

# **Climate Change Adaptation Report**

December 2024



# **Contents**

1. Overview	3
2. Changing risk profiles and adaptation progress	5
3. Climate challenges for our region	6
4. Our business model	7
5. Our climate risk governance and management	8
6. Our customer focus	9
7. Our risk profiles	10
8. Risks of service interruptions from extreme weather events	11
8.1 Our adaptation progress and plans	11
9. Risks to security of public water supply	13
9.1 Our adaptation progress and plans	13
10. Risks from raw water quality	15
10.1 Our adaptation progress and plans	16
11. Risks to our assets from flooding	18
11.1 Our adaptation progress and plans	19
12. Risks to sewer flooding	20
12.1 Our adaptation progress and plans	21
13. Our commitment to adaptation	22
14. Our vision for 2050	23
Appendix	24

# **About this report**

This is the fourth submission we have made to the Department for the Environment, Food and Rural Affairs (Defra) under the Adaptation Reporting Power of the UK Climate Change Act (2008). Its purpose is to outline progress we have made in adapting to our climate change risks since 2021, contribute to Government's understanding of our level of preparedness to climate change and inform other ongoing work on climate adaptation, including the UK's national Climate Change Risk Assessment and National Adaptation Programme.

For our last submission to Defra in 2021, we undertook a full climate change risk assessment. We have reviewed our climate change risk register and progress against our adaptation plans, using evidence from business plans, performance measures and engagement across our business.

We report changes in our risk profile, where 1) we have made good progress against our plans, exceeding targets; 2) new evidence has emerged on our understanding of risks or 3) changes to policy or customer priorities have had a material impact on risks.

We have observed increased risks related to raw water quality and sewer flooding. Our strong adaptation progress has improved our risk related to interruptions to supply from extreme weather events. Although we have made good adaptation progress and the direction of change is encouraging, due to the granularity of the scoring methodology, this isn't reflected in a change in risk score.

We have aggregated our 40 risks into five key headline risk themes: risk to service interruptions as a consequence of extreme weather events, water availability, reduced raw water quality, asset flood risk and sewer flooding. Each of these risks are considerations within our top-tier risk register and are reflected in our adaptive plans, and longer-term investment plans. Our progress against these headline risks is summarised throughout this report:



Risks of service interruptions and interdependent risks



Security of public water supply



Risks to water treatment from reduced raw water quality



Risks to our assets from flooding



Risks to sewer flooding from extreme rainfall

Across these headline risks, we observe crosscutting risks which reflect our responsibility for environmental protection, to have a positive impact on communities and our customers and interdependencies with other stakeholders, including other utilities, local authorities, environmental organisations, and Government. These impact on all parts of our business, and require innovation, collaboration and partnership working to resolve.

Understanding the impacts of multiple hazards, compound, and cascading risks are all essential to maintaining services to our customers and to meet our environmental objectives. We will continue to work with stakeholders, recognising that many parties have important roles to play in adapting to climate change.

# 1. Overview

#### Introduction from Mark Thurston, Chief Executive, Anglian Water



At Anglian Water, we're the biggest water company by geographic area, serving seven million customers and covering nearly a quarter of the UK, stretching from the Humber Bank in the north to the Thames Estuary in the south.

Our Purpose is to bring environmental and social prosperity to the region through our commitment to love every drop. To deliver against our Purpose, we must balance the needs of our customers and the environment in one of the driest, lowest-lying, and fastest-growing regions of the UK, which is home to some of the country's most important landscapes.

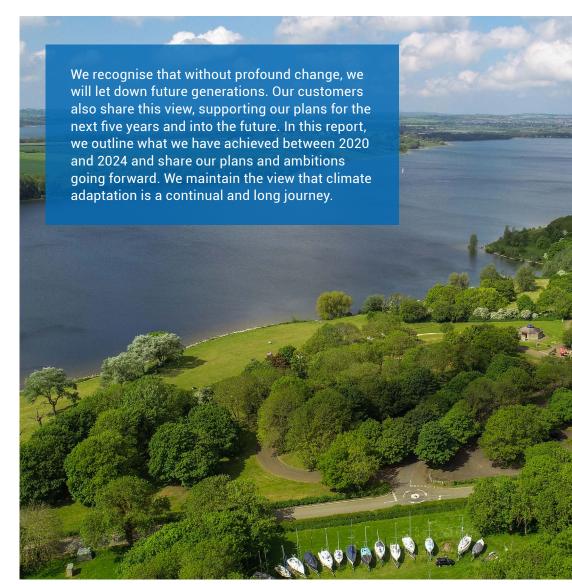
75% of the land in our area is used for agriculture, and the East of England is often referred to as the breadbasket of the UK. The region is also home to four of the UK's fastest-growing cities, with over 700,000 more people expected to live here in 20 years' time. Alongside this, there are many economic opportunities, with major energy infrastructure projects such as Sizewell C, and

industrial hubs, like the South Humber Bank which is one of the UK's leading hydrogen and Carbon Capture, Usage and Storage (CCUS) locations.

Couple that with being on the forefront of climate change – experiencing contrasting extremes of heat and rainfall in recent years – we have our challenges. This report demonstrates our key climate-related risks and the ways in which we are adapting. We have long anticipated and managed these challenges, and the major infrastructure we have planned such as our strategic interconnecting pipeline and two new reservoirs could not be more relevant.

However, the severity and complexity of these risks means our response is always evolving. We understand that we also do not operate in isolation; we are interdependent on other infrastructure (e.g. energy and communications) and failure can cascade throughout this interconnected network. A crucial aspect of adaptation is to working with other sectors to better understand these interdependencies and plan for resilience.

Furthermore, adapting to climate change is a long-term issue and isn't something we can solve within the next five years. While our AMP8 (2025-2030) plans contain our biggest investment to date, with a value at £10 billion, climate change requires long-term thinking to achieve the scale of work needed. We are pleased to be collaborating with our regulators and wider stakeholders, taking a view to the 2029 Price Review, with a specific focus on asset health. Our Long-Term Delivery Strategy (LTDS) looks ahead to 2050 as climate risks continue to shift, alongside emerging, innovative solutions.



# Foreword from Dr Robin Price, Director of Quality and Environment



Climate change is no longer a future threat. At Anglian Water, we are feeling the effects today. In recent years, we have witnessed more flooding, increased risk of drought and around the world, rising temperatures and sea levels. Since our last Climate Change Adaptation Report (2020) we have experienced extreme weather events; drought in 2022 with the highest temperatures ever recorded in the UK being in the East of England, followed by the unprecedented wet winter and a succession of storms in 2023/24.

We have long known about these challenges. When we published our Strategic Direction Statement in 2007, we set out what we believed to be our main challenges to 2035, the most significant being climate change and growth.

Adaptation in the context of our region adds another layer of complexity. The East of England has experienced significant change over the past few decades; more customers living here, more products that cause blockages going into our sewers, less green space to absorb rainfall. Couple this with growth ambitions, as highlighted in our 'Thriving East' report, and it is clear how fundamental water is in supporting environmental prosperity, economic growth, supporting new agricultural practices, unlocking opportunities in hydrogen and renewable energy and closing the green skills gap.

This sentiment was echoed on the global stage, at the November 2024 COP29 discussions in Baku, Azerbeijan. The Global Commission on the Economics of Water presented a strong case for integrating water into national climate plans, arguing that the world is at risk of entering an era of "chronic water scarcity." A key takeaway from discussions was the growing recognition of water security as foundational to global economic stability and climate resilience. We are pleased to see global action behind this, through the recent launch of 'Water for Climate Action' endorsed by nearly 50 countries.

There was also support for integrated approaches and nature-based solutions, an approach we have championed for many years, particularly in high-risk areas such as the Fens. Recently, we have worked with academics from the Tyndall Centre for Climate Change Research to produce a comprehensive, placebased climate risk report tailored to the unique challenges and opportunities facing the Fens.

We have led and supported a wide breadth of projects to prepare for our changing climate, and we are reaping the benefits of what we have learnt. Our Business Plan for 2025-2030 makes the case for further integrated approaches and nature-based solutions and the work we have been championing through 'Get River Positive' has created a blueprint to take this further. Increasing flood prevention, coastal protection,

and improving water quality in rivers and waterways, are complex issues that cannot be solved alone and we welcome discussions and opportunities to collaborate.

Although have always taken a long-term approach to building resilience, with a particular focus on water resources as the driest UK region with high agricultural productivity and many precious environmental spaces to protect, many unknowns remain. We have a lot to learn as the implications of climate change become clearer.

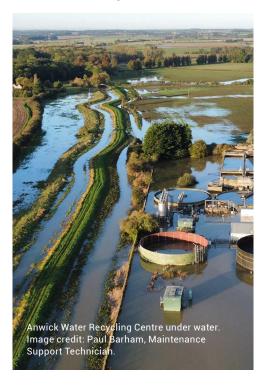
Volatile conditions will impact our ability to deliver our fundamental role; supplying safe, clean drinking water and taking away used water and returning it safely to the environment. We know this as we have undertaken modelling to understand what future climate scenarios could mean for us.

In the preparation of many of our strategies, including our Long Term Delivery Strategy (LTDS), Water Resources Management Plan (WRMP) and Drainage and Wastewater Management Plan (DWMP), we outline the actions we are taking to mitigate the impact. For example, our LTDS outlines the programme of work needed to meet our 2050 ambitions, which has demonstrated the sheer scale of investment that could be required if international targets on climate are not met. To put this into context, the National Infrastructure Commission (NIC) calculates £12 billion of investment will be needed in water every year between 2025-2030, followed by maintenance at around £8 billion per year from 2030-2055.

Key areas of focus include our long-term climate vulnerable mains programme, which is based on leading research on the unique land and soils in our region and their impact on asset health. Another area includes water resource planning, to replace options at risk of sea level rises. We have also considered less obvious impacts such as an increase in surface water runoff introducing more

pollutants to watercourses. This information is feeding into our next cycle of strategic plans, including this report, and we endeavour to keep developing our understanding of these risks and the timescales for adaptation.

