South Staffs Water

South Staffs Water PR19: Water Industry Strategic Environment Requirements (WISER)

Meeting Environment Agency Expectations

August 2018

making water count

Introduction

This is our, South Staffs Water (incorporating Cambridge Water), response to the letter sent electronically by the Environment Agency on 15 June 2018. This letter requested a brief report that sets out how we will meet the expectations set out in the Water Industry Environmental Requirements (WISER) for Periodic Review 2019 (PR19).

1. Expectations and Statutory Obligations

The statutory obligations and expectations for PR19 are listed in Table 1 of WISER, and are categorised as statutory (S), statutory plus (S+) or non-statutory (NS). We have addressed each of the applicable requirements in WISER in a table later in this document. Our comments are relatively brief but further additional details can be found in our PR19 submission and other related plans such as our Water Resources Management Plans (WRMPs).

2. Enhancing the Environment

Our PR19 plans include measures to protect and enhance the environment, arising from the statutory requirements set out in the Water Industry National Environment Programme (WINEP) version 3. The drivers include those for water resources, water quality, NERC, INNS, and Fisheries requirements. We expect to deliver on WINEP measures within the timescales set out, however we recognise that these are in some cases challenging timescales early in AMP7, and at the time of writing, not all of the measures have EA agreed scoping specifications. Nevertheless, we expect all of the measures and objectives to be achieved by the end of the PR19 period (2020-2025).

We have incorporated water resources driven measures, and any associated confirmed or likely sustainability changes, into our draft Water Resources Management Plans (dWRMPs). We have also included measures that ensure that we do not cause WFD Deterioration in either of our regions.

The options and measures in our draft WRMPs have been included in our PR19 submission and our plans are aligned. We have included an Environment Performance Commitment (PC) for AMP7 to measure the net biodiversity gain that we expect as a result of various environmental initiatives in PR19.

3. Improving Resilience

Our PR19 plans increase resilience in line with government expectations and customer priorities. Our dWRMP describes the detailed assessment we have carried out to ensure we have sufficient water resources to be resilient to a wide range of extreme drought scenarios. In addition we are proposing significant investment at our two largest water treatments works, using resilience options such as the Perry Barr transfer and by implementing dual streaming of flows to reduce any single points of failure. We have modelled the impact of climate change on both supply of and demand for water in our dWRMP. We report to Government on climate change adaptation via the Adaptation Reporting Power reports.

As well as carrying out modelling to assess what our future resilience will be, we have assessed our resilience to historic events linked to risks like freeze-thaw and flooding. In response to the Defra National Flood Resilience Review (NFRR), (correspondence from Oliver Letwin of 27 May 2016), we have assessed the flood resilience of important infrastructure within the EAs extreme flood outline (EFO). We returned our completed assessment to Defra on 26 September 2016, with two sites identified as critical for risk of flooding. We will complete implementation of permanent flood protection schemes for these sites as part of our 2015-2020 investment programme.

We assessed the impacts of past freeze thaw events such as the exceptionally cold weather in March 2018. When Ofwat publicly wrote to all water companies about the beast from the east it said that “Our overall analysis is that South Staffs Water performed well and largely met its customers’ expectations…” The full letter is available at the following link:

https://www.ofwat.gov.uk/wp-content/uploads/2018/06/18-06-15-South-Staffs-Water-letter.pdf

We recognise the importance of building long-term partnerships to ensure customers continue to receive reliable water supplies. As a result, we are proactively involved with Water Resources East (WRE), working with stakeholders from all sectors to develop long-term solutions. And while WRE considers the wider landscape, we think there is scope for bilateral agreement between us and neighbouring companies such as Anglian Water, Affinity Water and Severn Trent Water. We are also involved in similar bilateral discussions (under a non-disclosure agreement) to transfer power-related abstraction to water company ownership. Again, this would help with the overall resilience of our supplies.

We currently have a number of resilience-based water trades in place with our neighbour, Severn Trent Water. We used these to support Severn Trent Water during the freeze/thaw event earlier in 2018 and throughout the prolonged hot, dry spell that followed it.

We have looked closely at all our abstraction licences to help us to understand how we can work with other parties, such as breweries, farmers and industry, to meet the needs of all our customers and other stakeholders while minimising our environmental impact. We think that the most sustainable trades are likely to be with companies that enhance our local resilience rather than involving long distance transfers. The Environmental PC we discussed

in section three shows our commitment to promoting the natural resilience of the ecosystems in our operating areas.

4. Excellent Performance

We want to make sure we can always provide the clean, high-quality and reliable water supplies our customers have said they expect now and in the future, whatever challenges we face. So, we will invest in our assets. This includes multi-million pound investment to upgrade our two largest water treatment works by adding an extra treatment stage and cleaning 100 km of trunk mains leaving both works.

