love every drop
anglianwater

Accelerated Infrastructure Delivery:
our green recovery plan to unlock economic growth

Accelerated Infrastructure Delivery plan on a page

Overview of the accelerated projects that contribute to our green recovery plan

Our green recovery goals	Broad outcomes	Our accelerated infrastructure schemes	Current projected investment
01 **Delivering climate change adaptation and resilience** p11	**Improved drought resilience for 150,000 people, bringing us closer to 1 in 500-year drought standard**	Grafham to Bury St Edmunds strategic transfer Colchester water re-use (transfer & phase 1 modular build) Short-term drought resilience (Ipswich, Covenham, Clay Hill) Smart metering accelerate roll-out	£160.4 million £15.3 million £19.7 million £27.3 million
02 **Accelerating sustainable housing and infrastructure growth** p17	**15,000 homes in Norfolk unlocked for development**	Nutrient Neutrality	£28.4 million
03 **Enabling nature recovery** p19	**Significant abstraction reduction and 1 in 3 CSOs fast-tracked with improvements**	Overflow reduction smart sewers	£28.2 million
04 **Becoming a net zero carbon business** p21	**Energy resilience bolstered with 'Gas-to-Grid' production equivalent to over 30,000 homes**	Grid decarbonisation	£27.2 million
05 **Creating green jobs and boosting skills** p23		All of these schemes will support job creation in our region	Investment in local economy through proposed schemes

Total projected investment: £306.5 million

Opening statement

As a supplier of a service which is fundamental to a functioning society, we have always been acutely conscious of the weight of responsibility we bear, not simply to deliver fresh, clean water and to recycle it safely, but to protect and enhance our environment and to enrich our communities. That responsibility drove us to become the first utility to change our Articles of Association to lock in public interest, which is now enshrined in our Purpose - to bring environmental and social prosperity to the region we serve through our commitment to Love Every Drop.

A fusion of region-specific challenges including climate change, rapid growth and intensive agriculture has driven us to lead on resilience for decades. As a result of our commitment on leakage, customer behaviour changes and ambitious supply-side investment programmes, we still put the same amount of water into supply today as we did 30 years ago - despite seeing the population soar by 30% in that time. A statistic that evidences why we did not need a hosepipe ban this summer.

Similarly, as a leading water company operating in the fastest growing region in the UK, we are no stranger to growth and understand the pivotal role we play in unlocking economic opportunities for the communities we serve, to deliver on our Purpose.

Long-term ambitions with an emphasis on resilience

In 2020, we launched our Five Point Plan for Green Recovery, anchored in our Strategic Direction Statement's 25-year ambitions with a view to building back better following the pandemic.

Our long-term ambitions

- Make the **East of England resilient** to the risk of drought and flooding
- **Enable sustainable economic and housing growth**
- Be a **carbon-neutral** business by 2050
- Work with others to **achieve significant improvement in ecological quality** across our catchments

Additionality and deliverability

The schemes identified are new and are not covered in our existing AMP7 plans. Each are clearly linked to a specific statutory driver and are uncontroversial, deliverable and we have identified expected outputs. Collectively, our Accelerated Infrastructure Plan will:

- **Improve drought resilience** for 150,000 people
- **Unlock development** for 15,000 homes in Norfolk
- **Bolster energy resilience** enough for 30,000 homes in major cities through our grid decarbonisation plans
- See nearly one-third of our **CSO network fast-tracked** with enhanced monitoring and improved overflows
- Move us closer to our 1 in 500-year **drought resilience**
- Achieve **significant reductions in abstraction** from ecologically sensitive locations

Our capital programme and its delivery is optimised to ensure maximum efficiency and continuity of resources - an approach that builds on years of experience through our leading Alliance supply chain model. It can be costly and inefficient to accelerate or change existing work plans already passed on to delivery teams for execution within the AMP, as ours has. As such, we recommend 'smoothed' schedules that make the most effective use of our supply chain partners, with continuity of work profiles. For these proposals, we are balancing smooth resource profiles and accelerating schemes that would have been delivered in the 2025-2030 period to now be realised within the next few years.

In addition, we have deliberately selected schemes that present an opportunity for maximum ecological and social benefits within a single catchment, mirroring the principle for Advanced WINEP in PR24.

Certainty of delivery

As a business, we set out to honour our commitments. We have a strong track record of delivery. For example, our current WINEP is ahead of schedule, despite being one of the largest programmes in the industry.

For our accelerated investments, we propose to put in place mechanisms to protect customers in the unlikely event of non-delivery. These will take the form of "price control deliverables" as advocated by Ofwat as part of the wider PR24 methodology. We will work with Ofwat to develop these further in the coming months. We are familiar with these arrangements which already apply to part of our current AMP7 programme which has protection mechanisms in place.

Our Commercial Outperformance and Construction Economics Alliance, consisting of Turner and Townsend, Mott MacDonald and Aecom, has reviewed the high-level plans made available to deliver the additional expenditure:

"We understand this translates into a circa 2% increase in annual expenditure for AMP7 Year 4, and a circa 10% increase in expenditure for AMP7 Year 5. Currently, it is envisaged that a significant proportion of this work can be delivered through a diverse mix of the existing Anglian Water supply chain, with some elements to be delivered through new suppliers, where appropriate. Based upon a review conducted in extremely tight timescales and the information made available, we understand these plans, at their highest level, to be deliverable without impacting current known AMP7 performance.

