September 2021. The emissions were 289g CO₂e/kWh in 2019/20, 178g CO₂e/kWh in 2020/21 and 188g CO₂e/kWh in 2020/21. Non half hourly supplies moved to a new supplier on a 0g CO₂e/kWh renewable tariff on 1 October 2021.

⁽⁴⁾ Biomethane generated and exported to grid is expressed as an electricity equivalent.

⁽⁵⁾ Electricity exported was generated by solar, wind and hydro.

Our approach to climate change

Greenhouse gas emissions

Our carbon footprint is calculated by estimating the individual greenhouse gases that result from all United Utilities' activities, converted into a carbon dioxide equivalent (tCO₂e). We report scope 1, 2 and all relevant scope 3 emissions. Emissions have been estimated using the UK water industry Carbon Accounting Workbook v16 (CAW v16), the 2021 UK Government GHG conversion factors for company reporting and CEDA (Comprehensive Environmental Data Archive) factors. Our greenhouse gas inventory has been independently verified and certified by Toitū carbonreduce programme, as aligned to the GHG Protocol Corporate Accounting and Reporting Standard (2015) and the international carbon reporting standard ISO 14064, Part 1:2018.

Scope 1 Emissions from activities we own or control, e.g. burning fossil fuels, wastewater and sludge processing.



Scope 2 Emissions from purchased electricity.



Scope 3 Emissions from our value chain, e.g. sludge disposal, business travel and products and services.



SCOPE 1 & 2 GREENHOUSE GAS EMISSIONS		2021/22 tCO ₂ e	2020/21 tCO ₂ e	SBT baseline 2019/20 tCO ₂ e
Scope 1 Direct emissions				
Direct emissions from burning of fossil fuels		19,207	17,371	15,247
Process and fugitive emissions from our treatment works – including refrigerants		96,020	98,569	96,186
Transport: company-owned or leased vehicles		16,507	16,634	15,739
Total scope 1		131,735	132,574	127,172
Scope 2 Energy indirect emissions				
Grid electricity purchased	Market-based ⁽¹⁾	4,201	8,507	11,789
	Location-based ⁽²⁾	134,492	149,030	164,521
Total scope 2		4,201	8,507	11,789
		Location-based	134,492	149,030
TOTAL SCOPE 1 & 2 (GROSS)		Market-based	135,936	141,082
		Location-based	266,226	291,693
Avoided emissions				
Renewable electricity exported		-4,317	-4,184	-3,979
Biomethane exported	Market-based ⁽³⁾	0	0	0
	Location-based	-10,283	-9,725	-9,302
Green tariff electricity purchased	Market-based	n/a	n/a	n/a
	Location-based	-128,604	-154,095	-136,644
Total avoided emissions		Market-based⁽³⁾	-14,600	-13,281
		Location-based	-128,604	-154,095
TOTAL SCOPE 1 & 2 (NET)		Market-based⁽³⁾	131,619	136,897
		Location-based	118,429	114,202

- (1) Market-based figures use emission factors specific to the actual electricity purchased. If electricity is on a standard grid tariff they are calculated using factors from suppliers' public fuel mix disclosures, as shown in energy use table on page 95.
- (2) Location-based figures use average grid emissions to calculate electricity emissions and are shown in blue.
- (3) Exported biomethane sold with green gas certificates so has zero avoided emissions in market based accounts. Note in 2022 we have improved disclosure to report both location and market-based methods so the net totals for 2019/20 and 2020/21 have been restated.

SCOPE 3 GREENHOUSE GAS EMISSIONS		2021/22 tCO ₂ e	2020/21 tCO ₂ e	SBT baseline 2019/20 tCO ₂ e
Scope 3 Other indirect emissions				
Category 1: Purchased goods and services ⁽¹⁾		292,946	271,871	213,442
Category 2: Capital goods ⁽¹⁾		112,498	95,968	128,286
Category 3: Fuel and energy-related emissions		58,948	42,599	45,262
Category 4: Upstream transportation and distribution (sludge transport)		103	1,119	3,374
Category 5: Waste generated in operations (including sludge disposal to land)		25,458	26,333	27,936
Category 6: Business travel (public transport, private vehicles and hotel accommodation)		1,138	1,226	3,508
Category 7: Employee commuting and home working		4,066	4,108	4,231
TOTAL SCOPE 3		495,145	443,224	426,039
Scope 3 SBT measure (excluding category 2)		382,647	347,256	297,753

- (1) For Category 1 and 2 we use CEDA (an EEIO (environmentally-extended input-output) inventory) to estimate emissions. Other categories use actual activity records and UK government conversion factors.

United Utilities' greenhouse gas emissions intensity

As in previous years, we state our emissions as tonnes CO₂ equivalent per £million revenue. We include scope 1 and 2 (market-based) emissions only in this measure. We also report the regulated emissions kilograms CO₂ equivalent per megalitre treated (using the location-based method as calculated in the CAW v16), as these are common metrics for our industry.

Regulated emissions per megalitre water treated		Regulated emissions per megalitre sewage treated	
2021/22	106.91	2021/22	144.21
2020/21	118.51	2020/21	152.26
2019/20	131.98	2019/20	168.51
Scope 1 and 2 emissions (gross) per £m revenue		Scope 1 and 2 emissions (net) per £m revenue	
2021/22	73.0	2021/22	70.7
2020/21	78.0	2020/21	75.7
2019/20	74.7	2019/20	72.6

Scope 1 emissions

Wastewater and sludge processes cause 73 per cent of our scope 1 emissions as the gases released, nitrous oxide (N₂O) and methane (CH₄) have much greater global warming potentials than carbon dioxide (CO₂).

Our process emissions are currently estimated as a direct function of the amount of wastewater we treat. We are undertaking research with other UK water companies to better quantify these emissions from measured values and to find ways to reduce or capture those emissions for beneficial use.

