# Our environment 5 & the planet

The environment is at the heart of our purpose as a company; we work hard every day to protect and enhance the land, water, air and wildlife in our region and beyond, for today and for the future.



Water Industry National Environment Programme schemes delivered by end of year 2 of AMP7

Target for 2021/22: 1,006 (met)



Number of pollution incidents per 10,000km of sewer network

Target for 2021/22: 23.74 (not met)



-376 megalitres

Abstraction incentive mechanism

Target for 2021/22: -87 megalitres (met)



**Bathing waters attaining** 'Excellent' status

Target for 2021/22: 33 (not met)



### Our environment & the planet

### How we engage

- Through our Strategic Direction Statement (SDS) for 2020-2045, first published in 2007, with an updated version reviewed and approved by the Board in 2017. It includes the goal to 'work with others to achieve significant improvement in ecological quality across our catchments' (see page 24) and is fully aligned with the government's own 25-Year Environment Plan.
- · Through the plans and strategies we set out, including our Water Resources Management Plan, our new Drainage and Wastewater Management Plan, (out for consultation in summer 2022), our Drought Plan and our Adaptation Report, all of which are issued for public and stakeholder consultation.
- · Through our Get River Positive Commitments, set out on page 47.
- The Board regularly considers environmental matters including water quality, water resources, compliance against the Environment Agency's Environmental Performance Assessment, and renewable energy.

- We maintain a strong presence in environmental policy development forums, feeding into government thinking through formal and informal meetings and workshops, and responding to policy consultations. We contribute both individually and collectively as members of Water UK, the Corporate Leaders Group, the Aldersgate Group and the Broadway Initiative. Taking part in these exercises is a two-way process, with the results informing our internal approach to environmental policy issues, nature restoration and the delivery of our
- The Management Board sponsors an internal Policy Advisory Committee that oversees our input into external environmental policy and regulatory exercises.

long-term plans for water resources

and water recycling infrastructure.

• We also engage with farmers, nongovernmental organisations and academic institutions on soil health, catchment management and broader issues around sustainability.

#### What customers and stakeholders tell us

Our customers support our Business Plan for 2020-2025. They want us to invest now to protect our environment for the long term.

In particular, our customers want to see increased investment in infrastructure to support river water quality and prevent pollution. We're investing billions of pounds in capital programmes to ensure our infrastructure is ready to meet the challenges of climate change, population growth and environmental protection.

Our environmental stakeholders, including catchment partnerships, government and non-governmental organisations, farmers and landowners, value our committed and ongoing engagement with them to drive positive progress.

### Protecting and enhancing our environment

We take our role as custodians of the environment extremely seriously.

We know how important it is to take the right actions and make the right investments, so that our rivers thrive, and we protect and increase our region's biodiversity. We haven't got everything right this year - but we've taken decisive steps to get back on track, and carried on the good work we were already doing. Our £800 million Water Industry National Environment Plan (WINEP) for 2020-2025 is our most ambitious ever. Boosted by the acceleration of £300 million of investment through our Green Recovery Plan, it is the largest environmental programme of any water company in the UK. We've delivered 664 schemes this year, making a cumulative total of 1,184 since the start of AMP7.

Our WINEP is a targeted programme designed to prevent harm and restore river water quality, delivered in partnership with catchment-based approach partnerships, local Rivers Trusts, environmental groups and landowners. Target areas include tributaries of our region's most iconic chalk streams, such as the River Lark and the River Little Ouse in Suffolk, and the northern tributaries of the River Wissey and the Rivers Heacham and Gaywood in Norfolk. Work delivered this year includes the installation of more storm tanks. increased capacity at water recycling centres, the creation of sustainable drainage solutions and schemes to reduce the risk of spills to the environment.

310,321

customer properties

Target for 2025: 1.1 million (on track)

98.2%

Water and sewage treatment works meeting permits for the quality of water discharged to the environment

Target for 2021/22: 100% (not met)

6.1% reduction

Water lost to leakage

Target for 2021/22: 5.6% (met)

3.4% additional usage

Per capita consumption (PCC)

Target for 2021/22: 2% reduction (not met)

A further focus area is increased monitoring of our sites to boost data on storm spills, with full coverage of Event Duration Monitors (EDMs) targeted for 2023.