"It must be noted that deliverability is subject to considerable uncertainty created by current macro-economic factors including inflation, market conditions and industry-wide resource constraints. Moreover, the deliverability of these plans is subject to support in expediting matters outside of the control of Anglian Water. This includes government support in accelerating planning permission where required and expediting consents and approvals from third party utilities companies (for example National Grid). As a result of the uncertainty created by external factors, we are undertaking a more detailed review to provide further confidence and assurance in deliverability and to develop mitigation plans for delivery risks."

Funding

We are responding to this as an Expression of Interest, and look forward to discussions with Defra and Ofwat as to the specific arrangements, with this being all the more important given the volatile situation we are all facing in relation to financial markets and inflation.

Given the tight timescales, at an enterprise-level we have reviewed the proposed expenditure and compared it with current workloads in each part of our supply chain. With current market forces and pressures relating to inflation and resourcing, we are able to offer high-level assurance that these accelerated proposals are deliverable and represent additional investment over and above delivery over our existing AMP7 commitments which will benefit our region and the customers we serve.

This submission marks the start of our work in this area.

Asks of Government

As ever, we remain proactive in addressing the challenges presented by our region or felt across our industry. However, there are key areas where government intervention and changes in policy would further support this accelerated infrastructure plan and see dramatic improvements, creating better outcomes for good ecological status and resilience, and mitigating looming national risks such as the skills gap. Our asks of government are clear, relatively easy and quick to implement, and supported by evidence (page 24-25).

Peter Simpson
Chief Executive Officer,
Anglian Water Group

Our challenges as a region

The Anglian Water region is the fastest growing in the UK, with almost one million more people predicted to be living here by 2040. Economic and population growth hubs such as Cambridge, Milton Keynes and Peterborough are all in our patch.

It's also the driest region in the UK, with a third less rainfall than other areas and especially susceptible to climate change. Rising temperatures will reduce our scarce resources even further, with the threat of more frequent droughts. Yet at the same time, rising sea levels and more intense rainfall across our flat, low-lying landscape will also lead to more flooding. These challenges would be significant with a static population. With the clear government focus on additional growth, action, investment and long-term planning are crucial if we are to avoid a tipping point where natural resources are no longer sufficient to meet the needs of the increasing number of people choosing to live in the East of England.

Rising to the challenge

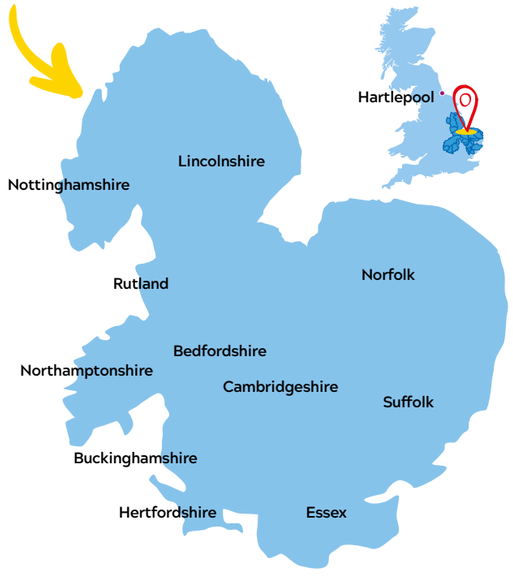
The need to adapt to new climate realities was already acute, but it has been amplified by the opportunity presented by the Government's growth agenda. Responding to the climate emergency, by reducing our carbon emissions and ensuring our infrastructure is resilient, is already embedded in everything we do, and we are fully committed to reaching net zero carbon by 2030.

Our investment plans for this AMP are directed at reducing drought and flooding, which are our key climate-related risks, while keeping bills affordable and protecting and enhancing our environment. We're also committed to scaling up our infrastructure to meet the challenge of population growth, as well as working to unlock future housing opportunities and ensuring we have a diverse and skilled workforce.

The role water plays in facilitating a successful economy, resilient communities and a thriving environment has never been clearer. Despite the unique challenges presented by our region, we have a long track record of investing in the right areas to propel growth whilst protecting the environment and improving resilience in our region. Our long-term ambitions as set out in our 2007 and recent Strategic Direction Statement, have guided focussed investment that so far has provided superb quality drinking water, a raft of Blue Flag beaches, large strides in managing impact from nutrients, leading abstraction reduction commitments, and industry-leading leakage levels.

> **"The role water plays in facilitating a successful economy, resilient communities and a thriving environment has never been clearer. We have a long track record of investing in the right areas to propel growth whilst protecting the environment and improving resilience in our region."**

The **largest** water and water recycling company in England by geographic area



We operate in one of the UK's fastest-growing regions – growing at a quicker pace than London. **Yet we still put the same amount of water into supply today as we did 30 years ago** – despite seeing the population soar by a 30% in that time.

Some of the UK's biggest economic hubs are situated in our region, such as Cambridge and Milton Keynes. We are no stranger to enabling growth in these areas and thereby unlocking economic benefits for 'UK plc'.