This report outlines the many actions we have taken and are taking to adapt to our changing climate and where we have made progress since our 2020 report. Over the past four years, we have made positive strides, harnessing more data on our assets than ever before, trialling new approaches to impact whole catchments and reaping the benefits from collaboratively working with others. Recent events have also given us a deeper insight into how we can be part of the solution and adapt to this complex, multi-faceted challenge.



# 2. Changing risk profiles and adaptation progress

Our comprehensive climate risk register covers 40 risks. Each of these are considerations within our top-tier risk register and integrated into our corporate risk register, business planning processes and corporate climate disclosures, such as the Task Force on Climate Related Disclosures (TCFD).

We have aggregated our climate risks into five key headline themes, as shown on the right. Although we have made adaptation progress in all areas, we have observed increased risks related to raw water quality and sewer flooding. Our strong adaptation progress has improved our risk related to interruptions to supply from extreme weather events.

Across these headline risks, we observe cross-cutting impacts and external influences. Understanding the impacts of multiple hazards, compound, and cascading risks are all essential to maintaining services to our customers and to meet our environmental objectives.

Furthermore, since 2020, the regulatory reporting landscape has changed. We are required to produce a strategic Drainage and Wastewater Management plan (DWMP) and to work with multiple stakeholders and sectors to develop a strategic Regional Water Resources plan. Both include an in-depth consideration of climate change. We integrate our Long Term Delivery Strategy (LTDS) with our water and wastewater strategic planning frameworks to inform efficient investment decisions against long-term need, using scenarios to test our LTDS, including climate change.



# Risks of service interruptions and interdependent risks

- We have developed a methodology to respond to more prolonged incidents, for example droughts and flooding. This provides cross-business visibility of emerging and present threats, with a clear management structure bringing together the right expertise in a coordinated way to manage our response.
- Innovated in data-driven climate modelling approaches to understand asset resilience to extreme weather events e.g. Climate vulnerable mains and CReDO.



# Security of public water supply

- Some progress made and accelerated investment linked to 2022 drought event however the completion of our strategic interconnecting pipeline, which will increase our resilience to a 1-in-200 year drought event, has been reprofiled to complete in AMP8.
- No water restrictions on customers during 2022 drought event demonstrating resilience.
- The use of water for wildfires during 2022 highlighted a new and emerging hazard.
   They led to rapid peaks in demand for water as firefighter's tackled blazes.



# Risks to water treatment from reduced raw water quality

- · New risk theme reflecting its increased priority for our operations.
- Already experiencing impacts which will increase with climate change such as increasing algal blooms, and increasing nitrates.
- Our successful catchment management initiatives have engaged farmers and the wider agriculture sector in shared solutions to improve raw water quality.



# Risks to our assets from flooding

- Good progress made on improved understanding of the risk and consequence.
- Adaptation progress is keeping pace with increasing climate risks.



# Risks to sewer flooding from extreme rainfall

- Progress made especially through industry leading WINEP programme.
- However, rising rainfall intensities due to climate change and increasing reputational risk means that this is a higher priority and focus for increased adaptation action.







#### Additional progress required

#### **External impacts**

#### Risk: Extreme weather

We have experienced record-breaking weather events including heatwaves, a cold snap, windstorms, and an extended period of drought in 2022. These extreme weather patterns have tested our operational resilience and influenced our long-term plans.

# Enabler: Innovation, collaboration and partnership working

Innovation, collaboration, and partnership working are needed to manage complex cross-cutting risks and interdependencies. For example, our multi-agency digital twin work, the Ofwat Innovation Funded Climate Resilience Demonstrator (CReDo) will improve understanding of asset and system resilience including the impacts of infrastructure cascade failures. As part of CReDo we have developed an extreme heat app that enables users to understand when assets could fail under climate change driven extreme heat scenarios.

Another example is the work we've undertaken with the Future Fens: Integrated Alliance, where we have worked with the Tyndall Centre for Climate Change Research to produce a comprehensive, place-based climate risk report tailored to the unique challenges and opportunities facing the Fens.

# Aspiration: Positive impact on communities and customers

Climate change can affect vulnerable communities the most. We aim to influence policy and collaborate on strategies to prioritise resilience for communities and the assets they rely on, while keeping costs affordable. An example of this in action is our free leak repair trial.

# Aspiration: Environmental protection and enhancement

Protecting and enhancing our natural capital is critical to securing long-term resilience of our operations. We must also acknowledge the changing environment we're operating in: since 2020 there has been a seismic shift in customer expectations and public perception, alongside greater environmental standards and legislation.

We will deliver long-term environmental improvement. Key focus areas include reducing water abstraction from sensitive areas and improving biodiversity. Natural capital also offers an opportunity to help us adapt to climate change and we will work with others to deliver nature-based solutions that provide benefits at the landscape scale.

......

# 3. Climate challenges in our region

# Recent extreme weather events

Annual average temperatures have increased in the East of England since 1850 with many of the hottest years occurring in the last few decades.



Location: Peterborough, UK | Data: Berkeley Earth & ERA5-Land | Climate Stripes concept: Ed Hawkins

# **December-January 2020/21**Significant flooding across Norfolk

Heavy rainfall put pressure on our surface water and combined drainage systems, increasing the risk of sewer flooding, storm overflow events and hydraulic overload-related pollutions.

We also experienced significant increases in nitrate levels in some aquifers.

#### **July-August 2022**

Drought across England. Hottest day ever (40.3°) recorded in the UK in Coningsby, Lincolnshire in July 2022

Driest conditions for 60 years and extreme heat impacted our rivers and water-dependent wildlife. Reservoir levels were at a record all-time low, but we maintained supplies with no restrictions to customers or any additional stress to the environment. Wildfires led to localised peaks in demand for water from firefighters.

#### December 2022

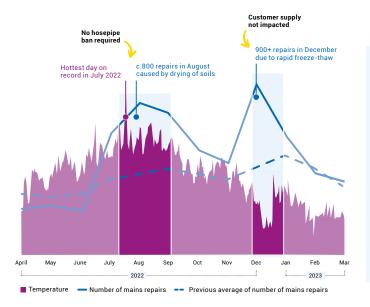
21°C swing in temperature within a day causing rapid thaw

A Met Office red weather warning for frost followed in quick succession by a rapid thaw, causing widespread pipe bursts and leaks. Although this event was challenging, none of our customers went without water. (See graph below left).

.....

# October-March 2023/24 Named storms, wind and flooding

Between October 2023 and March 2024, England witnessed its wettest period on record. Five named storms impacted our region directly, with wind impacts leading to power outages. Record-breaking rainfall led to surface water flooding and rising groundwater levels overwhelming parts of our region.





14 diverse counties in our region, all with differing environmental, social and economic needs

**75% of land** in the East of England is used for agriculture, higher than any other region

Businesses in the East are particularly water intensive, e.g. food processing

#### By 2040:

700,000 more people will live here Average projected rainfall is 2.14mm a day compared to the national average of 2.85mm

**28% of land is low-lying**, putting us at risk of flooding whilst hotter than average temperatures make us prone to drought

**Home to 15% of England's population** by 2043, 700,000 more people will live here

**8,000km** of water mains vulnerable to climate change

The r

The region we operate in will be hotter than the national average: 11.4° compared to 11°

# **Potential consequences for Anglian Water**



A hotter, drier climate will reduce water available for abstraction



Saltwater intrusion due to sea level rises will put an increased number of water sources at risk such as the impact of estuary water on natural ground water, alongside a loss of assets due to coastal erosion.



Increasingly intense rainfalls will put pressure on sewer systems.



Wetter winters will lead to rising groundwater levels, which could also impact water quality and additional infiltration into our sewer network.

# 4. Our business model

Our business model is structured to create long-term value for customers, employees, investors, business partners, and the wider community, and to safeguard and enhance our environment. It defines outcomes that are aligned to national and global drivers of change, such as the United Nations Sustainable Development Goals. These underpin our Strategic Direction Statement which is our vision for the future we want to achieve by 2050 and is integrated into our strategic planning frameworks and investment decision making. Without adaptation, climate change will undermine our ability to deliver these outcomes and our longer-term goals.



# SUSTAINABLE GALS DEVELOPMENT

The UN Sustainable Development Goals influence our thinking. And the investment we make contributes towards their delivery. We work in the spirit of all 17 goals, but we have mapped our work to the 10 where we have the most material impact.











→ Find out more at anglianwater.co.uk/UN-SDGs



#### What drives us

**Our Purpose** is to bring environmental and social prosperity to the region we serve through our commitment to **love every drop**.

3 We deliver value for our stakeholders

Environment and planet

Customers and communities

People and partners

**Shareholders** 

Investors, banks and rating agencies

**Regulators** 

National and local government



#### How we make decisions

We balance our six capitals to shape investment decisions



Natural



Social



**People** 



**Financial** 



Intellectual



**Manufactured** 

6

# **Our long-term ambitions**

Our ambitions respond to the pressures outlined in our 25-year Strategic Direction Statement.



Make the East of England resilient to the risks of drought and flooding



By 2030, be a net zero carbon business and reduce the carbon used in building and maintaining our assets by 70%



Enable sustainable economic and housing growth in the UK's fastest-growing region

→ Read more in our Net Zero strategy



Work with others to achieve significant improvement in ecological quality across our catchments



# **Our goals for 2020-2025**

- To make life better for our customers, every single day
- To deliver our 2020-2025 Final Determination
- To deliver our identified business priorities
- To create a sustainable future for our region

# What will help us get there?

- Skilled, trusted and customer-focused people who are happy, healthy and safe
- Maximising opportunities from standardisation and centralisation
- Smart use of information and technology
- World-leading alliances, working as one team
- Collaboration inside and outside the organisation



Cross-cutting themes, as part of our Long Term Delivery Strategy (LTDS) will help us reach our long-term ambitions. These themes cover digital, innovation, partnership-working and placebased approaches, to ensure we have considered every possible solution.

# 5. Our climate risk governance and management

We have a governance structure in place that ensures that climate-related risks are managed throughout our business and our customer's views are heard.

