

PR24 and beyond

10 years of investment?



YorkshireWater

Executive summary

Water companies are unique institutions which sit between the private and public sector, using private finance to provide public service and to deliver public and environmental goods. They are anchor institutions within their regional economies and are well placed to help the country respond to the twin challenges of climate change and post-Covid recovery. At the very least a decade of investment will be needed to meet these challenges and with the right policy and regulatory framework, water companies can provide the finances to deliver this.

Water companies face a number of further challenges which will need to prompt an evolution in the way in which they work. To enable them to fully respond to these challenges the government should consider changes to the way in which economic and quality regulation works.

Climate change will bring drier summers and wetter winters with more extreme weather. The impacts of drought and flooding will need more resilient infrastructure as well as collaboration to reduce demand for drinking water. Demand reduction becomes even more important given population growth and changes in the structure of work and households.

The costs of providing this resilience will need to be borne fairly between the current generation of bill payers and the next and we need to be mindful that those currently leaving full time education are the generation whose economic prospects have been worst hit by Covid.

Public expectations of environmental performance have significantly increased. Perhaps because of our greater reliance on our local environment during lockdown, tolerance for pollution has vanished, even if it is caused by the normal functioning of a wastewater system when it discharges through sewer overflows. Along with demands for better performance come demands for a greater level of accountability.

The public know just how vital water companies are, how important their environmental impacts can be and want to know how we are performing on issues which matter to them the most. As transparency increases to meet this demand this will inevitably lead to further pressure for improvement as people use our own data to become citizen regulators.

To respond to these challenges water companies will need to evolve the way they work. Most of the challenges we face are not ours alone and can only be dealt with in partnership with others. The basis for those partnerships already exists. In

Yorkshire we work in partnership with local authorities throughout the region to produce common strategies to deal with climate change and to improve resilience.

Those partnerships will need to evolve beyond the point of collaboration and move towards shared assets, common strategic and operational plans and perhaps even combined workforces.

As water companies evolve to deal with changing circumstances so the regulatory and policy regime within which they work will also need to be adapted.

A simpler process to allow investment decisions to be made more quickly and at cheaper costs is a priority. It should not take four years and incur significant costs for the price and investment cycle to be decided. Government and regulatory policy need to line up better and be more consistent so that investors can have more confidence in the stability of the regime which they are funding.

Greater flexibility in the regulatory system will allow more partnership working and encourage more use of innovative nature based solutions which are more sustainable and provide wider benefits to society but provide less certainty of outcome.

This paper sets out the role which water companies play in society and expands on the way in which they will need to change to respond to the challenges they face. It also raises some initial ideas about how regulation could change for the better. It is intended to spark debate and discussion and we will be publishing a series of longer papers over the next year which will expand on these ideas.

We welcome responses to this paper and relish the prospect of a rich discussion in a vital year for the industry.

Liz Barber
Chief Executive Officer

Introduction

In the next year a number of significant decisions will be made by government and regulators which will have a lasting impact on the water industry and its ability to invest in resilient infrastructure. HM Treasury will be reviewing economic regulation and consulting on the first cross sectoral strategic policy statement setting out what government expects from all network regulators. Defra will also shortly start a consultation on its policy guidance for Ofwat and the water regulator itself will be engaging with industry and customers on the early stages of its approach to the next price review.

At this pivotal moment, supported by imaginative and flexible approaches by policy makers which encourage investment, the water industry could make a significant contribution to the UK's response to climate change and recovery from Covid. Policy will be set against a backdrop of changing dynamics which will need to be reflected if the next price review is to allow water companies to fulfil their potential. Equally, water companies will need to reflect on these dynamics themselves and change the way they work in partnership with others.

The need for additional investment in resilient infrastructure has been set out in a compelling fashion by the National Infrastructure Strategy and swift progress is needed if the UK is to invest at sufficient pace to ensure that resilience keeps track with climate change. As well as helping with climate mitigation and adaptation, investment can also play a part in providing economic stimulus as the UK looks to readjust the economy to deal with the impacts of Covid 19.

Public expectations have also changed decisively. Support for environmental investment has grown and tolerance for pollution has all but gone. Restrictions on our lives over the last year have meant that we rely more on our local environment for our recreation, health and wellbeing and this increased reliance has unsurprisingly been matched by a strong negative reaction to anything which damages our enjoyment of our natural surroundings.

Issues of generational fairness have never been more important. The generation now leaving education and starting careers is suffering the biggest economic impact of Covid and is also likely to bear the costs of climate change most heavily. Investment delayed will only increase that burden even further.