As we set out elsewhere, including pages 14 and 72, river water quality has risen up the public and political agenda this year like never before. It's a complex issue, and one that's not solely in the gift of water companies to rectify. Other significant drivers impact water quality, including agriculture and highway run-off, calling for a joined-up approach. Because of this, we're actively working and collaborating with different sectors to create effective and workable plans for rivers, as set out in Water UK's 21st Century Rivers report.

We've signed up with our friends and colleagues at Severn Trent Water to Get River Positive (see page 24). This means we will strive to do no harm to UK rivers and do everything we can to ensure they can thrive.

And we've created a whole new business unit focused on protecting and enhancing the environment (see pages 24 and 45). We will maintain our laser-like focus on river water quality for the rest of this AMP and beyond, and we will carry on doing it in an open, transparent and collaborative way. Put simply, it's the right thing to do - our purpose demands it, our customers want it, and our people and shareholders are wholeheartedly committed to it.

#### **Our five Get River Positive** commitments:

- Ensure storm overflows and sewage treatment works do not harm rivers.
- Create more opportunities for everyone to enjoy our region's rivers.
- Support others to improve and care for rivers.
- Enhance our rivers and create new habitats so wildlife can thrive.
- Be open and transparent about our performance and our plans.

Of course, accurate monitoring and the need for good data is important, but that alone does not bring the insights needed to drive action. Because of this, we're working with internal and external data experts to develop new ways to apply machine learning and advanced algorithms. Getting this right means we can turn the vast amount of information generated by EDMs into insight on where blockages and other issues are occurring before they turn into pollution events.

### Our storm water strategy

As part of a £100 million scheme of work, we'll install additional storm water storage at 110 of our water recycling centres by 2025. Being able to store excess water in this way will help reduce the risk of flooding to homes and businesses and provide additional protection to rivers.

But simply building more storm tanks is not a sustainable long-term solution. We're working with partners across the region to ensure that excess rainwater can't find its way into our sewer network.

A recent study this year in March, Cambridgeshire, found that 2,100 properties had their rainwater downpipes directly connected to our foul sewer network, along with 425 highway drains.

### Bringing the industry together to talk catchment management

We were fortunate to have the opportunity to discuss the water sector's environmental remit and commitment to catchment management with His Royal Highness The Prince of Wales at a summit held at Clarence House in May 2022. Chaired by Anglian Water CEO Peter Simpson. the event brought together fellow water companies from across the UK, together with senior representatives from the Cambridge Institute for Sustainability Leadership, Water UK, the Duchy of Cornwall and the Sustainable Markets Initiative.

### **Targeted investment on CSOs**

We've delivered the first £48.7 million investment of a £200 million-plus programme to reduce storm spills, increase the capacity of our sewer network and tackle surface water flooding. All of our combined sewer overflows (CSOs) will have monitors fitted by 2023 so we can track their activity and carry out detailed assessments on any high spillers, meaning future investment is targeted where it will have the most environmental benefit.



Our target areas for action in AMP7 include the restoration of tributaries of our region's iconic chalk streams

### **Local Enterprise Networks:** The power of many

Working with Nestle, we've pioneered the emerging Landscape Enterprise Networks (LENs) model in the East of England, on a three-year pilot project aimed at boosting water quality, reducing flood risk, increasing biodiversity and sequestering carbon. LENs helps businesses become more resilient by funding regenerative agriculture practices and, through collaborating with others, generates different benefits from the same landscape. In the first East Anglian trade, our contribution of £100,000 supported shared benefits delivered from a total of nearly £1 million of funding. It was used to pay farmers to make changes to practices in areas including cropping, hedgerows and farm equipment which deliver improvements in our drinking water catchments. Trade two, next year, should see even more investment, from more businesses, into sustainable land management across our region.

### Norfolk water strategy

We've formed a partnership with Water Resources East, Norfolk County Council and The Nature Conservancy to create a new strategic approach to water resources in Norfolk. The Norfolk Water Strategy seeks to develop innovative governance arrangements to deliver nature-based solutions at scale.