The **Anglian Water Services (AWS) Board** has oversight of climate-related risks and opportunities which are included within the company's top-tier risk register and managed through risk management and internal control systems.

The **Audit Committee** provides effective oversight of both financial and non-financial disclosures, including climate-related financial disclosures. The **Remuneration Committee** plays a key role in ensuring that climate change, and other Environmental, Social and Governance issues are considered at the top of our organisation and embedded in our performance framework.

In 2024, we reset our governance structures to enhance focus on key issues and create clear line of governance from the frontline to the executive committee and onto the AWS board. These changes were driven by our new Chair, Dr Ros Rivaz, and new CEO, Mark Thurston. Decision making on key environmental issues and climate-related matters will made by the **Environment & Sustainability committee**, which meets quarterly.

We run a series of steering groups that discuss climate-related matters across the business. This includes our **Water Quality & Environment Group,** which monitors tactical and short-term operational strategies, meeting weekly. The group is chaired by a member of the Executive Committee, Dr Robin Price. Robin also chairs the **Climate and Carbon Steering Group**, who are responsible for progress against climate

change mitigation and adaptation, with two other Management Board members invited, to govern matters relating to our environmental impact, sustainability, and net zero progress. This group has been integral to the development of our climate adaptation investment plans for 2025-2030 and progress against our net zero 2030 carbon commitments.

The **Finance, Treasury and Energy Policy Group** also plays an important role in managing transition risks and opportunities. Chaired by our Chief Financial Officer, the group leads on raising sustainable finance and identifying sustainable projects, such as renewable energy generation.

Our **Sustainability Centre of Excellence** allows Anglian Water employees and alliance partners to engage with sustainability-related activities. This ensures that input into the climate change, carbon and sustainability agenda is open to all.

We also issue key climate-related plans for public consultation, including our Drought Plan, Water Resources Management Plan and Drainage and Waste Water Management Plan, and we incorporate and reflect the feedback we receive. Customer feedback channels include our Independent Challenge Group, our online community which consists of a group of customers and our Customer Board.

We report about our climate governance, risk management, and strategy annually in our TCFD submission in our <u>Annual Integrated Report</u>.





#### **Anglian Water Services: Governance**

The Anglian Water Services (AWS) Board									
Audit and Risk Committee	Remuneration Committee	Nomination Committee							
	Executive Committee								
	Sub-committees								
Environment and Sustainability	Operations - Water	Capital Delivery							
Risk, Assurance and Disclosure	Operations - Water Recycling	Strategic Change							
People	Operations - Customer and Wholesale	Health, safety and wellbeing							
Water quality and environment group	Climate Change Steering Group	Sustainability Centre of Excellence							

In 2017, the Board led the business to become one of the first utilities to raise finance through a Green Bond. Sustainable and/or green finance covers investments that meet Environmental, Social and Governance (ESG) standards and ensures funds are used to pay for projects that drive sustainable growth, protect or enhance the environment, or help us deliver against our Purpose.

Since 2017, we have raised £4.4 billion in green finance (as at end September 2024). The sustainable investment programme at Anglian Water is rapidly expanding, in line with the uptick in our capital programme. We are always seeking new opportunities to ensure as many of our investments as possible are sustainable. Climate change adaptation was one of five areas of investment as per our previous framework for green bonds. Our latest framework, updated in February 2024, includes projects covering; wastewater treatment, sustainable drainage systems, and reducing demand for clean water. Since 2020, over £1.9 billion of green financing has contributed towards projects aligning with Climate Change Adaptation.

This includes spend as set out in the WRMP along with investments in nature-based solutions alongside improvements to reduce flood risk, remove persistent low pressure and connecting villages on the network, improve resilient services to improve single points of failure and build resilience to outside threats. For more detail, see our Sustainable Finance Impact Report.

# 6. Our customer focus

It is vital that our plans respond to what is important to our customers. Our customers repeatedly tell us that they want us to prioritise safe, clean water, for us to secure resources for the future in the face of climate change, to take care of the environment, and to support the most vulnerable in society. While climate change is our biggest challenge, it's also an opportunity to do things differently and increase value to our customers and the environment.

During the preparation of our previous five-year Business Plan (2015-2020), we received Ofwat's Blue Star award for the quality of our customer engagement and insight. We have continued to build on our approach, ensuring that the views of our customers and stakeholders shape our climate change adaptation plans.

Our recent engagement with customers shows that they want to support environmental enhancements, but not at any cost, with the importance of affordability a growing concern since 2020. As a result, we are:

 doubling our investment in the environment over the next five years with many actions helping to improve climate resilience. To minimise the impact on customers, we have worked with regulators including Ofwat, the Consumer Council for Water, the Environment Agency and others, alongside our Board, to ensure that bill increases are fair.

- supporting customer behaviour to encourage them to use water more efficiently, keeping more water in the environment and saving them money. Our smart metering strategy is key to this. We have installed over 1 million smart meters as part of our multi-award-winning programme, connecting customers to their water usage. This has saved customers approximately £15 million from annual water bills in 2022 alone, equating to an average of £251.97 per customer.
- working with communities and farmers to deliver local solutions to water quality and flood risk issues and to deliver more naturebased solutions than ever before.

In 2021 we published our Social Contract where, through consultation with customers and employees, we set out commitments to 2025. The contract is co-signed with the chair of our Customer Advisory Board, whose role is to advise, support and challenge our Executive Committee on these issues

Anglian Water's ICG is a group of independent experts and regulators, with an independent Chair, Craig Bennett, Chief Executive of the Wildlife Trust. The ICG challenges us to ensure we are delivering on customer priorities. In 2022, we re-established our Customer Board, where we facilitate an open, two-way discussion between customers and our Executive Committee.

We regularly communicate with our customers and key stakeholders, to ensure we are delivering against their expectations. We have c.1million direct customer contacts a year, 387 customer panels and 100,000 responses to our customer feedback surveys. To inform our 2025-2030 investment plans, we engaged with 35,000 household customers and 2,500 non-household customers.

Our priority climate change risks and adaptation plans reflect customer preferences, and for every climate change investment we make we can link our actions back to customer preferences.

Key actions planned for AMPR (2025-2030)

Customer priorities

Risks to our assets from flooding

Customer priorities % relates to how important this is to customers, based on our 2022/23 survey	Climate risk	Key actions planned for AMP8 (2025-2030)
Safe, reliable drinking water (80%)		Customers can be assured that drinking water quality in England and Wales is among the best in the world, with the Yale University Environmental Performance Index listing the UK as one of only 10 countries with the highest score for drinking water safety. We will continue investment in drinking water quality enhancement.
Drinking water quality (63%)		continue in continue in animing water quality crimaricement.
Long-term planning to secure water supplies for the future (45%)	<b>(3)</b>	Plan for two new reservoirs and the completion of our strategic interconnecting pipeline
Improving river water quality (35%)		Aim to remove all Rivers Not Achieving Good Status (RNAGs) associated with our operations and work in partnership to enable other sector's RNAGs to be reduced
Replacing pipes to protect them from climate change (24%)		We have identified the location of our most climate vulnerable water mains and plan to renew 75% of the c.8,000km identified over the long term
Transporting and treating sewage sludge (22%)		Our Circular Economy Strategy innovates across sectors to turn waste streams into further high-value, low-carbon opportunities, including hydrogen production
Reducing greenhouse gas emissions from their operations (21%)		All of our programmes will have low-carbon optioneering built in, in line with our net zero carbon 2030 ambition. We also plan to achieve a 70% reduction in capital carbon by 2030 against a 2010 baseline
Planning for growth (11%)		With 700,000 more people expected to live in the region in the next 20 years, we are doubling our investment in the environment, creati more treatment wetlands, new sustainable urban drainage systems as well as increasing our waste water network significantly.
Risks of service interruptions and interdep	pendent risks	Security of public water supply  Risks to water treatment from reduced rewater quality

Risks to sewer flooding from extreme rainfall

# 7. Our risk profiles

Our risk profile for each of our five priority and most significant risks are summarised, with progress adapting to and managing these risks described throughout this report.

The infographics represent a selection, and in some cases an aggregation, of our detailed climate change risks register which includes over 40 risks. Our risk register captures the risk assessment undertaken for our previous adaptation submission to Defra, which identified risks from climate change by considering potential climate futures and consulting across the business. Our risks have been scored in a way that is consistent with our established risk assessment methodology and integrated into our corporate risk register.

Our climate risk scoring is based on assessing the likelihood of a hazard/event occurring, and the consequences and impacts. Many of the adaptation actions we've taken have reduced either the likelihood or the consequence or both, but generally, this reduction has not been large enough to reduce the scores to the lower risk bracket.

For this adaptation report, we have reviewed our climate change risk register using evidence from our performance measures and engagement across our business. In line with Defra guidance, for this interim update, we only report substantive changes to risk profiles. Although we have made good adaptation progress in many areas, we have only identified changes to our risk scores for each risk where:

- we have made good progress against our plans, exceeding targets;
- new evidence has emerged on our understanding of risks, for example due to learning from recent extreme events, or

• changes to policy or customer priorities have had a material impact on risks.

We observe changes in risk profiles related to raw water quality and sewer flooding. For all other risks, our previous ARP3 risk assessment can be considered current.

Assessing the impacts of climate change, and the ways we can manage and adapt to climate risks across our operations, assets, and networks is an ongoing and iterative process. Adaptation is a continual journey and although we are making progress, and the direction of change is encouraging, this may not be reflected in significant changes to the risk scores over such a short duration (only four years).

We are confident that our customers support this incremental approach to adaptation, as they have also told us that investments should be phased to ensure bill increases are fair and spread across generations.

# Water quality 2045 target Current rating 2030 target Inherent rating This is a new priority risk theme reflecting its increased priority for our operations. Since 2020, we have made good progress adapting particularly through our catchment management programme.