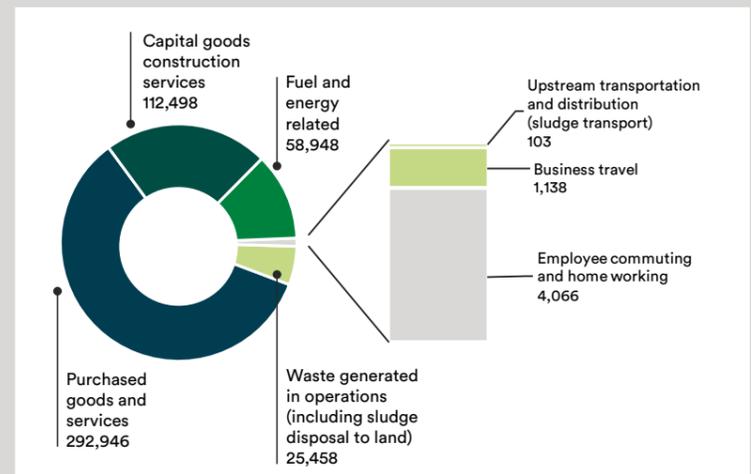
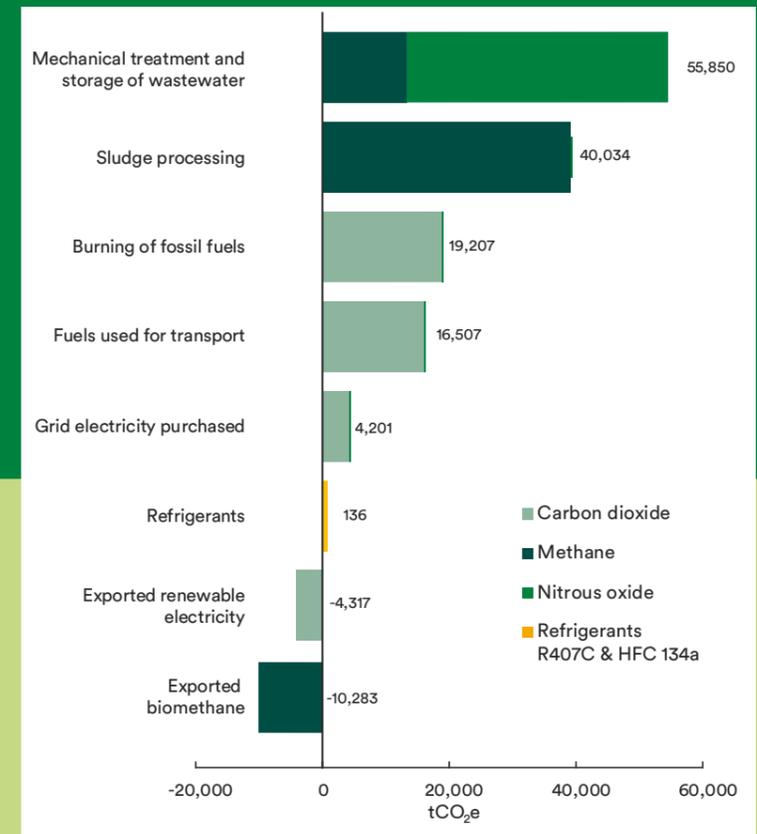
We are investigating and trialling ways to reduce our use of fossil fuels, including for transport, through both efficiencies and use of alternative fuels.

Scope 2 emissions

Our market-based scope 2 emissions have halved this year because we switched our remaining non-renewable purchased electricity to a renewable tariff in October 2021. Next year these emissions will be negligible.

Scope 3 emissions

Like most organisations, most of our scope 3 emissions are in GHG Protocol category 1 (products and services) and category 2 (capital goods); the latter being those provided by our construction services suppliers. We currently calculate category 1 and 2 emissions using records of the amount we have spent. This provides an indicative estimate but does not show the GHG impact of management choices, instead fluctuating with the scale of our investment programme. This can be seen in our increase in reported emissions this year compared to last. We are working internally and with supply chain partners to enhance relevant data and systems so that we can calculate these emissions based on types and quantities of materials used, thereby showing the full impact of our management choices.



Our approach to Task Force on Nature-related Financial Disclosures (TNFD)

Launching in 2023, the Task Force on Nature-related Financial Disclosure (TNFD) aims to provide a risk and disclosure framework for organisations interacting with the natural environment. It will adopt a four-pillar approach similar to that of TCFD covering governance, strategy, risk management, metrics and targets.

Overview

We are dependent upon, and impact, the natural environment from the quality and quantity of water we abstract for treatment and supply of drinking water, through to treated wastewater we return to rivers and biosolids we recycle to land. We are responsible for over 56,000 hectares of water catchment land.

Given the pressures from climate change and population growth on the natural environment, we do not underestimate the contribution we can make in restoring healthy and resilient ecosystems. We need to work collaboratively with like-minded organisations to deliver nature-based solutions as these offer many benefits including carbon sequestration, cleaner water and improved biodiversity. This is at the heart of our Catchment Systems Thinking Approach (CaST).

We've joined the TNFD forum as a contributing member to help us as we become an early adopter of TNFD reporting.

Governance

Our interactions with the natural environment are broad and complex. Overall accountability rests with executive management who strive to comply with the legal and regulatory requirements as set out in our environmental policy. Matters are regularly reviewed at the board's corporate responsibility committee. The environmental advisory group is a management group with a remit to ensure the delivery of the environmental policy commitments including nature-related strategies (e.g. land, catchment, clean air, plastics, waste, water quality, water resources, and natural capital). Governance for these strategies is through cross-departmental working groups comprised of subject matter experts and decision makers to drive implementation. Governance around investment in nature-related risks and opportunities is applied as part of our Internal Control Manual.

Strategy

Protecting and enhancing the natural environment is a key part of the 'and more' of our purpose. We protect the environment through maintaining compliance and meeting regulatory requirements. We enhance by driving performance, adopting best asset management practices, and investing in nature-based and other environmental solutions. Our environmental policy is underpinned by a framework of strategies and long term plans in response to nature-related risks and opportunities. Some of these plans are statutory requirements, such as the Water Resources Management Plan, and are reviewed every five years as part of the price review process. Our company business plan details the delivery plans for the five years up to 2025.

Our CaST approach enables individual project decisions to be made in the context of the catchment, or system, in which they are situated. This encourages goals to be set in a collaborative way, maximising the benefits that can be achieved and delivering ecosystem resilience through improvements to water quality, flood risk reduction, access to green space, nature recovery, and carbon sequestration.

Read more at unitedutilities.com/corporate/responsibility/stakeholders/catchment-systems-thinking

Much of the land that we own is designated as Sites of Special Scientific Interest (SSSI), which indicates the importance of the habitat for biodiversity. Ninety-four per cent of SSSIs on our land now meet favourable or unfavourable recovering condition status, in part because we pioneered the use of nature-based solutions to address raw water quality when we started our SCaMP programme in 2005. Designated habitats include blanket bog, moorland and

heath and are home to many important species. We recognise our role as a steward of our land and make decisions based on the benefits and impacts our operations have on the natural environment. The land we own is made up of different land cover types, such as grassland and woodland.

Land cover types across our land holding



Arable	1%
Bog	14%
Woodland	11%
Grassland	48%
Mountain, moorland and heath	18%
Fresh water	6%
Urban area	2%
Other	0%

Innovation is embedded in our approach to solving environmental challenges. By understanding and engaging in relevant research we can integrate new technologies and practices to drive environmental enhancements.

Risk management

Many key risks in our risk management assessments are linked to the natural environment. The risk breakdown structure that underpins our operational risk assessment framework includes consequences related to biodiversity, flooding, drought, water quality, recreational access, carbon storage, air quality and waste. Through our longer-term planning processes, we model a range of environmental risks such as a one in 100-year storm or drought and take appropriate action to include mitigation options in the plans. Read more about our risk and resilience framework on pages 100 to 102.

There is a close link between nature and climate change with many pressures on the natural environment becoming more acute as the climate changes. Our climate change adaptation report highlights key physical risks related to the natural environment. Two of our carbon pledges – on tree planting and peatland restoration – are intrinsically linked to the natural environment.

In 2022, we published a discussion document jointly with The Rivers Trust on barriers to nature-based solutions, entitled PR24: Unlocking nature-based solutions to deliver greater value. This identifies some of the key risks associated with the transition to a nature-positive economy and recommendations for collaborative working with the Government and others to address these barriers. We are working with regulators, other water companies and non-governmental organisations to take forward proposals to address these risks.