This will secure good quality, long-term water resources for all water users, while protecting the environment and showcasing the county as an international exemplar for collaborative water management. The core partners are working with a multitude of stakeholders including Norfolk local authorities, the Broads Authority, the Environment Agency, the NFU, Natural England, Norfolk Rivers Trust, Norfolk Wildlife Trust and the Water Management Alliance. Initially funded for two years, the strategy will see naturebased solutions tested and incorporated into an investable, long-term proposition for private and public financing.

### **Environmental Performance** Assessment

The Environment Agency assesses six metrics, including pollutions, to produce our Environmental Performance Assessment (EPA), an annual calendarvear measure. This forms the basis of a star rating for each water company's environmental performance. One star represents poor performance and four stars represent industry leadership. In July 2021 we regained the three-star status we have held for all but one year since the measure began. However, tightened targets, in combination with the impact of wet weather and flooding, mean we anticipate two-star status when 2021's results are announced in July 2022. As set out on pages 47-50, we're taking urgent and decisive steps to set our performance back to its long-term trajectory of improvement.

### Wendling Beck - transforming land use for environmental benefit

Creating and enhancing natural capital in our region is a key priority for us. One of the ways we're doing so is by participating in the Wendling Beck Environment Project (WBEP), a pioneering habitat creation, nature recovery and regenerative farming project in the heart of Norfolk.

Wendling Beck is a tributary of the chalk-fed River Wensum and connects almost 800 hectares of land just north of the market town of Dereham. Along the course of the river, the WBEP seeks to create a diverse range of grassland, woodland and wetland habitats, restore river quality and adopt regenerative farming practices, providing a sustainable income for farmers.

Its delivery will create a blueprint to help other farmers, landowners, environmental NGOs, and private companies across the UK evolve the way land is used, towards a model that is more environmentally and financially resilient. It will also help broaden the market for biodiversity offsetting and the sale of ecosystem services in the UK.

The Wendling Beck Alliance (WBA), which oversees the project, sees Anglian Water working alongside four farmers (Dillington Hall Estate Ltd, Gorgate Ltd, JG Bullard and Sparrow Green Ltd), Norfolk Wildlife Trust, Norfolk County Council, The Nature Conservancy, Norfolk Rivers Trust and the Norfolk Farming and Wildlife Advisory Group (FWAG).



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### Developing a natural capital plan for the East of England

Working with Water Resources East, we've joined forces with Biodiversify, supported by WWF UK and the Coca Cola Foundation, to develop a stakeholder-led natural capital plan for Eastern England. The plan, now in its second iteration, seeks to identify where natural capital action should be prioritised across the landscape in order to deliver outcomes for nature, water and society. It takes account of feedback from a broad range of organisations across the East of England, including 945 discrete objectives and actions from 37 stakeholder organisations, to develop a shared vision for the restoration of nature. It's been developed using Systematic Conservation Planning, the international best-practice approach for landscapelevel management of biodiversity, the environment and natural capital.

This important project also feeds into water resource management plans for the East of England and will help make sure that the changes in water management directly support the recovery of nature.

### **Tackling invasive species**

Invasive non-native species - that is, plants and animals that, with the assistance of humans, travel from their native areas to new regions - pose a threat to the region's environment, to the economy and to us at Anglian Water. That's why we're supporting projects around the region to control or eradicate them, including a catchmentwide approach to tackling Himalayan balsam on the River Wensum. Our Invasive Species Fund is now in its third year and awards grants of between £1,000 and £15,000 to not-for-profit organisations and local authorities.

### Planning ahead: long-term resilience for water resources

Every five years we set out via our Water Resources Management Plan (WRMP) how we will manage water supplies in our region to meet current and future needs over a minimum of 25 years. Our current plan, published in 2019, covers the period from 2020 to 2045.

We face four pressing and interlinked challenges - climate change, environmental protection, population growth and the risk of drought (see pages 14-18).

We have to act now or we will move from a strong position of a surplus of 150 million litres of water daily to a deficit of 30 million litres daily by 2025.

Right now, we're taking steps to manage demand by driving water efficiency through behavioural change programmes, reducing leakage and installing smart meters. But we will also invest in the supply side to increase the amount of water available in vulnerable locations. This includes our biggest investment of AMP7 (2020-2025), investing in a series of interconnecting pipes to better join up our network and ensure we make best use of the available resources before developing new ones (see page 21).

