PR19 Business Plan

Delivering the Water Industry Strategic Environmental Requirements (WISER)

17 August 2018

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1. Introduction

The Water Industry Strategic Environmental Requirements (WISER) is the strategic steer from the Environment Agency and Natural England to water companies. It was published in October 2017 and sets out the environmental, resilience and flood risk obligations that these organisations want all water companies to take account of when developing business plans for 2020 to 2025.

On 3 September we will publish our Business Plan which will outline how we will meet and exceed our customers' and stakeholders' priorities from 2020 to 2025. As part of this plan, we will deliver on five pledges and 24 commitments which we make to our customers. This report will form part of our Business Plan and is being issued in advance to the Environment Agency and Natural England on 17 August 2018 as requested in their letter dated 15 June 2018.

We will at the same time publish our revised draft Water Resources Management Plan (WRMP) following its consultation and accompanying Statement of Response to representations received.

The development of our Business plan and revised draft WRMP have taken place in parallel. There is significant overlap in the issues they both address with the Business Plan focused on delivery of the shorter-term requirements to balance supply and demand as described in the revised draft WRMP. This includes protection against drought, sustained and significant leakage reduction, efforts to reduce customer usage through metering, water efficiency assistance and education. In combination, these will deliver a greater level of sustainability and resilience in our services now and in the future for the benefit of the communities we serve.

The objective of this report is to give stakeholders assurance that our plans include actions, approaches and investment that meet the WISER expectations and our statutory obligations. We have included a number of short case studies to demonstrate our track record of embracing innovative practices and developing strong partnerships in the development and delivery of exemplar projects and initiatives.

Additional detail supporting the content of this report will be available in our plans when published next month.

2. Our business plan at a glance: 5 years, 5 pledges

Our Business Plan and Water Resource Management Plan deliver more of what matters to our customers. To make sure we fully understood our customers' views, priorities and preferences we developed and undertook a high-quality multi-phase programme of engagement that provided the insight we have used to develop our plans.

Our Customer Scrutiny Panel (CSP) reviewed our strategy and the quality of engagement activity throughout the process and had the opportunity to challenge us on our approach. Their input helped us shape and refine our programme.

Our engagement programme has provided a broad range of insight which has driven the pledges and performance commitments we are making for the next five years. Water is an essential service, but not one people spontaneously think about very often. Through the insight we've gained from the engagement programme we have seen subtle movements in the priorities of our customers and others who are impacted by or involved in some way in the service we deliver. We have summarised the insight our customers and others have given us into five pledges in customer-friendly language:

They build on our existing commitments, emphasise the number one priority for our customers and capture their expectations of our wider role in society. Delivering these pledges – and the 24 associated performance commitments – will put our customers' priorities and the environment at the heart of how we run our business.

We believe that the delivery of two of our pledges – *supporting a thriving environment we can all rely upon* and *delivering a service that is fit now and for the future* – are most relevant in the delivery of WISER.