#### We have scored each risk for different time horizons:

A Target risk over the 5 years between 2040 and 2045

Target risk over the 5 years between 2025 and 2030

Current risk over the 5 years between 2020 and 2025

The risk over the 5 years between 2040 and 2045 if we took no action



We have made strong adaptation progress meeting our targets applying innovative digital solutions and working with other infrastructure providers to improve our management of interdependent risks alongside preventative incident response and recovery.



Our good adaptation progress is reducing this risk but our score has not reduced to meet our 2025 target as we have not achieved resilience to a 1-in-200 year drought event due to delays in our strategic pipeline programme. Over the next 5 years we will achieve 1-in-200 year drought resilience and be on our way to 1-in-500 year drought resilience.



We have made good adaptation progress but our risk score remains unchanged. Although our region and sites have experienced recent flooding we have been able to minimise the impact to our customers through our incident response and recovery reflected in our improvements to our interruption to supply performance commitments.



and understanding of the risk, new scientific evidence of increased intensity rainfall with climate change and increased concern for protection of the environment, a view shared by our customers.



# 8. Risks of service interruptions and interdependent risks

# As extreme weather events become more frequent, we need to manage our systems and maintain services to be resilient to both:

- Direct impacts to our operations such as flooding of our sites preventing operation or overheating of our equipment causing failure.
- Indirect impacts, for example when energy, communications, and transport infrastructure (which we rely on but is owned by other infrastructure providers) is disrupted by extreme weather such as storms or floods

While we can ensure that our assets are protected to meet our levels of service, we are reliant on external infrastructure such as roads and communications – for example, to ensure our employees and materials can get to our sites. These interdependent risks can result in cascading impacts which create further failures, such as when power outages disrupt pumping stations leading to multiple failures across networks.

Understanding of our systems and their interdependencies is embedded within the way we work to build resilience, and is central to regulatory policies, our strategic plans, and our investments. But we have gone beyond this and made good progress since our last adaptation report, building resilience across our interconnected networks with other infrastructure providers, improving our understanding of asset and system resilience to extreme weather events, and improving incident preparedness to minimise service interruptions for customers.

We have invested in research and innovative digital solutions to identify our climate vulnerable mains and system resilience, providing an extreme heat app that enables users to

understand when assets could fail under climate change driven extreme heat scenarios.

We ensure back up power supply provision is in place for Water Treatment Works, and collaboration across multi-agency planning groups is commonplace and formalised with regulators, Local Resilience Forums, Police (counter terrorism security advisers), and other water companies.

Incident preparedness, through to response and recovery, remain core to ensuring our business remains resilient. We have made changes to our resourcing strategy to core incident roles ensuring a predictable, competent incident capability 24/7.

We have also developed a methodology to respond to more prolonged incidents, for example heatwaves and high water demand challenges, prolonged wet weather, and flooding. This provides cross-business visibility of emerging and present threats, with a clear management structure bringing together the right expertise in a coordinated way to manage our response.

Our performance during recent extreme weather events demonstrates that our investments are moving us from firefighting, to a proactive and predictive response. December 2022 saw a red Met Office weather warning for frost followed by a rapid thaw, with a 21 degree swing in temperature within a day. This caused significant issues for water companies including burst pipes and leaks. We are proud that although this event was challenging, none of our customers went without water. Our investments to improve monitoring of our assets and provide a coordinated response are working.

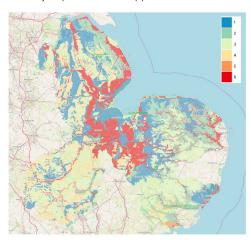
# 8.1 Our adaptation progress and plans

## We have moved from a reactive to a coordinated and proactive incident management system embedded across our whole business to manage and mitigate the impact of any disruptive event, including those from prolonged and extreme

and mitigate the impact of any disruptive event, including those from prolonged and extreme weather events. This is enabling us to respond rapidly, continue operations, and recover quickly. We have:

- Developed our extensive emergency plans alongside refining our Business Impact Assessments, to support planning and prioritisation of resources in critical stress periods.
- Adopted fundamental elements from the military 'J-cell' approach for a proactive approach to incidents. We monitor our network to provide visibility of emerging and present threats, with a clear management structure bringing together the right expertise from across our business in a coordinated way.
- Maintained a cross-business, trained incident response community to respond to major incidents through 'Anglian Water Force'. Over the past year, we have continued to roll out our company-wide initiative to assign all employees secondary incident response roles. Over 4,000 employees have been trained to date and are ready to respond.
- Over the past year, we have run more than 40
   exercises, including exercises in collaboration
   with our regulators, Local Resilience Forums,
   Police (counter terrorism security advisers) and
   other water companies to stress test multiple
   plans, scenarios and interdependencies. This
   year we focussed on larger scale exercises
   testing multiple and contextually relevant
   scenarios and our ability to respond to
   concurrent and linked incidents.

Harnessing digital tools to identify climate vulnerable mains. We have commissioned independent research which has highlighted the risks and impacts of climate change on water mains. Much of the land in our region is drained and rich in soils that are highly shrinkable, often chemically aggressive and structurally unstable. Extreme temperatures and heavy rain lead to shrinking and expanding of these soils, exacerbating ground movements that increase failures of water distribution mains. Since 2014. we have partnered with MapleSky and Cranfield University, with research highlighting 8,241km of climate-vulnerable mains in the East of England. We intend to renew 75% of these mains by 2060. Our customers have told us that they want us to invest in the asset health of our climate vulnerable mains as without investment in these areas, adaptation progress will be slowed. More progress on leakage is outlined in 'Risks to security of public water supplies'.



Shrink-swell classification over the Anglian Water (water supply) area. Sources: Infrastructure data © Anglian Water. Soils data © Cranfield University and for the Controller of HMSO. 2019.

#### Taking a leading role to ensure national

resilience with other UK water companies through two national Water UK collaboration groups, Platinum Incident Management (PIM) and National Incident Management (NIM). These groups meet to plan for and respond to events ensuring the industry as a whole is resilient. We are also members of the Security and Emergency Planning Network and the Alternative Water Working Group.



# CReDo: joining forces to deliver resilient infrastructure

Using a pioneering cross-sector climate adaptation digital twin to share data from the water, energy and telecoms sectors, we are providing a practical example of how connected data can improve climate adaptation and resilience across a system of systems. This has provided us with improved understanding of asset failure, systems interdependencies and cascade failures under extreme heat scenarios.

#### The challenge

Our assets operate in an interrelated infrastructure system. We are reliant on the power network for electricity, the telecoms networks for communications and the transport system for access. These assets are connected in a host of ways and a failure in any one of these can have cascade effects which lead to failures elsewhere — an issue which has become more acute in the face of more frequent extreme weather events with climate change.

Increasingly, high temperature events are testing the resilience of our infrastructure. We are beginning to experience temperatures that have never been seen in the UK such as the 2022 heatwave, where temperatures broke records, reaching 40.3°C in the Anglian Water region. Across the UK, a significant number of water assets were impacted due to heat or required emergency cooling actions to maintain normal operation.

Infrastructure owners are only just beginning to understand the effect of extreme heat on asset failure. The failure cascade of critical connected utility infrastructure is even more unknown.

#### Our climate change adaptation

Since 2021, we've partnered with BT and UK Power Networks on a project, led by the National Digital Twin programme and Connected Places Catapult, known as the Climate Resilience Demonstrator (CReDo).

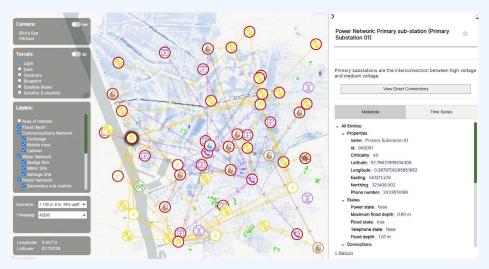
Initially funded by BEIS and Innovate UK – and now developed further with funding from both Ofwat Innovation Fund and Ofgem – CReDo is combining datasets from Anglian Water, BT, and UK Power Networks into one system model, to develop a cross-sector picture of the interconnectedness of networks.

The working digital twin has been used to examine the potential impacts of extreme high temperature events on the wider infrastructure network. We have produced an extreme heat app that enables users to understand asset risk and when assets could fail under climate change driven extreme heat scenarios to inform strategic planning, emergency planning, and infrastructure design.

#### **Next steps**

As we look to the next stage of the project, we will be scaling the working digital twin model to become UK-wide. We are also considering other future scenarios, including extreme wind and storm events and involving more asset owners, to cover infrastructure such as roads.

This project has showcased how we can collaborate on a national network of connected digital twins, to create resilient infrastructure.



The image shows how Anglian Water's assets, UK Power Networks electricity distribution assets and British Telecom communications assets are interconnected.

# 9. Risks to security of public water supply

By 2050, we are projected to have 38% less water available for abstraction while over 700,000 more people will live in the region. As the driest region in the UK, combined with limited capacity to store increasing winter rainfalls, means less water will be available. Increased demand for water from households, agriculture, and businesses, is also likely in a drier, warmer climate. Left unmanaged, this results in one of our most significant climate-related risks.

Our operations play a vital part in maintaining the level of river flows and their ecological health. We work with our partners and stakeholders to ensure that the environment and wildlife is not only protected but can thrive, and we've made one of the industry's biggest commitments to reduce groundwater abstraction.

We continue to invest in and deliver on what our customers value most — a resilient supply of safe, clean water. We have made good adaptation progress since we last reported in 2020 through our investment in improving water network connectivity, community water efficiency campaigns, achieving sector-leading leakage levels, and delivering on our ambitious smart metering programme, with over 1 million smart meters installed to date.

Our resilience was demonstrated during the 2022 high temperature and drought event: we were able to maintain supplies with no restrictions to customers (such as hosepipe bans) or any additional stress to the environment. During the drought we accelerated our investment to improve resilience further by recommissioning dormant water sources and installing drought resilient mains.

The 2022 drought event also exposed us to a new climate hazard which we have added to our

climate risk register. Some of our remote regions experienced wildfires which led to rapid peaks in demand for water for firefighting. The operational challenges this posed may become more commonplace in a hotter and drier future. We are aware that in other parts of the world, wildfires are having an impact on water quality.

