Appendix 3 – Updated Performance Commitment detail document (update from business plan)

Wessex Water

March 2019

Wessex Water
YTL GROUP

Contents

Annexes

Please note that material changes have been highlighted throughout the appendix to indicate changes since the initial submission of our business plan in September 2018.

1. Outcome: Affordable bills

Affordable bills for all our customers along with wiser and more efficient use of our services.

Strategic action points:

We will continue to offer our customers a choice of tariffs and, for those on low incomes, we will help them afford their ongoing charges and repay their debt by offering a wider range of schemes and low-rate tariffs, combined with independent debt advice for those in the greatest need.

We will continue to target further assistance at groups who are most likely to go without essentials to pay their water bills.

We will actively assist as well as promote the wiser use of our services, using evidence from behavioural science to maximise the benefits.

To keep bills affordable in general we will need to steer a path between asset intensive approaches and less resource hungry options such as catchment management, make greater use of market approaches and always seek opportunities to innovate.

Origin of performance commitments

Affordable bills
Total bill reduction to customers on social tariffs per 10,000 properties
Successful applications for assistance received by the independent advice sector/ third parties
Void sites
Gap sites

Origin
Common measure stipulated by Ofwat
Mandatory measure stipulated by Ofwat
Existing measure
Measure from Ofwats list e.g. asset health or example metrics
Optional bespoke measure

1.1 Performance commitment: A1 Total bill reduction to customers on social tariffs per 10,000 households

1.1.1 Introduction

For all customers on a social tariff (WaterSure Plus, Assist or Pension Credit) it is the reduction from what the bill would have been under standard charges to the reduced social tariff bill. This value is then divided by the number of residential customers served.

Definition of performance measure: Total bill reduction to customers receiving a social tariff, divided by the number of residential customers, expressed as £ per 10,000 households

Customer friendly definition: Reducing bills to help customers that can't afford them.

Customer research:

- Social tariff research in 2011 and 2012, supplemented in 2015 with supportive findings on pension credit tariff. It showed that the majority of customers find our approach to social tariffs acceptable and set the maximum cross-subsidy levels that we are using for this PC.

1.1.2 Detailed definition

Information relating to the bespoke performance commitment

The aim of the performance commitment is to incentivise the company to further increase the number of residential customers receiving financial support via social tariffs.

Wessex Water was the first company to offer bill reductions to customers on the lowest incomes through win-win tariffs, and the first to offer social tariffs through the changes to legislation. We have well-established partnerships with a network of trusted affordability and vulnerability charities in our region to deliver ever increasing levels of support for vulnerable customers. We now offer three social tariffs, introduced with support from our customer base and stakeholders:

- Assist, which provides large bill discounts to customers on the lowest incomes
- WaterSure Plus, which provides an increased discount to customers with unavoidably high water use
- Pension Credit, which provides an average 20% discount to customers of pensionable age but with no income other than the state pension.

Further information can be found in our Vulnerability Strategy (supporting document 2.1) and our retail business plan (chapter 7 of the main business plan).

Whilst we lead the industry in this area, we also recognise there are opportunities to further improve and provide support to greater numbers of customers in vulnerable circumstances.

From our experience of providing assistance to customers' for over a decade, we know that to make improvements to customers wellbeing, the offering of support needs to be meaningful. Our social tariffs have therefore been carefully crafted to provide a level of

support to specific customer groups. We, and our expert advisors do not believe providing a small discount to a large number of customers in our region would be a valuable policy objective.

With the above in mind our Performance Commitment for social tariffs has been constructed in a way to incentivise the company to maximise the benefit to vulnerable customers but also provide a meaningful comparison on our performance. The bill reduction per 10,000 customers is therefore the most appropriate metric to use.

Research with customers has shown acceptability of our social tariffs; Assist, WaterSure+, and discounts applied to customers eligible for pension credit. CCWater has reviewed this research.

Our affordability offering is reviewed annually by an independent affordability advisory group (AAG), made up of independent experts from third sector organisations and academia. Two of these experts also sit on the Wessex Water Partnership (the company CCG). This measure has been developed with the assistance of the AAG.

Our annual tracker research shows that affordability remains an issue for one in ten customers and 78% of customers in our strategic vision research said that providing more financial help was important.

Full definition of the bespoke performance commitment

We will calculate the total bill reduction for all customers receiving a social tariff for the year, by taking the average number of customers on our social tariffs and calculating the difference between the water and/or sewerage bill a customer would have paid under standard charges from the bill under the social tariff they receive. This value is then divided by the average number of residential customers in our region for the year.

1.1.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	£/10,000 households	61,767	68,246	74,606	80,858	87,029

Rationale for level: Improvement on historical performance.

Rationale for PC profile: Based on continuing at current total bill reduction trend.

	2045
Long-term ambition	103,188

Rationale for 2025-2045 forecast: Continuing at 2020-25 total bill reduction trend.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	£/10,000 households	53,642	57,524	61,338	65,092	68,804
P90	£/10,000 households	69,942	79,032	87,953	96,719	105,363

Rationale for P10: 10th%ile of historical performance.
Rationale for P90: 90th%ile of historical performance.

Incentive rates

Incentive type	Incentive Rate (£/£ per 10,000 households)
Outperformance	11
Underperformance	13

Rationale for incentive rate: Incentive rate calculated based on the unit cost only.

Additional details

Necessary detail on measurement units	£ per 10,000 household
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✖	✓	✓	✖	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area – we have therefore not sought WTP information from customers. It is also not a PC that other companies report so comparative information is not available. We are not able to verify the total number of customers that could qualify for this PC so cannot determine the maximum level attainable.

We recognise that some of our customers find it hard to pay their bills. Our affordability package is assessed to be best practice and we intend to maintain this performance. The target has been set on stretching growth rates of our current social tariffs that are significantly higher than the historical increase and at the limit of what we expect to be able to achieve. Our social tariff research confirmed the maximum level of cross-subsidy they are willing to pay which is in line with the proposed target. This is higher than the minimum improvement and beyond our historical performance.

1.1.4 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information: not applicable.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
£/10,000 households	0	0	0	23,456	26,950	30,483	33,531

Current performance:

Unit	2017-18
£/10,000 households	40,742

Forecast performance:

Unit	2018-19	2019-20
£/10,000 households	48,348	55,040

Rationale for initial service level: Based on continuing at current total bill reduction trend.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
£/10,000 households	45,723	48,771	51,819	54,867	57,915

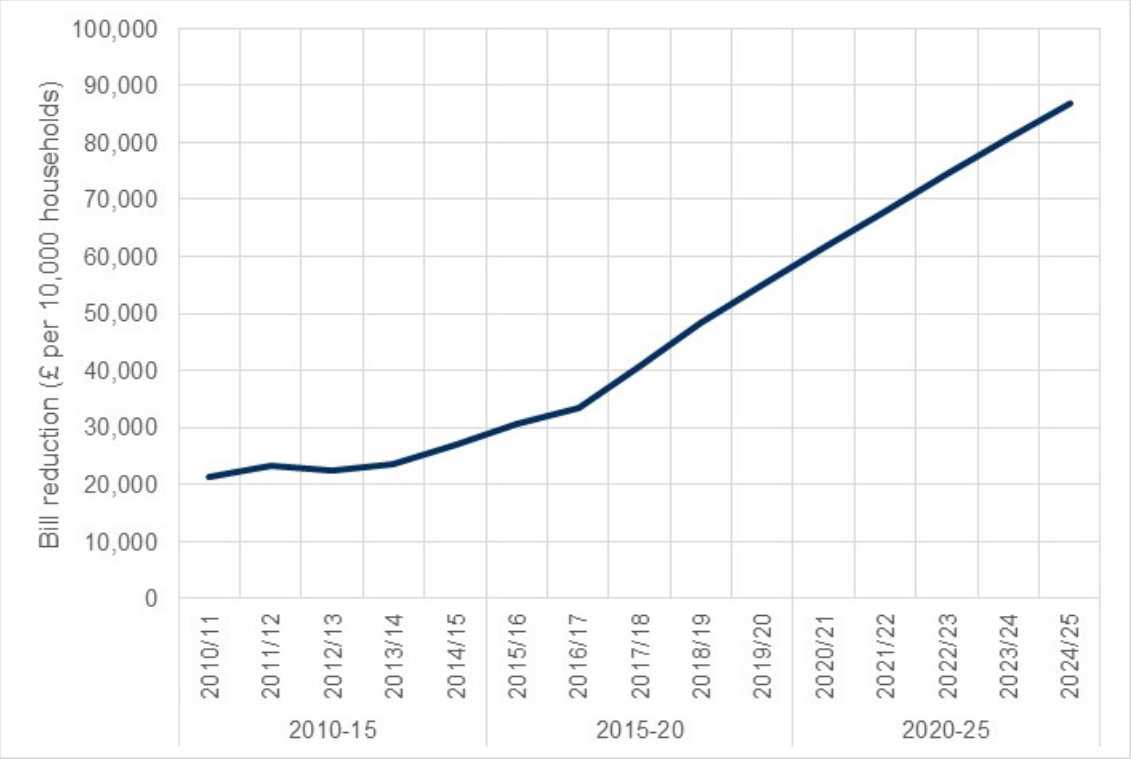
$R^2 = 1$

Maximum level attainable: no theoretical maximum.

Expert knowledge: Underlying the forecast is an intention is to increase the number of customers on a social tariff by 8,600 per year, resulting in 85,000 customers receiving a social tariff by 2025. By 2025, 1 in 15 customers will be in receipt of a social tariff. This results in a total bill reduction of £11.2m a year, expressed for the purposes of the Performance Commitment as £87,029 per 10,000 customers.

This is a significantly higher growth rate compared to the past and will be challenging to achieve (see graph below). Our customer research mandates a total amount of cross subsidy from the rest of the residential customer base. We expect to be at the limit of this amount by 2025. If we achieve greater growth than our target before 2025, we will conduct additional research with customers with the aim of achieving greater cross-subsidy.

Figure 1: Social tariffs bill reduction 2010/11 to 2024/25 (£ per 10,000 households)



Data in the graph prior to 2013-14 is the number of customers on similar tariffs before the social tariff legislation was introduced in 2013-14.

Our work further strengthening our partnerships with the debt advice sector will be key to achieving this, in addition to adopting behavioural approaches to encourage customers to contact us when they experience affordability problems. Our plans to increase how we use data on day-to-day and strategic bases will also play a major role, as well as our work improving how we engage with our customers. Further information on this can be found in our Vulnerability Strategy (supporting document 2.1) and our retail plan in chapter 7 of the main business plan.

1.2 Performance commitment: A2 Successful applications for assistance received by the independent advice sector/third parties

1.2.1 Introduction

The number of successful applications received from our partners in the advice sector for our affordability schemes such as social tariffs and/or Restart.

Definition of performance measure: Number of successful applications for assistance received by the independent advice sector/third parties that are funded.

Customer friendly definition: Working with partners to help customers who are in financial difficulty.

Customer research:

- Our extensive partnership working since 2005 has proved that debt advice agencies are well placed to holistically assess a customer's financial situation and support them in taking up our social tariff offerings. The social tariff research carried out for our Assist tariff also showed customers support our model of co-delivery with debt advice agencies.

1.2.2 Detailed definition

Information relating to the bespoke performance commitment

We want bills to be affordable for all.

This performance commitment aims to prove our commitment to working in effective partnership with the advice sector to increase the number of customers who have access to our financial support schemes.

Through our award-winning TAP programme (see supporting document 2.1) we offer customers a range of schemes and low rate tariffs to help them afford their ongoing water bills and repay their debt, along with practical support to help reduce their water and energy use. These include our Assist low rate tariff, discount for those on Pension Credit or whose sole income is state pension, our Restart debt repayment scheme and our Home Check service.

Each customer is provided with a tailored solution to meet their own financial circumstances.

TAP forms part of our Strategy for customers in vulnerable circumstances (supporting document 2.1), recently reviewed and endorsed by the Wessex Water Partnership and our Affordability Advisory Group, which is:

- Water use should not be rationed by a customer's ability to pay
- We encourage engagement with customers in financial difficulty
- We build relationships of mutual trust with advice agencies
- We support a holistic approach to debt management
- We offer tailored solutions with flexibility to meet individual's financial circumstances

- We prefer sustainable and affordable level of payment of whatever size to no payment at all.

We also share the Government's aim of supporting those who are 'just about managing'.

We have developed very effective partnerships with the debt advice sector over the last 13 years to deliver our TAP programme. These partners include all Citizens Advice offices across our region as well as StepChange, National Debt Line, Christians Against Poverty and a plethora of local independent debt advice agencies including cultural, faith and niche organisations along with tenant support workers in housing associations.

We fund and signpost to these agencies, as we believe it is essential that customers receive holistic debt advice and budgeting support along with income maximisation. It is never just about water; customers generally have multiple debts to multiple creditors. These trusted third parties are far better able to determine a sustainable offer of payment, however small, based on true ability to pay.

We currently provide funding of around £365k to our debt advice partners each year. The majority of this is for referrals on to our TAP programme. Funding is on a banded system and the agency will receive a set amount based on the total successful applications they have referred in the previous financial year. This model was designed with Citizens Advice at a national level and aims to incentivise an increase in applications to our schemes. The banding system equates to around £110 per successful application.

Debt advice agencies are currently undergoing significant change due to funding pressures. Many are reviewing structures and working practices to remove their heavy reliance on local authority funding.

