TA 7.6 Measuring improvements in resilience through our performance commitments

Technical Annex

September 2018

Version 1.0

Navigation: TA 7.6 – *Measuring improvements in resilience through our performance commitments*

Purpose:
This technical appendix provides an overview and mapping of our performance commitments and their associated ODIs. It shows how we have developed a broad suite of measures, both leading and lagging to understand our levels of resilience across our systems and summarises how our plan will improve resilience and by how much.

The table below summarises the Ofwat tests that are addressed by the evidence presented in this Annex.

Table: Relevant Ofwat tests

Ref	Ofwat test		Comment
Primary Focus Areas			
LR1	How well has the company used the best available evidence to objectively assess and prioritise the diverse range of risks and consequences of disruptions to its systems and services, and engaged effectively with customers on its assessment of these risks and consequences?	• The company will present strong evidence that it has used robust, ambitious and innovative approaches to assess and mitigate risks to long-term resilience in the round. These proposals will be supported by stretching commitments to customers.	We have developed PCs and ODIs which will enable customers and stakeholders to measure our improvement in resilience This Annex explains: • Highlights which PCs beyond those required through the methodology demonstrate resilience • Quantifies the change in levels of service as a consequence of our plan
LR2	How well has the company objectively assessed the full range of mitigation options and selected the solutions that represent the best value for money over the long term, and have support from customers?		
Secondary Focus Areas			
	Delivering Outcomes for customers		

Outcome	Performance Commitment	Performance Commitment Description	ODI Type	Direction of Performance	Why it improves resilience	Direct Measure of resilience	Leading Measure of resilience
We supply clean, safe and sustainable water	Water quality compliance (CRI)	Compliance Risk Index (CRI) is an Ofwat common definition as defined by the Drinking Water Inspectorate (DWI): http://www.dwi.gov.uk/stakeholders/price-review-process/CRI_Def.pdf.	Revenue	Improving	Through reducing the duration, frequency and consequence of water quality events through enhancements in the way we manage systems and events	X	
	Leakage	Leakage is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-leakage.pdf	Revenue	Improving	Reducing leakage helps protect water resources and demonstrates the health of our system	X	
	Per capita consumption (PCC)	The methodology into how we calculate PCC is defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-per-capita-consumption.pdf	Revenue	Improving	Reducing consumption helps protect resources in the long term and manage the amount needed in supply in the short term	X	
Together we aim to recycle every drop of water	Effluent re-use	Volume of treated effluent made available for direct reuse by customers. This includes its use by local authorities, businesses, farmers or individuals for irrigation and other purposes. Total volume of treated effluent re-used expressed in m3.	NFI	Improving	Sourcing alternative supplies through the re-use of effluent ensures that we can protect resources and direct them to where they are most valuable	X	
	Renewable Generation	Total renewable electricity generated as a percentage of our total electricity consumption.	Revenue	Improving	Increasing our renewable capacity helps to reduce our pull from the grid, contributing to a system of systems approach to resilience		X
We safeguard and enhance rivers, reservoirs and coasts	Abstraction Incentive Mechanism	Our Abstraction Incentive Mechanism will deliver a reduction in our total abstraction from the River Itchen. The	Revenue	Stable	Reducing our reliance on abstraction in key locations helps ensure those eco-	X	