The need for climate resilience, growing demands for environmental improvements and pressures for fair distribution of costs are critical issues for water companies. The next price review could help the industry to make a significant contribution to dealing with them. It could help to make up ground lost

in the investment shortfall caused by the PR19 price review. With the right regulatory framework, companies will be better placed to deliver their net zero carbon ambitions at a fair cost to customers.

A review which favours affordable investment for the future could leverage significant improvements in critical infrastructure and the natural environment. There is clear evidence that delays in spending to mitigate the impacts of climate change increase costs over the longer term and merely serve to pass responsibility to future generations. Embracing the public demand for cleaner rivers and matching this with the investment to deliver would set the tone for a decade of green and sustainable improvement.

Perhaps the most important contribution of the water industry has been its ability to deploy private investment to deliver public and environmental goods. It is hard to think of a time when this ability has been more important, and this imperative has been stressed by influential bodies such as the National Infrastructure Commission and the Public Accounts Committee.

However, PR24 needs to do more than just achieve a fair balance between investment and price in a way which PR19 did not. It needs to recognise that the way in which that investment will be delivered will be different. Nature based solutions will progressively take the place of hard civil engineering. Partnerships between water companies and other public bodies will need to deliver shared, holistic solutions to shared challenges. Regulation will need to adapt to these changes and look beyond the traditional way it looks at efficient delivery.

This document looks at the unique role water companies play in society and sets out how that role will need to change to deal with the challenges we face. It concludes by suggesting principles which a future model of regulation will need to adapt to keep pace with growing challenges and developing circumstances.

Yorkshire Water and its role in society

Water companies are unique institutions and the history of water and sewage services has seen a number of hybrid structures sitting between the public and private sectors. Although ownership structures have varied over time, the use of private capital to fund investment has been a constant.

Yorkshire Water sees itself as a public service provider first and foremost. Public service ethos runs deep in the culture and is matched by environmental commitment. We have a 30 year track record of delivering privately financed investment for public and environmental good. A commercial focus means that

investment is delivered efficiently and effectively and provides best value for customers.

The bills which customers pay do more than just cover the cost of the direct service they receive in their homes and businesses. They contribute to Yorkshire's resilience from flooding and they help to improve the quality of our rivers. They mean that large parts of our upland landscapes can be managed sustainably and over time they will help us invest to combat the impact of climate change.

Yorkshire Water is an "anchor" institution in Yorkshire – a permanent and fixed presence with the ability to be a positive force in society by careful use of the way it spends its money, delivers its service and how it employs people. As an anchor institution delivering vital public service it is a natural partner with other regional anchors such as local authorities, health and education providers and network utility providers. Our partnerships are based on common social and environmental objectives and shared public service values.

These partnerships help deliver sustainable and inclusive growth and increase regional resilience. In Hull, the Living with Water partnership brings together Hull City Council, East Riding of Yorkshire Council, ourselves and the Environment Agency in a shared strategy for flooding and resilience with an overall objective to increase economic growth for the region. A similar partnership is being developed with all the local authorities in the Don Valley, from the Peaks, through the Sheffield City Region and beyond.

In Leeds, we are part of a network of anchors which brings together public and private employers with a joint workforce of around 60,000. This collaboration aims to bring inclusive growth by pooling efforts on employment, skills, and workforce diversity.

Working with other network utilities such as Northern Powergrid and Northern Gas Networks brings shared approaches to helping vulnerable customers and to developing smart and connected networks.

Yorkshire's approach to climate change is based on collaboration and has resulted in most of the county's local authorities sharing the same net zero objective. We have worked to share carbon roadmaps with the devolved authorities to secure a unified approach and developed joint strategies to reduce the costs and increase the speed of delivery of mitigation and adaptation plans. This approach has led to the creation of the Yorkshire Climate Commission this year and we will be playing a significant role in that as it looks to launch itself with a distinct Yorkshire presence at COP26.

We are also working in partnership with public and private bodies within Bradford to enhance sustainable development in the area and are taking the lead on an innovative circular economy development which would create 2,000 jobs and contribute annual GVA of more than £100m.

As part of the Yorkshire Land Network, we collaborate with other major institutional landowners to spread best practice and innovation in land management and to use land and habitat restoration to maximise carbon sequestration.

The strategic challenges

Yorkshire's anchor institutions face a number of common challenges. Responding to these will be the most important drivers behind our approach to at least the next two price reviews.