The funding that Wessex Water provides is a small part of their overall budgets. We will continue to work with and fund all our partner agencies but their capacity and ability to refer to our schemes may be affected by these external pressures which are outside of our control.

This performance commitment has been discussed with the affordability and vulnerability sub group of the Wessex Water Partnership. The Partnership includes members with expertise in the area of financial vulnerability who are incredibly supportive of partnerships and agree that they have been very effective.

We also have an expert Affordability Advisory Group who oversee our work on affordability, effectiveness of our offering and initiatives to raise awareness and increase uptake of TAP. They have also endorsed our partnership working and overall strategy (see appendix 2.1.A).

Our strategic vision research also showed that customers support innovative approaches to achieve our goals, particularly when this involves preventative and collaborative solutions.

Full definition of the bespoke performance commitment

Our performance commitment will be the total number of successful applications received from funded advice agencies measured at the 31st March each year. By successful, we mean an application that leads to the customer being accepted onto one or more of our affordability schemes.

All applications received from agencies are recorded and monitored and a reconciliation is done with each agency both quarterly and at year end to agree the final year end figure.

1.2.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No.	2300	2300	2300	2300	2300

Rationale for level: Average of historical information.
Rationale for PC profile: Flat profile as dependence on third party activity.

	2045
Long-term ambition	2300

Rationale for 2025-2045 forecast: Continuation of the PR19 rate each year as debt advice agencies are anticipated to continue to be under financial pressure.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No.	1500	1500	1500	1500	1500
P90	No.	3000	3000	3000	3000	3000

Rationale for P10: Worst historical performance minus 25% to account for the uncertainty surrounding the financial pressures of the advice sector/third parties.
Rationale for P90: Expert knowledge using historical information.

Incentive rates

Incentive type	Incentive Rate (£/application)
Outperformance	110
Underperformance	130

Rationale for incentive rate: Incentive rate calculated based on the cost per application.

Additional details

Necessary detail on measurement units	Number of applications
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✓	✘	✘	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area – we have therefore not sought WTP information from customers. It is also not a PC that other companies report so comparative information is not available. We are not able to verify the total number of customers that could qualify for this PC so cannot determine the maximum level attainable and it is not appropriate to propose a minimum improvement.

We believe partnerships with the debt advice sector are the best way to deliver our affordability support. However, many debt advice partners are under significant financial pressure. We only provide a small part of their budget. For this reason, combining our expert knowledge and historical information suggests that a stretching performance will be to maintain the current levels of applications in these financially challenging times, where you would otherwise expect to see a reduction in applications processed.

1.2.4 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information: not applicable.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No.	n/a	n/a	n/a	2267	2753	2286	2061

Current performance:

Unit	2017-18
No.	2226

Forecast performance:

Unit	2018-19	2019-20
No.	2300	2300

Rationale for initial service level: Three-year average of number of applications (2015-17).

Minimum improvement: not applicable.

Maximum level attainable: no theoretical maximum.

Expert knowledge: We firmly believe partnerships with the debt advice sector is the best way to deliver our affordability support. We currently work with and fund a wide range of organisations across our region.

At the moment, a number of our debt advice partners are undergoing significant change due to funding pressures. Many are reviewing structures and working practices to remove their heavy reliance on local authority funding.

The funding that Wessex Water provides is a small part of their overall budgets. We will continue to work with and fund all our partner agencies but their capacity and ability to refer to our schemes may be affected by these external pressures which are outside of our control. For this reason, a historical average is appropriate.

1.3 Performance commitment: A3 Void sites

1.3.1 Introduction

This measure is the percentage of properties that are connected to the Wessex Water water supply or sewerage system but are not billed.

Ofwat requires companies to have a performance commitment on void sites.

Definition of performance measure: Percentage of all connected properties that are void.

Voids are properties that are connected to our water or sewerage system but are not billed, due to inoccupancy or other reasons, consistent with Ofwat's definition. Our definition of void premises is in line with our recognition of turnover. This performance commitment covers all properties, both residential and business.

Customer friendly definition: Reducing the number of properties that are receiving our services, but not being billed.

Customer research:

- No specific research – Ofwat mandated PC.

1.3.2 Detailed definition

Information relating to the bespoke performance commitment

The aim of the performance commitment is to incentivise the company to improve its void performance to maximise the number of connected properties that are billed.

Wessex Water has always kept a keen focus on ensuring as many properties connected to its water and sewerage systems are billed for services that are used, while not inefficiently expending large amounts of resource on chasing a small number of unbilled properties. There will be a natural level of voids as a proportion of properties at any one time are unoccupied or vacant. Ofwat has challenged companies to improve their void performance. The voids performance commitment will incentivise the company to further reduce the number of voids in its area.

Full definition of the bespoke performance commitment

The percentage of connected properties that are void is calculated by taking the average monthly number of void properties (residential and business) connected to the water or sewerage system divided by the average number of monthly connected properties to the water or sewerage system.

Our definition of what constitutes a void property mirrors Ofwat's definition set out in the Regulatory Accounting Guidelines: a property which is connected for either a water service only, a wastewater service only or both services but does not receive a charge, as there are no occupants. Void properties do not include properties that do not receive a bill because it would be uneconomic to do so.

The performance commitment should be comparable to the rest of the industry and normalised at least for scale. A percentage of voids metric gives a simple comparison to other companies and the numbers of properties – billed, void and connected are already reported.

Our definition of void premises is in line with our recognition of turnover.

Income related to water and sewerage services is receivable from occupiers of the premises to which services are supplied except where a third party has agreed liability for the charges. Where premises are unoccupied, income is not receivable and no turnover is recognised (the premises is considered void).

Premises that are furnished are considered to be occupied (and therefore not void) except in exceptional circumstances such as death or long-term hospitalisation of the customer. We consider premises undergoing refurbishment or being used for storage to be occupied by the owners of the premises.

If details of the occupier of the premises are unknown, the premises are considered to be unoccupied (and therefore void), no charges are raised and no turnover is recognised except where a third party has agreed liability for the charges. We do not bill properties speculatively in the name of the occupier.

Further evidence of our historical performance and the comparative efficiency of our future proposals can be found in supporting document 8.3.

1.3.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	2.0	2.0	2.0	2.0	2.0

Rationale for level: Improve from current performance to perform at or better than the upper quartile of industry performance.
Rationale for PC profile: maintain performance at high level, balancing cost of finding sites with billing performance.

	2045
Long-term ambition	1.7

Rationale for 2025-2045 forecast: The percentage continues to reduce to achieve the industry frontier level of performance.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	%	2.4	2.5	2.6	2.7	2.8
P90	%	2.0	1.9	1.9	1.8	1.7

Rationale for P10: Deterioration of 0.1% pa.
Rationale for P90: Achieves current industry frontier.

Incentive rates

Incentive type	Incentive Rate (£/0.1% variance)
Outperformance	59,000
Underperformance	59,000

Rationale for incentive rate: Incentive rate based on the unit cost only.

Additional details

Necessary detail on measurement units	Percentage of properties
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✓	✓	✓	✖	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area – we have therefore not sought WTP information from customers. We are not able to verify the

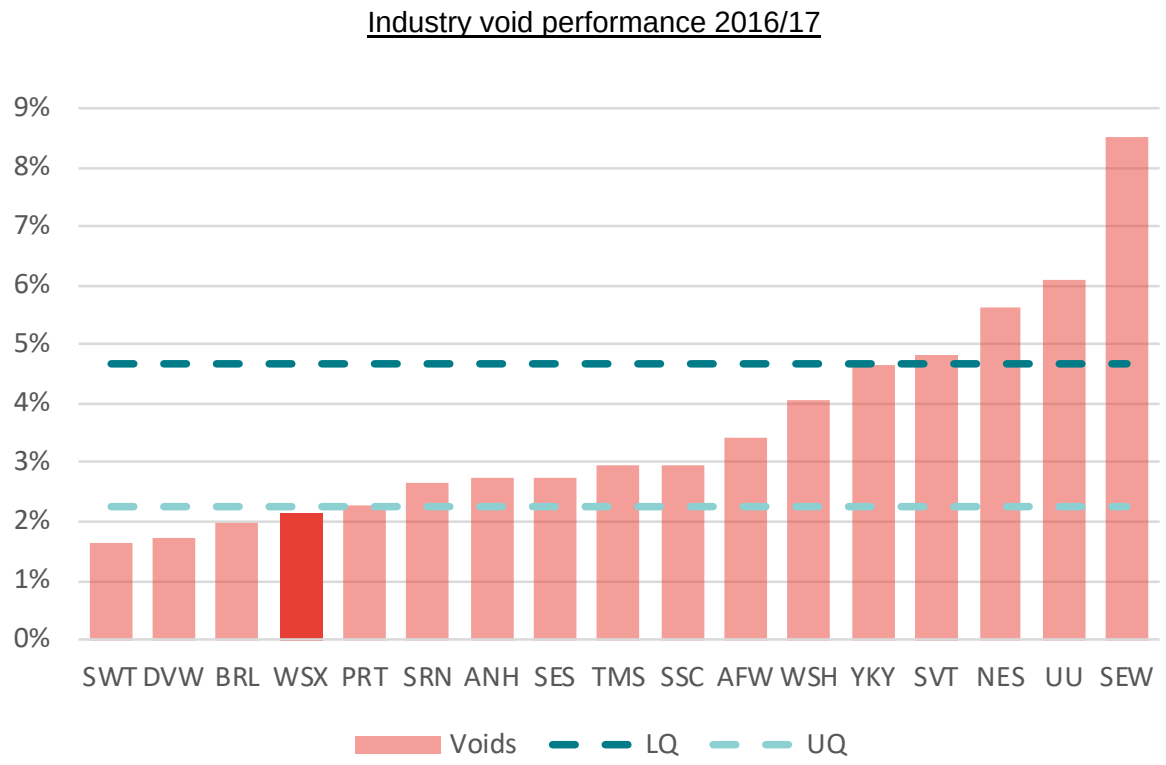
total number of properties that could be converted and do not believe that zero is a realistic target so cannot determine the maximum level attainable.

We are using comparative information and our expert knowledge to continue to achieve a challenging performance at or better than the upper quartile of industry performance over 2020-25. We have analysed both comparative performance relative to other water companies, and also local authority data to produce our targets.

1.3.4 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information:



Please see supporting document 8.3 for further information.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
%	n/a	n/a	2.5	2.4	2.3	2.2	2.2

Current performance:

Unit	2017-18
%	2.4

Forecast performance:

Unit	2018-19	2019-20
%	2.2	2.1

Rationale for initial service level: Maintain better than upper quartile industry performance, operating better than Local Authority performance and balancing the cost of finding voids with maximising billing rates.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
%	2.2	2.2	2.1	2.1	2.1

$R^2 = 0.63$

Maximum level attainable: no theoretical maximum. A natural level of voids is expected which is unable to be identified.

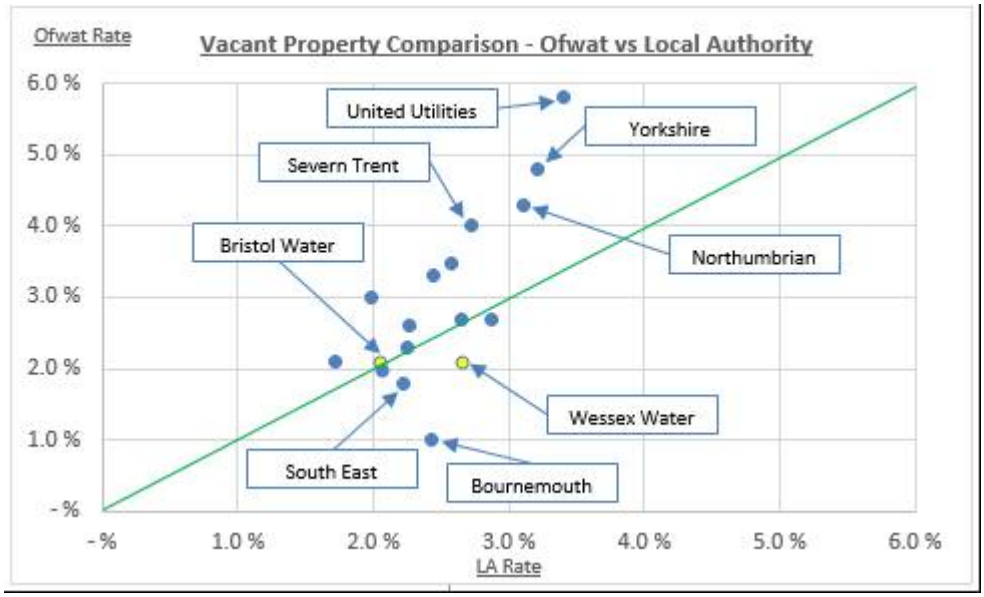
Expert knowledge: We have always kept a keen focus on ensuring as many properties connected to our water and sewerage systems are billed for services that are used, while not inefficiently expending large amounts of resource on chasing a small number of unbilled properties.

At PR19 Ofwat has challenged companies to improve their void performance.

We aim to continue to achieve performance at or better than the industry upper-quartile in our water supply area by 2025. We have analysed local authority data in our region which results in a void rate of 2.6%. Our performance is comparatively already better than this and we will continue to improve further up to 2025. The table below shows local authority vacant property data compared to company performance. Wessex Water's performance is 0.5% better than that achieved by the local authority, compared to the majority of other companies who perform less well.