for the future		reductions will limit abstraction when the river is at its most environmentally vulnerable. It has been derived to reduce the impact of abstraction on the sensitive chalk streams in our western area, in particular the River Itchen.			systems are more resilient at times of stress		
	Improve the number of Bathing waters to at least 'Good' (Cost Adjustment Claim).	To bring at least five named bathing waters to 'Good' water quality classification measured annually	Revenue	**Improving**	Enhancements to bathing waters bring economic benefits to the region, supporting a more resilient economy	**X**	
We recognise the true value of water in our daily lives	**Target 100**	% of household population with estimated per capita consumption of less than 100 l/hd/d, in line with our Target 100 initiative. Per capita consumption is defined as the average amount of water used by each customer that lives in a household property.	Revenue	**Improving**	Reducing consumption helps protect resources in the long term and manage the amount needed in supply in the short term	**X**	
	Water saved from water efficiency visits	Total estimated volume of water saved as a result of water efficiency visits to residential properties, based on the number and usage of water saving devices installed. This is the cumulative saving in m3/d to the end of AMP7	NFI	**Improving**	Reducing consumption helps protect resources in the long term and manage the amount needed in supply in the short term		**X**
By working together we can secure a resilient economy for the south east	**Improve the bathing waters at 'Excellent'**	To bring at least two from four named bathing waters to 'Excellent' water quality classification. Measured annually	Revenue	**Improving**	Enhancements to bathing waters bring economic benefits to the region, supporting a more resilient	**X**	

	quality (Cost Adjustment Claim).				economy		
We innovate to create sustainable communities	**Surface water management**	This is a co-delivery measure with our customers to reduce the amount of surface water entering southern water's combined or surface water sewerage network including through the use of SuDS, soakaways and other innovative methods. Removing surface water from the sewer network can help alleviate flooding and pollution.	Revenue	**Improving**	The use of sustainable solutions slows the flow of water into our systems meaning during times of heavy rainfall risk of pollution and flooding is reduced helping the resilience of the customers and the environment	**X**	
	Community engagement	This measure is to improve our community engagement. We have engaged London Benchmarking Group, recognised as the global standard for measuring corporate community investment and philanthropy to measure our performance in line with organisations both in and outside our sector. The commitment includes volunteering, partnering with charities, raising money for charities flagship programmes such as Learn to Swim, community and outreach events and administering community grants.	Revenue	**Improving**	Building on our system of systems thinking greater levels of engagement assist with improved understanding of issues and likelihood of participation in delivering the solutions		**X**
	Schools visited and engagement with children	This measures the number of schools we have visited to raise awareness and improve understanding of the value of water, water efficiency and	NFI	**Improving**	Building on our system of systems thinking greater levels of engagement assist with improved		**X**

		‘unflushables’.			understanding of issues and likelihood of participation in delivering the solutions. Raising awareness on consumption and blockages improves resilience and performance in our systems	
The services we provide are effective and fit for the future	**Water supply interruptions**	Water supply interruptions is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-supply-interruptions.pdf	NFI	**Improving**	Ensuring customers have a reliable supply of water helps to protect health and well being. Reducing incident time supports a demonstration of both the reliability and our ability to respond effectively	**X**
	Internal sewer flooding	Internal sewer flooding is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-sewer-flooding.pdf	Revenue	**Improving**	Ensuring that the wastewater system is able to cope through a range of rainfall events underpins the resilience of our communities	**X**
	Pollution incidents (categories 1, 2 and 3)	Pollution incidents (categories 1 to 3) is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/outcomes-definitions-pr19/	Revenue	**Improving**	Ensuring the wastewater systems is able to perform as required supports minimising its impact on the environment, in turn support the environment to be more resilience to shocks and flourish	**X**

Risk of severe restrictions in a drought	Risk of severe restrictions in a drought is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Drought-resilience-metric-March-18.pdf	Revenue	**Stable**	Ensuring customers have a reliable supply of water helps to protect health and well being.		**X**
Risk of sewer flooding in a storm	Risk of sewer flooding in a storm is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2017/12/Developing-and-Trialling-Wastewater-Resilience-Metrics-Atkins.pdf	NFI	**Stable**	Ensuring that the wastewater system is able to cope through a range of rainfall events underpins the resilience of our communities		**X**
Asset Health: Mains bursts	Mains bursts is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-mains-repairs-per-1000km.pdf	NFI	**Improving**	Ensuring customers have a reliable supply of water helps to protect health and well being. Reducing bursts supports a demonstration of both the reliability of our system	**X**	
Asset Health: Unplanned outage	Unplanned outage is an Ofwat common defintion. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-unplanned-outage.pdf	Revenue	**Improving**	Ensuring customers have a reliable supply of water helps to protect health and well being. Reducing unplanned outages supports a demonstration of both the reliability of our system	**X**	
Asset Health: Sewer collapses	Sewer collapses is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-	Revenue	**Improving**	Ensuring the reliability and resistance of the wastewater system to collapses supports	**X**	