Climate resilience

There is no doubt that our climate is changing. Even if we are able to hit net zero targets there will still be around two degrees of climate change to adapt to. We are already seeing the impact of this through more extreme weather. In 2018 we experienced one of the driest summers on record and this brought major challenges in balancing the continued supply of water to the region with the need to protect the natural environment. Whilst in 2018 we were able to manage the challenge through the operation of our network, and by working with customers to reduce demand, we cannot treat these events as one-off challenges to be managed through operational interventions.

Climate change means dry weather will become more common with predictions suggesting that by 2050 there will be a 50% chance every year of a summer on par with 2018, and by 2100 there will be 18% less rain each summer. In 2020 the Public Accounts Committee warned that there is a serious risk that some parts of England will run out of water within the next 20 years if action is not taken now to reduce demand and invest in resilient infrastructure.

Whilst summers are becoming drier, we are also seeing an increased frequency of extreme rainfall and flooding. In recent years Yorkshire has been impacted by the Boxing Day floods in 2015, severe flooding in south Yorkshire in November 2019 and the impacts of Storms Ciara, Dennis and Jorge in quick succession in 2020, all of which had significant impacts on the people and businesses of Yorkshire, and on operations at Yorkshire Water.

In addition to large insurance claims, which have increased our insurance premiums significantly, Yorkshire Water spent at least £95m between 2015 and 2020 responding to extreme weather. It is also important to recognise that responding to severe weather can have a significant carbon impact through the need for additional pumping and treatment, all of which contributes further to the climate challenge.

Demographic changes

The population of Yorkshire has increased sharply over the last 35 years and will keep growing, with an increase of 855,000 people predicted over the next 25 years. This means we will need to supply more people in future, all without increasing our impact on the environment.

The way people are choosing to live is also changing. Yorkshire households are predicted to increase by 30% by 2033, with a third of that growth coming from an increase in single person households.

The Covid-19 pandemic has presented short term challenges by shifting demand patterns as more people spend more time at home. It is likely that some of these changes will become permanent as people choose to continue to work from home.

Changing public expectations

In addition to the challenges we face from a changing climate, public expectations of the water industry are also changing, and this is driving demand for increased investment. One of the best examples of this is the current debate around the impact of storm overflows on the health of rivers.

This current debate on the acceptability of discharges from storm overflows can also be a triumph of transparency. The installation of Event Duration Monitoring (EDM) and the release of this data, both through open data approaches taken by water companies and via increasing use of Environment Information Regulations (EIRs) has increased awareness of the operation of overflows and has rightly led to a public debate on their acceptable use.

Responding to public desire for change is not without its challenges and complexities. Reducing spills from overflows will involve reconfiguring the sewer network which has been designed on the same principles for many decades and will require a change in regulatory focus to enable significant investment, often in new and different solutions. There is also a challenge in managing trade-offs between the carbon impact of engineering solutions and the ecological benefits of improved water quality.

Generational fairness

The challenges outlined above mean there is an inevitable need for significant investment to adapt to the changing environment and provide resilient infrastructure for the future. It is important that the costs of climate change and resilience are distributed fairly across generations and not pushed into the future in an attempt to keep bills low in the short term.

Deferring the costs, also increases them as assets at the end of their normal lives need to wait longer to be replaced and additional spending is required on costly short-term fixes. The Stern Review came to a simple conclusion on this subject: "the benefits of strong and early action far outweigh the economic costs of not acting."

The government's own strategic guidance to Ofwat issued in 2017 said: "Priority: Ofwat should challenge the water sector to plan, invest and operate to meet the needs of current and future customers, in a way which offers best value for money over the long term.....We expect companies to select options with a view to delivering the best value for money over the long term, considering the wider costs and benefits to the economy, society and the environment."

Public accountability

Many services on which the public rely for their day to day lives are provided for or commissioned by a body which is accountable to the public via the ballot box. If schools, hospitals, public transport or highways are poorly provided then there is a democratic resolution through elected representatives. Water and energy services do not have this direct democratic accountability and the deficit has been historically filled by economic and quality regulators answerable to parliament.

Whilst this provides some public accountability, the reality is that all regulators are distant from consumers and are widely viewed as anonymous bureaucratic entities whose workings are a mystery. The complexity of the regulatory process adds to this sense of alienation. Many regard the provision of water and sewerage services as a straightforward, if critical enterprise and cannot comprehend why price reviews take four or five years to conclude only to emerge with a contested and impenetrable outcome.