Water Company	Vacant Properties	Total Properties	% Vacant	Ofwat Vacant %	Difference
Affinity Water	24,636	1,238,710	2.0 %	3.0 %	(1.0)%
Anglian Water	53,988	2,210,540	2.4 %	3.3 %	(0.9)%
Bournemouth	7,309	300,840	2.4 %	1.0 %	1.4 %
Bristol Water	12,007	588,730	2.0 %	2.1 %	(0.1)%
Northumbrian Water	53,713	1,731,990	3.1 %	4.3 %	(1.2)%
Portsmouth Water	11,596	516,810	2.2 %	2.3 %	(0.1)%
Severn Trent	84,232	3,084,690	2.7 %	4.0 %	(1.3)%
South East Water	18,143	817,310	2.2 %	1.8 %	0.4 %
South Staffs	18,780	707,880	2.7 %	2.7 %	(0.0)%
South West	23,515	819,760	2.9 %	2.7 %	0.2 %
Southern Water	27,081	1,193,430	2.3 %	2.6 %	(0.3)%
Sutton & East Surrey	2,747	133,010	2.1 %	2.0 %	0.1 %
Thames Water	72,536	4,226,290	1.7 %	2.1 %	(0.4)%
United Utilities	110,425	3,247,540	3.4 %	5.8 %	(2.4)%
Wessex Water	13,117	495,430	2.6 %	2.1 %	0.5 %
Yorkshire Water	75,003	2,335,460	3.2 %	4.8 %	(1.6)%
Grand Total	608,828	23,648,420	2.6 %	3.5 %	(0.9)%

The graph below shows the same information graphically, comparing the local authority vacancy rate with water companies' void rates.



We will achieve this improved level through the new billing system and the additional capabilities it provides will allow us to further reduce our voids, such as better data management and tracing of 'gone away' customers, as well as an improved ability to use external data.

1.4 Performance commitment: A4 Gap sites

1.4.1 Introduction

This is the number of properties that are found each year to be connected to the Wessex Water water supply or sewerage system that are not on our records, not billed and are not newly built.

Ofwat requires companies to consider a performance commitment on gap sites.

Definition of performance measure: Number of properties newly billed over the year that were connected to our water supply and/or sewerage systems more than two financial years previously.

Gap sites are defined as properties that are connected to the water supply or sewerage network, but the company is not aware of, and therefore are unbilled and (potentially) gain a free service. This performance commitment covers all properties, both residential and business.

Customer friendly definition: Reducing the number of properties that are receiving our services, but we don't know about it.

Customer research:

- No specific research – Ofwat mandated PC.

1.4.2 Detailed definition

Information relating to the bespoke performance commitment

The aim of the performance commitment is to incentivise the company to find gap sites in its area.

We are committed to ensuring the company is aware of all customers connected to its water and sewerage networks. This is important to ensure water quality compliance and network management performance is maximised, and we are able to bill all customers that use our services.

The difficulty in setting a performance commitment for gap sites is the lack of evidence that there are a material number of properties that are connected to our systems that the company is not aware of. For example:

- Our External Liaison team are incentivised to find gap sites as part of their activities and only a very small number are found each year.
- We routinely trace our network looking for unconnected properties that are close to our network and send inspectors where we think there is a chance they are connected – this rarely leads to any positive finds.

Full definition of the bespoke performance commitment

We already internally report the number of properties newly connected to our systems that

are newly billed, varying by the time at which they were connected. We propose to report the total number of properties that were connected more than two years before the current year. This is the most appropriate proxy to use for reporting gap sites as newly built properties will always be immediately recorded on our system. This captures properties that we reasonably should have brought onto charges before. The definition of the performance commitment therefore is the number of properties newly billed over the year that were connected to our water supply and/or our sewerage systems more than two financial years previously.

The performance commitment covers all properties, both residential and business.

Further information on our gap site performance, efficiency and proposals can be found in supporting document 8.3.

1.4.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance only.

Rationale for incentive type: having considered Ofwat's feedback in the IAP, we considered customers views in this area which consistently demonstrate one of the important priorities is value for money. Similar to other companies, we have formulated an outperformance only performance commitment above the P50 to incentivise the achievement of finding increased numbers of gap sites.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No.	112	112	112	112	112

Rationale for level: Based on historical average.
Rationale for PC profile: Flat profile as maintaining stable performance.

	2045
Long-term ambition	112

Rationale for 2025-2045 forecast: To continue to maintain the current target.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No.	56	56	56	56	56
P90	No.	224	224	224	224	224

Rationale for P10: 50% of target
Rationale for P90: 200% of target

Incentive rates

Incentive type	Incentive Rate (£/property)
Outperformance	320

Rationale for incentive rate: average household bill.

Additional details

Necessary detail on measurement units	Number of gap sites discovered
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✖	✓	✓	✖	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area – we have therefore not sought WTP information from customers. It is also not a PC that other companies report so comparative information is not available. We are not able to verify the total number of properties that could qualify for this PC so cannot determine the maximum level attainable.

It is difficult to set a target for this measure due to the lack of evidence that there are a material number of properties connected to our system of which we are not aware. We have set the target as the five-year average number of properties newly billed that were connected over two years ago. This is better than the minimum improvement and aligns with our historical information.

1.4.4 Supporting information for six challenge process

CBA: not applicable.

Comparative information: not applicable.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No.	n/a	102	95	132	130	125	93

Current performance:

Unit	2017-18
No.	112

Forecast performance:

Unit	2018-19	2019-20
No.	112	112

Rationale for initial service level: Set at historical average level; 2011-12 to 2016-17 average of sites added to network records in year that are not newly built.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
No.	108	106	104	102	101

$R^2 = 0.93$

Maximum level attainable: no theoretical maximum

Expert knowledge: The difficulty in setting a performance commitment for gap sites is the lack of evidence that there are a material number of properties that are connected to our systems that the company is not aware of.

- Our External Liaison team are incentivised to find gap sites as part of their activities and only a very small number are found each year.
- A few years ago, we also employed a specialist consultant to search for voids in our area which was not value for money as nothing of any note was found.
- We routinely trace our network looking for unconnected properties that are close to our network and send inspectors where we think there is a chance they are connected – this rarely leads to any positive finds.

The five-year average number of properties newly billed that were connected over two years ago is 112 per annum. This is proposed as the central value.

We will continue to expend effort in this area as we have an incentive to ensure we know about all properties are connected to our system. This target assumes a constant level of effort undertaken.

We will achieve this by improving our ability to utilise data will potentially improve how we understand whether there are any properties in our area we do not know about that are actually connected to our networks.

Further information on this can be found in supporting document 8.3.

1.5 Customer response: Affordable bills

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'affordable bills':

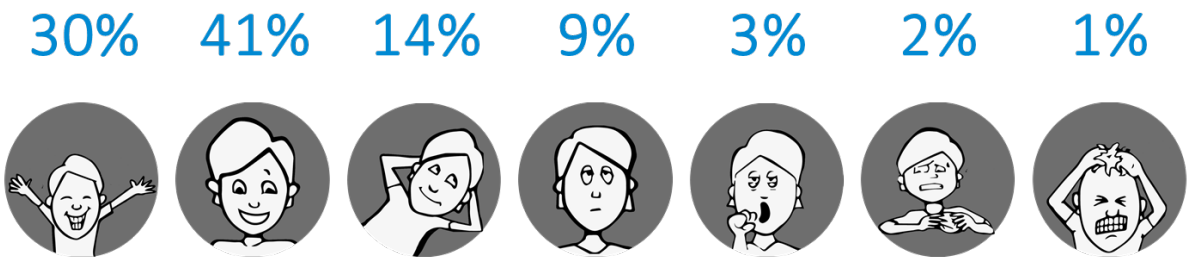
Household Customer Reactions (Engagement Events)

- ✓ Majority happy that Wessex Water supports and will continue to support its most vulnerable customers
- ✓ Most unaware of current schemes. They felt Wessex Water should communicate its work in this area more as it would enhance brand perceptions
- ? Small minority unhappy that they may have to subsidise others
- ? Some felt that proactively identifying customers could be controversial as some eligible for the scheme may not self-classify as needing extra support

Stakeholder Reactions

- ✓ Stakeholders are reasonably unanimous in endorsing any improvement in provision for struggling customers (including those stakeholders with other professional interests)
- ✓ The proposed increase in provision is significant
- ✓ Empowering people to use less is also a good thing and a more holistic approach
- ✓ Working with partners was also endorsed as an effective way to reach customers in need
- ? A minority of stakeholders felt that the specific provision featured was "standard" even if the target was aspirational
- ? Some stakeholders felt that vulnerability should be holistic rather than splitting financial and situational/Priority Services Register as they overlap

Following feedback from phase one, no adjustments were made to the performance commitments in 'affordable bills' but the overall bill impact was adjusted to account for changes elsewhere in the plan. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'affordable bills', they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O.

2. Outcome: Excellent service for customers

An exceptional service experience which is inclusive and accessible to all customers.
Strategic action points:

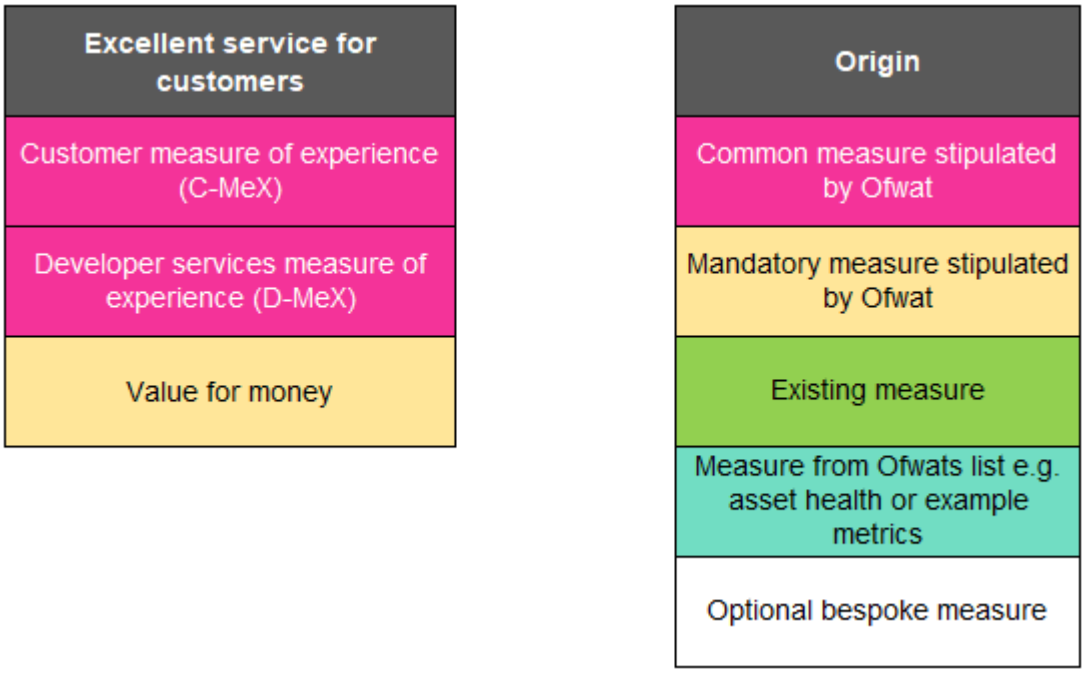
We will continue to go the extra mile for our customers and make sure our staff are skilled, empowered and confident and have the right tools to deal with all contacts first time, particularly those from customers who find themselves in vulnerable circumstances.

We will continue to evolve our communication channels to make them accessible for all and our self-service capability, which will be particularly important to meet the needs of our younger generation. This will be underpinned by sector-leading service guarantees.

We will commit to the same excellence in service for business customers such as property developers and licensed retailers.

We will strive to remain the most efficient retailer in the water sector and explore new markets where we can add value.

Origin of performance commitments



2.1 Performance commitment: X1 Customer measure of experience (C-MeX)

2.1.1 Introduction

This is Ofwat's replacement for the Service Incentive Mechanism (SIM). This new incentive is designed to further improve the customer experience for household customers. It will be based on two satisfaction surveys, one of those who have contacted their water company and another of those who have not contacted the company i.e. customers selected at random from the customer base who may have received a bill, visited the website or passed a road sign in the highway.

Definition of performance measure: Measure defined by Ofwat.

Customer friendly definition: Delivering excellent customer service to household customers.

Customer research:

- No specific research – measure still being defined by Ofwat.

2.1.2 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments

Rationale for incentive type: As evidenced by customer research, and ODI type prescribed by Ofwat as this is a common measure.

Proposed performance commitment level

This is illustrative only as C-MeX is not a PC in the traditional sense.

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Comparative measure	Index	Ofwat defined				

Rationale for level: Directed by Ofwat.
Rationale for PC profile: n/a.

	2045
Long-term ambition	Ofwat defined

Rationale for 2025-2045 forecast: This will be determined by Ofwat.

Additional details

Necessary detail on measurement units	C-MeX score
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method and has been prescribed by Ofwat for this measure.
Rationale for RCV or revenue: Default form and has been prescribed by Ofwat for this measure.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✘	✘	✘	✘

Summary of challenge: The target will be defined by Ofwat. We are challenging ourselves to achieve top 3 performance in the sector.