Read more at unitedutilities.com/globalassets/documents/pdf/pr24---unlocking-nature-based-solutions-to-deliver-greater-value.pdf

Metrics and targets

To measure our performance we demonstrate delivery against contributing targets from a number of statutory requirements such as the condition of protected sites, biodiversity net gain, environmental performance and supporting strategies. Our long-term nature-based targets align with government expectations such as achieving 75 per cent favourable condition for SSSI locations by 2042. We are committed to improving surface, groundwater and bathing water quality in the immediate term and beyond. We will input to the consultation on the Environment Act water targets in

2022 as these will be an important mechanism to drive environmental improvement and meet the objectives for the water environment in the Government's 25-year environment plan.

We are the only water company to set a natural capital outcome delivery incentive in our business plan for 2020–25. This is measured by demonstrating additional value created through ecosystem services for customers and the environment. We achieve this by implementing nature-based solutions where they offer best value compared against a hard-engineered solution (e.g. to improve water quality). Read more about our environmental performance on pages 64 to 67.

We were a key contributor to the North West's first natural capital account developed in collaboration with many regional organisations. By considering this baseline value, we can benchmark the impact of future changes to our natural assets and quantify improvements. It is helping to understand how valuable the region's natural capital assets are. In 2022, we will update our own corporate natural capital account as part of a five-yearly review cycle and we will report on this next year.

Next steps

In March 2022, the TNFD unveiled the first version of its nature-related risk-management and disclosure framework. The framework, which will be modified over the next 18 months, is designed to align with the International Sustainability Standards Board, which was officially unveiled at COP26. Working with the Taskforce we will continue to develop how we disclose nature-related information.



Our risk management

Our risk and resilience framework

We have a robust risk and resilience framework for the identification, assessment and mitigation of risk.

Our approach to risk and resilience

Successful management of risks and uncertainties enables us to deliver on our purpose to provide great water and more for the North West, and be more resilient across our corporate, financial and operational structures. A key objective of our approach is to support the sustainable achievement of the strategic themes that underpin our vision to be the best UK water and wastewater company delivering:

- the best service to customers;
- at the lowest sustainable cost; and
- in a responsible manner.

Our risk and resilience framework provides the foundation for the business to anticipate threats to delivering an effective service in these challenging times, and to respond and recover effectively when risks materialise. Key components of the framework include:

- an embedded group-wide risk management process, which is aligned to ISO 31000:2018 risk management guidelines;
- a board-led approach to risk appetite, based on strategic goals;
- a strong and well-established governance structure giving the board oversight of the nature and extent of risks the group faces, as well as the effectiveness of risk management processes and controls; and
- a portfolio of policies, procedures, guidance and training to enable consistent, group-wide participation by our people.

Continuous improvement is a key feature of the framework, which incorporates a maturity assessment model to identify areas to enhance. Based on risk management capabilities relative to five levels of maturity, a recent assessment has supported the development of a road map of improvements. This includes further enhancement to risk appetite and tolerance, greater focus and analysis of cross-cutting themes and improved escalation of data from operational risk management systems.

Risk appetite and tolerance

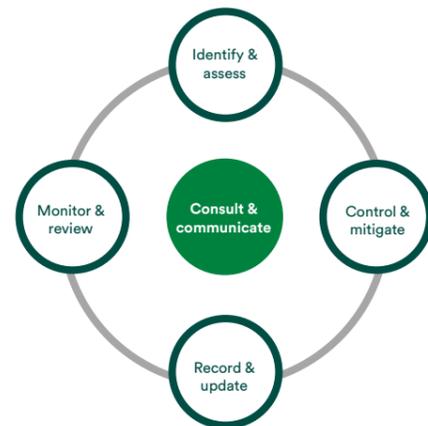
Focused on supporting decision-making, the risk appetite and tolerance framework consists of a package of measures. The General Risk Appetite represents financial limits against which event-based risks are compared at each full and half-year assessment and reporting cycle. In parallel are a series of strategic statements which align directly to the principal risks (see pages 104 to 105). Each statement reflects the strategic intent, strategic theme, relevant stakeholders and governance, but fundamentally emphasises the attitude to risk taking and control relative to four descriptors:

- **Averse:** A strong opposition to accept risk within business strategy or operational activity.
- **Prudent:** A reluctance to accept risk within business strategy or operational activity, but careful acceptance within tight boundaries.
- **Moderate:** Willingness to accept risk with regard to business strategy or operational activity provided this is within reasonable limits.
- **Accepting:** Willingness to accept risk with regard to business strategy or operational activity.

As a regulated company providing essential public services none of the principal risks have risk accepting as a strategic direction or approach.

Underpinning each strategic statement, and currently under development, are a series of more tangible, tactical statements with specific levels and limits.

How we identify and assess risk



We have a number of mechanisms in place to identify risk. These include a risk universe, cross-business horizon scanning forums, consultation with third parties and comparison with National Risk Registers.

Each risk is event based and is sponsored by a senior manager who is responsible for the analysis of the corresponding causal factors, consequences and the control effectiveness, taking account of both the internal and external business environment. This process quantifies the likelihood of the event occurring and the full range of potential impacts from a minimum (best case) to a maximum (worst case). Comparing this position against the desired target state, in combination with the strengths, weaknesses and gaps of the control environment, supports the decisions for further mitigation as appropriate. This ongoing analysis culminates in the biannual business unit risk assessment (BURA) which forms part of the governance and reporting process (as outlined opposite) to ensure consistency of approach and a true reflection of the risk facing the company. It also serves to calibrate the most significant risks from a financial and reputational context and to assess how these relate to our risk appetite.

Governance and reporting process

The board ensures that its oversight of risk remains effective, and in compliance with the UK Corporate Governance Code, through a number of established reporting routes.

Twice yearly the board receives an extensive update on the risk profile as part of the full and half-year reporting cycle. This provides an overview of the nature and extent of risk exposure in the context of the group's principal risks (as detailed on pages 104 to 105), and emphasises the most significant event-based risks (summarised on pages 106 to 108) in both their current state relative to the risk appetite, and target state of acceptable exposure. The board is also advised of new and emerging risks (see page 109). In addition to the biannual risk reporting, specific risk topics are reported to the board to support decision-making. The board is, therefore, able to:

- make decisions on the level of risk it is prepared to manage relative to risk appetite and tolerance in order to deliver on the group's strategy;
- engage with the business to ensure appropriate controls and mitigation are in place, and test the appropriateness of plans;
- report externally on the long-term viability of the company in an informed manner; and
- monitor and review the effectiveness of risk management procedures and internal control systems.

Risk-specific governance and steering groups manage ongoing individual risks. The operational risk and resilience board provides oversight of asset and operational process, risk and resilience capability, escalates risks and issues to the group audit and risk board (GARB) and contributes to the BURA process.

The executive-led GARB focuses on: the adequacy, effectiveness and performance of governance processes; risk management and internal control; monitoring compliance and assurance activities; identification of emerging themes and trends; and resilience across the group.