When we last reported, we planned to have completed our largest ever infrastructure project, the strategic interconnecting pipeline. Once complete, it will consist of a network of hundreds of kilometres of interconnecting pipelines to move water more freely around the region which will help to combat the risk of shortages and boost our resilience to a 1-in-200 year drought event (i.e. with a 0.5% chance of occurring in any year). Although we have made good progress, extreme weather conditions and supply chain disruptions (see our adaptation activities in 'risks from service interruptions') caused by the war in Ukraine and Covid-19 have led to programme delays, meaning this project will now be completed by April 2028.

We now look ahead to boost our resilience further and in line with the Environment Agency's National Framework for Water Resources, we are investing to increase resilience from a '1-in-200 year' to a '1-in-500 year' drought event by 2040. Our customers told us that this is a more acceptable level of risk.

# 9.1 Our adaptation progress and plans

Our long-standing statutory Water Resources Management Plan (WRMP) and Drought Plan provide a comprehensive framework for modelling and assessing uncertainties, including climate change, to plan future water supplies. Since our last adaptation report, we have continued to implement our twin-track approach to both manage demand and secure sustainable supply as set out in our 2019 WRMP. We also published our updated Drought Plan in 2022, our best-value and adaptive WRMP in 2024, and took a leadership role in the development of the Water Resources East Regional Plan.

Reduced leakage to industry low levels. The levels of leakage reduction we're tasked with delivering haven't been achieved before in the UK. As a frontier company with consistently strong leakage performance, it is incrementally harder year-on-year to find new ways to reduce leaks. We're determined to keep pushing boundaries, investing millions of pounds in advanced technology, pressure management, and system optimisation, to help us do so.

We're leading the development of new advanced sensor technology and now have more than 7,000 sensors permanently installed on 15% of our water distribution network. This enables us to respond quickly to emerging leakage caused by changes in weather and demands on our system. We have used satellite technology to survey 10,000km of rural distribution and trunk mains, to identify and prioritise sections of pipe for proactive leak detection and mitigation, saving over 320,000 litres of water over the last year that would have been lost to leaks – enough to supply 1,000 homes a day.

Installed over 1 million smart meters as part of our multi-award-winning programme. We continue to deliver our ambitious smart meter plans, connecting customers to their water usage. Customers with smart meters can opt to receive hourly usage data through our MyAccount app, helping them stay on track of their water use and finances. Demonstrating our commitment to bring social prosperity to our region, Project FAWN is installing groundbreaking leak detection technology that uses fibre cables inside 35,000km water pipes. The technology will also be used to link our operational sites

to improve the resilience of telemetry and operational technology and provide highspeed broadband to remote communities through partnership working.

#### **Enabling Water Smart Communities**,

a ground-breaking project to unlock integrated water management in the UK. As water and housing sector challenges are becoming increasingly intertwined, so does the responsibility of managing these risks collectively.

We have been awarded £5.5 million of Ofwat innovation funding and are working with partners including the Universities of East Anglia and Manchester, Thames Water, United Utilities and the Centre for Local Economic Strategies. We are addressing how new developments, and the people living in them, can adapt in a sustainable way to three key impacts of climate change — flood risk, water scarcity, and risk to water quality.

Through this project, we will set out new regulatory and policy standards, while improving understanding of cost models and the stewardship of water assets.



Customers with a smart meter vs a non-smart meter use 2% less water on average

# Did you know



The Humber Bank, located in our region is a hub for hydrogen and Carbon Capture Usage and Storage technology. However, hydrogen production is water intensive and would represent an extra 20% uplift in our total business demand.

# Our WRMP (2025-2050) and Business Plan (2025-2030) set out our planned actions to ensure a safe and secure water resource into the future.

Our adaptive plans recognises that certain supply-side options take significant amounts of development time and will allow us to develop our understanding of water reuse, desalination and aquifer storage and recovery. Guided by the water needs of our region and our customer and stakeholder views, where we have worked alongside key partners in the East to contribute to Water Resources East Regional Plan, we have developed a three-tiered strategy:

- We will make best use of our existing resources, build on our industry-leading demand management, unlocking the potential that our smart meter strategy gives us while using the connectivity provided by our new pipeline to reduce abstractions from our most sensitive environments.
- 2) The progression of Strategic Resource Options: the Fens and Lincolnshire reservoirs will meet 36% of our new water needs and provide the opportunity for many benefits identified in our best value plan framework.
- 3) We have planned for adaptive future resources which allow us to remain flexible to changing circumstances, such as using desalination, alongside ensuring we limit bill impacts by only investing in solutions that will be needed.





The above images demonstrate our proposed Lincolnshire and the Fens reservoirs.

# 170km of pipeline already in the ground to build our strategic interconnecting pipeline.

Despite delays, once complete, our pipeline grid has the capacity to allow 265 million litres of water to be moved from 'wetter' to 'drier' areas. This will enable us to reduce our abstractions from environmentally sensitive areas particularly groundwater sites. We have also incorporated cutting-edge digital twin technology to help us monitor and optimise the network in real-time.

Defined the need for two new strategic reservoirs in Lincolnshire and the Fens, both sized at 55 million cubic metres. With no new reservoirs being constructed since the 1990s, our proposed new reservoirs have been identified as a large-scale investment in new water resources that we need and will play a critical role in securing water supply long into the future, alongside protecting and restoring the environment. Our Lincolnshire reservoir will

improve our resilience to drought, while the Fens reservoir will allow us to leave more water in chalk streams.

Our reservoirs will make the most of wet weather for public water supply, capturing river water that would otherwise drain to the sea and storing it, reducing the impact of droughts while helping to manage river levels in wetter periods. This will reduce demands on sensitive sources such as chalk streams. Our modelling (at both a regional and company level) shows that new reservoirs performed well under a wide range of scenarios, for instance different climate change predictions.

Our reservoirs also support what our customers have told us, in that they prefer reservoirs and water reuse over desalination.

We're working collaboratively with Water Resources East and partners such as Cambridge Water and the Environment Agency, so that we can deliver value beyond simply creating new public water supply. This is a significant investment in England's water infrastructure and a once-in-a-generation opportunity to deliver lasting benefits for people, place and the environment, including: creating space for wildlife and new habitats, such as wetlands, enabling new recreational and educational activities and natural places for people to explore and creating new jobs and providing opportunities for local businesses and tourism

# Achieved sustainable abstraction to protect our natural capital and the environment. In 2020,

the Environment Agency and Natural England advised that abstraction at Ludham could adversely impact Catfield Fen, located in the Ant Broads and Marshes and designated as a Site of Special Scientific Interest and Special Area of Conservation. Following the earlier than expected completion of our Norwich supply pipeline into the Broads, we were able to stop abstracting. Since we stopped abstracting at this site, water levels have increased, allowing more alkaline, nutrient-rich water into the Fen.

We have closed two further abstraction sources at Ruston and Witton, following the completion of a major infrastructure scheme, which provides an alternative source of supply to the 6,000 customers in the local area.

We are committed to working with other abstractors in the Ant Valley facing a similar challenge in reducing their groundwater abstraction. This includes supporting agricultural irrigators such as the Broadland Agricultural Water Abstractors Group with their development of a plan to create new sources of water for irrigation.

Multi-sector regional collaboration through Water Resources East (WRE). In 2014, we founded Water Resources East (WRE), a pioneering, multi-sector water resource planning strategy for the East of England. At that time, it was clear that future success relied on providing enough water for people and businesses while protecting the environment. The WRE approach is committed to finding the best management frameworks, governance models, financial direction, and infrastructure to build resilience. Through WRE, we are contributing to and creating a more integrated approach to long-term water

resource management and planning.

The East of England is classified by the Environment Agency as severely water stressed. In 2023, WRE published its first regional water resources plan - the first multi-sector, longterm water resources planning at this scale in the country. The plan identifies the future needs and aspirations for water use for all sectors through to the 2050s and beyond, driven by environmental, economic and supply resilience ambitions and the need to mitigate the impacts of, and adapt to, climate change. Two thirds of non-household water consumption in the region -10% of all water - is used by agriculture and more water will be needed for irrigating crops in the warming climate. Building resilence is key to adaptation.



# 10. Risks from declining raw water quality

Our customers tell us that the supply of clean and safe drinking water is what they value most. When we last reported, this risk was captured under other priority risk themes, but increasingly, we are experiencing impacts of raw water quality on our operations and it has become one of our most significant climate change risks.

That being said, customers can be assured that drinking water quality in England and Wales is among the best in the world.

Drinking water in England is amongst the most tightly regulated, with water companies consistently meeting stringent regulatory standards for drinking water. However, without adaptation, our treatment costs, energy use, and carbon emissions will increase to maintain these high drinking water standards.

High intensity rainfall events are accelerating soil erosion in our region and lead to increasing concentrations of nutrients and emerging contaminants in raw water supplies – worsened by climate change. This is having an impact on source water quality.

During the successive wet winters of 2020/21 and 2021/22, and in particular, following the exceptional hot and dry summer 2022, water quality (e.g. turbidity and nitrates) has often been too poor to abstract into our pumped storage reservoirs. This has led to a longer refill period. Although this hasn't prevented sufficient refill over the course of a winter, we are concerned about the combined impacts with a potential dry winter, where we have also observed significant increases in nitrate levels in some of our raw water aguifers.

We are also experiencing impacts of high temperatures on increased algal blooms which can result in treatment challenges and reduce the efficiency of our treatment. The causes of algal blooms are multi-faceted, but poorer water quality (high in nutrients) is a contributor. We are investing in research into the causes and impacts of algal blooms with a PhD project at the University of Sheffield, and research with the UK Centre for Ecology and Hydrology.

We continue to explore mitigation techniques, including upstream catchment management, as well as in-reservoir and treatment solutions.

Saline intrusion due to sea level rises (when saline water moves into freshwater aquifer). Thisis expected to impact 26 of our natural groundwater sites, threatening our availability of water. This is an issue in groundwater aquifers in two coastal parts of our region. In one area, we have had to reduce our levels of abstraction to prevent drawing further saline water into the aquifer and to protect other abstraction. We expect saline intrusion to be more significant as sea levels rise further.