2.1.3 Supporting information for the six-challenge process

CBA: not applicable as this is a new measure.

Comparative information: not applicable as this is a new measure.

Historical information: not applicable as this is a new measure.

Minimum improvement: not applicable as this is a new measure.

Maximum level attainable: not applicable as this is a new measure.

Expert knowledge: not applicable as this is a new measure.

2.2 Performance commitment: X2 Developer services measure of experience (D-MeX)

2.2.1 Introduction

D-MeX is a qualitative incentive based on customer satisfaction data, designed to promote a better-quality service experience to developer services/ new connections customers, and to lead to greater customer satisfaction. As this is a new measure, a working group has been established with a pilot schedule for December 2018 and final guidance published December 2019.

Definition of performance measure: Measure defined by Ofwat.

Customer friendly definition: Delivering excellent service to house builders.

Customer research:

- No specific research – measure still being defined by Ofwat.

2.2.2 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: As evidenced by customer research, and ODI type prescribed by Ofwat as this is a common measure.

Proposed performance commitment level

This is illustrative only as D-MeX is not a PC in the traditional sense.

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Comparative measure	Index	Ofwat defined				

Rationale for level: Directed by Ofwat.
Rationale for PC profile: n/a.

	2045
Long-term ambition	Ofwat defined

Rationale for 2025-2045 forecast: This will be determined by Ofwat.

Additional details

Necessary detail on measurement units	D-MeX score
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method and has been prescribed by Ofwat for this measure.
Rationale for RCV or revenue: Default form and has been prescribed by Ofwat for this measure

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✖	✖	✖	✖	✖

Summary of challenge: The target will be defined by Ofwat. We are challenging ourselves to achieve upper quartile performance, which is a stretching performance given we are currently below average in the WaterUK metrics.

2.2.3 Supporting information for the six-challenge process

CBA: not applicable as this is a new measure.

Comparative information: not applicable as this is a new measure.

Historical information: not applicable as this is a new measure.

Minimum improvement: not applicable as this is a new measure.

Maximum level attainable: not applicable as this is a new measure.

Expert knowledge: not applicable as this is a new measure.

2.3 Performance commitment: X3 Value for money

2.3.1 Introduction

Value for money is a perception measure and customers' ratings are often influenced by media headlines or other external influences. Customers also increasingly compare us to other service providers, inside and outside the utility sector. We want customers to value the services we provide, and we are committed to doing all we can to improve our ratings.

Definition of performance measure: The percentage of customers rating overall service as good value for money when asked in an annual tracking survey.

Customer friendly definition: Customer perception of value for money of our services.

Customer research:

- Endorsed by a number of stakeholders

2.3.2 Detailed definition

Information relating to the bespoke performance commitment

The aim of the performance commitment is to measure customers' satisfaction with value for money of our services.

Full definition of the bespoke performance commitment

The percentage rating the service as good value for money will be taken directly from the results of our annual tracking survey. This is an annual survey of a random sample of 1,000 domestic customers in the Wessex Water region, including customers supplied by both South West Water (Bournemouth area) and Bristol Water. The survey is carried out by a market research agency on our behalf. Questions asked are consistent from year to year and surveying is continuous with the aim of meeting the 1,000 sample by year end. The sample includes contactors and non-contactors.

2.3.3 Proposed level and outcome delivery incentives

Incentive type: Reputational only

Rationale for incentive type: Continuation of AMP6 measure.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	75	75	75	75	75

Rationale for level: Maintain performance at the AMP6 target

Rationale for PC profile: Stable performance

	2045
Long-term ambition	75

Rationale for 2025-2045 forecast: Stable performance

Additional details

Necessary detail on measurement units	The percentage rating the service as good value for money
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	n/a
Form of ODI	n/a
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✖	✓	✓	✓	✓

Summary of challenge: our target is an improvement on our current performance.

2.3.4 Supporting information for the six-challenge process

CBA: n/a

Comparative information: Other stakeholders measure satisfaction with value for money including CCWater but this is not measured as an overall score. It is measured by CCWater at individual service level i.e. water supply and waste water,

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
%	74	62	69	61	65	78	84

Current performance:

Unit	2017-18
%	70

Forecast performance:

Unit	2018-19	2019-20
%.	69	75

Rationale for initial service level: Based on our AMP6 performance commitment levels.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
%	73	73	74	74	74

R^2= 0.66

Maximum level attainable: The maximum level attainable is 100%.

Expert knowledge: We haven't met the target for our current performance commitment in each year because we believe the perception of value for money has been affected by a number of external factors including the negative political and media attention received by water companies over the last couple of years.

2.4 Customer response: Excellent service for customers

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'excellent service for customers':

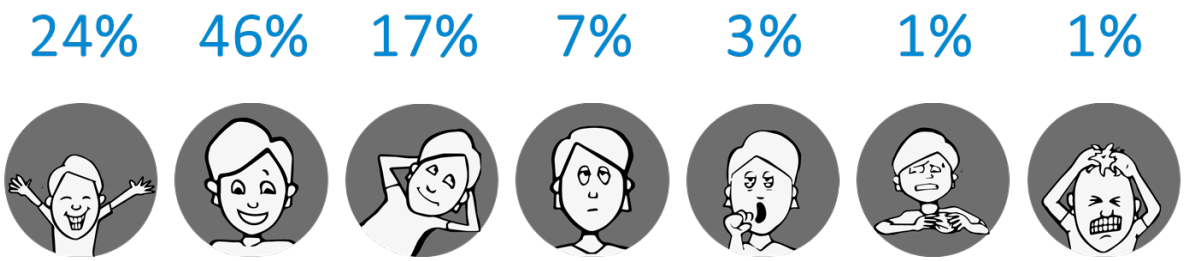
Household Customer Reactions (Engagement Events)

- ✓ Really impressed with Wessex Water's ambition, especially as the industry is a monopoly and so customers felt that Wessex Water don't necessarily need to focus on this area as a bad experience won't lead a customer to leave
- ✓ Particularly liked the promise to *always answer the phone with a person* – saw this as a standout feature of the plan
- ? Appreciated Wessex Water's aim to be one of the Top 20 UK companies for customer service, however felt that there wasn't any specific aim in the plan that would propel them into this arena
- ? Felt the proposed plan will offer 'good' rather than 'excellent' service

Stakeholder Reactions

- ✓ Stakeholders feel that all good companies should aspire to offer the best service and they broadly like what they see
- ? Some caution being too proactive – need to balance proactivity with rights of customer to be left alone

Following feedback from phase one, no adjustments were made to the performance commitments in 'excellent service for customers' but the overall bill impact was adjusted to account for changes elsewhere in the plan. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'excellent service for customers', they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O.

3. Outcome: Better relationships with customers and communities

Individuals, households and community groups that are engaged with their local water environment and actively supporting the delivery of our aims.

Strategic action points:

We will encourage individuals, households and community groups to engage with their local water environment and actively support the delivery of our aims.

We will develop delivery partnerships with our customers and communities so that we can achieve outcomes in the most cost beneficial ways.

We will use new technology to form and reward online communities that are willing to create more resilience in our networks.

We will expand our work with trusted third parties to help deliver on shared aims
We will further develop our stakeholder engagement work and promote a greater sense of citizenship among the people we serve.

We will become more visible and active in our communities, educating people about the wise use of our services and supporting our employees who wish to make wider contributions to society.

Origin of performance commitments:

Better relationships with customers and communities
Priority Services Register
Delivering for customers in vulnerable circumstances
Number of children/students engaged

Origin
Common measure stipulated by Ofwat
Mandatory measure stipulated by Ofwat
Existing measure
Measure from Ofwats list e.g. asset health or example metrics
Optional bespoke measure

3.1 Performance commitment: C1 Priority Services Register

3.1.1 Introduction

The Priority Services Register (PSR) is a register that identifies customers who are classified as requiring additional assistance. This includes customers:

- who require a password to prevent bogus callers
- with a disability or medical condition we need to be aware of, or
- who have additional communication needs.

Definition of performance measure: the percentage of households that the company supplies with water and/or wastewater services which have at least one individual registered on the company's PSR.

PSR data checking: the percentage of distinct households with individuals on the company's PSR that have been contacted at least once over the previous two years to ensure they are still receiving the right support. This element of the measure acts as a gate to comply with the performance commitment.

The water industry is due to commence data sharing with the energy sector for Priority Services customers around April 2020. For PSR reach we will include those customers who register for Priority Services through the energy sector if that data is shared with us.

For PSR data checking we will consider the following to comply with the performance commitment:

- an inbound contact with a household in which we check that they are still receiving the right support and their PSR information is either confirmed to be accurate or updated accordingly i.e. a reactive contact
- proactive contact made by us to a household on our PSR in which we check that they are still receiving the right support and their PSR information is either confirmed to be accurate or updated accordingly i.e. proactive interaction
- notification from the energy sector via the datashare that a household's PSR information has either been confirmed to be accurate or amended and we update our records accordingly
- proactive contact made by us to a household in which we attempt to check on more than one occasion that they are still receiving the right support, but the household fails to respond. In these cases, we will assume that the household agrees they are still receiving the right support and they will remain on PSR.

Compliance with the performance commitment cannot be achieved unless both elements (PSR reach and PSR data checking) have been met or exceeded.

Customer friendly definition: Identifying more customers in vulnerable circumstances and understanding their needs.

Customer research:

- Endorsed by a number of stakeholders and widely used in similar industries.

3.1.2 Proposed level and outcome delivery incentives

Incentive type: Non-financial incentive

Rationale for incentive type: Prescribed by Ofwat.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC: PSR reach	%	2.8	3.9	4.9	6.0	7.0
PC: PSR Data checking	%	90.0	90.0	90.0	90.0	90.0

Rationale for PSR reach level: Target revised from original bespoke performance commitment and increased. The target level reaches Ofwat's proposed 7% by 2024-25.
Rationale for PSR reach profile: Incremental improvement over the period.

Rationale for PSR data checking level: Stretching target as proposed by Ofwat
Rationale for PSR data checking profile: Maintain stretch

	2045
Long-term ambition: PSR reach	7.0
Long-term ambition: PSR data checking	90.0

Rationale for PSR reach 2025-2045 forecast: Continuation of our proposed highest year performance.

Rationale for PSR data checking 2025-2045 forecast: Maintain stable performance

Additional details

Necessary detail on measurement units	Percentage of households.
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	n/a
Form of ODI	n/a
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✗	✓	✓	✗	✓

Summary of challenge: We recognise that a growing number of our customers need assistance from us and we are seeking to ensure these customers are added to the Priority Services Register through delivery of all of the initiatives contained with Every Customer Matters, our strategy for customers in vulnerable circumstances.

We are involved in the national initiative to share data with the energy sector. We have been at the forefront of lobbying for this initiative to be agreed as we know it will significantly improve our ability to provide individualised services to many more of our customers who require assistance.

However, the timing and outcome of this initiative is still not certain. Due to this we have set our target for PSR reach at the minimum required for this common performance commitment of 7% by 2024-25. It represents an increase in the forecast originally proposed in table App4 of 5.9%.

For the data checking element, we will target 90% every two years which is a significant step change from historical performance.

3.1.3 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information: Unable to directly compare with current industry data due to different definitions of vulnerable.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
% (Data reach)	n/a	n/a	n/a	0.4	0.4	0.5	0.6
% (Data checking)	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Current performance:

Unit	2017-18
% (Data reach)	0.7
% (Data checking)	n/a

Forecast performance:

Unit	2018-19	2019-20
% (Data reach)	0.7	1.8
% (Data checking)	n/a	90.0

Rationale for initial service level: Stretch initial service level to achieve step-change in performance.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
%	0.7	0.8	0.8	0.8	0.8

R^2= 0.86

Maximum level attainable: no theoretical maximum. Unable to state the maximum level attainable as the number of customers requiring assistance is unknown.

Expert knowledge: We've set the target for PSR reach at the minimum required for this common performance commitment of 7% by 2024-25. It represents an increase in the forecast originally proposed in table App4 of 5.9% which included the impact of the national data sharing with energy companies. Although this is due to launch in 2020 and we expect it to lead to higher growth on PSR moving forward, the timing and outcomes of this are still not proven.

We previously submitted a bespoke performance commitment which targeted 2,200 additions to PSR through delivery of our own vulnerability strategy and that excluded the impact of national data sharing. The 7% therefore also represents a significant uplift on what we would expect to achieve through our own initiatives.

For the data checking element, we have committed to a target of 90% which is a significant step change from historic performance.

3.2 Performance commitment: C2 Delivering for customers in vulnerable circumstances

3.2.1 Introduction

The company will comply with the BS18477 British Standard for inclusive services, developed in conjunction with Consumer Futures and retain the Customer Service Excellence Award. The Bristish standard measures accessibility and inclusivity of a company's services particularly for those who are considered to be in more vulnerable circumstances.

Definition of performance measure: The accessibility and inclusivity of the company's services to customers, specifically meeting the BS18477 British Standard for inclusive service provision and retaining our Customer Service Excellence Award.

Customer friendly definition: Ensuring our services are accessible and available to everyone, especially those in vulnerable circumstances.

Customer research:

- Endorsed by a number of stakeholders as a good way of showing our services are inclusive and accessible to all.