The audit committee is also a fundamental component of the governance structure. Supported by company secretariat and the corporate audit teams, the audit committee reviews the effectiveness of risk management and internal controls before these are agreed by the board.

Risk profile

The business risk profile is based on the value chain of the company, with the ten principal risks representing inherent risk areas (primary and supportive) where value can be gained, preserved or lost relative to the performance, future prospects or reputation of the company. Underpinning the principal risks, the profile consists of approximately 100 event-based risks, each of which is allocated to one of the ten inherent risk areas based on the context of the event, enabling the company to consider interdependency and correlation of common themes (see page 102) and control effectiveness.

Principal risk heat map

The heat map provides an indicative only view of the current risk exposure (likelihood of occurrence and most likely impact) of each of the principal risks relative to each other.

Six of the principal risks have remained relatively stable in the last twelve months with the following four demonstrating an increase in exposure:

- **Wastewater service** associated with change in legislation;
- **Supply chain and programme delivery** due to economic conditions;
- **Health, safety and environmental** due to the uncertainty of achieving the net zero carbon commitments; and
- **Political and regulatory** due to the challenge of delivering customer and environmental improvements whilst maintaining fair value to customers

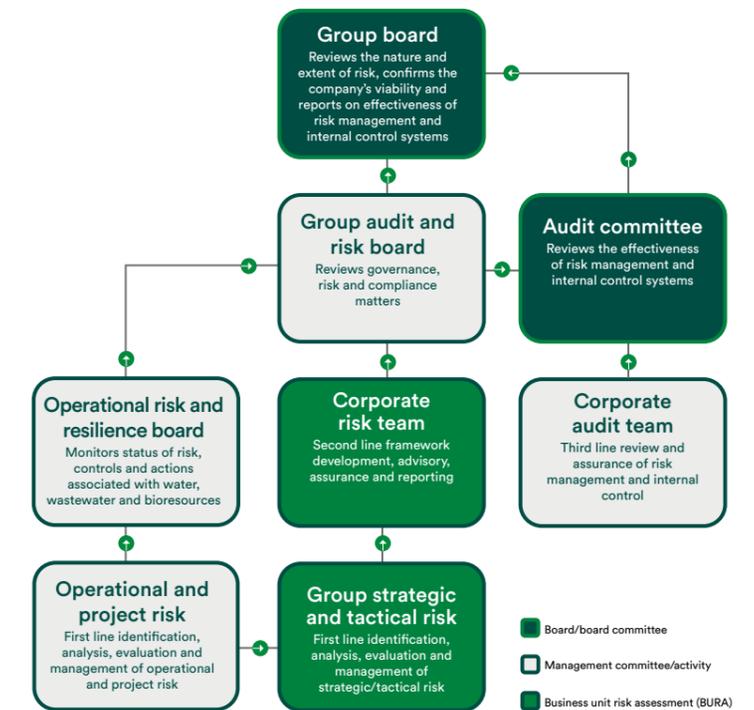
See pages to 104 to 105 for further details of the principal risks.

Risk exposure

An indication of the current exposure of each principal risk relative to the prior year.

- Decreased
- Stable
- Increased

The governance and reporting process



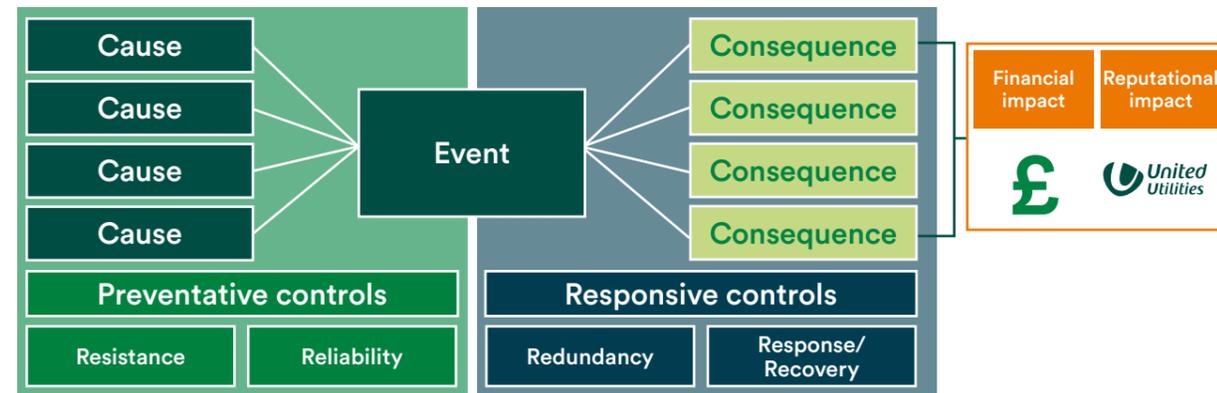
Principal risks

- 1 Water service
- 2 Wastewater service
- 3 Retail and commercial
- 4 Supply chain and programme delivery
- 5 Resource
- 6 Finance
- 7 Health, safety and environmental
- 8 Security
- 9 Conduct and compliance
- 10 Political and regulatory

Our risk management

Common themes

As illustrated in the bow-tie diagram below, each of the event-based risks has multiple causes and consequences, which in turn lead to financial and/or reputational impact. Preventative and responsive controls, which incorporate the four components of resilience (resistance; reliability; redundancy; and response/recovery), are applied to reduce the likelihood of the event occurring and limit the impact if the event were to materialise. New and emerging circumstances in respect of causes, consequences and controls make the profile multifaceted and dynamic. Analysis of the profile highlights common themes, notably associated with the causes and consequences. These common themes can then be considered more holistically, which combined with the analysis of the strengths, weaknesses, gaps and interdependency of control across the business, enables a more integrated approach to risk mitigation.



Common causal themes

The event-based risks include multiple causal factors, which individually or in combination, could trigger the risk event to occur. Categorisation illustrates six common causal themes:

- **Extreme weather/climate change:** In the majority of cases our water resources, asset base and operations can cope with extreme weather conditions, although these can become overwhelmed in intense situations. Climate change projections highlight increased temperatures, rainfall, wind and more frequent extreme variations in weather patterns. This means that climate change remains a key focus for us, because of its impact on our capacity and capability for service delivery, and because of the effect on the environment that we strive to protect and enhance. We are committed to the principles set by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) – see pages 86 to 97.
- **Demographic changes:** Demographic changes, including population growth and evolving age profiles, can impact the capacity and capability of water and wastewater treatment and network assets; can affect demand on water resources; and increase uncertainty in relation to pension obligations.
- **Legislative and regulatory change:** Changes in legislation and/or regulation can have implications for the business model, asset base and ways of working. For example: post-Brexit changes in law bring an element of uncertainty; and the introduction of competition, while positive to customers and markets, can affect ongoing revenue and the asset base.