This is an ambitious programme of investment that will deliver a number of benefits to customers. It will improve reliability and resilience, ensure our treatment processes always reflect best practice and minimise the risk of water quality failures or permit non-compliance. We have considered a number of options for our treatment works and have the support of our customers and the Drinking Water Inspectorate for our planned programme of work.

Our customers have told us how important it is to them that we reduce leakage levels. So, between 2020 and 2025, we will invest millions to maintain our network of pipes. This includes significantly reducing leakage by 25% in our South Staffs region and by 15% in our better-performing Cambridge region. This is a challenging and ambitious reduction, but we are confident that the innovative measures set out in our plan will help us to achieve these reductions.

We are also working to encourage our customers to use water as efficiently as possible and to use rainwater for non-potable purposes wherever possible. One excellent example of our working collaboratively to achieve great results is that we have been working with the University of Cambridge since July 2012 on its North West Cambridge development. This award-winning scheme, also known as ‘Eddington’, covers 150 hectares and includes:

- 3,000 new homes
- 2,000 student rooms
- a hotel
- a community centre
- primary school
- sports facilities.

Each home has two water supplies – one delivering recycled rain and surface water, which is used for flushing toilets, washing clothes and watering gardens; and one for high-quality, treated water for drinking, cooking and bathing. This development is an exemplar in terms of minimising the risk of localised flooding and also reducing water consumption across the whole development. This innovative programme is currently the largest water recycling scheme in the UK.

We want to be at the heart of the communities we serve and always do the right thing for our customers. By working in partnership with other organisations and sharing data more effectively, we can identify those customers who may need more support. Among other things, this will enable us to provide financial support by 2024/25 to tens of thousands of customers who are struggling to pay their bills.

Table 1 Requirements and Response

Enhancing the environment

Water Body Status (WFD)			
1	Measures to prevent deterioration in current water body status.	S	WINEP3 investigations included in PR19. No Deterioration scenarios allowed for in the draft WRMP.
2	Measures to improve water body status.	S+	WINEP3 Implementation schemes included in PR19.
3	Work with stakeholders and Catchment Based Approach (CaBA) partnerships to explore integrated solutions at a catchment scale.	NS	Increased Catchment Management programme included in PR19, delivery to include catchment scale collaborative projects. Already part of Cam Ely Ouse catchment partnership (CAMEO) in East Anglia, and an active member in Water Resources East (WRE) and similar initiatives to develop sustainable resources in the River Trent and River Severn catchments.
Bathing Waters			
1	Measures to achieve at least sufficient class.	S	Not applicable.
2	Measures to prevent deterioration in class.	S	Not applicable.
3	Event monitoring of storm overflows impacting on bathing waters.	S	Not applicable.
4	Measures to achieve good / excellent class.	NS	Not applicable.
Shellfish waters			
1	Measures to prevent deterioration in current water body status.	S	Not applicable – none in either of our Water Resource Zones.
2	Measures to achieve shellfish water protected areas objectives.	S+	Not applicable – as above.
3	Event monitoring of storm overflows impacting on shellfish waters.	S	Not applicable – as above.
Biodiversity and ecosystems			
1	Measures that contribute to meeting and or	S	We have set out how we contribute to Natura 2000 objectives within the

	maintaining conservation objectives of Natura 2000 sites (Special Areas of Conservation (SAC) & Special Protection Areas (SPA)) and Ramsar sites.		Strategic Environmental Assessment (SEA) and Habitats Regulations Assessment (HRA) reports that we are producing to accompany our WRMP19.
2	Measures that contribute to meeting and/or maintaining Favourable Condition targets for Sites of Special Scientific Interest (SSSI).	S, S+	Our WRMP includes measures implemented through the WINEP to ensure that our operations and abstractions do not adversely impact on SSSIs in our area. Our Environmental Performance Commitment (PC) will allow for further improvements and enhancements to be made to biodiversity and SSSIs in our area of supply.
3	Measures that contribute to priority habitat and species outcomes as well as other biodiversity actions and measures to enhance ecosystem resilience on your own land or in the catchments within which you operate	S+	Our WINEP3 obligations include biodiversity and environmental measures, under NERC and INNS drivers, and in AMP7, we have included a measurable Performance Commitment (PC) for environmental improvements alongside our statutory responsibilities both on land that we own and elsewhere in our area of supply.
4	Measures that contribute to the conservation objectives of Marine Conservation Zones (MCZ).	S+	Not applicable.
Sustainable fisheries			
1	Screen abstractions and outfalls to prevent the entrainment of eels and salmon.	S+	We have included Implementation schemes for eel screens at our surface water intakes in the South Staffs region in line with statutory timescales.
2	Address barriers to the passage of fish.	S+	We have included implementation schemes for fish and eel passages in line with statutory timescales.
Invasive non-native species (INNS)			
	Prevent deterioration by reducing the risks of spread of INNS and reducing the impacts of INNS.	S	We have include WINEP3 measures for reducing the spread and impact of INNS in our PR19 plans.
2	Reduce the impacts of INNS, where INNS is a reason for not achieving conservation objectives or good status.	S, S+	We have include WINEP3 measures for reducing the spread and impact of INNS in our PR19 plans.
3	Understand pathways of introduction and spread of INNS.	NS	WINEP3 includes investigations into the risks associated with INNS on our own land, and to support collaborative INNS projects in catchments where we operate.