1/3

of our workforce is due to retire in the next decade

We are at the frontline of a changing climate with a third less rainfall than the rest of the UK

By 2040, the region's population is forecast to grow by a further

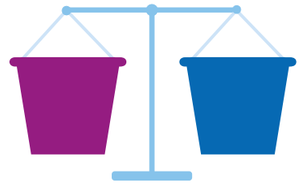
940k

people

Demand for water will rise but available water won't. In fact, we are significantly reducing our abstraction from sensitive water environments in the next five years – **more than any other company.**

Nearly half of the UK's grade 1 and 2 agricultural land is in our region

With such large demands for investment in this region, working towards striking a balance between delivering investment and ensuring bills remain affordable, is challenging, particularly given the current cost-of-living crisis



28%

of our region is below sea-level, meaning we are prone to flooding. Flat landscapes, slow moving rivers present additional carbon, energy consumption and environmental challenges for us.

Stimulating growth

To stimulate sustainable growth, and achieve a truly green recovery, we need not only to accelerate our short-term plans, working together across sectors to pool our thinking and our resources, but also to maintain and extend our focus on long-term planning.

Our 5-point plan for a green recovery – originally launched in 2020 – spells out the commitments we made to address the challenges and drive recovery across our region. It has provided the foundations of a roadmap on which to base this **new accelerated infrastructure plan** to help deliver a resilient, prosperous and environmentally sustainable region.

Delivering climate change adaptation and resilience: Our long-term ambition is to make the East of England resilient to the risks of drought and flooding. The management of climate change risks is embedded into everything we do.

Accelerating sustainable housing and infrastructure growth: We will work to embed water and resilience at the heart of growth and development in the region.

Enabling nature recovery: Our new Articles of Association commits us to delivering positive environmental outcomes. We will design and judge all our investments with the environment in mind and adopt natural capital approaches where we can.

Becoming a net zero carbon business: We are committed to reaching net zero carbon emissions by 2030 and working with the whole sector to achieve this together.

Creating green jobs and boosting skills: We are committed to creating opportunity and levelling up communities through upskilling and early careers development, including apprenticeships.

Plan outcomes

Our Accelerated Infrastructure Plan, specified next, will:

+ Improve drought resilience for 150,000 people

+ Unlock development for 15,000 homes in Norfolk

+ Bolster energy resilience, enough for 30,000 homes in major cities through our grid decarbonisation plans

+ See nearly one-third of our CSO network fast-tracked with enhanced monitoring and improved overflows

+ Move us closer to our 1 in 500-year drought resilience

+ Achieve significant reductions in abstraction from ecologically sensitive locations

01

Resilience and climate change adaptation

Our accelerated infrastructure schemes

Grafham to Bury St Edmunds strategic transfer

Overview

Our 25-year Water Resource Management Plan (WRMP) looks at forecasts of growth, climate change and environmental ambitions to restore natural flow levels in rivers. Working at a regional level in collaboration with Cambridge Water and Water Resources East, we have identified the need for a strategic transfer of water from Grafham Water East to support growth and environmental licence changes in Cambridge and beyond into Suffolk. This will provide connectivity with our Strategic Grid currently being delivered in AMP7 by our Strategic Pipeline Alliance. This accelerated project includes three main components: two linked strategic transfers, and an investment to secure the supply at the source of the transfer. We have spoken with South Staffs Water regarding their Accelerated Infrastructure Delivery submission and they have included an accelerated scheme to condition the water so that it can be received and distributed within the Cambridge Water supply area.

Additionality and deliverabilty

These new interconnectors extend the Strategic Grid that is under construction in AMP7 into new water resource areas and networks not previously planned for in AMP7 and WRMP24.

Statutory drivers

We have chosen to supplement the transfers with the package of supply-side measures to guarantee the availability of source water to feed the transfer and make short-term gains in drought resilience. These transfer schemes are in our draft WRMP, which we submitted to Defra earlier this month (October 2022).

Outputs:

A new 39km strategic interconnector of 400mm diameter from Grafham Water to Cherry Hinton Reservoir in Cambridge (within the Cambridge Water supply system) to transfer 50 Ml/d into the Cambridge zone. This could enable an export to Cambridge Water, and will also provide a transfer onwards into Suffolk (Anglian Water region). This investment also includes a 2,700kW pumping station and new storage volume to condition the water so it is suitable to mix with the Cambridge Water and Suffolk systems.

A new 50 Ml/d transfer pipeline of more than 30km from Cambridge to Bury St Edmunds to connect the Grafham system with the new Strategic Grid. This will provide far more flexibility in future decades to distribute water from one part of our region to others that may face supply deficits in times of drought.

Outcomes:

This accelerated plan includes a package of measures in the Grafham supply network to increase supplies at the source of the transfer by up to 15 Ml/d. This will make them more resilient at peak flows, which would be required in future drought conditions. The plan includes improved resilience of existing supplies at both Clapham and Wing Water Treatment Works (WTW) as well as tackling flow constraints at Grafham WTW itself.

What we need to accelerate this scheme

Our track-record delivering strategic pipelines in the Anglian region to date has given us first-hand experience of the challenges of planning requirements, installation of new power supplies to remote areas, permits and permissions associated with multiple crossing points of other infrastructure, and private land. The process of obtaining these consents is inconsistently applied locally, leading to significant programme uncertainty, delays and substantial unnecessary costs from providing supporting evidence. Building on the government's ambition to fast-track planning routes for critical infrastructure, we believe there is an opportunity for water companies to work in partnership to define and streamline requirements at a more strategic level for schemes of this scale, building on the work already done to create the Development Control Order (DCO) process.