- **Economic conditions:** Macro events can have multiple financial implications, including: lower revenue; increased bad debt; increased operational cost; increased cost of borrowing; and a reduction in the Regulatory Capital Value. The events can also impact the wider supply chain with knock-on effects to our service delivery and cost to serve.
- **Asset health:** General use, exposure to natural hazards, pressure and load all contribute to the deterioration of assets. In addition, other factors such as technological obsolescence and operating assets beyond their optimal capacity to cope with increased demand (population growth and/or climate change) also affect asset health. Ageing assets, therefore, provide an underlying and cross-business risk and uncertainty both to efficiency and for the long-term resilience of asset integrity and the associated service capability.
- **Culture:** Embedded through processes, reward mechanisms, values and behaviours, corporate culture is important to maintain high performance and cuts across the majority of risks in the profile. In an increasingly challenging business environment, our focus is to continue to embed a culture of innovation, customer service and behaving in a responsible manner at the same time as being open and transparent.

Common consequence themes

Each consequence is analysed for the financial and reputational implications relative to multiple stakeholders. Categorisation of the consequences illustrates four common impact themes:

- **Customers:** Customers are impacted through our service offering, the quality of their experience when dealing with us, and how our operational and capital schemes affect them in the community.
- **Environment:** Our assets, operations and capital programmes can have a significant impact on the environment in both rural and urban settings. As a major land owner and operator of a large fleet of vehicles, the way we manage these also has environmental implications.
- **Investors:** The vast majority of risks in the profile have financial implications that could affect shareholder investment in the short and long term. Reputational impact associated with ethics, environmental protection and efficiency is also relevant for investors' interest in the company.
- **Employees:** Our employees are fundamental to delivering our service requirements as well as our strategic objectives. Equally, our employees can be affected by multiple risks across the business, but primarily in relation to employment and health, safety and wellbeing risks.



Our risk management

Our principal risks

Our strategic themes

 The best service to customers

 At the lowest sustainable cost

 In a responsible manner

Inherent risk area (principal risk) ⁽¹⁾	Strategic theme	Sponsor(s)	Principal risk description	Causal factors themes (Drivers/influences of risk)	Consequence themes and stakeholder groups	Appetite and tolerance ⁽²⁾	Control/mitigation	Top five event-based business risks (*most significant group risks – see pages 106 to 108)
1 Water service		<ul style="list-style-type: none"> Water, wastewater and digital services director 	A failure to provide a secure supply of clean, safe drinking water and the potential for a negative impact on public confidence in water supply.	<ul style="list-style-type: none"> Climate change Demographic change Legal and regulatory change Asset health 	<ul style="list-style-type: none"> Customers Environment Investors 	Water Averse	<ul style="list-style-type: none"> Strict quality controls and sampling regime Physical and chemical treatment with automation Cleaning, maintenance and replacement of assets Water resources and production planning Pressure/flow management and leak detection Integrated network and response capability 	<ul style="list-style-type: none"> Failure of Haweswater Aqueduct* Water sufficiency* Failure to treat water Failure of the distribution system (leakage) Dam failure*
2 Wastewater service		<ul style="list-style-type: none"> Water, wastewater and digital services director 	The failure to remove, treat and return water to the environment and recycle sludge to land.	<ul style="list-style-type: none"> Climate change Demographic change Legal and regulatory change Asset health 	<ul style="list-style-type: none"> Customers Environment Investors 	Wastewater Prudent Bioresources Moderate	<ul style="list-style-type: none"> Physical and chemical treatment Odour management systems Drainage and wastewater management plans Wastewater network operating model Cleaning, maintenance and replacement of assets Customer campaigns 	<ul style="list-style-type: none"> Wastewater network failure (sewer flooding)* Failure to treat sludge* Recycling biosolids to agriculture* Wastewater treatment (permits) Mersey Valley Sludge Pipeline
3 Retail and commercial		<ul style="list-style-type: none"> Customer and people director General counsel and company secretary 	Failing to provide good and fair service to domestic customers and third-party retailers or a failure of or issue in relation to non-regulated interests.	<ul style="list-style-type: none"> Legal and regulatory change Economic conditions Asset health Culture 	<ul style="list-style-type: none"> Customers Investors 	Retail Prudent Commercial Moderate	<ul style="list-style-type: none"> Customer-focused initiatives Best practice collection techniques Customer segmentation Priority Services scheme Data management and data sharing Non-regulated operation governance 	<ul style="list-style-type: none"> Customer experience Cash collection Billing accuracy Wholesale revenue collection Developer services
4 Supply chain and programme delivery		<ul style="list-style-type: none"> Commercial, capital delivery and engineering director 	The potential ineffective delivery of capital, operational or functional processes/programmes including change.	<ul style="list-style-type: none"> Legal and regulatory change Economic conditions Culture 	<ul style="list-style-type: none"> Communities Customers Environment Investors Suppliers 	Supply chain Prudent Programme delivery Moderate	<ul style="list-style-type: none"> Category management Supplier relationship management Capital, change and operational programme management Portfolio, programme and project risk management 	<ul style="list-style-type: none"> Price volatility* Unfunded developer programmes Security of the supply chain Dispute with supplier Capital delivery programme
5 Resource		<ul style="list-style-type: none"> Customer and people director Health, safety and wellbeing and estate services director Water, wastewater and digital services director 	The potential failure to provide appropriate resources (human, technological or physical) required to support business activity.	<ul style="list-style-type: none"> Climate change Legal and regulatory change Economic conditions Asset health Culture 	<ul style="list-style-type: none"> Customers Employees Investors 	Resource Moderate	<ul style="list-style-type: none"> Adoption of effective technology Multiple communication channels Training and personal development Talent, apprentice and graduate schemes Change programmes and innovative strategies Maintenance, replacement or renovation of assets 	<ul style="list-style-type: none"> Land management IT asset support Loss or failure of NIS systems Business critical data Employee relations
6 Finance		<ul style="list-style-type: none"> Chief financial officer 	The potential inability to finance the business appropriately.	<ul style="list-style-type: none"> Demographic change Legal and regulatory change Economic conditions Asset health 	<ul style="list-style-type: none"> Customers Employees Investors 	Finance Prudent	<ul style="list-style-type: none"> Long-term refinancing Liquidity reserves Counterparty credit exposure and settlement limits Hedging strategies Sensitivity analysis Monitoring of the markets 	<ul style="list-style-type: none"> Credit ratings* Pension scheme funding deficit* Financial outperformance* Tax efficiency/fair share* Totex efficiency challenge*
7 Health, safety and environmental		<ul style="list-style-type: none"> Environment, planning and innovation director Health, safety and wellbeing and estate services director 	The potential harm to employees, contractors, the public or the environment.	<ul style="list-style-type: none"> Climate change Asset health Culture 	<ul style="list-style-type: none"> Communities Employees Environment Investors 	Health, safety and wellbeing Averse Environment Averse	<ul style="list-style-type: none"> Strong governance and management systems Certification to ISO 45001 and ISO 14001 Benchmarking, auditing and inspections Targeted engagement and improvement programmes Carbon reduction initiatives Self-generation of energy 	<ul style="list-style-type: none"> Carbon commitments* Disease pandemic* Occupational health exposure Minor injuries Process safety (bioresources and wastewater)
8 Security		<ul style="list-style-type: none"> General counsel and company secretary 	The potential for malicious activity (physical or technological) against people, assets or operations.	<ul style="list-style-type: none"> Economic conditions Asset health Culture 	<ul style="list-style-type: none"> Communities Customers Employees Investors 	CNI and SEMD Averse Other Prudent	<ul style="list-style-type: none"> Physical and technological security measures Strong governance, inspections and audits Security authority liaison and NIS compliance System and network integration Business continuity and disaster recovery Insurance 	<ul style="list-style-type: none"> Cyber* Terrorism* Criminality Fraud Data protection
9 Conduct and compliance		<ul style="list-style-type: none"> Corporate affairs director General counsel and company secretary 	The failure to adopt or apply ethical standards, or to comply with legal and regulatory obligations and responsibilities.	<ul style="list-style-type: none"> Climate change Demographic change Legal and regulatory change Economic conditions Asset health Culture 	<ul style="list-style-type: none"> Communities Customers Employees Environment Investors Suppliers 	Legislation Averse Other Prudent	<ul style="list-style-type: none"> Ethical supply chain, diversity and inclusivity policies Data classification and levels of authorisation Stakeholder engagement activities Audits and peer reviews Governance, risk assessment and horizon scanning Brand comparisons and dashboard of culture metrics 	<ul style="list-style-type: none"> Water Plus Bribery Non-regulated assets Procurement compliance Corporate governance and listing rules compliance
10 Political and regulatory		<ul style="list-style-type: none"> Corporate affairs director General counsel and company secretary Strategy, policy and regulation director 	Developments connected with the political, regulatory and legislative environment.	<ul style="list-style-type: none"> Legal and regulatory change Economic conditions 	<ul style="list-style-type: none"> Customers Employees Environment Investors 	Appetite or tolerance cannot be determined due to no genuine choice or control	<ul style="list-style-type: none"> Consultation with government and regulators Communication with customers 	<ul style="list-style-type: none"> Price Review 2024 outcome* Upstream competition (bioresources) DPC exit – HARP ASHE index Upstream competition (water resource)