Coastal erosion is limited to specific locations within our region (e.g. North East Norfolk). However, there are significant issues associated with sea level rise including greater 'tide-locking' of discharges, saline intrusion to sewer networks, and coastal flooding, especially in combination with storm surges.

PFAS is an emerging contaminant. As the industry's understanding continues to evolve, our understanding of our risk position and how this risk can be managed does too. Changes to rainfall patterns and extreme weather conditions due to climate change will impact aquifer recharge conditions, which could impact PFAS levels in our groundwater aquifers and river sources. We continue monitoring this risk.

Water quality relies on the health and quality of the natural capital in Anglian Water's catchments. With the East of England's agricultural economic contribution at roughly twice the national average, high agricultural productivity presents additional challenges from diffuse and point source pollutions.

The evolving challenges of climate change, economics and land demand are driving significant changes in cropping across our region. As oilseed rape area decreases, we are seeing the expansion of the renewable energy sector and a 200% increase in maize area over the past 10 years across the East of England. This brings increased risk from pesticides such as clopyralid and fluroxypyr, and more soil run-off due to field damage by late harvesting of waterlogged fields.

Since we last reported, we have made adaptation progress through our catchment management programme, working with farmers and local businesses to improve the quality of water at source and enhancing our water treatment monitoring, processes and infrastructure. By working together, we are adapting to the changing profile in agricultural production driven by climate change. We have implemented actions that benefit our own operations and the environment too

Due to the pace of change in this risk, we know there is more we need to do alongside continuing our research into innovative new treatment processes and technology.



# 10.1 Our adaptation progress and plans

We work closely with key stakeholders to deliver successful catchment management, reducing the risk of poor raw water quality and supporting resilience at a landscape-scale benefitting food security, biodiversity, and river health.

Innovated and invested in our treatment infrastructure to improve resilience, efficiency, and mitigate the risks associated with legacy contaminants. Unfortunately, although valuable for reducing future risk, catchment management alone is not enough to address our raw water quality risks because it does not reduce legacy pollutants already in the environment, such as nitrates. We will continue investing in our treatment work. This year, we delivered three new ion exchange plants and upgraded another plant, improving our ability to treat nitrate rich raw water.

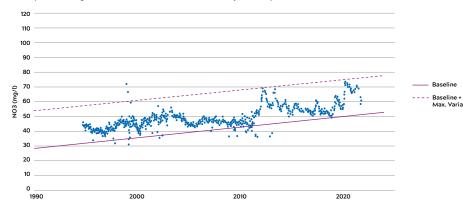
Applying weather responsive abstraction regimes to maintain our high standards of drinking water quality for our customers. Wet weather can negatively impact the quality of water we take out of rivers, reservoirs and our groundwater due to higher turbidity and sediment-bound pollutants. To tackle this in the short-term, we have instigated a programme to reduce the number of water quality exceedances from our assets and we are using weather station data to plan our abstraction

regimes. Catchment management provides a longer-term solution. We are sharing local data with other water users and land managers to make informed decisions to protect our water resources.

Supporting the agri-food industry, through the delivery of a 15 year catchment management programme where we have worked with farmers to change behaviours and land management strategies, reducing pollution from agriculture alongside adapting practices to changing weather patterns, including on soil health. Since 2020, we have worked with farmers and local businesses to improve the quality of water at source and enhancing our water treatment monitoring, processes and infrastructure.

We have actively engaged with over 250 farmers, representing more than 100,000 hectares of land on implementing regenerative farming. And, we have supported 168 farmers to plant over 1,680 hectares of cover crops increasing the soil's capacity to retain water, building resilience against drought, protecting soils, and improving nutrient retention to reduce the need for pesticides and the risk of run-off into local watercourses during heavy rainfall events. We have subsidised on farm trials to see the benefit of growing grass within maize rows to protect soil.

#### Graph showing levels of nitrate increases at Risby, the impact of two wet winters



Improving our resilience to invasive non-native species (INNS) to protect water company assets, processes and people, avoid additional costs and protect the biodiversity of our region. Our region has a high risk of INNS invasion and aquatic non-native species are much more likely to become invasive. Species include Quagga Mussel, Killer Shrimp and Himalayan Balsam. The risk is likely to increase with warmer conditions due to climate change and increased raw water transfers between regions as a solution to drought. To improve our resilience, we have:

- Installed biosecurity measures, for example wash down stations, at water parks such as Rutland Water and Grafham Water.
- Worked in partnership with Norfolk Rivers Trust and the Environment Agency on a five year project to manage Himalayan Balsam in the River Wensum catchment in Norfolk.
- · Removal of upstream Floating Pennywort at Grafham Water
- Created and funded the Aquatic Biosecurity Partnership with the Great British Non-native Species Secretariat, water companies and recreation organisations overseeing a range of workstreams including the prevention of introduction and spread of invasive species in Great Britain. This includes by security work at UK ports and engaging with countries in Europe which have invasive species that we want to keep out of the country.
- Launched a dedicated invasive species grant scheme. This has funded a range of projects around the region to address the spread of New Zealand Pigmyweed, Mink and Water Fern.
- Trained and upskilled 1,172 people in our business in 2023/24.





# Our work in the Fens makes the case for integrated, landscape-scale approaches to mitigate climate change impacts.

We recently contributed to the Fens Climate Change Risk Assessment, which examines how climate change is impacting the Fens, which is home to the UK's largest coastal lowland and is a vital hub for food production. The Fens is facing pressures from rising sea levels, extreme weather, and other challenges. Authored independently by the Tyndall Centre for Climate Change Research, this localised assessment offers evidence-based insights beyond national studies, with scenario modelling show the impact of global warming on the area, if high CO<sub>2</sub> emissions continue as predicted:

#### 2030s-2050s

# 2°C warming Heightened flood risk, extreme weather events, changes in agricultural productivity, biodiversity loss

#### 2050s-2070s



# 2100s



Severity and frequency of flood events, large-scale ecosystem collapse. Some areas to become unhabitable and unviable for food production.

The issues in the Fens are complex and multi-faceted. Climate change will impact crop choice, which could lead to increases in nitrogen fertilizer demand as farmers adapt. This could have knock-on effects for climate change and water quality. Additional efforts will be required to quickly move flood water off key habitats as if this raw water quality contains harmful pollutants, it will impact the environment and biodiversity.



"We've long been preparing for climate change impacts, particularly in the Fens, which hosts some of the UK's most vital agricultural land. This includes work on a strategic pipeline and plans for a new reservoir. Securing climate resilience in the Fens demands collaboration across local authorities, businesses, community groups, and regulators—highlighting the importance of the partnership. We hope this report serves as a rallying call to unite partners and ensure a thriving future for

Dr Robin Price





# 11. Risks to our assets from flooding

# The region we operate in has a high proportion of flat and low-lying areas, including the Fens in Cambridgeshire and the Norfolk Broads.

Historically, our infrastructure has been built next to or near rivers and the sea, supporting efficient operations but exposing 50% of our 7,000 aboveground assets to flood risk. We expect these flood events to increase in the future with climate change.

We have used the latest UK climate change projections to produce our most detailed flood risk assessment to date. It utilises risk screening to combine flood risk with consequence scoring, enabling us to target our adaptation interventions at 25 high-risk sites and reduce our flood insurance premiums, which will also save customers money on their bills.

Our recently published Drainage and Wastewater Management Plan (2025-2050) modelled the future impact of climate change on our asset resilience and has informed our programme of investment to adapt to future flood risks.

Since we last reported, we have experienced record wet weather and high groundwater levels, which resulted in flooding across parts of our region. High groundwater levels typically lead to flooding by hydraulically overloading the network through inundation (from the top e.g. manhole openings) and infiltration (from the bottom, through pipe gaps). As a result of the extremely wet winter in 2023/24, we processed 25% more flow into our Water Recycling Centres, and our pumping stations were operating for double the amount of time as usual to cope.

To better manage the impact of heavy rainfall on our assets, we must look at the drainage system in its entirety. We are leading the way by setting up multi-agency groups, which ensures that all operators of the drainage system work together to mitigate high-risk areas. We are now working with nine multi-agency groups in hotspot areas, joining forces with local councils, the Environment Agency, Highway Authorities and Lead Local Flood Authorities, to develop catchment-level responses to flooding. This is an approach our customers have expressed strong support for as it delivers greater value than working independently.

# Emerging challenge: Impacts of sustainable abstraction on flooding

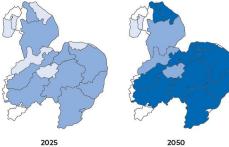
Licence caps to water abstraction for environmental protection could limit our ability to effectively respond to high groundwater levels. This can inadvertently increase the risk of escapes, including pollution incidents, spills from storm overflows and sewer flooding incidents.

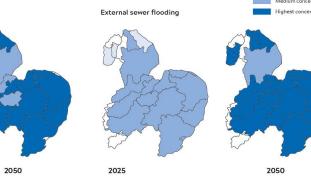
We must match our environmental ambition with what is right for the region. Parts of our supply area in North Lincolnshire can experience flooding at certain times of the year due to high groundwater levels, most notably, parts of Grimsby. We continue to develop our understanding of the environmental impact of these abstractions and are working with the Environment Agency to investigate levels of abstraction to mitigate flood risk.

In AMP8, we will conduct a series of investigations to ensure we provide maximum environmental benefit, allowing us to focus our attention on improving the environments that need it the most, rather than implementing blanket abstraction reductions.

We are currently developing the scope of these scientific investigations with Water Resources East, the Environment Agency and Natural England. We are expecting the investigations to include groundwater and surface water modelling, estuarine modelling, hydroecological modelling, and flood risk modelling.