Investment: £160.4 million

Colchester water re-use

Overview

As the economy evolves and our region grows, we are seeing rapid changes in the demand for water. We are being approached more frequently for potential supply of feed water to hydrogen production facilities in our region. It is essential that we understand the opportunities in this area to treat fresh water as a vital natural resource for our nation, and as a potential raw material for the energy transition to net zero.

We identified in our draft WRMP the requirement for additional resource in Essex at our site in Ardleigh. We selected an option to recycle treated water from Colchester water recycling centre to transfer into the raw water reservoir at Ardleigh. In the longer term, this investment would see around 15 Ml/d for the transfer, and 0.5 Ml/d for the phase 1 plant, being transferred into the reservoir to augment the supply into that water treatment works; water that would otherwise have been discharged into the estuary.

As part of our acceleration of investment from beyond 2025, we want to install the transfer from Colchester to Ardleigh as well as a modular build of the re-use project to better understand this re-use technology. We believe this modular approach has lower potential risks when compared to a full build using today's treatment technologies. It also enables us to learn and inform –not only the longer-term build-out of the modular approach at Colchester, but also the larger opportunity referred to for re-use in our region. This may include the introduction of new lower-cost treatment approaches as innovation is applied to this new context.

Additionality and deliverability

Our AMP7 and PR19 plan does not include re-use for Colchester. This is accelerated from a current delivery date in the draft WRMP of 2032.

Statutory drivers

This scheme is identified within our draft WRMP.

Outputs

This investment includes a pipeline transfer with a capacity of 15 Ml/d. We are still quantifying the capacity of the modular build of the re-use project but expect it to be around 0.5 Ml/d.

Outcomes

Enhanced regional resilience to drought.

What we need to accelerate this scheme

Government plays a key role in establishing a coherent strategy for a hydrogen economy. An overarching plan to identify the locations of production, and mapping to compare with available water resources to avoid competition for already limited fresh water, would support this.

Investment: £15.3 million

Short-term drought resilience (Ipswich, Covenham, Clay Hill)

Overview

In response to this summer's exceptionally dry weather and extreme heat we have instigated a team of experts to look at actions that could be implemented rapidly to improve our resilience. The team have considered investments at multiple locations and identified many important investments that we will proceed with at pace, funded by our existing AMP7 allowances.

However, we see opportunity to accelerate three future investments that will unlock new capacity relatively quickly at important points in our supply system, which are subject to environmental constraints. These projects are:

- **Ipswich Intra Zonal transfer** - this is a pipeline scheme that delivers connectivity at the Southern end of our new Strategic Grid into Ipswich. This allows us to reduce abstraction from groundwater sources in Ipswich and east Suffolk which the Environment Agency will require us to complete by the end of AMP8. We're working to finalise the capacity of the required transfer. We are waiting for final guidance on the capping of licences as part of WINEP/WRMP24, but currently expect this transfer to have a capacity of 6 Ml/d.
- **Covenham invasive species mitigation** - our Covenham water treatment works full output is currently held back by the presence of Zebra Mussels. To prevent of the spread of that invasive species to other water bodies, this investment will see screening installed to trap the mussels, avoid the spread and allow us to work towards an overall total of 65 Ml/d.
- **Clay Hill disinfection** - this is a new disinfection plant required to bring into supply a borehole that will provide resilience in the network and ensure we avoid disruption to customers during the commissioning of the new Strategic Grid and beyond. This is expected to create an additional 3.4 Ml/d capacity.

Additionality and deliverability

These investments are not in our AMP7 plan or PR19 determination and are being accelerated from AMP8.

Our twin track WRMP19 strategy is currently being implemented alongside an ambitious demand management programme with a significant main laying scheme to take water from areas with surplus to areas in deficit. This approach will enable us to achieve a 1 in 200-year drought resilience by 2025, building on the resilience we have demonstrated during the drought this summer.

Statutory drivers

As part of WRMP, we must ensure that we provide a secure supply of clean drinking water to our customers. We must also achieve further enhanced levels of drought resilience, as determined by the Water Resource Planning Guideline. Our abstraction licences are also subject to changes required under the Water Framework Directive.

Investment: £19.7 million

Smart metering accelerated roll-out

Overview

We are in the middle of a revolution in the way we understand water use, detect leaks, and the information we're able to provide to our customers to help them adjust their behaviour.

Our ambitious smart metering programme plays a pivotal role in our strategy to safeguard resilient water supplies in the face of climate change, rapid population growth and the need to protect our environment in the East of England. It is a ten-year project spanning 2020-2030 which has already delivered significant benefits.

Over the five years to 2025, we're already planning to install 1.1 million smart water meters, covering around 55% of our customer base. This roll-out is happening at a rate never seen before in the UK water industry - at 25,000 per month.

Having made a realistic assessment of our supply chain capacity and in response to the drought of this summer, we believe we can do even more in this area and complete a modest acceleration of 60,000 meters above our existing programme prior to March 2025. Plus, a modest acceleration of 60,000 per year acceleration in years one and two of AMP8. The accelerated expenditure is a combination of the meters themselves and the network required to collect data from the meters.