Urban waste water			
1	Measures to protect newly identified sensitive areas.	S	Not applicable.
2	Measures to improve wastewater treatment where population thresholds are exceeded.	S	Not applicable.
3	Maintain sewers to demonstrate sewer leakage to ground is minimal, especially in Source Protection Zones.	S	Not applicable.
Drinking Water Protected Areas (DrWPA)			
1	Catchment measures to prevent deterioration in water quality and to reduce the need for additional treatment.	S	WINEP3 Catchment Implementation Schemes for nitrates included in PR19. Existing catchment measures to be continued into AMP7, for nitrates and pesticides. We have undertakings for Metaldehyde in place for our surface water catchments. We reviewed the required measures as part of our DWSP programme. This includes a source to tap risk assessment.
2	Catchment measures to improve water quality to reduce the level of existing treatment.	S+	As above, and compliance with relevant DWI notices and undertakings.
Chemicals			
1	Measures to prevent deterioration (includes load standstill measures).	S	Our capital maintenance programme incorporates measures to maintain good standards of waste water effluent arising from our potable water treatment plant including the use of main sewer where appropriate.
2	Measures to achieve compliance with environmental quality standards (EQS).	S+	Our capital maintenance programme incorporates measures to maintain good standards of waste water effluent arising from our potable water treatment plant including the use of main sewer where appropriate.
3	Work with business customers and catchment partners to explore alternatives to end of pipe treatment solutions.	NS	We have carried out a large catchment management programme in AMP6 and are expanding this in AMP7.

Improving Resilience

Flood risk management

1	Co-operate with other risk management authorities in exercising your flood risk management functions.	S	We attend Local Resilience Forum meetings and take part in multi-agency flood plan updates and exercises as and when required.
2	Co-ordinate and share information with Cat.1 and 2 responders.	S	We fulfil this duty under the Civil Contingencies Act by being active members of our Local Resilience Forums, both on a day to day basis and during emergencies.
3	Comply with statutory reservoir safety requirements.	S	We comply with all of our obligations under the Reservoirs Act in relation to any reservoir over the 25 mega litre threshold. We apply similar safety principles in the way that we manage all of the reservoirs we own, even if their volume is below this threshold.
4	Develop a clear and systematic understanding of service and system risks and include options for reducing the likelihood of future service failures and service failures that lead to flooding.	NS	We undertook a company-wide flood risk assessment as part of the 2016 National Flood Resilience Review headed by Defra. This has led funding for two sites to receive enhanced flood protection in AMP6.
5	Reduce sewer flooding of homes and businesses trending towards zero.	NS	Not applicable.
6	Reduce the number of properties at risk of flooding.	NS	Not applicable.
7	Take every opportunity to increase the number of partnership flood schemes achieving multiple benefits.	NS	Not applicable.
8	Work with others to actively identify and build in sustainable drainage options.	NS	We engage in work like this – refer to North West Cambridge example given in section 5.
9	Work with government and other utilities to take forward the recommendations of the National Flood Resilience Review.	NS	See our response to flood risk management point 4 above.
Future drainage			
1	Use the 21st Century Drainage Programme workstreams on storm overflows and drainage capacity metrics to inform business plans.	NS	Not applicable.
2	Maintain networks and WwTWs to reduce the risk of future failures.	NS	Not applicable.
3	Event duration monitoring on high significance storm overflows.	S	Not applicable.