	guidance-sewer-collapses-per-1000km.pdf			reductions in pollution and flooding helping the resilience of the customers and the environment	
Asset Health: Treatment works compliance	Treatment works compliance is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2017/12/WatCoPerfEPAmethodology_v3-Nov-2017-Final.pdf	Revenue	**Stable**	Ensuring the reliability and resistance of the wastewater system to discharge compliantly reduces pollution helping the resilience of the environment	**X**
Water supply resilience	Number of residential properties at risk of long term loss of supply (>48 hours) in Thanet, Brighton and the Isle of Wight Water Supply Zones. This measure is being trialled in these areas during AMP7.	Revenue	**Improving**	This is a bespoke measure designed to quantify and assess the resilience of the solutions in three key supply zones, ensuring we make the best value decisions for customers	**X**
Properties at risk of receiving low pressure	Number of properties on the DG2 low water pressure register.	NFI	**Stable**	Ensuring customers have a reliable supply of water helps to protect health and well being.	**X**
External sewer flooding	External sewer flooding is an Ofwat common definition. Defined by Ofwat in: https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-sewer-flooding.pdf	Revenue	**Improving**	Ensuring that the wastewater system is able to cope through a range of rainfall events underpins the resilience of our communities	**X**
Combined Sewer Overflows	Effective monitoring of all our CSOs, this includes monitors in place and available, with data assurance and with	Revenue	**Improving**	Improving the understanding of how our system is performing	**X**

	(CSO) monitoring	results published at least annually			ensures that we can respond and proactively plan to ensure the environment is protected		
	Growth (Cost adjustment claim)	This measure is designed to monitor and assure the delivery of one enhancement scheme related to population growth in Whitfield.	Revenue	**Improving**	Delivering new capacity in to our systems prevents an increased risk of flooding and pollution, whilst also contributing to a wider system of systems within the South East	**X**	
	Natural Capital	To develop natural capital accounts so that changes over time (positive and negative) as a result of our investments can be monitored, evaluated and reported. The approach will support our contribution to Defra's 25 year Environment Plan and provide a mechanism for measuring our contribution to biodiversity and wider environmental net gain.	NFI	**Improving**	Through measuring our contribution to biodiversity and wider environmental net gain we are better able to assess the benefit of our options and make the best value decision for the system of systems		**X**
	Distribution input	The average daily amount (Ml/d) of potable water entering the distribution system in a year	NFI	**Improving**	Managing the volume of water in supply helps protect resources in the long term and manage the amount needed in supply in the short term		**X**

In order to understand and demonstrate the progress that we are making to become a more resilient organisation we have consider how our performance commitments enable this. We have developed 43 performance commitments in total (see TA6.1 Our Approach to PCs and ODIs). We undertook a review to consider how each of these would aid our understanding and communication of how our resilience is increasing. We identified that 27 of them support this objective, with 16 having a financial ODI associated with them, further details on the incentives can be found in TA6.2 Our Package of PCs and ODIs.

We have categorised the performance commitments through two lenses;

1. Direct Measure of Resilience – performance commitments which demonstrate a direct impact on our system, such that, if performance is improving the measures that we are deploying against the 4Rs are having a clear and measurable effect on the performance that customers experience through their short and long term use of our services
2. Leading Measure of Resilience – performance commitments which demonstrate we are building and innovating for the future and the impact on our system may be indirect. These measures describe how we are influencing behaviours, changing how we interact with the system of systems or improve capability to make decision over the long term which over best value for customers