Our focus on demand management over decades has resulted in our customers being some of the most water efficient in the country. We're building on very high meter penetration: 92% of our customers are already metered, with 83% paying for usage based on meter readings.

Now, smart meters enable us to develop a near-real time understanding of customers' usage via our Advanced Meter Infrastructure network, and arm customers with information through our MyAccount app, to support them in understanding and reducing their usage.

The increased insight also helps us to proactively identify leaks in customer properties. For example, if we find water is being used constantly throughout the night, we can investigate and help customers stop leaks in their tracks. Customer-side leakage in the Anglian region now makes up more than a quarter of outstanding leakage overall - more than 45 million litres per day regionwide, so helping customers look after their domestic plumbing to save water is a fundamental part of the forward plan.

Additionality and deliverability

We already have a significant programme of smart meter roll out, underpinned by an Outcome Delivery Incentive (ODI) backed commitment to deliver 1.1 million smart meters during AMP7. The smart meters we want to accelerate from AMP8 delivery are in addition to this and represent an achievable 25% increase in workload for 2024/25.

Statutory drivers

Smart meters are a core component of our WRMP. We are currently waiting on approval from Defra to publish our draft plan, which includes our continued 10-year roll-out of smart meters.

Output

This will target high priority areas where there is an urgent need to balance supply and demand. Continuing the accelerated rate of delivery into the first two years of AMP8 will deliver in total 180,000 smart meters earlier than planned meaning we could complete the overall roll-out in nine years rather than the original ten.

Outcomes

The accelerated roll-out means four in five homes in our plan will be on a smart meter by the end of 2027. And, we will drive focussed behaviour change campaigns to realise significant water savings, supporting resilience and making abstraction reduction more feasible.

Investment: £27.3 million

Ongoing PR19 activity: **Strategic Pipeline Alliance (SPA)**

Together with our partners in the Strategic Pipeline Alliance (SPA) – Costain, Farrans, Jacobs and Mott MacDonald Bentley – we're delivering the biggest infrastructure programme in Anglian Water's history. It's a vital pillar of our WRMP to improve the nation's resilience to drought and minimise interruptions to water supplies.

By 2025, we'll create a vast new network of hundreds of kilometres of interconnecting pipelines, giving us greater flexibility to move water around the region to where it's needed. Driven by systems thinking, this new way of approaching our water resource challenge joins up our region's water supplies like never before. The new pipelines will also play a vital role in strengthening resilience by reducing the number of homes and businesses which rely on a single water source. We have also invested in innovative pipe laying techniques which will drive down the embodied carbon and water impacts traditionally employed in this type of project.

The schemes proposed in our Accelerated Infrastructure Plan are additional to those already planned for delivery in AMP7.

02
Accelerating sustainable housing and infrastructure growth

Our accelerated infrastructure schemes

Nutrient Neutrality

Overview

In March, Natural England designated the River Wensum and the Norfolk Broads a Special Area of Conservation (SAC), identified by the European Habitats Directive as having reached their nutrient budgets. This means they are unable to accept any additional nutrient load from new development. There are currently thousands of properties and planned developments that the Norfolk Local Planning Authorities (LPAs) are unable to progress until the situation is resolved.

We have been working with Government and other nutrient dischargers in the catchments that feed the SACs to develop plans to reduce the load in the rivers so we can unlock the development sites. In September, we met with Defra officials to explain the options. In this package of measures, we plan to construct nutrient removal at three of the sites identified as discharging into the SAC, namely our water recycling centres at Fakenham and Dereham on the River Wensum, and Whitlingham on the River Yare (Norwich).

We believe these three sites alone will create significant headroom in the Broads nutrient budget and enable Norfolk County Council to approve many of the developments currently on hold - approximately 15,000 homes. This will not only deliver environmental improvement in a nationally significant ecological habitat but will also retain thousands of jobs and economic growth locally - in line with our Purpose.

Additionality and deliverability

In AMP7, we are already progressing 180 nutrient removal projects as part of WINEP. These are at important locations, feeding sensitive water bodies. Our projects will see us improve the ecological status of 3,177km of water bodies in the East of England. The schemes proposed now for acceleration were not included in WINEP at PR19. The projects are in catchments we are proposing for Advanced-WINEP in PR24, especially the River Wensum.

Statutory drivers

The Department for Levelling up, Housing and Communities has signalled its intention to include a duty within the Levelling Up Bill, which places responsibility on water companies to achieve Technically Achievable Limits (TaL) for both nitrogen and Phosphorus in the designated SACs by 2030. The three projects highlighted are an acceleration of delivery against the duty to provide headroom in the intervening period.

Outputs/Outcomes:

Three sites with a combined population of nearly 350,000 will all be designed to reach a phosphorus standard with around a 75% improvement on current performance. This will provide headroom for 15,000 new homes, based on the Natural England Nutrient Neutrality calculator.

What we need to accelerate this scheme

Support for the investment will be forthcoming from Norfolk LPAs, local MPs, and Natural England, who all support a resolution to the planning hiatus whilst improving river water quality.

The costs presented here are based on traditional nutrient removal technology. We'd like to explore other ways to achieve the removal using Nature-Based Solutions if possible, but currently those solutions are unable to achieve the scale of reduction we need to unlock growth. We'll continue to advance our ability to deliver these innovative solutions such as chemically-dosed engineered wetlands, which could yield better removal rates. More information is provided on this in APR22 in table 7F on nutrient removal in AMP7 main programme, which we submitted to Ofwat in July.