4	Ensure compliance with permitted flow to full treatment settings.	S	Not applicable.
Water resources security of supply			
1	Solutions to meet water resources management plan outcomes or measures to protect the environment form the supply-demand component of business plans.	Ns	Our WRMPs include supply side and ambitious demand side options, including at least 15% reduction in leakage (25% in South staffs region) to maintain the supply demand balance. The options selected ensure the environment is protected from deterioration whilst maintaining security of supply. Our options portfolio have been tested for sensitivity to extremes and are resilient to multiple scenarios.
2	Assess resilience of your water supply system to predicted droughts and other non-drought water supply hazards.	Ns	Our WRMP has assessed the resilience of our supply system to more extreme but plausible droughts as well as historic design droughts. We have shown that we are resilient to freeze thaw and summer peak demand increases by maintaining sufficient peak output headroom.
3	Measures to reduce demand and per capita consumption.	NS	Our dWRMP which we published for consultation in March 2018 includes a commitment over the 2020-25 period to reduce per capita consumption (pcc) by one litre per person per day. This builds on a similar commitment we made for the 2015 to 2020 period. Our customers already have one of the lowest pcc rates in the country.
4	Achieve a downward trend for leakage with rates at or below the sustainable economic level of leakage.	NS	Our dWRMP which we published for consultation in March 2018 includes a commitment over the 2020-25 period to reduce leakage in our South Staffs region by 17% and in our Cambridge region by 15%. In our final WRMP19 we have committed to a 25% leakage reduction between 2020 and 2025 in our Staffs region and retained the 15% reduction in Cambridge. Over the 25 year planning period we plan to reduce leakage in both of our regions by 40% from the current targets.
5	Assess universal metering in water stressed areas.	S	Not applicable – neither WRZ is classified as water stressed.
6	Ensure agreed and up to date plans are place to manage a drought.	S	Our revised drought plans in both regions have been approved for publication – due in Autumn 2018.
7	Demonstrate that Defra's Guiding principles for water resources planning have been met.	NS	Our draft WRMPs demonstrate that we have followed the Defra guiding principles in producing our plans, and no matters to contradict this were raised in the consultation on our draft WRMPs.

8	Incorporate sustainability changes into supply forecasts.	NS	We have include confirmed/likely sustainability changes in our forecasts and have also included a sustainability change allowance for WFD No Deterioration compliance in our CAM region, and scenarios for WFD No Deterioration ranges in our Staffs region WRMPs.
9	Current abstractions and operations, and future plans support the achievement of environmental objectives.	S, S+	Our WRMPs include a net reduction in planned abstractions to meet the forecasted demands, and any options included have been screened for environmental impact. Our preferred WRMP options include more demand management than resource development.
Climate Change			
1	Report on understanding of risks from climate change and how they are being addressed via Adaptation Reporting Power (ARP) reports.	S	We published our first climate change adaptation plan to Defra in January 2011, and subsequently updated our adaptation report in July 2016. Our statutory plans, including the WRMP, will inform our adaptation plans to ensure that we mitigate climate change impacts and adapt where necessary.
2	Reduce total carbon emissions.	S+	In our PR19 plans (that cover our activities between 2020 and 2025) we have, despite the upward pressure on energy consumption, committed to specific carbon reduction per connected property by 2024/25. We will deliver this through a combination of: • leakage reduction • ongoing investment in our pumping efficiency • purchasing more 'green' energy from the wholesale market • looking again at the potential for low and zero carbon energy • further innovations in efficiency and supply.
3	Ensure Adaptation Reporting Power (ARP) report commitments are consistent with, and embedded within, business plans.	NS	The outcomes from our climate change adaptation assessments have not identified any specific commitments that are not part of our existing plans and assessments, which are embedded in our PR19 plans.

Excellent performance

Regulatory compliance and sludge			
1	A plan in place to achieve 100 per cent compliance	S	We aim to achieve 100% compliance and have included allowances to support

	for all licences and permits.		this in PR19.
2	100% compliance with environmental permit conditions at WwTWs with descriptive not numeric limits.	S	Not applicable.
3	Serious pollution incidents must continue to trend towards zero.	S	Serious pollution incidents arising from our activities are a very rare event (less frequent than once every 10 years) and we will continue to improve processes to prevent repeat events.
4	Trend to minimise all pollution incidents (category one to three) by 2025. There should be at least a 40% reduction compared to numbers of incidents recorded in 2016.	S	Not applicable.
5	Effective management of transferred private sewers and pumping stations with low levels of pollution incidents.	S	Not applicable.
6	No D, E, or F rated sites under Operational Risk Appraisal OPRA for waste related sewerage service Environmental Permitting Regulations permits.	S	Not applicable.
7	Compliance with flow requirements, including MCERTS certification, at WwTWs	S	Not applicable.
8	High levels of self-reporting of pollution incidents with at least 80 per cent of incidents self-reported by 2025. More than 90% of incidents self- reported for WwTWs and pumping stations.	NS	Not applicable.
9	Business plans include all measures identified within the Water Industry National Environment Programme and these are planned well and completed to agreed timescales and specification.	S	All WINEP3 measures have been included in PR19. We are currently working with the EA to plan and scope the specifications in order to deliver to agreed timescales.
10	Sample and provide data in relation to self-monitoring under Operator Self-Monitoring (OSM), Urban Waste Water Treatment Directive (UWWTD), Flow monitoring and UV disinfection.	S	Not applicable.

11	Manage sewage sludge treatment and re-use so as not to cause pollution to land, surface water or groundwater.	S	Not applicable.