Risk exposure

An indication of the current exposure of each principal risk relative to the prior year.

-  Decreased
-  Stable
-  Increased

Notes

(1) **Principal risks:** Based on the value chain of the company, principal risks represent inherent areas where value can be gained, preserved or lost. Water, wastewater (including bioresources) and retail and commercial areas are the primary activities, with all other areas as supportive/contributing activities.

(2) **Appetite and tolerance:** Averse: A strong opposition to accept risk within business strategy or operational activity. Prudent: A reluctance to accept risk within business strategy or operational activity, but careful acceptance within tight boundaries. Moderate: Willingness to accept risk with regard to business strategy or operational activity provided this is within reasonable limits. Accepting: Willingness to accept risk with regard to business strategy or operational activity. (NB As a regulated company providing essential public services none of the principal risks have risk accepting as a strategic direction or approach).

Our risk management

The company's most significant event-based risks

The most significant event-based risks represent the ten highest-ranked risks by exposure (likelihood of occurrence of the event multiplied by the most likely financial impact) and those risks which have been assessed as having a significantly high impact, but low likelihood. Depending on the circumstances, financial impacts will include loss of revenue, additional or extra cost, fines, regulatory penalties and compensation. Reputational impact relative to our multiple stakeholders is also assessed, reported and considered as part of the mitigation.

Summarised below are the top ten ranking risks (1–10), and those assessed as having high impact, but low likelihood (A–F):