The 2019 WRMP is now being implemented, largely by our Alliance partners, including the Strategic Pipeline Alliance.

Longer term, we're developing plans for two new strategic reservoirs, one proposed for Lincolnshire and the second for the Cambridgeshire or Norfolk Fens. Both would be of a similar scale to Grafham Water and, if the need is confirmed, would be commissioned between 2035 and 2040. We're working with Water Resources East and regional stakeholders to maximise opportunities to deliver additional public and private benefits across multiple sectors. Plans for both reservoirs are being progressed through RAPID, the Regulatory Alliance for Progressing Infrastructure Development (see page 71). Having received Gate One approval in December 2021, the projects now move towards Gate Two submissions in November 2022, with initial public consultation due later in the year.

### Water recycling compliance

The quality of the water we return to the environment from 718 of our water recycling centres is monitored by the Environment Agency. We had a challenging year for compliance this year in relative terms, with 98.2 per cent of centres meeting their numeric limits on water quality (2021: 99.3 in 2021/22) (see page 42). Every failure is investigated to discover the root cause and to enable us to improve our performance.

### Statutory accounts $Q \leftarrow \rightarrow$ 50

### Our environment & the planet continued

### Pollution prevention

Pollutions continue to be an area of challenge for us, and we have not met our very stretching calendar year target for 2021 (see pages 24 and 41). We experienced a protracted period of exceptional flooding and rainfall in late 2020 and early 2021, which correlated with an increase in pollutions. As flooding and rain abated, we saw significant improvements in the second and third quarters, with pollutions dropping to eight per cent below the historical average.

Through the work of our Escaped Sewage Cell, which brings together expertise from across our business and uses military planning methods, we're targeting continued improvement in our performance. We're stepping up our root cause analysis to ensure we learn the lessons from every single incident. Comprehensive governance ensures we're holding ourselves to account, scrutinising and constantly challenging ourselves to do better, with Board-level visibility and accountability for performance. We're also undertaking a strategic review as we shape the new Quality and Environment directorate.

Longer term, we're working with stakeholders across the region to create our Drainage and Wastewater Management Plan. This crucial document will set the tone and the intent for the next 25 years, to ensure we have the right scale of investment to drive resilience for our customers and to ensure a thriving environment.

### Protecting bathing water quality

Safeguarding the quality of our region's bathing waters is hugely important to us, to the environment, and to the economy of our coastal towns. Our Coastal Water Protection team meets with councils, the Environment Agency, non-governmental organisations, local businesses and residents' groups to identify and address sources of pollution.

The classification of bathing waters was temporarily suspended during the pandemic, meaning that the classifications published in January 2022 were the first since 2019. Thirty-two of our bathing waters were rated as 'Excellent' (required for Blue Flag status), while 13 were rated as good (up two from 11 in 2019), two as sufficient (down from five in 2019), and one rated as poor (versus none in 2019), meaning we narrowly missed our performance commitment target.

A key success has been the introduction of performic acid dosing at Southwold Water Recycling Centre as a low carbon, environmentally friendly and costeffective alternative to ultraviolet treatment to deactivate bacteria. This has seen the classification of the beach at Southwold (The Deans) rise from 'sufficient' to 'good' and was highlighted as a national example of best practice by the Environment Agency when the results were published.

Thirty-two of our bathing waters were rated as 'Excellent' (required for Blue Flag status), while 13 were rated as good (up two from 11 in 2019).

We're carrying out investigations on four sites where classifications have dropped and will be making investment at a site close to Heacham bathing water, which dropped from sufficient to poor, to reduce spills to the environment.

### CaSTCo: harnessing citizen science

The Catchment Systems Thinking Cooperative (CaSTCo) is a partnership led by United Utilities, between the Rivers Trust, 12 water companies (including Anglian Water), academia, and environmental charities. The project was awarded £7.1 million through Ofwat's Water Breakthrough Challenge.

Embracing citizen science alongside other monitoring approaches, CaSTCo aims to revolutionise how data on river health is shared and stored. The project, which is already underway in eight demonstration catchments, takes a place-based, community-focused approach to boost the amount and quality of data available to us and our customers.