3. Meeting the expectations and obligations of WISER

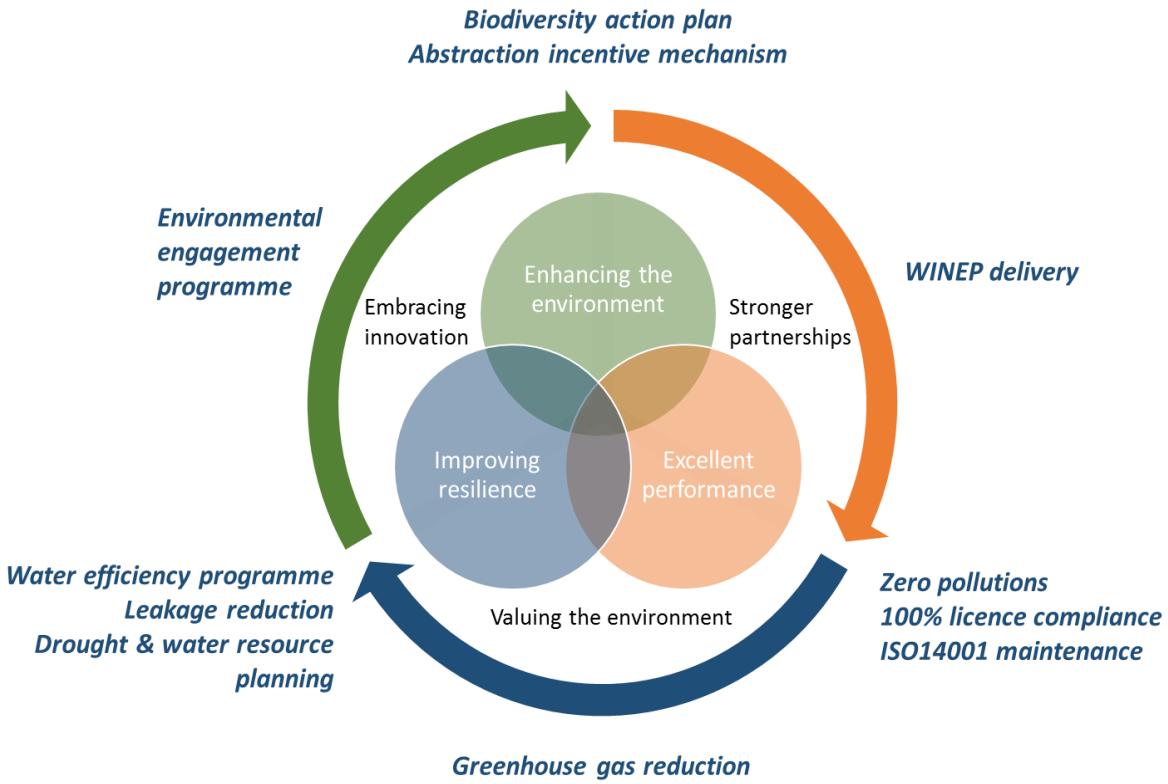
We are confident that our Business Plan – and specifically our environmental strategy – contains all the requisite elements to ensure, as a minimum, compliance with both the water industry national environment programme (WINEP) and WISER, and its intent is fully aligned with that set out within the Government's 25 Year Environment Plan. This strategy takes a twin-track approach of protecting and enhancing the environment, both now and in the future through:

- Minimising the impact that we and our customers have on it
- Actively improving it in areas of benefit to our customers

and comprises four pillars of activity:

1. Leaving more water in the natural environment and mitigating the impact of our abstractions – by reducing both demand from customers and leakage from the network
2. Reducing energy use and embracing renewables – limiting and where possible stopping greenhouse gas emissions created by our operations
3. Enhancing biodiversity and the catchments we operate in – though the delivery of regulatory requirements and additional improvement through working in partnership with environmental stakeholders
4. Engaging with our customers – both current and future – about the linkage between water supply and its use, and the environment.

Set out below, using an adaptation from WISER, is our interpretation of how our environmental strategy maps onto the expectations for good practice. In the sections that follow, we describe how we intend to meet the requirements of WISER in full.



3.1. Enhancing the environment

We have accepted the requirement to conduct a number of investigations and deliver actions and measures throughout 2020-2025 under the third release of the Water Industry National Environment Programme (WINEP3). All agreed schemes have either a water quality (Drinking Water Protected Area - DrWPA), water resource (Water Framework Directive - WFD) or invasive non-native species (INNS) driver. The delivery of these schemes – and funding requirements – has been incorporated into our Business Plan, aligning the timing of delivery with a proposed performance commitment. The 24 schemes are classified as follows:

13 water quality investigations or catchment schemes, of which five are quality investigations, focusing on ensuring we have fully characterised the relevant catchment areas in order to identify any action that may be needed to prevent any potential deterioration in surface or ground water quality.

The eight quality catchment schemes are to be completed where we have completed investigations prior to 2020 and identified a programme of work and measures that will aim to improve quality, thereby eliminating any future need for treatment. One of the schemes overlaps with the deliverables agreed with the Drinking Water Inspectorate under our Undertaking for metaldehyde.

Eight water resources schemes, seven relating to abstractions in the River Wandle catchment, and one in the Upper Darent catchment – all with WFD drivers – focused on the prevention of the deterioration of the ecological status due to flow pressures. A successful outcome will be dependent on collaborative working with key stakeholders and neighbouring water companies.

In both the above cases, we will assess the potential to develop relationships with Catchment Based Approach partnerships as part of the process.

Three company-wide schemes relating to invasive non-native species and biosecurity focused on the prevention of deterioration due to the spread of INNS by the identification of any risk factors and possible pathways for spread, the delivery of training and awareness and operational measures to reduce risk. Our schemes require both investigation and delivery in the period.