Investment: £28.4 million

Ongoing PR19 activity: **Treatment Wetlands**

Earlier this year, we unveiled proposals to create 26 new treatment wetlands across our region as part of an ambitious programme of work to protect rivers and some of the much-loved chalk stream habitats in the East of England.

The wetlands follow on from our flagship River Ingol wetland which launched in 2019. The site, near Ingoldisthorpe, in Norfolk was the first of its kind in England. It's a whole systems, six capitals vanguard that brought together landowners, environmental custodians, and other authorities to make it both a reality, and a blueprint for other nature-based solutions.

Created in partnership with the Norfolk Rivers Trust, the wetland has since operated as a natural treatment plant for millions of litres of water, as well as becoming a beautiful habitat and flourishing haven for wildlife.

Our wetlands initiative is a major step forward to improving resilience by harnessing the power of nature instead of using carbon intensive infrastructure and additional chemicals.

03
Enabling nature recovery

Our accelerated infrastructure schemes

Overflow Reduction Smart Sewers

Overview

In August, the Government published its Storm Overflow Discharge Reduction Plan, outlining options, recommendations and targets. The report outlines three main options for reducing the frequency of overflows in sewer networks, including: separation of surface water systems, installing increased storage to hold flows during a storm, and installation of sustainable drainage systems to attenuate flows. The report also asks companies to value rainwater as a natural resource.

We are already pursuing all three of these strategies across our network. However, we believe we can do more and would like to further explore a fourth option using digital technology and smart sewer networks which could significantly reduce the use of overflows, targeting high-priority areas including coastal sites.

We propose to improve the accuracy of the forecasts in our hydraulic models in response to weather forecast data, both by investing in the digital twin of our network, and through physical interventions to install advanced sensors at point in our network identified as the root cause of overflow operation. We often find overflows located at, or upstream of, pumping stations in our region. This package also includes investment to improve the automation and control of these pumping stations to make best use of the existing storage in the system without construction of new storage.

This builds on our leading work to integrate predictive models that use weather data to anticipate changes in network performance and enable prioritisation of proactive interventions by our highly-skilled and dedicated field teams.

We want to combine this cutting-edge technological investment with behavioural change campaigns, encouraging our customers to play their part in fighting sewer overflow discharges. Our '3 Ps - Pee, Poo, Paper' campaign encourages customers to dispose of unflushables responsibly, not down their toilets. We believe government can play a transformational role in this fight as well, by proceeding with the ban on single-use plastic wet wipes, as proposed within our original Green Recovery 5-point plan.

Additionality and deliverability

Over several AMPs we have invested in many areas to reduce overflows. In AMP7, we have a high-spilling CSO programme within WINEP. This accelerated work to invest in digital solutions to overflow management is additional to that.

Statutory drivers

This investment supports measures outlined in the Government's Storm Overflow Discharge Reduction Plan, and the statutory duty in the Environment Act 2021 to progressively reduce the use of overflows.

Outcomes

Our Get River Positive commitment is to reduce spills from storm overflows to an average of 20 per year by 2025.

Outputs

The performance commitment for AMP8 is still being developed, however, we are aiming to improve 400 top priority overflows.

Outcomes Based Environmental Regulation

We plan to prioritise overflows and rising mains at high-priority sites as defined by the Storm Overflow Discharge Reduction plan, particularly those in the catchments for A-WINEP (Wensum, Stiffkey, Lark), and priority coastal sites.

Investment: £28.2 million

Ongoing PR19 activity: **Overflow reduction through Sustainable Urban Drainage Systems (SuDs)**

Recent examples include 'rain gardens'completed on Dunstable High Street in April 2022. Once a previously flood-prone road, it now contains underground storage for surface water run-off and roadside rain gardens, transforming the high street and protecting the area against future flooding.

Elsewhere, Park Avenue in Canvey became the first street in Essex to have new rain gardens installed in road verges last year. These hold surface water away from the road and provide an environmentally positive and aesthetically pleasing solution for the local community. SuDs is just one example where we have integrated the six capitals framework in our everyday operations and decision-making.

04
Becoming a net zero carbon business

Our accelerated infrastructure schemes

Grid decarbonisation and energy self-sufficiency

Overview

The water industry is in a unique position within the UK energy system, as both a high user of energy and a producer of biogas. We have been considering our strategy in this space for a long time. In 2020, we published our Climate Adaptation Report and in 2021, our roadmap to net zero. As part of accelerating these investments, we propose to install new systems to enable export of biogas to the national grid. This will support energy self-sufficiency and decarbonisation of three key cities in our region - Norwich, Northampton and Milton Keynes. These are three out of the nine locations where we have potential to install this circular economy technology. We plan to continue the roll-out of gas export to the national grid in the future and integrate it with new developments in the hydrogen economy.

Additionality and deliverability

Our current efforts on grid decarbonisation include our most ambitious ever renewable energy programme, which will continue to generate, consume and export green power into the national grid into AMP8 and beyond. We are making use of Power Purchase Agreements to minimise the cost to customers of the renewables programme and leverage funding from third parties. The gas export technology is not part of our current AMP7 plans.

Statutory drivers

This scheme supports the Government's 2050 net zero carbon target. It also facilitates the creation and production of green energy in the UK.