There are two potential ways of overcoming this challenge. First, a greater role for devolved administrations and mayoral combined authorities in agreeing the investment priorities for water companies would bring decisions closer to the public and provide a level of accountability less distant than that provided by a proxy regulator. This would provide the added benefit that water companies would

also therefore be more directly involved in the development of regional infrastructure strategies and is in line with the National Infrastructure Strategy.

Secondly, greater public access to accessible information on how water companies are performing at a local level and on their impact on society and the environment. It is no coincidence that the growing pressure on companies and regulators to improve river water quality has followed the ready availability of data from EDMs which show how often water company assets are discharging untreated effluent to water courses.

Maintaining investor confidence

The role of private investment in climate adaptation and in delivering resilient infrastructure has been recognised widely. It was a central point in the government's National Infrastructure Strategy published in December 2019. The Institute of Civil Engineers estimates that almost half of the UK's infrastructure is financed and delivered by the private sector and paid for by consumers, making use of the regulated asset base model.

Delivering that investment, without adding a burden to the public finances has always involved drawing a balance between a fair return to investors and ensuring that prices to consumers remain proportionate and affordable. Achieving this balance involves making sure that consumers are confident that they are paying a fair price and that their money is being spent on the right things and spent efficiently. Investors need to be confident in the stability and consistency of the regulator over time and be assured that capricious short term political decisions will not be made.

There is a perception that this precious balance has been lost in recent years. Disquiet at historic shareholder returns permitted by earlier regulatory policy led to action at PR19, aimed at preventing any further occurrence but appearing to some to also punish investors for past behaviour. This could not have come at a worse time. Although Ofwat could not have forecast the need for investment to recover from the pandemic, the need for spending to achieve climate resilience has been clear for some years.

Credit rating agency Moody's points to the reduced stability of the UK regulatory regime as part of the reasons for its downgrading of a number of UK water companies. It is critical that domestic and international investors view UK infrastructure as a safe and fair investment and these downgrades, prompted by regulatory decisions send the wrong message at a dangerous time.

Restoring balance is a critical challenge and can only be achieved by a more engaged dialogue between regulator and investors. It is only the restoration of that balance which will ensure that investment will be available to deliver government policy at a price which consumers can bear.

Greater use of partnership approaches

Partnership working is becoming increasingly important, partly because the challenges we face mean that no one organisation can address them alone, but also because working in partnership demonstrably delivers additional benefits for the region. For example, during Asset Management Plan (AMP) 6 Yorkshire Water were involved in 43 partnership projects, contributing £5.2m which leveraged £34m in match from other organisations.

The increasing scale and maturity of innovative partnerships, such as the Living with Water collaboration in Hull and the multi-agency approach to natural flood risk management in the Calder Valley, present new opportunities but also new challenges. Partnership approaches test the boundaries of current regulatory approaches as new and different types of assets are deployed and ownership is shared.

Partnerships – the next stage

However productive our partnerships with other regional anchors are, they will need to evolve and take on new dimensions if they are truly to deliver on our shared objectives and challenges. The next stage of anchor collaboration may take on number of forms and our thinking on the structures which may emerge is still in development. However, taking those partnerships to the next level may well bring the following elements:

- As envisaged by the National Infrastructure Strategy, we will likely see a formal role for local authorities in determining Yorkshire Water's strategic plans, investment, and service priorities. This will go beyond the normal stakeholder engagement process which accompanies the traditional Ofwat periodic review and will ensure that water company plans are well aligned with regional priorities. This will also fill a democratic deficit and a bring greater levels of public accountability.
- We will need to move towards greater alignment of investment and operational plans amongst all authorities concerned with regional infrastructure development. This would involve a harmonisation of strategic investment cycles to ensure that best use can be made of shared funding

opportunities. On an operational day to day level, shared highways and streetwork plans would be a substantial step forward and provide great benefit for customers.

- Integrated catchment management and more use of nature-based solutions means that accountability for the management of water will be shared between water companies, other landowners and agencies and local authorities. Assets such as sustainable urban drainage systems will be jointly owned and maintained by partners who have a common interest in shared outcomes.
- Wider use of technology in the management of public space and public services can drive citywide partnerships which can drive innovation and productivity. Many public service providers have complementary data needs, both in terms of data generation and the infrastructure to share that data. Collaboration in the development of that infrastructure is entirely logical as is the open book sharing of that data between providers. Taken a stage further open data collaborations have the potential to improve public accountability and better engage the public in shaping the services they receive.
- A shared approach to public engagement and joined up demand management/behavioural science approaches is also likely. Given that the service a water company provides is closely interlinked with other public services it makes sense for local authorities and network utilities to develop joint approaches on how they engage the public in the development of those services. There is also a significant opportunity to work together on the changes to public behaviour which we all need to assist with climate adaptation and mitigation.