3.2.2 Detailed definition

Information relating to the bespoke performance commitment

We want to prove our commitment to offering a service that is inclusive and accessible to all our customers but in particular those who find themselves in vulnerable circumstances.

It is fundamental that we provide excellent customer care and are inclusive and accessible to all, in particular those who find themselves in vulnerable circumstances, be that in the short or long term.

Customers in vulnerable circumstances often find it more challenging to engage with their water company for a variety of reasons such as financial difficulty, age, disability, health conditions, language or learning difficulties, poor mental health or simply a sudden change in circumstance such as bereavement or divorce.

We have a very comprehensive vision, strategy and customer offering in place to support customers in vulnerable circumstances, both in terms of how they can interact with us and direct support we can give during those interactions. We work hard to raise awareness and increase the numbers on all of our schemes through the four workstreams of our strategy for customers in vulnerable circumstances.

Our overall offering for customer care is underpinned by our ethos of going the extra mile and ensuring all of our staff have the right skills, training and are fully empowered to support our customers. We are fully multi-channel in terms of contact, underpinned by warm voice answer in our local Contact Centres.

Through Priority Services we offer a range of free services to customers with any additional needs. Customers can register with us and we will take account of their needs in all of our interactions with them. Through our award winning 'TAP' programme and partnerships we offer customers a wide range of schemes and low rate tariffs to enable them to afford their ongoing water charges and repay their debt, alongside practical help to reduce water and energy use.

This performance commitment has been discussed with the affordability and vulnerability sub group of the Wessex Water Partnership. The Partnership includes members with expertise in the areas of vulnerability and they particularly recognise that the British Standard is a good measure of inclusive services.

We have renamed the PC for 2020-25 as we wanted to clarify that it is specifically linked to support for customers in vulnerable circumstances.

Full definition of the bespoke performance commitment

Our performance commitment will consist of two elements. The first is to continue to achieve compliance with the British Standard for Inclusive Service Provision, BS18477, each year. The standard is designed to signal that a company is inclusive to all customers, including those who are most vulnerable due to low income and/or particular needs including disability. It focusses on identifying and responding to consumer vulnerability.

We were one of the first utilities to comply with the standard and we continue to believe it is a good way of publicly showing our service is accessible and inclusive to all.

Compliance is measured by an annual independent audit undertaken by LRQA who provide a statement of our compliance.

We will also retain the Customer Service Excellence Award, held since 1995, which includes measures of accessibility and inclusivity of our services. There is a formal annual independent assessment undertaken each year before the CSE award can be awarded to any company.

3.2.3 Proposed level

Incentive type: Reputational only

Rationale for incentive type: Continuation of 2015-20 incentive type

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	n/a	Compliance with BS18477 and achievement of the Customer Service Excellence Award	Compliance with BS18477 and achievement of the Customer Service Excellence Award	Compliance with BS18477 and achievement of the Customer Service Excellence Award	Compliance with BS18477 and achievement of the Customer Service Excellence Award	Compliance with BS18477 and achievement of the Customer Service Excellence Award

Rationale for level: Maintain compliance with recognised good practice.
Rationale for PC profile: Maintaining compliance with recognised good practice.

	2045
Long-term ambition	Compliance with BS18477 and achievement of the Customer Service Excellence Award

Rationale for 2025-2045 forecast: Continuing to comply with this standard.

Additional details

Necessary detail on measurement units	The company will comply with the BS18477 British Standard on inclusive services, developed in conjunction with Consumer Futures and achieve the Customer Service Excellence award.
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	n/a
Form of ODI	n/a
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✗	✓	✓	✓	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area – we have therefore not sought WTP information from customers. It is also not a PC that other companies report so comparative information is not available – we do, however, know that we are one of few companies that comply with this standard.

We introduced this measure in PR14 to provide a third-party assessment of our services to vulnerable customers. Achieving compliance with this standard reflects best practice not just in the water sector but across all sectors. We continue to challenge ourselves to continuing to be the best by complying with this standard to 2025. This is aligned with both minimum and maximum improvements.

3.2.4 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information: not applicable.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14
n/a	Achievement of the Customer Service Excellence Award	Achievement of the Customer Service Excellence Award	Achievement of the Customer Service Excellence Award	Achievement of the Customer Service Excellence Award

Unit	2014-15	2015-16	2016-17
n/a	Achievement of the Customer Service Excellence Award	Compliance with BS18477 and achievement of the Customer Service Excellence Award	Compliance with BS18477 and achievement of the Customer Service Excellence Award

Current performance:

Unit	2017-18
n/a	Compliance with BS18477 and achievement of the Customer Service Excellence Award

Forecast performance:

Unit	2018-19	2019-20
n/a	Compliance with BS18477 and achievement of the Customer Service Excellence Award	Compliance with BS18477 and achievement of the Customer Service Excellence Award

Rationale for initial service level: Maintaining compliance with recognised good practice.

Minimum improvement:

Unit	Minimum improvement
n/a	Compliance with BS18477 and achievement of the Customer Service Excellence Award

In accordance with the definition of this measure and performance between 2015-2020, the minimum improvement is to comply with the BS18477 and achieve the Customer Service Excellence Award.

Maximum level attainable:

Unit	Max. level attainable
n/a	Compliance with BS18477 and achievement of the Customer Service Excellence Award

In accordance with the definition of this measure, the maximum that can be achieved is to comply with the BS18477 and achieve the Customer Service Excellence Award.

Expert knowledge: This standard is encouraged by a number of stakeholders as a good way of demonstrating services are inclusive and accessible to all customers. There is no other standard that is specifically aimed at services for those customers in vulnerable circumstances.

3.3 Performance commitment: C3 Number of children/students engaged

3.3.1 Introduction

This valuable service encourages schools and colleges, the next generation of customers, to understand the importance of the water cycle. It teaches how it is important for the environment and future generations.

Our aim is to educate and inform as many students of all ages as possible. Whether it's the water cycle at key stage 1 or sewage sludge digestion at A-level. The service is free to schools and colleges in the region. Our three education advisers, who cover Bristol, Bath, Somerset, Wiltshire, South Gloucestershire and Dorset, teach topics ranging from the water cycle to what happens to waste once it has been flushed down the toilet. We continue to develop our resources by expanding the variety of activities we offer. We ensure they link to the curriculum across all key stages.

Definition of performance measure: Number of children/students directly engaged on subjects that will help us achieve our other objectives e.g. water efficiency and sewer misuse.

It includes:

- Visits by students/children to our education centres and operational sites
- Visits by Wessex Water's education team to schools and colleges
- Community projects involving students/children.

Customer friendly definition: Engaging children/students to teach them about the water environment.

Customer research:

- Tracker research highlighted that engaging with customers was a key driver of satisfaction.

3.3.2 Detailed definition

Information relating to the bespoke performance commitment

Throughout our ongoing engagement with customers, we see an appetite for more ongoing engagement and education about our activities and the positive impact that changes in customer behaviour can have on the environment and on our services. Our leakage research included a process of co-creation of a package of measures with customers that could help reduce water use and this measure was highly popular. Our offer of a future partnership with customers has also been popular, but this is contingent on our making it easy for customers to play their part.

Full definition of the bespoke performance commitment

We will count the number of children/students who have engaged in person with the following:

- Visits by students/children to our education centres and operational sites
- Visits by Wessex Water's education team to schools and colleges
- Community projects involving students/children.

We define children/students as those individuals up to and including 18 years old, who are in education.

For a student to be considered as engaged, a minimum of 20 minutes of engagement will be undertaken. Details of each engagement will be recorded electronically and 'signed off' by a teacher from the appropriate institution.

3.3.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No.	24370	24370	24370	24370	24370

Rationale for level: Average of historical and forecast 2015-20 performance.
Rationale for PC profile: Flat profile as maintaining stable performance with existing resources.

	2045
Long-term ambition	24370

Rationale for 2025-2045 forecast: Continuing to achieve the historical average performance.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No.	22803	22803	22803	22803	22803
P90	No.	32493	32493	32493	32493	32493

Rationale for P10: Lowest performance in 2015-20.
Rationale for P90: Expert knowledge.

Incentive rates

Incentive type	Incentive Rate (£/student)
Outperformance	4
Underperformance	4

Rationale for incentive rate: Incentive rate is based on the unit cost only.

Additional details

Necessary detail on measurement units	The number of children/students engaged
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	This has been reported for a number of years in our annual Sustainability Indicators.

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✓	✓	✘	✓

Summary of challenge: In reviewing our strategic direction, we introduced the customer and community priority area and have included some of the on-going activities which demonstrate our strong contribution and bond with our communities, many of which are small, rural populations where direct interaction with our customers is most important.

We see it as an important part of our role in the community and have set a target that is above the minimum improvement level and aligned with historical performance. We are committing to continue to provide this additional service at current levels which will be challenging in an environment of increasing financial pressure.

This is not reported by other companies and so we do not have comparative information and it is difficult to assign a benefits value to perform CBA.

3.3.4 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information: not applicable.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No.	12018	12104	9276	14649	20239	25917	25612

Current performance:

Unit	2017-18
No.	22803

Forecast performance:

Unit	2018-19	2019-20
No.	24640	22880

Rationale for initial service level: Expert knowledge of internal resources.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
No.	21940	22368	22761	23125	23464

R^2= 0.81

Maximum level attainable: no theoretical maximum. The maximum number of children that could be engaged with in the Wessex Water region is unknown.

Expert knowledge: This target is stretching as it goes above and beyond statutory requirements.

3.4 Customer response: Better relationships with customers and communities

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'better relationships with customers and communities':

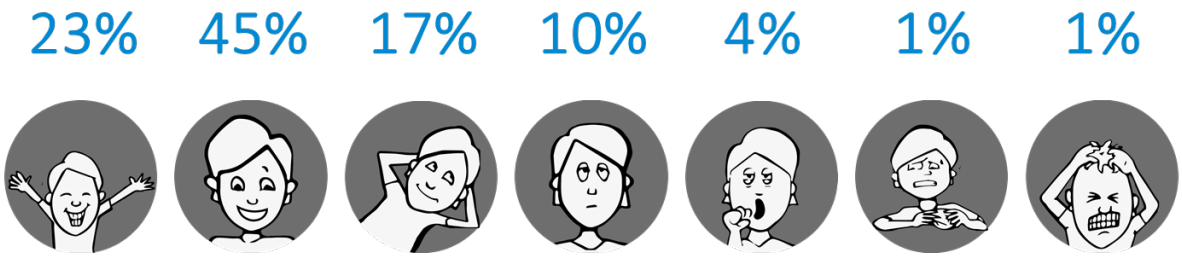
Household Customer Reactions (Engagement Events)

- ✓ Majority understood benefits of a 'partnership' between Wessex Water and customers and most felt customers should play a part (where they can) to ensure the successful working of the water system
- ✓ Most found all the ways in which customers could help Wessex Water as appropriate and acceptable
- ? Some customers felt that they would not want to actively participate in a partnership with Wessex Water

Stakeholder Reactions

- ✓ The elements of partnership were well received
- ✓ Both those areas where the problem requires active customer engagement (e.g. sewer flooding) and those where customers can be empowered (e.g. reducing bills by reducing water use)
- ✓ Those representing vulnerable audiences appreciate expansion of Priority Services Register, proactivity and especially partnering
- ? Hard to assess proposed increase in Priority Services Register numbers (e.g. what was it before?)

Following feedback from phase one, no adjustments were made to the performance commitments in 'better relationships with customers and communities' but the overall bill impact was adjusted to account for changes elsewhere in the plan. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'better relationships with customers and communities', they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O.

4. Outcome: Efficient use of water

Water leakage reduced in a sustainable way, so it becomes an unimportant issue for customers and the environment.
Strategic action points:

Our aim is for leakage to become an unimportant issue for both our customers and the environment.

We know that younger customers are less concerned about leakage than those who remember the mid-90s. Since then leakage has fallen consistently and we target the fixing of reported leaks within a day.

We will build on this success by:

- always reducing leakage where the value of the benefits outweigh the costs, including the influence leakage has on customer behaviours
- actively seeking new ways to reduce leakage in less disruptive and more cost-effective ways, repairing leaks as quickly as possible, keeping customers informed by email, text or smartphone app, fixing visible leaks within a day
- using new equipment and technology to improve the speed of detecting leaks and deliver cost-effective repairs
- increasing our resilience by targeting our water mains replacement and refurbishment programmes at those sections most likely to leak due to their age, pipe material and location
- increasing the number of customers who have a water-meter, making it easier to detect leaks on customers' pipes
- checking for leaks on customers' own pipework when fitting meters
- explaining to customers how we balance the costs and benefits of reducing leakage

Origin of performance commitments

Efficient use of water
Volume of water leaked
Volume of water used per person
Customer reported leaks fixed within a day
Volume of water saved by water efficiency engagement

Origin
Common measure stipulated by Ofwat
Mandatory measure stipulated by Ofwat
Existing measure
Measure from Ofwats list e.g. asset health or example metrics
Optional bespoke measure

4.1 Performance commitment: W1 Volume of water leaked

4.1.1 Introduction

Why are we looking at this? We engaged with our customers on this in all our quantitative studies (Maxdiff, conjoint, online game & sliders) in addition to running specific deliberative work on leakage. In the quantitative studies leakage attracted a high valuation, although we saw a reduction once customers were informed (through our deliberative work).

This is a common performance commitment that measures the amount of water lost from companies' water supply systems (leakage). This will be reported using the methodology defined by UKWIR guidance: Consistency in Reporting of Performance Measures.