#### Internal sewer flooding





# Did you know

High intensity rainfall creates high groundwater levels over time, which is challenging for us to remove from the environment and leads to large volumes of excess rainwater being carried into rivers, ditches and storage. To put this into context, one home roof generates the same volume of water as 100 homes would use in a day. In a small town of 5,000 homes, this is like instantly connecting 500,000 homes to the sewer system. If other parts of the drainage system are not working as they should, this number can multiply rapidly, resulting in widespread and prolonged flooding.

# Flood risk to our assets from different causes of flooding in a 1-in-100-year-flood

Cause of flooding*	% of assets at risk			
	2013	2017	2024	By 2050 (4°c temp rise)
Fluvial flooding (flooding from watercourses)	23	19	18	20
Coastal flooding (flooding from the sea)	-	-	17	18
Pluvial flooding (flooding from rainfall run off)	47	43	26	29
A combination of two or more of the above risks	-	-	15	17

\*Our modelling has matured since our previous Adaptation Report in 2020 including the use of updated climate predictions (UKCP18). Historic coastal flooding data cannot be compared to our up to date information.

# 11.1 Our adaptation progress and plans

Committed to ongoing multi-agency flood risk management and adaptation. We are working with the Environment Agency, partners, and stakeholders to collectively develop and implement adaptation actions that safeguard our infrastructure and maintain service reliability.

We continue to collaborate with Local Risk Management Authoritie (part of Shoreline Management Plans) to address the risks of rising sea levels and coastal erosion, focusing our efforts on areas facing the highest risk.

Since we last reported, we have established nine multi-agency flood groups. This includes working with landowners to clear ditches and helping to rectify misconnections. In 2023/24, we completed surface water removal schemes in five villages, mainly through the rectification of misconnections, where third parties have incorrectly plumbed the foul sewer into the surface water sewer (or vice versa), causing overloading.

Delivered our most detailed flood risk assessment to date. We're delivering on the commitment made in our previous climate adaptation report to use the latest UK climate change projections (UKCP18) to assess flood risk to our assets. We assessed all 7,000 of our water and water recycling above ground assets for pluvial, fluvial, coastal, and groundwater flood risk under a range of future climate change scenarios. 50% of our 7,000 assets are at risk of flooding. This information is shaping our immediate and longer-term climate risk planning and investment strategy.

Investment to improve the flood resilience of our assets including nine schemes in 2022/23 that build pluvial and fluvial flood resilience at our sites. Our sewer improvement programmes and the removal of surface water from our foul sewers are an important part of our response to reduce the risk of flooding.

In 2024, an additional £17 million shareholder funding was announced to be invested to 2025 to continue to improve sewage system capacity, including groundwater infiltration investigations and lining in key locations, plus investing in new tankers and jetters. We also completed over 4,000 metres of sewer-lining work in 13 villages sealing our assets to prevent entry of groundwater.

In 2022 we worked in partnership with East Suffolk Council and the Suffolk Wildlife Trust to move three critical sewer pipes running through Gunton Warren Nature Reserve that were at risk of exposure due to coastal erosion. Not only would their exposure have impacted our customers, but it could have resulted in sewage spills into the North Sea. We worked closely with ecologists and the Suffolk Wildlife Trust to ensure our work didn't negatively impact the reserve.

Collaborating on innovative pilot studies to boost flood resilience as part of Defra's Flood and Coastal Resilience Innovation Programme. We partnered with local stakeholders to deliver seven successful applications totalling £45 million to help communities adapt to a changing climate. The projects will demonstrate how practical, innovative actions can improve resilience to flooding and coastal erosion, including the management of surface water and groundwater risks, alongside catchment-scale interventions. For example, we are working with Southend-on-Sea City Council and the Environment Agency to demonstrate the value of natural flood management techniques to address surface water and coastal flooding across Southend-on-Sea, Thurrock, and parts of Castle Point.



Our Drainage and Wastewater
Management Plan (DWMP) 20252050 contains our updated flood risk
assessment and new climate change risk
assessments to inform our programme
of investment. We welcome discussions
with others to ensure that all operators
of the drainage system work together
to mitigate risks.

#### Spotlight: Tackling flooding in high-risk areas in Norfolk

We are working closely with the Environment Agency in Norfolk to bring together all the appropriate organisations, and their respective departments, to explore how a more nuanced, adaptive abstraction approach to groundwater management could support both communities and the environment.

Furthermore, we have seconded a senior manager into the Norfolk Strategic Flood Alliance (NSFA) as Water Management Director. The NSFA was established in 2021, bringing together the Environment Agency, Norfolk County Council (including highways), the Broads Authority, district councils and the Water Management Alliance. It supports a catchment-based approach to protecting Norfolk's communities and infrastructure from the risks of inland and coastal flooding, as well as drought. NSFA is working with local stakeholders and communities to help them prepare and protect their homes and business from damage.



Since 2012, we've invested £1.5 million in Grimston, Norfolk to manage infiltration and surface water inundation. Following flooding issues over the 2023/24 winter, where we faced ten times more surface water than what our sewer capacity was designed for, we have a plan to reduce both infiltration and inundation across the network. A key part of this work is to remove surface and ground water from entering our network in the first place. Once it enters our network, it can become contaminated – despite being very dilute. In this photo (left), the team relines a sewer.

# 12. Risks to sewer flooding

We own, operate and manage 76,000km of sewer pipes – enough pipe to go around the world twice – carrying both rainfall run-off and household wastewater to our water recycling works. At our works, this water is treated to a high standard before it is returned back to the environment.

The risk to sewer flooding from climate change has increased since we last reported. Recent climate change projections suggest increasing intensity of rainfall will place extra demand on the sewer networks and our water recycling assets. This will be compounded by our growing population and the industrial growth expected in our region. We recognise the need to invest further to address this risk.

Our responsibility to the environment is integral to our Purpose. Central to this is reducing the frequency of pollution events, moving towards a future of zero escapes from our assets. We are utilising new technologies and instilling new ways of working to lay the foundations to reach this ambition.

Since we last reported, we have made good progress delivering the sector's largest Water Industry National Environment Programme (WINEP), achieving 100% coverage on our storm overflows enabling us to monitor discharges, targeting pollution interventions through our Pollution Incident Reduction Plan (PIRP), and expanding our behavioural change campaign to Food Service Establishments to reduce blockages.

Our DWMP (2025-2050) sets out our planned investment to reduce the risks and impacts of sewer flooding over the next 25 years. We have invested in adaptations such as additional storm storage and nature-based solutions to reduce the risk of hydraulic overload.

Where we have been able to, we have surrendered storm overflows. Storm overflows act as a safety valve, allowing excess water into rivers and the sea, to prevent sewers overflowing during periods of heavy or prolonged rainfall or snow melt. They protect homes and businesses from flooding. Without them, this excess storm water would back up through toilets, drains and manholes. Because of the job that they do, we know the majority of what comes out of them is rainwater.

Between 2022 and 2023, we surrendered 131 storm overflow permits and are on track to stop operating 10% of our total overflows by 2025. A significant proportion of our investment over the next five years is focussed on reducing storm overflow discharges, with our ambition to stop operating storm overflows by 2050.

To go further and faster, in 2024 our shareholders invested an extra £100 million to tackle pollutions and spills. With this funding, we've built in many more workstreams and are targeting the significant drivers of pollutions. The diagram to the right shows where our investments are going.

Where our extra £100 million will be prioritised to accelerate progress across pollutions and spills:



# £17 million

on improving system capacity

# £7 million

on improving capability and insight





Our 'domestic misuse programme' is combining a customer behavioural change campaign with strategic operational interventions to target the root cause of blockages and drive business benefit.



# 12.1 Our adaptation progress and plans

**Invested in our water recycling network** to improve resilience and maximise our capacity to cope with more intense rainfall. This will reduce flood risk, storm spills, prevent pollutions and protect the environment, including:

- £20 million investment across 10 projects connecting properties with poorly performing private drainage systems to the mains sewerage for the first time. The projects saw the installation of nine pumping stations, two new vacuum stations, and over 70km of new pipes enabling 534 homes to connect to the main sewerage network in their area.
- Upgrading Water Recycling Centres to increase site capacity to handle extra water and improve resilience against heavy rain and storm events. Our actions include using technology to flag potential blockages at our site inlets, conditionbased monitoring to improve asset health and increasing power resilience.



 Plans to invest the additional £100 million to install 30,000 monitors on our network, to give us early warning of potential issues. We will also create more than 100 new roles to create a 'spills taskforce', undertake surface water removal schemes in five villages, increase sewer capacity in 50 hotspot locations, and expand our storm water storage at Water Recycling Centres.

# Using industry-leading technological solutions to tackle pollutions, in line with

our Pollution Incident Reduction Plan (PIRP). In 2023, we undertook more targeted pollution interventions than in any other year. Utilising industry-leading technological solutions, such as Ovarro and Syrinix, alongside our Dynamic Sewer Visualisation, is improving our predictive data analytics and alert-based preventative maintenance.

# Delivering the largest Water Industry National Environment Programme (WINEP) in the sector

with 99.6% of our schemes delivered so far for the 2020-2025 period. We are proud that we have made early improvements to bathing water quality and delivered over 300 schemes early, including:

- significant investment in monitoring of storm overflows bolstered by the Government's Green Recovery programme to accelerate our investment further and achieve 100% monitoring of storm overflows ahead of regulatory targets.
- more than 11,500m³ of new storm tanks installed at Water Recycling Centres, with the number of storm overflow spills halving in certain areas.

#### Our 'Keep It Clear' behavioural change

campaign continues to reduce the amount of 'unflushables' going into our system and causing blockages. This is the most significant cause of sewer flooding in our region. On average, we unblock a pipe every fifteen minutes with 80% of blockages caused by avoidable issues. We expanded our efforts in 2022 to include Food Service Establishments (FSE) and launched a hotspot campaign targeting high-risk areas. In 2023/24 we made 9,421 visits to FSEs, with an estimated 1.78 million litres (1,663 tonnes) of fat, oil and grease diverted from sewers as a result. We are revamping the former 'Keep it Clear' messaging to be clearer and more actionorientated, through our 'Just Bin It' campaign, to educate the public about responsibly disposing sanitary items and wipes.