Flexible regulation

The current model of economic regulation has worked well with a stable sector of companies largely working unilaterally to deliver services in the confines of their catchments. However, it needs significant adaptation to enable the challenges above to be met.

We will be developing a number of ideas for regulatory reform for submission to the review of economic regulation announced in the National Infrastructure Strategy. These will be underpinned by the following principles:

- **Earlier guidance and direction from government.** Policy and regulatory frameworks need to be better coordinated such that government's policy objectives are set at the very outset of a price review rather than mid-way through. As well as giving a clear framework for economic and policy regulators to work through this will also add clarity and consistency for companies and investors.
- **More effective alignment between economic and quality regulators** to ensure coherence of process and objectives. The creation of the Regulators' Alliance for Progressing Infrastructure Development (RAPID) and the early discussions on the Water Industry National Environment Programme (WINEP) are a promising start to this process but they need to go much further. Greater use of partnership approaches also means that the need for alignment goes beyond the regulatory ecosystem and into local authorities.
- **Greater use of outcome regulation.** The current system has been very effective at driving value for money and protecting the interest of customers. However, that approach now needs adapting as it contains an inherent bias towards traditional engineering solutions which can be more easily evaluated, and which provide more certain results. The setting of desired outcomes and greater flexibility over how those outcomes are achieved would drive more innovation and offer greater value for money.
- **Asset flexibility.** Climate change response, partnership working, and the increasing use of nature-based solutions will need a more flexible approach to assessing the value and status of assets. Traditional engineered assets which sit on water company books are straightforward to assess in terms of whole life cost and easy to regulate in terms of their outputs. Response to climate change will mean we will need to use more unorthodox assets some of which we will share with other partners. Regulatory accounting can't recognise this type of asset as it stands and there is therefore a disincentive to invest and innovate in this way.
- **Regulatory simplification.** The current approach to price setting is elaborate and complex, it builds in significant cost which is ultimately borne by customers and the level of complexity makes it hard for the public to understand how the whole system works, therefore reducing trust and accountability. It is estimated that the last periodic review cost industry and regulator in excess of £200m which is ultimately borne by customers. It has taken around four years and has yet to be completed.

- **Widening considerations of benefit and value.** Nature-based solutions generally provide wider benefits alongside their core purpose. For example, Aquagreens in Hull provide communities with accessible green space outside of the times they are storing flood waters. This helps to improve health and wellbeing, provides communities with a space to come together and reduces pressure on services provided by the local authority and health services. They also provide wildlife and biodiversity benefits and increase natural capital. Other natural flood management interventions such as tree planting and peatland have carbon sequestration benefits. Regulation should be designed in such a way as to take account of these wider societal benefits when assessing the cost-benefit of these interventions.
- **Innovative funding approaches for delivering nature-based solutions, partnership initiatives and multi-AMP plans.** Innovative solutions delivered in partnership with other organisations often do not fit into traditional funding and accounting processes. Nature-based solutions also often work on longer timescales when compared to traditional engineering solutions and may not deliver results within the timescales of the current regulatory process. Therefore, new approaches are needed which allow water companies to fund different types of assets, that may be owned by other organisations, and which may take multiple AMPs to be delivered.
- **Greater recognition of the net zero challenge and the trade-offs between ecological benefit and carbon impact.** Current regulatory timescales prioritise measurable outputs and shorter-term delivery timescales. As a result, this incentivises traditional solutions, such as end of pipe chemical treatment despite the marginal ecological benefits and high carbon impact. An approach which fully accounts for carbon impact is needed to ensure that the overall impact on the environment is built into decision making.
- **A stronger voice for local customers and stakeholders.** Anchor institutions like local authorities and metro mayors have a critical role in their regions and should have a bigger role in shaping companies' business plans, particularly as we begin to tackle shared challenges in partnership. Local customers and stakeholders seeing their priorities, such as environmental and social initiatives, reflected in the price review process would help to build public confidence in water companies, regulators, and investors.

Thank you

For more information please contact:
publicaffairs@yorkshirewater.co.uk

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facebook.com/yorkshirewater
yorkshirewater.com