The development of the integrated grid means we have a single water resource zone and therefore a single level of service to all of our customers. On this basis, our target is based on a company-wide commitment level.

Definition of performance measure: Percentage reduction in leakage expressed as a three-year average.

Customer friendly definition: Reducing the amount of water that leaks from pipes in our region.

Customer research:

- Strategic Direction Statement - reducing leakage was consistently of highest importance to all customer groups (83% rated importance at 8/9/10 out of 10).
- Immersive leakage research - Customers want Wessex Water to continue to find and fix leaks but not at any cost. Once better informed, customers wanted to see a smaller reduction in leakage with reduced costs. Customers would like to see investment in innovative, technological solutions to better detect and repair leaks, empowering the customer to fix their leaks, and education of the general public and children on how to use less water to ensure leaks do not challenge supply. Customers liked the idea of working in partnership with Wessex Water to help improve leakage together.
- Range of WTP from £0.15 per % of DI reduction to £13 per % of DI reduction.
- Conjoint analysis – Very low WTP valuation.
- WTP sliders – high priority but relatively low WTP.
- Maxdiff – average WTP (close to triangulated value).
- Business plan game – range of WTP (from average to very high).

4.1.2 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: As evidenced by customer research, and ODI type prescribed by Ofwat as this is a common measure.

Proposed performance commitment level

	Unit	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
In year target	Ml/d	78.2	75.8	73.5	71.1	68.8	66.4
% reduction – in year	%	0.0	3.0	6.0	9.0	12.0	15.0
PC – three-year average	Ml/d	78.9	77.6	75.8	73.5	71.1	68.8
% reduction – three-year average	%	0.0	1.6	3.9	6.9	9.9	12.8

Rationale for level: We undertook in-depth research with our customers in June 2017 on the core issue of leakage and efficient water-use, and found that:

- leakage has no direct negative impact on customers. Many could not recall ever having seen a leak and most have higher water priorities than leakage
- there is little appetite to see us invest to bring about further reductions in leakage over the next five years if this means that bills will rise for little overall leak reduction
- most customers are keen to see modest investments in innovation to help bring down leakage in the longer term
- there is interest in investment in education services with children and collaboration with customers to fix plumbing leaks in homes and improve awareness of water efficiency. Many customers recognise the role they can play in helping to manage the amount of water we take from the environment.

Our quantitative research techniques however suggested that there is customer willingness to pay for leakage reduction with a 15% reduction close to being cost beneficial. Government and regulators (Defra, Ofwat and the EA) have since set an expectation that companies will reduce leakage by 15% by 2025 and continue to reduce leakage thereafter.

In 2018 we have undertaken further research to gauge our customers' priorities. We found that, once leakage was set in the context of all the other service improvements we were proposing and the overall bill impact, customers accepted paying for further leakage reductions.

While we are ourselves in a surplus position for water resources it is clear from recently published Water Resources Management Plans that neighbouring companies would value this water more highly. Continued leakage reduction should enable greater resource to be traded with these companies in future, and this could help reduce bills for our own customers, further improving the cost-benefit ratio.

Taking all of this into account we will therefore reduce leakage by 15% by 2025.

Rationale for PC profile: The profile is set to achieve a 15% improvement against the 'in year' performance in 2019-20 in a linear and even way between 2015-20. This steady reduction approach is the most appropriate and cost-effective profile considering our

situation with a water resource surplus and stretching nature of the target from our current position.

The target will be re-baselined where there have been improvements in data quality but will not be rebased on actual performance in 19-20.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10 (three-year average)	%	1.0	2.0	3.0	4.0	5.0
P90 (three-year average)	%	3.6	5.9	8.9	11.9	14.8

Rationale for P10: Expert knowledge - continue at the current performance rate in 2015-2020.
Rationale for P90: Expert knowledge - 2% above target

	2045
Long-term ambition	27.2%

Rationale for 2025-2045 forecast: To continue to reduce leakage at the currently most cost beneficial rate.

Incentive rates

Incentive type	Incentive Rate (£/% reduction)
Outperformance	170,000
Underperformance	270,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Enhanced incentive type	Enhanced level (%)	Enhanced level (Ml/d- three year average)	Enhanced incentive Rate (£/%)
Outperformance	27	57.6	730,000
Underperformance	-39	109.7	1,200,000

Rationale for enhanced outperformance level: industry frontier (cubic metres per km of mains per day) normalised as % reduction of annual average based on the average of each company's 'shadow reporting performance in 2016-17 and 2017-18.

Rationale for enhanced underperformance level: industry lower quartile (cubic metres per km of mains per day) normalised as % reduction of annual average based on the average of each company's 'shadow' reporting performance in 2016-17 and 2017-18.

Additional details

Necessary detail on measurement units	Percentage change
Frequency of PC measurement and any use of averaging	Three-year average (financial year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	The calculation for PR19 has changed compared to PR14.

Rationale for financial or calendar: Three-year average prescribed by Ofwat.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✓	✓	✓	✓	✓

Summary of challenge: We initially proposed a target of 3%, which was the most cost beneficial programme after our first rounds of customer research. Following confirmation of government guidance for an ambitious 15% leakage reduction we included a specific question on leakage in our acceptability testing and received customer acceptability for a 15% reduction programme. This is the minimum value Ofwat expected, is almost cost beneficial and is stated as a 3-year average reduction in the PR19 period.

This will bring us close to or beyond the industry frontier (depending on definition used). It is beyond the minimum level of improvement and takes us towards the maximum attainable end-goal of zero leakage. It is also a stretching target compared to recent historical levels of reduction of 5%.

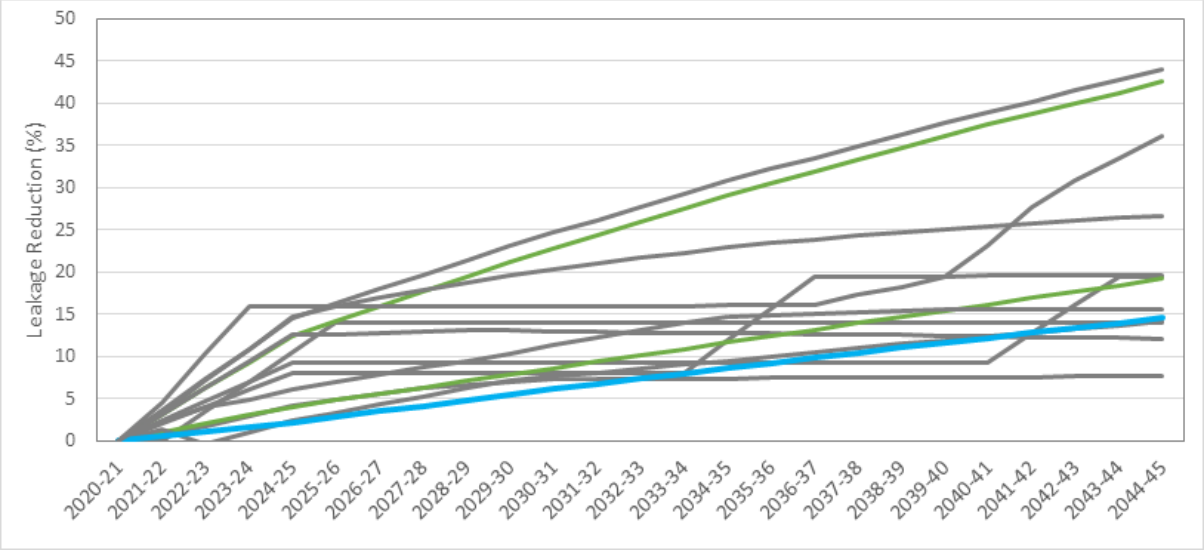
4.1.3 Supporting information for the six-challenge process

Cost Benefit Analysis: CBA was undertaken for a range of different levels of leakage reduction. The table above shows the results of these tests. 13% was shown to be the cost-beneficial tipping point. As detailed above we have chosen a 15% target.

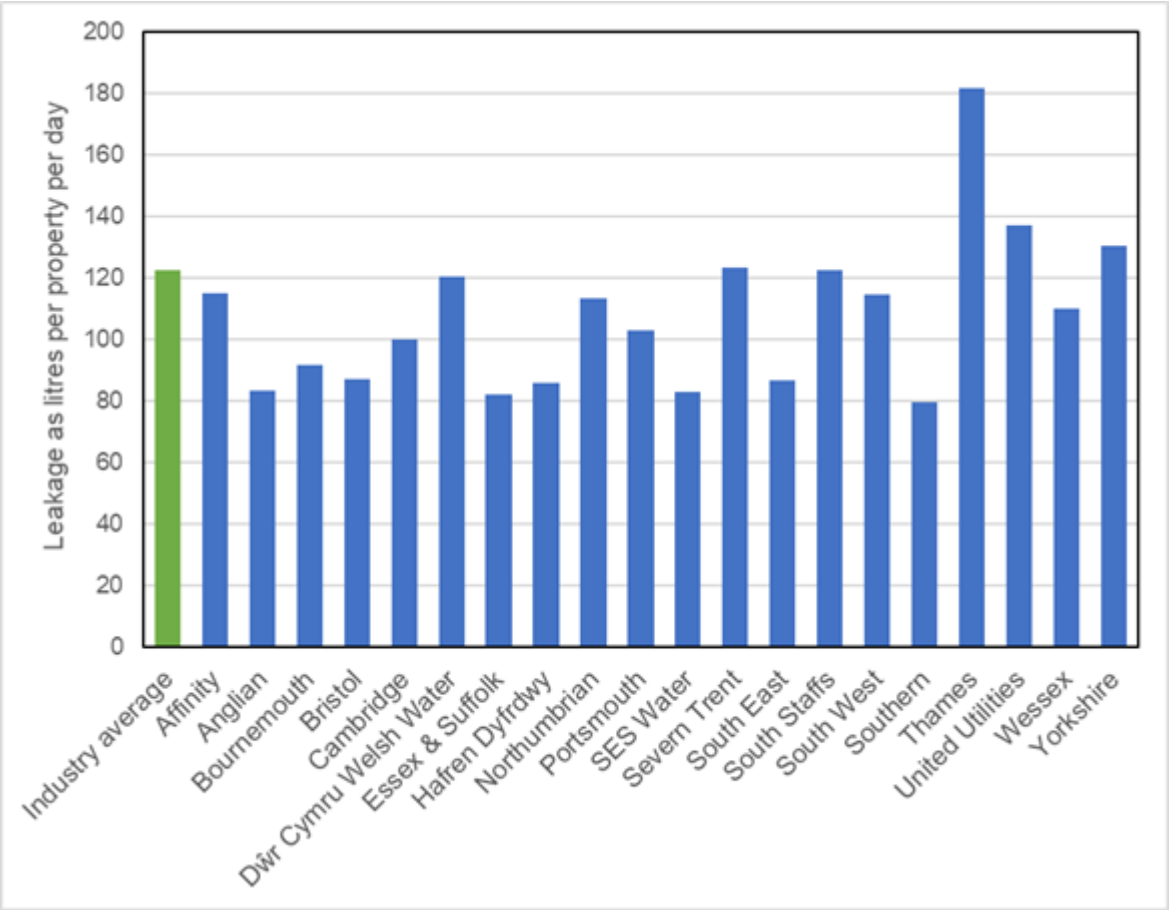
The 15% reduction is based on an improvement to the 'in year' figure. This equates to a 12.8% reduction based on the three-year average.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
L_LL_S1	Allow leakage levels to increase			
L-LL_S2	Do nothing (maintain current leakage levels)			
L_LL_S3	5% Leakage Reduction by 2025	✓	46.02	6.46
L_LL_S4	10% Leakage Reduction by 2025	✓	38.94	1.98
L_LL_S5	11% Leakage Reduction by 2025	✓	31.01	1.61
L_LL_S6	12% Leakage Reduction by 2025	✓	18.67	1.28
L_LL_S7	13% Leakage Reduction by 2025	✓	6.34	1.08
L_LL_S8	14% Leakage Reduction by 2025	✓	-2.12	0.98
L_LL_S9	15% Leakage Reduction by 2025	✓	-7.33	0.93
L_LL_S10	17.5% Leakage Reduction by 2025	✓	-19.40	0.83
L_LL_S11	20% Leakage Reduction by 2025	✓	-34.94	0.74

Comparative information (2017):



The graph shows a comparison of the % leakage reduction contained in draft Water Resources Management Plans that were submitted to Defra in November 2017. Our proposed reduction is highlighted in Blue showing that we were proposing lower reductions than other companies representing the views of our customers, our surplus position and high resilience to droughts. Other companies in surplus are highlighted in green.



The above graph shows that we are below the industry average level of leakage as litres per property per day in 2017/18 as per the company reported data to Discover Water. It should be noted that this data is in the context of companies' current reporting methodology and leakage targets. We recognise that there are a number of companies with a lower leakage per property than Wessex Water however, this is because we are a very rural company with a long length of main and a relatively low number of customers and no metropolitan areas.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Ml/d (in year)	83.1	81.1	80.6	81.6	80.7	80.4	80.4

Please note all historical data is based on shadow reporting.