<u>Biodiversity and ecosystems</u>

We are also proposing a performance commitment in respect of an element of our biodiversity action plan – specifically to achieve the Wildlife Trust's 'biodiversity benchmark' at three of our sites by the end of AMP7.

Case Study: Delivering on control of metaldehyde at Bough Beech

Metaldehyde is difficult to treat using conventional pesticide removal processes and since the raw water challenge was first identified in 2008, we have looked to manage the risk by reducing the concentrations abstracted into our raw water storage reservoir at Bough Beech.

In the absence of a suitable on-line detection method, our in-house Laboratory developed an innovative, fast analysis method to enable us to manage abstraction on a daily basis, avoiding the peak metaldehyde concentrations in the river and reducing the concentrations presented for treatment.

We have engaged with many different stakeholders that have a role to play in supporting the farming community and have also worked directly with local farmers that have a direct influence on the quality of the raw water in our reservoir, encouraging them to use alternative products that do not challenge treatment. We will continue to contribute to industry working groups that are looking to ensure effective communications and share best practice as we look to reduce the risk and secure on-going compliance through to 2025.

We have delivered metaldehyde-compliant treated drinking water since 2010.

This has been developed to demonstrate our understanding of our statutory obligations and

our general duty to conserve and where possible enhance biodiversity alongside our ambition to reduce our impacts on the environment. It runs alongside our assurance that we will take account of any and all special designations existing on sites that may be impacted by our operations (such as laying of new mains).

Delivery of the plan will be achieved through partnership with relevant organisations who have a valued interest in the local environment, namely the Wildlife and Rivers Trusts, Natural England and the Environment Agency.

Sustainable fisheries

Our direct impact on fisheries is – owing to the vast majority (around 85%) of our resources coming from groundwater sources – comparatively small. That said, we have completed the first of two projects to install eel screens at abstraction points, delivering the outcome on time last year.

We are in the final stages of discussions with the Environment Agency regarding the scope and priority of delivering a project at the larger of our two abstraction sites at Chiddingstone in Kent. This site is considered a medium-risk site, and on the basis that it meets the necessary criteria, we are currently formalising an exemption for this site, requiring the project to be delivered alongside other proposed maintenance works at the site during AMP8.

3.2. Improving resilience

As part of our Business Plan process, we have undertaken a detailed exercise to look closely at our overall business resilience (referred to by Ofwat as 'resilience in the round') looking at all aspects from our water resources and our physical assets to our people and systems.

This work has helped highlight a number of areas where our resilience requires improvement through the adoption of a range of mitigations, categorised into one of the four 'R's' recommended by the Cabinet Office – resistance, reliability, redundancy or response & recovery. The work has also helped improve our corporate risk management, facilitating a more integrated approach.

These resilience risks have then been assessed and mitigations prioritised. Where the cost of mitigation is material, we have tested this with our customers before incorporating into our Business Plan – one key example being the completion of our works to connect all customers to more than one of our treatment works.

Flood risk management

Since the flooding of our Kenley works in 2014, a significant amount of work has been undertaken to assess and address the risks of flooding to the business and we have put in place flood measures on the sites that are known to be susceptible to flooding. Prior to, and since this flooding event, we have worked closely with local resilience forums and other stakeholder groups – such as the Caterham Bourne Flood Alleviation Project – in Surrey, Kent and south London to discuss risks and responses to flooding. This work will continue through the next AMP as we periodically review and re-assess our resilience to flooding.

We comply fully with the requirements of the Reservoirs Act 1975 which ensures that the integrity of the dam at our only impounding reservoir at Bough Beech in Kent is regularly inspected by a Supervising Engineer. None of our service reservoirs are large enough to be

within the remit of this act, however, we ensure that they are inspected internally on a five-year basis and externally on a weekly basis.

Water Resources and security of supply

Through the adoption of Defra's Guiding Principles, we have conducted a rigorous process over the last 18 months to build our water resource management plan (WRMP) for the period 2020-2080. Over a similar period, we have also updated our drought plan, and are currently providing the final elements of additional information requested by Defra ahead of their final approval.

Our WRMP is soon to be submitted in its revised draft form following its public consultation period earlier this summer. As confirmed in the introduction to this report, this plan fully aligns with our Business Plan, and the WRMP outcomes and measures required to protect the environment translate directly to the supply-demand elements incorporated into our Business Plan, as some of the specific examples listed below demonstrate. Those marked with an asterisk (*) have either a required or proposed performance commitment applied to them.