### Caring for rivers and beaches

We're celebrating the 21st anniversary of our partnership with Keep Britain Tidy, through which we empower communities to look after their local coastline and waterways by tackling litter, removing invasive species and restoring rivers. Fifty-three established RiverCare and BeachCare volunteer groups look after stretches of river and beach across our region. We're the sole funder of the programme, investing £150,000 a year and providing equipment, training, insurance, help and advice.

### **Increasing biodiversity**

In delivering our biodiversity net gain commitment we've created or enhanced 116 biodiversity units of habitat on our land, against losses of 29 biodiversity units. as a result of our construction and land management activities since 2020. Our land management progress has included the award of a contract to ecological partner Greenwillows for woodland enhancement and management at our Offord Intake site. We've also been working to support the declining Shrill Carder Bee, implementing changes to the management of grassland habitats at operational sites in the Thames Gateway area.

We've also expanded our Biodiversity Team with the appointment of a second Biodiversity Advisor. Our Biodiversity Advisors' remit extends across our region, supporting teams business-wide to ensure legal compliance in relation to wildlife and nature legislation and delivering land management for biodiversity.

### Managing our Sites of Special Scientific Interest (SSSIs)

Part of our role in supporting the environment in the East of England is the management of 49 designated sites of special scientific interest (SSSIs). We're very proud of our track record in this area, with 99 per cent of our sites considered to be in favourable condition against a national average of just 38.23 per cent.

In October 2021, we were delighted to be highly commended for 'best practice practical nature conservation for a large site' at the Chartered Institute of Ecology and Environmental Management (CIEEM) Awards for our restoration work at Tetnev Blow Wells. We invested around £200.000 to restore this important wetland habitat by felling three acres of woodland, which was drying out the site, and by creating new wetland features. The wetland is thriving.



Our restoration work at Tetney Blow Wells was highly commended as 'best practice practical nature conservation for a large site' at the Chartered Institute of Ecology and Environmental Management (CIEEM) Awards 2021

### Leading on leakage reduction and smart systems

As a frontier company with consistently strong leakage performance, it is incrementally harder year on year to find new ways to reduce leaks. However, we're determined to keep pushing boundaries and are investing millions of pounds in advanced technology, including pressure management and system optimisation, to help us do so.

We're leading the development of new advanced sensor technology from concept to design. We now have more than 7,000 advanced leakage sensors permanently installed on 15 per cent of our vast treated water distribution network. This monitoring system enables us to respond quickly to emerging leakage caused by changes in weather and demands on our system.

Optimisation of our water systems using dynamic control systems developed through our Shop Window ensures that we're operating them in the best possible manner at all times.

The levels of leakage reduction we're tasked with delivering haven't been achieved before in the UK or, as far as we know, globally. We have ended the year having surpassed our performance commitment target of a 5.4 per cent reduction, delivering a 6.1 per cent drop by finding and fixing more than 37,000 leaks. To have achieved such an ambitious target is a remarkable result, given the challenging operational context and supply chain issues that have impacted the water sector.

### **Getting smart about** water efficiency

One of the key tools in our water efficiency armoury is our smart metering programme, through which we've begun upgrading all of our customers' meters. By the year end, we had installed a total of 310,321 smart meters, remaining on track to reach our 1.1 million target for 2025. Shortages of meters due to a global shortage in microchips led to a pause in programme delivery; however, the multiaward-winning programme is accelerating at pace, with more than 1,000 meters a day now being installed. Since the start of the AMP in 2020, more than 78,000 leaks have been identified and more than 46,000 customer leak investigations carried out, leading to a saving of 9.3 megalitres per day. Customers with smart meters can now opt to receive usage data as frequently as every hour through our MyAccount app, helping them stay on track of their water use and their finances.

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# Taking to the global stage at COP26

Anglian Water took its place on the world stage in November 2021, with a position in the heart of the action at the 2021 United Nations Climate Change Conference (COP26): the only UK water company with a formal role.

As an organisation driven by environmental and social purpose, we were deeply honoured to be invited to co-lead the water theme in the first ever Resilience Hub. The Hub itself was the home of the UN Race to Resilience, focusing on the urgent need for action to make sure the world can adapt to climate change.