1. Price Review 2024 outcome	2. Failure of the Haweswater Aqueduct	3. Wastewater network failure (sewer flooding)	4. Cyber	5. Water sufficiency	6. Carbon commitments
<p>Risk exposure: This risk focuses on the capacity and capability to develop a business plan that creates value for customers, communities, and the environment that is sustainable and resilient for the long term relative to the unique characteristics of the region we serve, in light of multiple influencing factors – notably changing demographics, climate change and asset health.</p> <p>Control/mitigation: We have established cross-cutting work streams and theme owners to identify the products and evidence required for the submission and we will maintain a close dialogue with Ofwat throughout the process.</p> <p>Assurance: Extensive customer research and several external providers have been commissioned for technical optioneering. Second line assurance is provided through a dedicated price review team and a PR24 programme board. An internal audit is scheduled and external assurance is currently under procurement.</p>	<p>Risk exposure: The Haweswater Aqueduct is a key asset with current low resilience due to deterioration, with failure potentially resulting in water quality issues and/or supply interruptions to a large proportion of the United Utilities customer base.</p> <p>Control/mitigation: A capital project to replace the tunnel sections of the aqueduct has already commenced with the completion in November 2020 of one section. The remaining sections are due to be replaced as part of Haweswater Aqueduct Resilience Programme (HARP) by 2029.</p> <p>Assurance: Technical and geological advice and modelling have been sought throughout the programme development, with second line assurance including engineering technical governance. Independent assurance is provided by cyclical internal audits and external assurance over the competitively appointed provider.</p>	<p>Risk exposure: Equipment failure, collapses/bursts or inadequate hydraulic/operational capacity to cope with extreme weather and population growth, resulting in sewer flooding.</p> <p>Control/mitigation: Preventative maintenance and inspection regimes, customer campaigns and sewer rehabilitation programmes.</p> <p>Assurance: Second line assurance provided by wholesale assurance, engineering technical governance and flood review panel. Subject to regular internal audits and external assurance of regulatory reporting.</p>	<p>Risk exposure: Data and technology assets compromised due to malicious or accidental activity, leading to a major impact to key business processes and operations.</p> <p>Control/mitigation: Multiple layers of control, including a secure perimeter, segmented internal network zones, access controls, constant monitoring and forensic response capability.</p> <p>Assurance: Security stance reflects multiple sources of threat intelligence. The security steering group provides second line assurance, with independent assurance provided by cyclical internal audits and various technical audits by external specialists.</p>	<p>Risk exposure: Water sufficiency is one of the most sensitive risks to climate, with the frequency of recent periods of extended hot, dry weather being evidence of changing circumstance and the potential for implementation of water use restrictions on customers.</p> <p>Control/mitigation: We produce a Water Resources Management Plan (WRMP) every five years, which forecasts future demand and water availability under repeats of historic droughts, adjusted for climate change. A statutory Drought Plan is also developed every five years, setting out the actions we will take in a drought situation.</p> <p>Assurance: The WRMP and Drought Plan are subject to various second and third line assurance activities prior to publication.</p>	<p>Risk exposure: This risk focuses on the capacity and capability to decarbonise water and wastewater activity relevant to the Public Interest Commitments (PIC) to achieve net zero by 2030 in light of the growth pressures, lack of technological advances or innovation and the fundamental change of approach required.</p> <p>Control/mitigation: We will continue to develop near-term initiatives to address process and energy emissions, and create woodland and restore peatland, while responding to an evolving policy and technological landscape. We are also developing a long-term strategy to reduce emissions and to fully understand and optimise potential decarbonisation initiatives and pathways.</p> <p>Assurance: Water industry research and technical support combined with a climate change mitigation steering group provides second line assurance. An internal audit is scheduled and external assurance of emissions, regulatory reporting lines and science-based targets has been established.</p>
7. Failure to treat sludge	8. Recycling of biosolids to agriculture	9. Price volatility	10. Credit rating		
<p>Risk exposure: This risk relates to the interdependency between wastewater and bioresource treatment activity in light of changing demographics, asset health and legislative/regulatory change. Industrial Emissions Directive (IED) now applying to biological treatment of sewage sludge within AMP 7, with no investment assigned to this requirement is a key factor.</p> <p>Control/mitigation: The Throughput, Reliability, Availability, and Maintainability (T-RAM) of our facilities is a key area of mitigation, with formal service level agreements between the two core activities. In relation to IEDs, discussions at national level are being held to move the high capital cost improvements into PR24.</p> <p>Assurance: Wholesale assurance and engineering technical governance provide second line assurance. Subject to cyclical internal audit and ad-hoc external strategic reviews.</p>	<p>Risk exposure: This risk represents various impact scenarios including operational failures, increased restrictions or total ban of recycling biosolids to agriculture. Referencing the EA's interpretation of the Farming Rules for Water (FRfW) regulations and the increasing threat to recycling a large proportion of biosolids.</p> <p>Control/mitigation: United Utilities is accredited to the UK Biosolids Assurance Scheme (BAS), which certifies that our treatment and recycling activities meet regulatory requirements and best practice. We also work closely with farmers and landowners and have robust standard operating procedures established with contractors.</p> <p>Assurance: Wholesale assurance and engineering technical governance provide second line assurance. Subject to both cyclical internal and external audit.</p>	<p>Risk exposure: This risk reflects the inflationary pressures across all commodities, notably energy, associated with the post COVID-19 economic bounce back which have been exacerbated further by the conflict in Ukraine.</p> <p>Control/mitigation: Contract provision with suppliers, hedging policy and supply agreements manage volatility and minimise vulnerability in the contract and price risk with the suppliers including periods of agreed fixed pricing and negotiation of CPI/H uplift on an annual basis.</p> <p>Assurance: Market analysis and supplier engagement, combined with quarterly business reviews provide second line assurance. Due to the scale of procurement an energy governance panel has oversight over procurement and use.</p>	<p>Risk exposure: Credit ratings below internal targets, due to deterioration in financial and/or operational performance and/or external factors (such as inflation) resulting in more expensive funding.</p> <p>Control/mitigation: Continuous monitoring of markets, and the management of key financial risks within defined policy parameters</p> <p>Assurance: Second line assurance provided by financial control and quarterly business reviews, with oversight provided by the treasury committee. The treasury function is subject to regular internal audits.</p>		
A. Pension deficit	B. Financial outperformance	C. Dam failure	D. Fair payment of tax	E. Disease pandemic	F. Terrorism
<p>Risk exposure: The potential for the pension scheme funding deficit to increase because of life expectancy rates leading to additional contributions.</p> <p>Control/mitigation: Constant monitoring combined with hedging against interest rates, inflation and growth asset risk.</p> <p>Assurance: Policy and oversight is led by the pensions review management group, taking into account advice from accountancy and law firms. Pension governance is subject to periodic internal audits.</p>	<p>Risk exposure: Failure to achieve financial outperformance due to macro economic conditions and efficiency challenges, impacting the cost of debt and delivery of the company business plan.</p> <p>Control/mitigation: Interest rate and inflation management, ongoing monitoring of markets and regulatory developments, and company business planning.</p> <p>Assurance: Second line assurance and oversight is provided by the board and treasury committee in addition to executive quarterly business reviews. Subject to cyclical internal audit reviews.</p>	<p>Risk exposure: Uncontrolled release of a significant volume of water from reservoirs due to flood damage, overtopping, earthquake or erosion leading to catastrophic impacts downstream.</p> <p>Control/mitigation: Each reservoir is regularly inspected by engineers. Where appropriate, risk reduction interventions are implemented through a prioritised investment programme.</p> <p>Assurance: Various sources of second line assurance, including supervising engineers, dam safety group, wholesale assurance and regular board reviews. Independent assurance is provided by panel engineers and internal audit.</p>	<p>Risk exposure: Failure to maximise the available tax efficiencies and reliefs due to changing mechanisms.</p> <p>Control/mitigation: Tax policies and objectives cover: efficient structuring of commercial activities; maintaining a robust governance and risk management framework; and an open and transparent relationship with tax authorities.</p> <p>Assurance: Tax policies are based on advice from multiple sources, including accountancy firms. Third-party assurance is provided by internal audit and accountancy firms.</p>	<p>Risk exposure: Serious illness in a large proportion of the UK population and consequences to our workforce, the wider supply chain and macro economy.</p> <p>Control/mitigation: The incident management process would be invoked, supported by the Pandemic Response Plan. This includes the implementation of multi-channel communication with non-pharmaceutical interventions as per government guidance.</p> <p>Assurance: Wholesale assurance provides second line assurance, with internal audit undertaking various reviews.</p>	<p>Risk exposure: A significant asset to be compromised by terrorist activity leading to loss of supply, contamination and/or pollution.</p> <p>Control/mitigation: A risk-based protection of assets in line with the Security and Emergency Measures Direction (SEMD) and close liaison with the Centre for the Protection of National Infrastructure (CPNI), regional counter terrorist units, local agencies and emergency services.</p> <p>Assurance: Security posture is based on various threat advisors. Second line assurance is provided by the security steering group. In addition, internal audit undertakes cyclical audits with external technical assurance being delivered by specialists.</p>

Key:

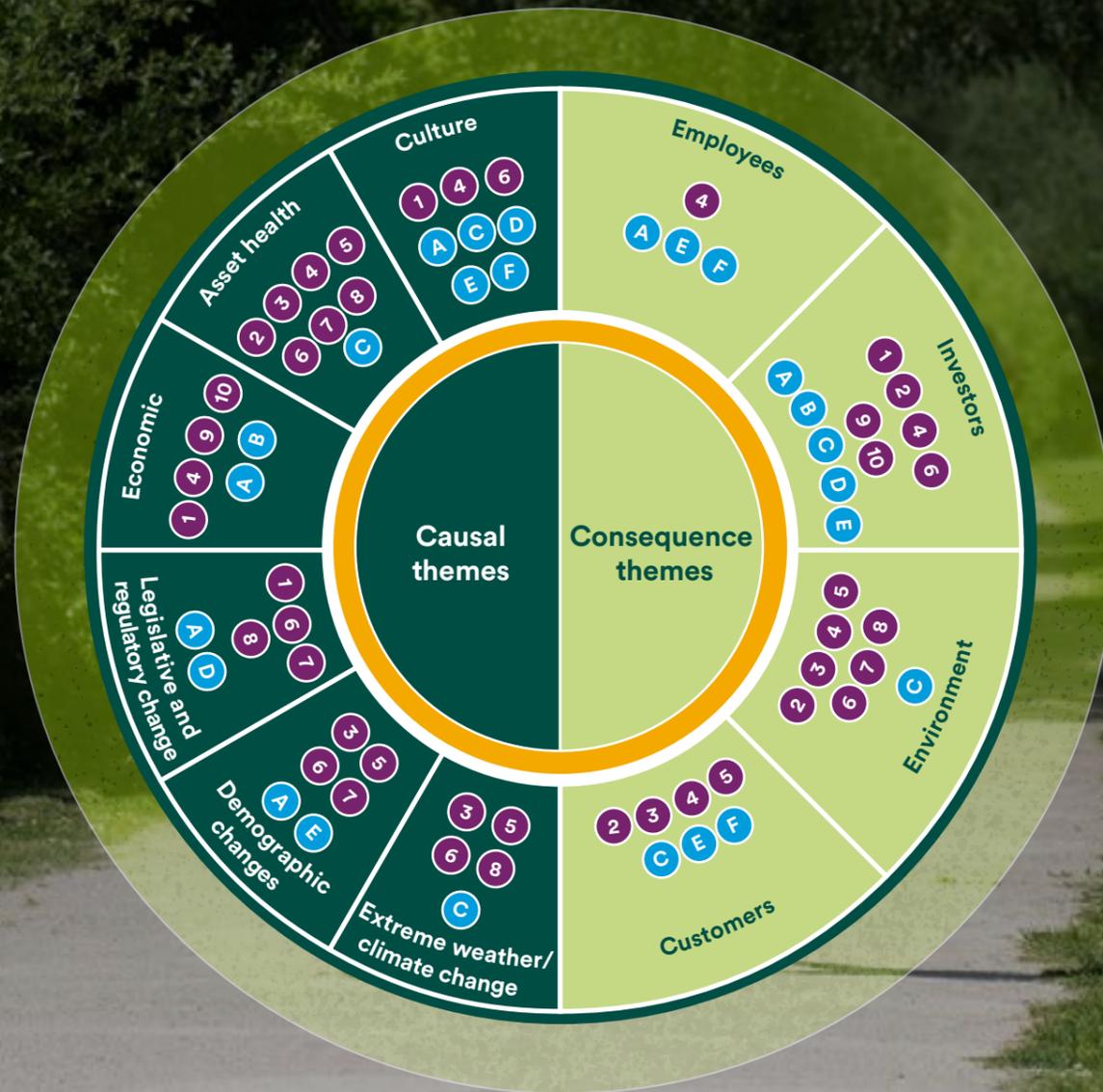
- Top ten ranking risks relative to likelihood and impact
- High impact, low likelihood risks

Our risk management

The company's most significant event-based risks

Mapping of common themes to the most significant group risks

The diagram below illustrates how the common themes (causal and consequence) relate to the company's most significant event-based risks, demonstrating how new and emerging circumstances can not only influence the risk exposure, but also focus attention for control and mitigation.



Most significant event-based risks

- 1 Price Review 2024 outcome
- 2 Failure of Haweswater Aqueduct
- 3 Wastewater network failure (sewer flooding)
- 4 Cyber
- 5 Water sufficiency
- 6 Carbon commitments
- 7 Failure to treat sludge
- 8 Recycling of biosolids to agriculture

- 9 Price volatility
- 10 Credit rating
- A Pension deficit
- B Financial outperformance
- C Dam failure
- D Fair payment of tax
- E Disease pandemic
- F Terrorism

Key:

- Top ten ranking risks relative to likelihood and impact
- High impact, low likelihood risks

New and emerging risks

Following horizon scanning activity undertaken by the business, a watching brief is held over risks/issues which are worthy of note due to their new, emerging or reputational status, and typically have too high levels of uncertainty or complexity to quantify.

- **Plastics:** Attention on single-use plastic and microplastic (plastics less than 5 mm) pollution is ongoing, with their presence in the environment being linked to the water cycle. We are responding proactively and have formed a two pillar approach to addressing plastics, focusing on operational plastic waste and plastic in the water cycle.
- **Perfluoroalkyl and polyfluoroalkyl substances (PFAS):** There is a growing focus on PFAS chemicals including from our public liability insurers who are looking to exclude related liability claims. PFAS are manufactured chemicals used in everyday products. Known as 'forever chemicals', they are persistent, bioaccumulate and may be toxic even at low levels. We have completed an assessment of the likely presence of PFAS in raw water sources, the results of which are incorporated into the Drinking Water Safety Plan and aligned to the requirements set out by the Drinking Water Inspectorate.

Material litigation

The group robustly defends litigation where appropriate and seeks to minimise its exposure by establishing provisions and seeking recovery wherever possible. Litigation of a material nature is regularly reported to the group board.

In relation to the Manchester Ship Canal Company matter reported in previous years, a hearing was held in the Court of Appeal at the end of March 2022. A decision is expected during summer 2022, which may provide further clarity in relation to the rights and remedies afforded to the parties and others in relation to discharges by water companies into the canal and other watercourses.

Beyond this, there is nothing to report regarding material litigation, including in respect of the Argentina multiparty 'class action' reported on in previous years, and to which there have been no material developments.

Conflict in Ukraine

The conflict in Ukraine has led to a number of risks emerging (growing, developing or becoming more prominent) from a security and economic perspective.

- **Cyber:** The likelihood of the cyber risk has been increased to reflect the rising tensions between Russia and the west, while taking into account the adoption of increased security measures which include security operations teams on extended high alert and the rapid deployment of technical blocking of critical indicators of compromise.
- **Price volatility:** This risk reflects inflationary uplift across multiple commodities with energy the most volatile.
- **Security of the supply chain:** This risk reflects the knock on impact of inflationary pressure on manufacturing output with some production facilities reducing operations. It also reflects sanctions imposed against Russia and Belarus and the restriction or prevention of access to certain goods.
- **Cash collection:** Inflationary pressure is having a significant impact on the cost of living, affecting customers' ability to pay bills.
- **Supplier viability:** This risk reflects the impact the unprecedented price increases are having on suppliers who cannot honour locked prices in contracts and the threat of suppliers going into administration with a knock-on effect to operations and the capital delivery programme.
- **Credit rating:** Whilst underlying credit quality is not a concern, the impact of high inflation on finance expense results in the potential for Credit Agency thresholds to be breached when combined with other factors such as additional investment spend to meet environmental and service improvements over and above price review allowances.

Legislative/regulatory change

In addition to the emerging economic conditions exacerbated by the conflict in Ukraine, legislative and regulatory change is also a prominent emerging theme which impacts a number of event-based risks.

Relatively recent developments include uncertainty associated with the Environment Agency's interpretation of the Industrial Emissions Directive (IED) and Farming Rules for Water (FRfW) and implications for ongoing compliance, process and investment across wastewater and bioresources risk.

As a responsible company, United Utilities is committed to the protection and enhancement of the environment and can demonstrate many previous and current initiatives, the most recent being the road map to 'better river health' including a pledge to invest £230 million into 184 kilometres of rivers by 2025. We will continue to work closely with all our regulators and partners to deliver better solutions including full cooperation with the ongoing industry wide investigation by Ofwat and the Environment Agency into possible unpermitted sewage discharges into rivers and watercourses.

The Environment Act, which was enacted in November 2021, has potentially far more significant implications for the water sector, due to it being the UK's new framework of environmental protection. Depending on how the new legislation will be interpreted and applied, meeting its requirements may demand a fundamental shift in the water industry's approach to environmental risks, requiring significant investment across multiple AMPs.