Outputs

At maximum capacity across all nine sites, we would be able to produce over 61 million m^3 of raw biogas (60% methane content). This is equivalent to over 355 million KWh of energy. This accelerated investment is to export gas at three sites.

Outcomes

Our approach would bolster energy resilience and eventually enable us to produce enough gas for nearly 30,000 homes.

What we need to accelerate this scheme

Having gas to export requires us to use digestion technology which in turn, is dependent on having a market to sell bioresources into the agriculture sector. We are working with the Environment Agency to understand the Farming Rules for Water and the proposed future scenarios of available land bank for export of bioresources to agricultural land.

Investment: £27.2 million

Ongoing PR19 activity: **Grafham Solar**

In 2020, we completed our largest renewables project; our solar array at Grafham Water, working with solar partner HBS New Energies and its PPA funder, the Green Investment Group.

Grafham Water uses approximately 45 million KWh of energy a year to supply clean water across the region to hundreds of thousands of customers. The 43,000 solar panels generate 26% of the energy used by the treatment works during a year - enough to power 3,000 homes. It saves around 3,500 tonnes of carbon annually.

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Creating green jobs and boosting skills

Our proposed schemes will create employment opportunities and boost skills within our region.

For our previous Green Recovery programme, we engaged CITB to use their Labour Forecasting tool to assess the job creation associated with that programme of works. The tool assessed that one job was created for approximately every £90,000 of expenditure on this work type. Through our Strategic Pipeline Alliance we have already created well over 100 new roles.

To ensure we have the skills required to deliver on our future projects, we are calling on government to support in addressing the skills gap nationally. However, we have long been collaborating with educators and our Alliance partners to build a pipeline of future leaders: the engineers, technicians, data analysts and scientists our industry needs. We would urge government to move to full devolution of a single skills budget, so that local authorities can work with employers to tailor the skills system to meet current and emerging needs.

Building on our success sponsoring technical courses at the College of West Anglia in Wisbech, we've added three new colleges - West Suffolk College, Milton Keynes College and Grimsby Institute - as part of an ambitious talent expansion programme. These employer-supported multi-skill construction courses are designed to attract new talent into the utility sector and boost career opportunities, enabling students to go on to work for either Anglian or one of our Alliance Partner companies as an apprentice.

Together with our Alliance Partners, we've since made a £2 million commitment to sponsor a Green Skills Academy at the College of West Anglia. This is a pending approval of a Levelling Up funding bid, which we specifically urge government to support. As a long-term partner of this academic institution, one that has successfully, over many years delivered our Collaborative Skills Programme, we were offered the opportunity to become corporate sponsor. This has enabled us to shape the green skills that need to be developed, as well as being a direct beneficiary of the pipeline.

Upskilling, with a focus on sustainable skills, is key to our approach to developing our existing workforce, too. Our 'Licence to Operate' scheme - cited as a benchmark standard by the Drinking Water Inspectorate - has been running for well over ten years and we were the first water company to be accredited to the Energy and Skills Competent Operator Scheme.

Furthermore, our early careers programmes for graduates, apprentices and interns helps us build our workforce of the future - with around a third of Anglian Water's workforce retiring in the next decade. We have made full use of our allocation of the Government apprenticeship levy, with a focus on areas where employment opportunities have been limited. We currently employ around 200 apprentices in our business.

Our Education Team supports schools and their students, promoting different careers in STEM. They work with educators and students from primary school level upwards, acting as a positive influence for young children to engage with STEM subjects. Our work in secondary schools also sees us focus on employability skills. Over the year, we've delivered virtual, blended and face-to-face programmes and activities to 31,000 students.

There is no Anglian Water without our people, and just as we did throughout the pandemic, we are now preparing extra support to deal with cost-of-living pressures. This includes additional wellbeing initiatives and continuing our Employee Assistance Fund, which was initially launched with donations from senior leaders to support colleagues whose household faced financial hardship during Covid.

Funding

The costs provided within this accelerated plan are all in the 2020/21 price basis, as requested, but are still at an early stage of development.

We will seek to refine our cost estimates in advance of our PR24 business plan submission in October 2023. These proposed costs don't currently reflect the on-going costs of operating these investments.

Our experience of forging strong collaborative partnerships that achieve greater outcomes for both the environment and customers is evidenced by our Flood Partnership Funding model, Get River Positive commitments, and leadership on initiatives like treatment wetlands, which have leveraged additional funding and unlocked blended funding opportunities to solve issues that span multiple sectors. We are confident we can apply our learnings from these programmes to many of the schemes proposed here.

We anticipate leveraging one third of the funding from developers to address Nutrient Neutrality.

For the strategic transfer schemes we propose to accelerate here, which include water pipelines, our early cost estimates are based on the same underlying assumptions as the draft WRMP. They use the same cost estimation approach that was scrutinised by the CMA for our existing AMP7 investments and found to be cost-efficient.

Commitment to sustainable finance

We are committed to securing the vast majority of our capital funding sustainably, as detailed in our recent Sustainable Finance Impact Report. In the second year of the AMP, we've raised £725.5 million of funds across a number of debt transactions. Investors have financed a wide range of investments under a range of portfolios. This included the Anglian Water Group's first Sustainability-Linked Bond for £300 million, tied to achieving our net zero 2030 targets and 2025 interim targets.