Current performance:

Unit	2017-18
Ml/d (in year)	79.7

Forecast performance:

Unit	2018-19	2019-20
Ml/d (in year)	78.9	78.2

Rationale for initial service level: We are planning on the assumption that we meet the 2019-20 performance target translated into the new calculation value.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
No.	77.6	77.5	77.4	77.3	77.2

R^2= 0.96

Maximum level attainable:

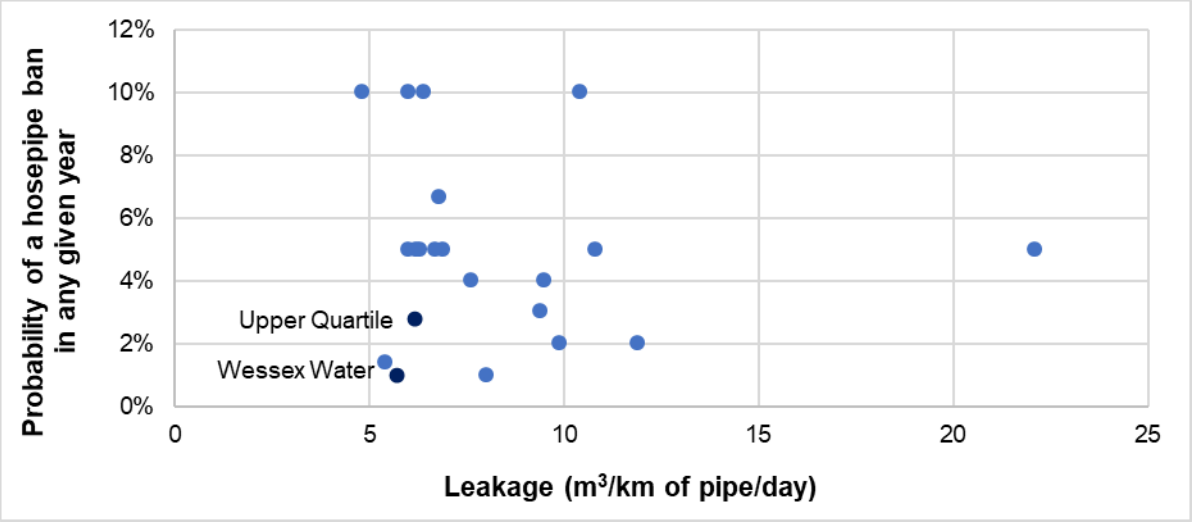
Unit	Max. level attainable
Ml/d	32.8 (58.1%)

The minimum level of achievable leakage is the lowest possible level of leakage with current technology and infinite resources (both financial and human). In our WRMP19 calculation of the Sustainable Economic Level of Leakage (SELL) we estimated the minimum level of leakage achievable using the UK-specific definition of UARL at 32.8 Ml/d (58.1%). Our cost benefit analysis showed that leakage reduction beyond 15% would clearly not be cost beneficial. Our aspiration is to see further reductions in the future as per our long term leakage reduction forecast included in our Water Resources Management Plan, we envisage these will become cost beneficial as new technology and innovation become available.

Expert knowledge: Since the mid-1990s we have halved the amount of water that leaks from our network; around 15% more than the industry average reduction over the same period. We have the second highest reported leakage reduction by mains length in the industry since 1994/95.

Our current level of leakage is significantly below the ‘sustainable economic level of leakage’ meaning that reducing leakage further will cost more than the cost of producing the water. This is in part because we have a surplus of resources compared with predicted demand.

We are one of the best performers when leakage is measured per km of pipe. At the same time, we have the lowest probability of hosepipe bans in the country at <1% (see Figure 4-1) and we have assessed our supplies as resilient to a 1 in 200-year drought.
Figure 4-1: Leakage by km of pipe and probability of hosepipe ban in a year for water supply companies in the UK.



As detailed in our Water Resources Management Plan we have a surplus of resources over demand for at least the next 25 years.

While we are ourselves in a surplus position for water resources it is clear from recently published Water Resources Management plans that neighbouring companies would value this water more highly. Continued leakage reduction should enable greater resource to be traded with these companies in future, and this could help reduce bills for our own customers, further improving the cost-benefit ratio.

4.2 Performance commitment: W2 Volume of water used per person

4.2.1 Introduction

Why are we looking at this? This is a common performance commitment that measures average household water use in our region. A downward trend in PCC is expected from our regulators because of demand management activities including our water efficiency work and household metering. We have talked to our customers about this through our online sliders to support setting the performance commitment.

Definition of performance measure: Average amount of water used by each person that lives in a residential property (litres per person per day).

Customer friendly definition: Reducing the average amount of water used by each person in a day.

Customer research:

- Widely regarded by most stakeholders as a key measure of water efficiency.
- WTP sliders – relatively modest WTP valuation of £0.30 for a 1 l/p/d reduction.

4.2.2 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: As evidenced by customer research, and ODI type prescribed by Ofwat as this is a common measure.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
In year target	litres/ person/day	129.7	129.0	128.5	127.9	127.4
PC – three-year average	litres/ person/day	130.2	129.7	129.1	128.5	127.9
Underperformance deadband	litres/person/day	134.3	131.4	130.7	130.1	129.5
Outperformance deadband	litres/person/day	127.9	127.3	126.5	125.9	125.2

Rationale for level: Based on demand forecast analysis and consistent with the Water Resources Management Plan.
Rationale for PC profile: Based on WRMP PCC forecast for a normal weather year.
Rationale for deadbands: To allow for the uncertainty in PCC that is outside of our control, namely the weather and population growth. This uncertainty has been modelled on the three-year average and the deadbands have been set at the 25th and 75th percentile.

	2045
Long-term ambition	124.2

Rationale for 2025-2045 forecast: Continuing to be based on demand forecast analysis and consistent with the Water Resources Management Plan.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	litres/ person/day	136.7	134.2	133.9	133.7	133.5
P90	litres/ person/day	126.5	126.0	125.3	124.6	124.0

Rationale for P10: Based on running the WRMP demand forecast model with key inputs / assumptions from Monte Carlo sampling. And calculating the P10 from the resulting distributions.
Rationale for P90: Based on running the WRMP demand forecast model with key inputs / assumptions from Monte Carlo sampling. And calculating the P90 from the resulting distributions.

Incentive rates

Incentive type	Incentive Rate (£/l/p/d)
Outperformance	64,000
Underperformance	99,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Enhanced incentive type	Level (l/p/d)	Enhanced incentive Rate (£/litres/person/day)
Underperformance	145.4	430,000

Outperforming this measure is almost completely reliant on customer behaviour and largely outside of management control. It is therefore deemed inappropriate to receive an enhanced outperformance payment in this instance.
Rationale for enhanced underperformance level: ‘industry lower quartile based on the average of each company’s 2017-18 ‘shadow reporting’ performance

Additional details

Necessary detail on measurement units	Litres per person per day
Frequency of PC measurement and any use of averaging	Three-year average (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	Historical data does exist for this measure but as a result of the change to leakage, it is not comparable to the proposed performance commitments.

Rationale for financial or calendar: Three-year average prescribed by Ofwat.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✓	✓(partial)	✗	✗	✓

Summary of challenge: Due to the difference in reporting, it is not appropriate to use historical data. Although current and forecast data can be used to generate the minimum improvement, the data is not robust as this measure is not solely in Wessex Water's control. It is also not feasible to predict a maximum level attainable.

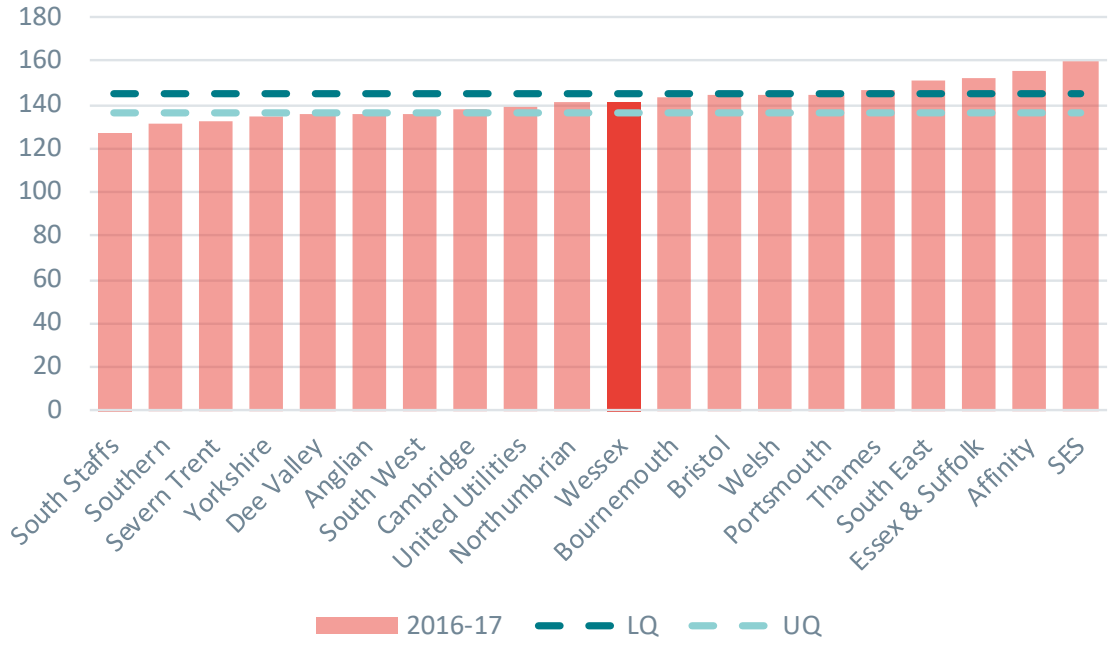
Our PCC targets have been developed through our Water Resource Management Plan process, considering factors including demand management schemes, population growth and underlying changes in domestic water use patterns. This target is challenging as it requires the countering of the recent trend of increased water use and then achievement of a reduction despite this measure not being totally under our control. It is the most cost beneficial approach, short of compulsory metering and on a comparative basis will put us firmly in the upper quartile.

4.2.3 Supporting information for the six-challenge process

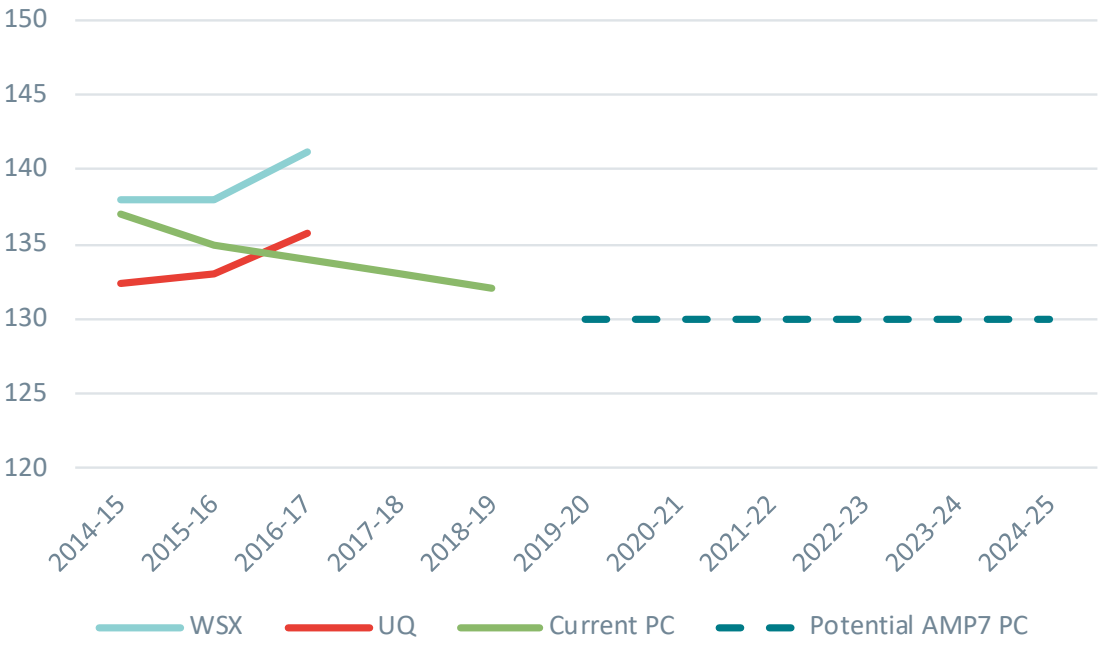
Cost Benefit Analysis: The WRMP19 assessed a range of metering options which includes smart metering (options S_WEM_S2 to S4). The analysis demonstrated that enhanced metering above the baseline was the most cost-effective option. For the PR19 Business Plan the costs and benefits of this metering option were assessed in detail and the outputs confirm the metering option is cost-beneficial.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
S_WEM_S1	Enhanced metering	✓	1.20	1.55
S_WEM_S2	Smarter metering – Automated Meter Reading	×		
S_WEM_S3	Smarter metering – AMI	×		
S_WEM_S4	Compulsory Metering	×		

Comparative information (2016-17):



Source: Discover Water



Source: Discover Water

Whilst comparative data is available from across the industry, the 2020-25 PC is reported using a different methodology to the current PC. Companies have not provided revised historical information to allow for comparison using the new methodology.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
litres/ person/day (in year)	n/a	n/a	n/a	n/a	138	138	141

Historical information is not comparative to proposed performance commitments due to a change in reporting. It is not possible to back-calculate the future methodology for historical performance.