During AMP7 we will deliver the following:

1. The sustained and significant reduction in leakage, by 15%* and target more than halving our current leakage – already close to industry-leading and below the current sustainable economic level – in the periods that follow to 2050

2. The acceleration of our metering programme to increase penetration from 60% to 90%, including the partial roll-out of smart meter technology, increasing this to 95% penetration by the end of AMP8

3. Complementing this universal metering activity with an enhanced water efficiency programme to collectively deliver around 7%* reduction in per capita consumption (PCC) to below 135 l/h/day, reducing this further to 118 l/h/day by 2050

4. Completion of our mains resilience programme such that by 2025, 100%* of our customers are able to be supplied by at least two of our treatment works. This work will allow us to use our mix of groundwater and surface water resources more flexibly

5. Adopt the abstraction incentive mechanism (AIM) at two* of our groundwater sites in an area known to be environmentally sensitive to abstraction, allowing us to explore the concept of expanding this approach in future AMPs.

Partially as a result of adopting these demand-side measures, our WRMP modelling did not require us to progress any supply-side measures for the duration of the planning period. However, in the interests of building additional resilience, we are proposing to undertake early feasibility work on the development of further boreholes in part of our region, including in areas susceptible to flooding, with a view to develop in future AMPs.

Climate change

Our Business Plan incorporates a range of measures focused on reducing total carbon emissions. This work emanates from our energy strategy, which has developed further over the last 12 months, and proposes, over the AMP7 period to:

1. Further reduce energy use by continuing to install energy efficient technology in areas including pumping, heating and lighting - by up to 9% from current levels

2. Continue to purchase and use electricity that has been generated by renewable sources, backed by Renewable Energy Guarantee of Origin certificates (REGOs)

3. Continue the roll-out of electric vehicles within our fleet

4. Identify opportunities to use our land for renewable generation or battery storage - such as Bough Beech and Elmer treatment works – and explore the possibility of a site being capable of becoming self-sufficient by generating 100% of its energy needs

5. Use innovative commercial arrangements to facilitate balancing of our generation and demand to avoid market peaks, reducing our costs and supporting decarbonisation of the grid

6. Undertake life cycle assessments of the goods and services we buy from key suppliers to better understand their overall impact – embracing emissions, waste management, use of natural resources and embedded carbon.

Our work to reduce leakage and usage – whist not reducing the carbon intensity of our operations per megalitre of water supplied – will reduce the totality of emissions by us, and less water use also means less emissions from customers and sewerage providers.

More broadly, we will continue initiatives with local groups to reduce the amount of single-use plastic bottles, such as Refill Redhill, improving access to free tap water. There are some of the 150 refill locations already in place across our region and we intend to work with other groups to increase this number, including at our Redhill head office.

We will provide our response on climate change risks using the Adaptation Reporting Power report template currently being developed through Water UK's Climate Change Network. We were encouraged, earlier this year, when the 2021 deadline was mentioned in the consultation on reporting as this will give us the opportunity to see the impact of the new UK climate change prediction (UKCP18) on our models.

Case Study: Creating a holistic view at Elmer works

Elmer treatment work is situated in the north-western sector of our region and is one of our larger treatment works, responsible for around 15% of our energy consumption.

We plan to deliver a new education centre at Elmer which will augment our current education and outreach programme, undertaken primarily at our Bough Beech site in Kent. Additionally, we are collaborating with Surrey Wildlife Trust on our commitment to increase biodiversity at Elmer – and will undertake works to achieve the Biodiversity Benchmark accreditation for the site by 2025.

Elmer will become a flagship site, accessible to our customers, demonstrating not only the importance of water, but also how we manage our impact on the environment and the communities we serve.

In support of this ambition, we are collaborating with a partner on developing 'Energy as a Service' - taking a holistic view of energy assets and consumption at Elmer to identify opportunities for greater energy efficiencies, reduction in greenhouse gas emissions, increased resilience and additional value from energy. These will lead to innovative funding models for investment which will ultimately deliver better value to our customers.

This innovative and integrated approach is not yet embraced in the water sector and, through its delivery, will help bring the linkage between water, energy and the environment to life.