Anglian's asks of government

We are determined to do our bit to enable growth while enhancing the environment and society in the region we serve, but we can't solve the challenges we face in isolation. We need specific support from government to enable us to fast-track these, and other projects, and thereby support growth.

Resilience

- We would welcome the implementation of Schedule 3 of the Flood and Water Management Act of 2010, which is an important piece of legislation that's been on hold for 12 years. Schedule 3 will remove the 'automatic right to connect' surface water to our sewer network, making sustainable drainage solutions a requirement for all new housing developments. Sustainable drainage systems help to keep rainwater run-off from highways and buildings out of sewers, which will in turn minimise the need for CSOs. Run-off from roads contains petrol, sediment, heavy metals and other pollutants, all of which wash into nearby rivers after heavy rainfall.
- In addition to our own water assets, there are many private sewage assets that are owned and operated by individual homes and businesses across the region. These also discharge to the environment, but their activity is currently not tracked or reported on. We would like to see the Environment Agency set operating standards that private sewage assets are held accountable to, alongside prosecution in the event of harmful discharges from these assets.
- We support the current proposal for water efficiency labelling to be expanded, and advocate for it to be included on all water using appliances including taps and toilets. 'Leaky loos' are a large contributor to the 25% of leakage that is now customer-side. Around 5-8% of dual flush toilets leak, wasting an estimated 400 million litres of potable water every day across the UK - enough to supply 2.8 million people. We have also suggested the government looks at the definition and quality standards for dual flush toilets to improve knowledge and ease of use, as well as reducing leakage.

River Health

- We welcome further scrutiny of the impact that agriculture and highways run off has on river health. Specifically, we want the government to incentivise regenerative farming practices to reduce the number of pesticides used by farms in the UK. Pesticide usage has a negative impact on the health of our rivers - but as our Slug it Out initiative has proven, change is not only possible, it's beneficial, and we welcome the government's action taken to ban metaldehyde.
- Alongside many other organisations, we worked to support the government in its design of Environmental Land Management Schemes and we still support the benefits it will bring to Eastern England and beyond. We hope to see these schemes maintained and supported by government.
- We want to see extended producer responsibility to manufacturers of wet wipes that cause sewer blockages and blight rivers and beaches. Most wet wipes include plastic microfibres that mean they do not biodegrade - even those labelled as 'flushable'. We believe manufactures should be held accountable for the harm these products cause to the environment and should remove plastic from their production. Earlier this year, we supported Fleur Anderson's Wet Wipe Bill and have written to all MPs in the Anglian Water region encouraging them to vote in favour of the bill.

Planning

- As outlined above, our track-record of delivery of strategic pipelines in the Anglian region to date has given us first-hand experience of the challenges in obtaining the necessary consents for such schemes. Building on government ambition to fast-track planning routes for critical infrastructure, we believe there is an opportunity for water companies to work in partnership with government to streamline this, building on the work already done to create the DCO process.

Skills Gap

- We are a large employer in the East of England, with a workforce of 5,000, and more than 3,000 others in partner organisations, plus the wider supply chain. Along with other businesses across the UK we are also experiencing a shortage of skills, specifically engineers and data engineers. There is huge competition within the East of England for resource and we have a looming retirement cliff edge approaching. Given the importance of this issue we would urge government to support projects that address the skills gap, such as our sponsorship of numerous regional colleges across our region and, specifically, a £2 million commitment from Anglian Water and our Alliance partners to sponsor a Green Skills Academy at the College of West Anglia in Wisbech. This is a pending approval of a Levelling Up funding bid from College of West Anglia CEO David Pomfret, due to be announced in Autumn, which we specifically urge government to support. Acceleration of such Levelling Up activity would dramatically benefit the talent pipeline.

Outcomes Based Environmental Regulation

- We would like to work with the government on Outcomes Based Environmental Regulation (OBER) approaches. This is the most effective way to achieve significant environmental improvements. The current approach to regulation can hinder alternative solutions that can be cheaper, greener and quicker. We are working hard to showcase how an OBER approach can work and have considered this throughout the selection of our proposed schemes. A whole system, six capitals approach is a blueprint where our purpose - if supported by outcomes based environmental regulation - can drive ambitious collaborative initiatives that bring renewed environmental, social and economic prosperity to a region.
- Truer environmental performance measurement, with more weight given to how much water is taken from the environment, would also redress the inequalities seen in the current EPA framework. Abstraction reduction is one of the biggest contributions water companies can make to environmental protection. Despite operating in the driest region with the fastest growing population, Anglian has voluntarily reduced abstraction licences more than any other company, in addition to making the biggest reductions in abstraction this AMP, at 85 Ml/d. As a result of these efforts over decades to leave more water in the environment, 98.8% of SSSIs in our ownership are in a favourable condition (vs the national average of 38.6%). Given 65% of our region's SSSIs are also wetlands, this is all the more significant. Ultimately, it is these actions on abstraction that will ensure chalk streams have the flows they need - the significance of which can't be overstated in the pursuit of genuine, good ecological quality.

We will continue to work with government on these asks and continue to develop the evidence based required to support our requests.

Anglian Water Services Limited
Lancaster House
Lancaster Way
Ermine Business Park
Huntingdon
Cambridgeshire
PE29 6XU

www.anglianwater.co.uk

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