An example of our new Just Bin It campaign collateral across social channels

# Working in partnership with local councils to deliver green solutions to reduce sewer

**flooding** installing Sustainable Urban Drainage Systems (SuDS) and reed beds in key hotspot areas. These nature-based solutions allow us to prevent flooding and reduce storm spills by slowing surface water entering our sewer network, without the need for carbon-intensive infrastructure, as well as restoring natural habitats and greening spaces within our local communities



Ingoldisthorpe wetland, Norfolk

# 13. Our commitment to adaptation

0

By assessing our adaptation progress and learning from the challenges we've faced over the past four years, we are in a stronger position to define action required to ensure our services remain resilient into the future.

#### Risks of service interruptions and interdependent risks

- Facilitated multi-agency scenario workshops to develop incident response plans.
- · Enhanced our incident response to prolonged incidents though our military J-cell approach.
- Used pioneering digital twin technology to provide understanding of asset failure, interdependencies and cascade failures from extreme heat scenarios.
- Applied innovative digital solutions to determine that 20% of our pipelines are vulnerable to climate change and cause 80% of our burst mains.
- · Our Business Continuity Management System is internationally certified.

# Security of public water supply

- Updated our long-term Water Resource Management Plan, Drought Plan and contributed to the Regional multi-sector plan for the east of England.
- · Delivered the best leakage track record in the country (half the national average).
- Installed over 1 million smart meters as part of our industry leading programme and reduced per person water use by 6 litres per person per day.
- 117km of pipe in the ground on our strategic interconnecting pipeline which will boost resilience to a 1-in-200 year drought event.
- · Confirmed the need, size and location of two new reservoirs.



#### Risks to water treatment from reduced raw water quality

- Delivered three new ion exchange water treatment plants and upgraded another to treat increasingly nitrate rich water.
- · Digital technologies harnessed to predict and manage water quality issues.
- Contributed to almost 200,000 hectares of successful catchment management working with farmers to tackle water quality issues at source. (O) @

(D)

#### Alignment to our Strategic Delivery Statement





Ecological quality



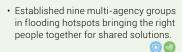
Drought and flood risk



Carbon neutral

# Risks to our assets from flooding

 Produced our most detailed climate change flood risk assessment (from all sources) to date and undertook innovative digital twin asset risk screening to inform flood risk investment.



- · Working with the Norfolk Strategic Flood Alliance to deliver catchmentbased approaches protecting communities.
- · Working with partners we delivered more than 40 innovative natural flood management outputs. (O) (4)
- largest risk to our assets

- Published our long-term Drainage and Wastewater Management Plan.
- · Extended our behavioural campaign 'Keep It Clear' to Food Service Establishments (FSEs). (T) @
- · Achieved 100% storm overflow monitoring.



(O) (4)

- · Accelerated investment through our Pollution Incident Reduction Plan
- · Reduced sludge levels at our Water Recycling Centres, our leading cause of incidents and highly volatile under extreme weather conditions.



- · Maintained a dedicated East Coast Flood Plan to prepare for our single
- tidal surges.





- · Invest in reducing single points of failure across our network including water mains that cross critical national infrastructure such as motorways, rail and bridges.
- · We have identified the location of our most climate vulnerable water mains and plan to renew 75% of the c.8,000km identified over the long term (O)
- · Complete our strategic pipeline and deliver two new strategic reservoirs by mid to late 2030s and achieve resilience to a 1-in-500 year drought.
- Reduce per person water use to 124 litres per day by 2030 while again reducing leakage to new industry-leading levels.
- · Install smart meters in all customer homes by 2030.



- Continued investment in drinking water quality enhancement reducing risk from chemicals like nitrates.
- By 2030, in collaboration with the EA, achieve outcome-based environmental regulation to reduce Reasons for Not Achieving Good Ecological Status (RNAGs) in our region. (T) (#)
- · Our A-WINEP will explore further how partnerships for naturebased solutions can deliver greater drinking water source protection.



**(1)** 

- · Invest to mitigate against the impacts of surface water flooding at 13 kev water production assets such as boreholes.
- · We will continue to work with land holders and the Environment Agency to manage the risk of flooding in the communities we serve. (T) @
- · We will monitor our assets flood risk from climage change and invest in resilience measures where needed and/or Flood Emergency Response Plans.

- · By 2030, increase our wastewater capacity by 112 Olympic sized swimming pools and implement SuDS using nature-based solutions.
- · Reduce storm spill frequencies by a further 17% by 2030, ahead of government targets eliminating their use by 2050. (T) @
- Leverage over 70% of match funding through our A-WINEP Partnership Centre of Excellence by 2030, enabling environmental benefits at no additional cost to customers. (T) @







# **14. Our vision for 2050**



Eastern England will be resilient to drought and flooding

- All of our customers will have at least two sources of water supply
- Two new strategic reservoirs will supply 625,000 properties across our region
- Our customers never experience internal or external sewer flooding
- Rota cuts and standpipes are consigned to history as we have a 1-in-500-year resilience to drought
- · Storm overflows are no longer required
- Surface water is prevented from entering our waste water network through innovative partnership working and nature-based infrastructure
- Integrated, multi-sector water management systems, embedded within smart cities and communities are the norm
- The risk of exposure to lead in drinking water supplies will be eliminated



Working with others, we will have delivered significant improvements in ecological quality across our catchments

- · Pollutions are consigned to history
- We will enable early delivery of government targets around river health: there will be no additional RNAGs associated with our operations
- River health across the region will be continuously monitored
- Water Recycling Centres and our waste water network will have the same approach to risk management and control as drinking water assets, 'failing safe' to prevent any impact on the environment
- Our region will be regarded as an international exemplar for the use of nature-based solutions to solve water security issues
- We will be 'nature positive': our operations will actively enable nature recovery and biodiversity enhancement
- We will cease all abstraction from chalk aquifers and other sensitive habitats, unless our abstraction provides a positive benefit (e.g. reducing flood risk)
- No effluent will be discharged into the marine environment, it will be reused to support environmental enhancement or to support sustainable growth
- Land and water planning will be undertaken together, with soil health considered alongside river health
- No blockages will occur in our network as a result of customer or food service establishment behaviour



We will be a net zero carbon business

- We focus on eliminating waste and the root causes, leading to reduced chemical and energy use in our management of the water cycle
- Our global leadership on net zero has enabled us to focus on eliminating waste and the root causes, leading to reduced chemical and energy use in our management of the water cycle
- Our operations enable other sectors (particularly agriculture, and the wider transport and energy sectors) to be closer to net zero through innovative use of waste materials such as treated sludge, effluent and heat
- Our treatment processes do not emit greenhouse gases such as methane and nitrous oxide
- We invest in carbon markets only where we can stack and deliver other environmental benefits
- We have ambitions to move beyond net zero and become a carbon positive business, reducing rather than contributing to the UK's emissions



Enable sustainable economic and housing growth in the UK's fastest-growing region

- We will have capacity to support all customers at risk of water poverty
- We are a water neutral region. Customers will have reduced their consumption by 25% compared to 2020, and leakage levels will have reduced to globally leading levels
- The region will have the capacity to support the water demands for new businesses
- Planning requirements will mean that all new housing and commercial developments are built to deliver international best practice around water efficiency
- Coastal and inland bathing water locations thrive due to their excellent water quality
- Water and drainage capacity is considered at least 10 years ahead of major housing and non-household development

# **Appendix**

# More information cited throughout this report can be found in the following documents:

## **Key reports cited**

Our AMP8 Business Plan proposals contain proposed investments for the 2025-2030 period, alongside our long-term ambitions. Our Long Term Delivery Strategy details our investment plans in water and water recycling services through to 2050. It contains our adaptive approach to mitigate the impacts of challenges like climate change, population growth and new regulations, to ensure there is no deterioration in the service we provide. It represents the best value plan for our region and customers.

Thriving East analyses socio-economic, climate and geographic factors across the country to identify how these forces combine to present unique challenges. Commissioned with Capital Economics, Thriving East uses independent data to examine the impacts on the region Anglian Water serves.

With significant attention on asset health and operational resilience, our 2024 Asset Management Maturity Assessment accurately measures and forecasts asset health to make better informed decisions regarding investments against a wide range of value factors.

# Anglian Water performance reports

Our Service Commitment Plan responds to Ofwat's Water Company Performance Report for 2023/24. Each year, we are assessed by Ofwat against 40 different measures, known as Performance Commitments. Our Plan provides context into our performance and our plans to address challenges.

Our <u>Annual Integrated Report</u> contains our performance data from the last financial year.

Our <u>Sustainable Finance Impact Report</u> 2024 demonstrates progress against our Key Performance Indicators tied to sustainable investments.

River health annual report provides an update against our Get River Positive commitments and other environmental performance measures related to river health.

# Plans and strategies

Our <u>Drought Plan</u> is a statutory requirement that sets out how we will ensure continued supply to customers in case of a drought. It is updated every five years and is consistent with our <u>Water Resources Management Plan</u>, which sets out how we intend to secure water supply over the next 25 years.

Our <u>Drainage and Wastewater</u>

<u>Management Plan</u> sets out our plans to manage and recycle water in our region over the next 25 years. It is updated every five years, in line with the Environment Act.

Net Zero 2030 Strategy sets out how we aim to reach net zero carbon emissions by 2030.

Our Pollution Incident Reduction Plan (PIRP) sets out the actions we are taking between 2023-2025 to improve our pollutions performance.

## **External reports**

The Fens Climate Change Risk
Assessment (CCRA) authored
independently by the Tyndall Centre for
Climate Change Research, examines how
climate change is transforming the Fens;
the UK's largest coastal lowland and vital
hub for food production.

Water Resources East is the independent, not-for-profit membership organisation tasked by government to create a Regional Water Resources Plan for Eastern England that looks ahead to 2050 and beyond.



Head to our website to read more of our Climate Change Adaption <u>case studies</u>



# **Anglian Water Services Limited**

Lancaster House Lancaster Way Ermine Business Park Huntingdon Cambridgeshire PE29 6XU anglianwater.co.uk