3.3. Delivering excellent performance

We have an established and accredited ISO Quality (ISO9001) and Environmental (ISO14001) Management System, gaining renewal earlier this year, and detailed operational and safe working procedures that ensure sites are operated within the requirements of their

respective permits and licences. This management system also includes the establishment of emergency site response plans and exercises to ensure these are suitable and sufficient to ensure an effective emergency response.

As a result, we have an established strong performance in ensuring we are compliant with our regulatory licence conditions and will ensure that we meet our obligations under the Environmental Permitting Regulations to accurately and regularly report the volumes of water abstracted from rivers and groundwater sources. We will ensure that we comply with the requirements of any water treatment works discharge consents, monitoring flow and/or quality as required, and we will ensure that we adhere to the requirements of any waste permits issued through effective awareness communication and training of all relevant employees.

Our focus on not polluting the environment as a result of our operations is also strong: We have not seen a major (category 1, as classified by the Environment Agency under the 'common incident classification scheme' - CICS) or significant (category 2) incident for over 10 years. We commit to keep it that way.

We have proposed this as a performance commitment in our Business Plan, and the best way to deliver on this is to focus our attention on the early warning signs of more serious incidents. For us, this means adopting a rigorous approach to the investigation of – and learnings from - minor pollutions (category 3 incidents under CICS). Our operations have resulted in a number of minor pollutions over the last 10 years, averaging one per year. We regret every one of these incidents – invariably caused as a result of silt or debris being washed into a nearby watercourse following a burst main.

We will undertake a range of measures over the course of the next AMP to maintain our performance, including investing more in our network to reduce bursts, and accelerating our response to them when they do take place. Both of which will help reduce the frequency of category 3 pollutions.

Case Study: Protecting Chalk Streams – Rivers Wandle and Hogsmill

We recognise that there are catchments which need additional protection due to the fragility of their ecosystems, the historical impacts of abstraction or because they are rare habitats. We have been working with the South East Rivers Trust, the Environment Agency and Thames Water to develop solutions to restore the chalk streams which flow from the spring line between the North Downs chalk and London clay.

We already augment the flows into both the River Hogsmill and River Wandle to protect trout spawning habitats, maintain a healthy ecosystem and provide recreational benefits to the surrounding community. We know more work is needed and are committed to carrying out river restoration measures that will best enhance the river, in particular by allowing fish to pass freely upstream to their spawning grounds.

This work will improve the resilience of the rivers in terms of the ability of the species inhabiting it to withstand issues such as pollution, as well as helping to improve or prevent deterioration of their classification status under the Water Framework Directive. We are also proposing an Abstraction Incentive Mechanism (AIM) scheme which will limit abstraction from those groundwater sources that have the greatest impact on the River Wandle during periods of low groundwater levels.

Recent improvements have been introduced to the way we capture and investigate any operational incidents that do occur, and these will continue to be captured in our established electronic reporting system and reported to the Environment Agency in a timely manner. We are confident in seeing improvements in our self-reporting as a result.
In terms of delivery of our requirements under the national environment programme, we have incorporated all 24 schemes set out under the WINEP3 for delivery in the next AMP within our Business Plan, providing the necessary justification for the funds we calculate will be required to deliver them. Furthermore, we have proposed a financial performance commitment to deliver these requirements on schedule.

Our strategy to deliver on these schemes will be an enhancement on those adopted in previous releases of the WINEP: that is, to work in partnership with a range of stakeholders and assess opportunities to deliver greater scope from each of the schemes (e.g. assessing a wider range of water quality parameters than those they are primarily seeking to address, or to actually improve the water quality status over and above that needed to prevent deterioration), or to accelerate their completion dates, in both cases, benefiting the environment.

4. Conclusion

The content that is set out above aims to provide the assurance required that SES Water will meet its WISER obligations over the course of AMP7 from 2020-2025.

We believe that we have created a comprehensive, integrated plan to address the strategic environmental requirements set out by the Environment Agency and Natural England that is both sustainable and helps build greater resilience. Moreover, this plan has gained good support from our customers as part of the Business Plan and WRMP engagement and consultation processes over recent months.

We look forward to submitting both our Business Plan and our revised draft WRMP next month along with the prospect of receiving approval for them prior to delivering the contents of both in partnership with the Environment Agency, Natural England and a broad range of other stakeholders across our region over the next five years and beyond.