Through the events we co-created with Mott MacDonald and the Water Pavilion, we showcased global best practice and collaborated with people from around the world to generate fresh ideas in response to the water challenge we face.

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CEO Peter Simpson shared our leadership on net zero and climate adaptation at a total of six events at COP26

Thanks everyone for a really good session; we look forward to working with you all for better futures for low-lying landscapes going forward.

#### **Professor Andy Large**

Director, UKRI GCRF Living Deltas Hub

As part of our role as co-lead we hosted our own interactive hybrid event, Reimagining the future of water: how landscape-scale solutions will win the race to water resilience, which took place in the Blue Zone, in front of a live audience and around the world online.

Chaired by Dr Kala Vairavamoorthy, Executive Director of the International Water Association, an international panel including Anglian Water Chief Executive Peter Simpson, UK Cabinet Minister the Rt Hon Steve Barclay MP, and Environment Agency Chair Emma Howard Boyd CBE, discussed how integrated adaptation, combined with strategic, joined-up financing, is driving crucial change.

It showcased how holistic, nature-based and community-led solutions in lowlying regions in the UK, the Netherlands, Vietnam, Bangladesh and India are making a real difference in the face of a warming climate, and acted as a spur to future international collaboration.

Our own Future Fens: Integrated Adaptation initiative (see page 21) formed the centrepiece of the event.

Following the event, we're building on its success by pursuing the partnership we created at COP with the Living Deltas Hub, collaborating to address the challenges we face in similar geographies but on vastly different scales. While at COP we were also featured by Microsoft (principal partner of COP26) as one of four case studies showcasing climate change best practice.

While at COP Peter Simpson spoke at a number of high-profile events, both in his capacity as Anglian Water Chief Executive and as co-chair of the UK Corporate Leaders Group, including joining a panel chaired by former Prime Minister Theresa May.



I was honoured to be included in the discussion in the Resilience Hub - it was an excellent race round some of the key issues and unearthed a lot of wisdom and learning.

**Tony Juniper, CBE** Chair, Natural England

## Statutory accounts $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ 53

### Our environment & the planet continued

### Tackling plastic pollution

We've made good progress this year towards meeting our pledge to rid the East of England of plastic pollution by 2030, putting partnerships at the heart of our endeavours.

We supported an Imperial College London MSc project, completed in September 2021, to assess the flows of microplastics through the Grimsby-Pyewipe WRC sewer catchment. The study found that household laundry was the largest contributing source of microplastics by number, mass and concentration of microplastics.

We've also worked with our partner Mott MacDonald to further understand macroplastics in sewers and the presence of plastics at a surface water outfall site in Buckingham. These initiatives help us further our plans on mitigating its effects and inform our customer outreach campaigns on the effects of plastics in local waterways.

Recognising the power of engaging with stakeholders, we wrote to all 75 members of parliament in our region asking them to support MP Fleur Anderson's Private Members' Bill, which tries to put the responsibility on manufacturers by banning wet wipes that contain plastic. We also responded to the Defra consultation on single use plastics with evidence of how they contribute to sewage blockages.

Anglian Water also chairs and funds the secretariat of the East of England Plastics Coalition. This year, the Marine Debris Working Group (a sub-group of

the coalition) has received funding grants to address the removal and recycling of marine debris from the North Norfolk and Wash coastlines. Through our Coalition partnership with the Rivers Trust we've secured funding from the Preventing Plastic Pollution project to scale up the delivery of a reusable wipes trial over the coming year.

To further support our plastic recycling efforts we now have a workwear recycling scheme at over 40 of our sites and offices, enabling staff to drop off old PPE, workwear and hard hats.

### Reduce, reuse, recycle

We undertake a zero to landfill approach wherever possible. Across the business and our alliance partners, 84 per cent of waste was recycled or recovered in 2021/22.

By working with our waste management contractors, we can make sure wastes produced at sites (excluding sewage screenings and grit) are recycled or reused rather than disposed of in a landfill wherever possible. Flag Fen Water Recycling Centre (WRC) and Cotton Valley WRC continue to be zero to landfill sites for the third year running.

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