Current performance:

Unit	2017-18
litres/ person/day (in year)	129.2

Forecast performance:

Unit	2018-19	2019-20
litres/ person/day (in year)	129.1	129.0

Rationale for initial service level: Based on WRMP PCC forecast.

Minimum improvement: Due to the difference in reporting, it is not appropriate to use historical data. Although current and forecast data can be used to generate the minimum improvement, the data is not robust as this measure is not solely in Wessex Water's control.

Maximum level attainable: no theoretical maximum

Expert knowledge: Our proposed reductions to per capita consumption are consistent with our Water Resources Management Plan and take account of our planned demand management schemes, population growth, changes in household size and underlying changes in domestic water use patterns. Our demand management schemes include increasing the proportion of customers that are metered and water efficiency measures. We already have a higher than average metering penetration (64% at the end of 2017/18).

Many people use less than our current average and typical usage in other European countries is often lower too suggesting more can be done to reduce per capita consumption. We've seen average household water use fall since the early 2000s but in recent years there is evidence that this trend is reversing. In addition to being impacted by annual weather patterns, social trends outside our control, such as the continued reduction in average household size makes the challenge of maintaining reductions in consumption more stretching than ever before.

4.3 Performance commitment: W3 Customer reported leaks fixed within a day

4.3.1 Introduction

Why are we looking at this? In our PR14 engagement with customers we saw that the speed of fixing leaks was of concern. We created this innovative measure to stretch service performance to our customers as far as was feasible. For PR19 we included speed of fixing leaks in our Maxdiff exercise and our sliders. We are proposing to use this willingness to pay to inform the PC target level.

This is a bespoke performance commitment covering our enhanced customer service offering and leakage reduction commitment.

Definition of performance measure: Percentage of customer reported leaks fixed by the end of the next working day (on water mains – excludes services pipes).

Customer friendly definition: Fixing leaks that are reported by customers by the end of the next working day.

Customer research:

- SDS - 86% of customers agreed or strongly agreed that we should fix customer reported leaks within 24 hours.
- Maxdiff – one of the higher impact scores in the Maxdiff exercise and a modest WTP attached (c.£0.60 for a 5% improvement).
- Sliders – 5th highest valuation of c.£1.15 for a 5% improvement.

4.3.2 Detailed definition

<u>Information relating to the bespoke performance commitment</u>

The aim of the performance commitment is to incentivise the company to respond to customers' concerns over leakage in a timely manner.

Our leakage research included a process of co-creation of a package of measures with customers that could help reduce water use and this measure was popular.

One of our eight priority areas is developing engaged communities – improving the relationship we have with the people we serve.

Our offer of a future partnership with customers has been popular in our research, but this is contingent on our making it easy for customers to play their part, being seen to play our part and being responsive to customers when they interact with us.

Encouraging customers to report leaks and then fixing them quickly is as much a part of engaging with the people we serve as it is about reducing the volume of water leaked.

Full definition of the bespoke performance commitment

Following contact from customers, the start day and time is automatically recorded on our customer relationship management software (RAPID).

The leak will be determined as “significant” if it is visible; the Customer Services Unit script ensures all appropriate jobs are tagged as “visible”.

“By the end of the next working day” is defined as once a job is raised at any time within one day, the leak will be fixed by the end of the next working day.

The end time is when the repair has been completed and main/service has been re-pressurised (not when reinstatement is finished which is usually when a job is closed).

If a customer reported visible leak has a water sample sent to confirm if it is mains water or groundwater (i.e. to determine if chlorine is present) then the clock stops ticking when the sample is requested and starts again when the results are back.

This metric only applies to leaks on Wessex Water owned pipes and fittings; customer service pipes are excluded.

The percentage is calculated by taking all leakage jobs, applying the exclusions and then calculating the percentage repaired by the end of next working day.

4.3.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	90	90	90	90	90

Rationale for level: Continuation of 2015-20 target.
Rationale for PC profile: Flat, continuing delivery of the end of 2015-20 target, based on this being the highest practical level of delivery.

	2045
Long-term ambition	90

Rationale for 2025-2045 forecast: Continuation of the target which is assessed as the practical maximum achievable.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	%	75	75	75	75	75
P90	%	97	97	97	97	97

Rationale for P10: Based on 2017-18 performance.
Rationale for P90: Technical limit

Incentive rates

Incentive type	Incentive Rate (£/%)
Outperformance	63,000
Underperformance	120,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Additional details

Necessary detail on measurement units	Percentage of leaks fixed
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	This is for all significant leaks reported by customers on Wessex owned pipes and fittings; the categorisation of significance will be determined through a classification process when the leak is reported to the company. Leaks on customer owned pipework is excluded from this measure Allowable exclusions include where it is not possible to complete the job by the end of the next working day due to traffic management issues, private land access, or other 3rd party constraints or health and safety issues. Inadequate Wessex Water resources or a main shut risk assessment are not allowable exclusions.

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✗	✓	✓	✓	✓

Summary of challenge: In PR14 we introduced this PC as an innovative and stretching target that was focused on the service we provide to our customers. A focus across the business has been necessary to achieve this target. Experience has shown that 90% is currently the practical maximum achievable level due to mandatory risk assessments, traffic management and health and safety constraints required by third parties. There may, in the future, be a way to achieve 100%.

In PR14 this was a reputational measure, we have converted this to a financial performance and have set the target at the challenging 90% level which is both the current highest practical level to deliver and industry leading performance. It is beyond the minimum improvement and is cost benefit neutral.

4.3.4 Supporting information for the six-challenge process

Cost Benefit Analysis: Reducing the baseline by 10% saves customers 300k per year, or 30k per percent per year. This is significantly less than the customers are willing to accept for a reduction in this service. Therefore we propose to maintain current service levels.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
L-SL_S1	Leaks Fixed Within 1 Day- do nothing	✗		
L-SL_S2	Leaks Fixed Within 1 Day- 80% (reduce baseline)	✓	-81.60	N/A
L-SL_S3	Leaks Fixed Within 1 Day- 90% (maintain baseline)	✗		
L-SL_S4	Leaks Fixed Within 1 Day- Greater than 90%	✗		

Comparative information: not applicable.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
%	n/a	n/a	n/a	n/a	n/a	68	70

Current performance:

Unit	2017-18
%	76

Forecast performance:

Unit	2018-19	2019-20
%	80	90

Rationale for initial service level: Set at 2019-20 performance target.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
%	82	83	85	86	87

$R^2 = 0.88$

Maximum level attainable:

Unit	Max. level attainable
%	100

It is not possible to reach 100% due to the risk assessment process, where 48hours notice is required for some mains shutdowns.

Expert knowledge: The definition of this PR19 PC is exactly the same as our existing PR14 PC. Our existing PR14 PC was reputational only as it was a completely new metric at the time with no historical record. The committed performance level was to increase the number of customer report leaks fixed within a day from 66% to 90% and as shown below we are on target to achieve this stretching target although there still is some uncertainty over achieving the 90% in 2019/20.

We have chosen to maintain this PC, as it was developed through our stakeholder engagement process, and it is still important to our customers. We have chosen to maintain the target at 90% because this still represents a stretching target and meets customers' original expectations.

4.4 Performance commitment: W4 Volume of water saved by water efficiency engagement

4.4.1 Introduction

Why are we looking at this? This is a bespoke performance commitment which reflects our commitment to helping our customers reduce their water use. We have engaged with customers on this through the Maxdiff study and our online game.

This PC measures the reduction in demand resulting from our water efficiency programme including our Home Check project, our continued provision of water efficiency advice and free devices to our customers and the launch of our new online customer dashboard. This is linked to the per capita consumption performance commitment.

Definition of performance measure: Volume of water saved by helping customers reduce the amount of water they use because of our engagement programme.

Customer friendly definition: Helping customers reduce the amount of water they use.

Customer research:

- Business plan game – relatively modest valuation attached, c£0.90 for an extra 3% of households engaged.
- Stage 2 WRMP research – very high valuation of £5 for 3% of HH engaged.

4.4.2 Detailed definition

Information relating to the bespoke performance commitment

This is a bespoke performance commitment which reflects our commitment to help customers participate in our services to reduce their water use. The target values represent the assumed reduction in demand resulting from our water efficiency engagement programme which includes (but is not limited to) our Home Check service, the provision of water efficiency advice and free devices, and digital engagement services.

This performance commitment is a continuation of the successful water efficiency performance commitment that we introduced for the 2015-20 period. Since 2015 we have expanded our water efficiency services significantly, not least by the launch of our flagship Home Check programme of bespoke behavioural advice and device fitting in customer homes. We are on track to meet our 2020 water savings target and following support from customer research we plan to deliver an even more ambitious programme in the 2020-25 period.

Customer research to define our future strategy for leakage management and the efficient use of water included a co-creation process, which identified the popularity of a package of measures that helped and empowered customers to reduce their water use and control their bill. The research showed that customers value water efficiency services and they are keen for us to provide more.

Customer's appetite for greater engagement on the efficient use of water is mirrored by our regulators and Government, who are keen to see us support more customer participation and raise awareness of the wider water environment.

Full definition of the bespoke performance commitment

To calculate the water savings arising from our water efficiency programme we propose taking the same approach that we are using for our water efficiency performance commitment in the 2015-20 period. Our method of calculation is based on assumed demand reductions associated with various water saving activities. Wherever possible the volumetric savings are based on evidence from customer/device trials and are consistent with savings documented in the UKWIR report 09/WR/25/4. In the absence of reported trial-based data, conservative estimates are made and agreed with our external technical auditor.

Our water efficiency participation programme can be categorised into three areas of activity:

1. Advice and information, including digital engagement services
2. Providing water saving devices to customers, including those fitted by us during Home Check visits and those requested from us by customers and fitted themselves
3. Helping customers to reduce water wastage by helping them identify plumbing leaks in their home.

We are always looking for new and innovative ways to help customers participate in water services to help reduce their water use. As such, we will adapt our programme if new options become available – savings associated with new activities that are not documented here will be reviewed with our technical external auditors for inclusion towards this performance commitment.

The impact of these savings is included in our overall forecast of per capita consumption, for which we also have a performance commitment; however, our PCC model also accounts for a small decay in the impact of these savings from year to year, as installed devices reach the end of their useful life or bathrooms/kitchens are refurbished. The PCC model is also influenced by time-based changes in population, properties, occupancy, the uptake of household metering, and underlying water use behaviours, so it is difficult/inappropriate to directly compare the annual savings associated with our water efficiency programme with changes in overall PCC.

When we developed the performance commitment for PR14, we included a limit of 60% for the volume of savings we could claim through the provision of advice and information and also from water efficiency devices installed by the customer. This was to ensure there was a focus on projects such as Home Check where we have a high certainty of product fitting. In PR19 we are moving our water efficiency strategy toward engaging customers with their water use and including behavioural change techniques. We have therefore removed the 60% limit for advice, information and devices fitted by the customer.

Customer participation through water efficiency advice and information

We have a well-established programme of providing water efficiency advice and information to our customers through our school education programme, our water saving web pages and via water saving leaflets.

Our 2020-25 programme will include an enhanced digital engagement service for customers, which will include a 'dashboard' that asks customers information about the water consuming appliances in their home and how often they use them. Personalised advice can then be provided to each customer to encourage them to participate in water saving actions on a regular basis and enable them to compare their water usage with other similar households. For each new user of this digital engagement service we will claim 8 litres per day for the first year and, to capture our ambition to encourage customers to regularly participate in this service, we ascribe a saving of 3 litres per day for returning users in the second to fifth years after they sign up. These savings are consistent with the UKWIR report 09/WR/25/4.

The savings we ascribe to customer participation through advice and information are calculated using the UKWIR report 09/WR/25/4 and are shown in the table below.

Savings claimed from providing advice and information to our customers.

Savings area	More information	Associated saving (litres per day per service user)
Education advisors	Students receiving talks on water saving	2.5 – 22.1 depending on talk type
Wessex Water's water efficiency webpage activity	Customers receiving water saving advice from our webpages	2.5
Wessex Water's water saving leaflet	Customers receiving water saving advice leaflet	6.9
Digital engagement dashboard	New user, first year	8.0
	Return user, years two to five	3.0

Other advice and information savings may be claimed if bespoke literature is created for new participation initiatives or bespoke talks are given in the 2020-2025 period.

Customer participation in device installation

We have encouraged customers to participate in water saving for many years by providing free and purchasable devices suitable for their homes. In 2015, to encourage greater participation, we launched our free Home Check service to install water saving devices in customer homes. Our performance commitment for water efficiency for 2020-25 will include the continuation of these activities.

The savings we ascribe for installing devices depends on the device type and distribution method. If we have installed the device ourselves (i.e. through Home Check) we can have a 100% certainty rate that the saving will occur, if a customer has taken the device home from

an event to install themselves we are more precautionary and assume that not every device will be installed. Savings by device type and distribution/installation method are documented in the table below. These are calculated using the UKWIR report 09/WR/25/4 and the Ofwat June Return 2011 guidance document.

Other water saving device savings may be claimed if new or different products are offered in 2020-2025. Wherever possible the associated savings are based on evidence. In the absence of reliable data, conservative estimates will be made.

Water efficiency savings associated with water efficiency devices

Device	Saving (litres per day)	Device installation rates in percentage and resulting water saving (litres per day)				
		100% - By company or its agent / Customer purchase	70% Customer request	50% - Free device sent to customer	30% Provided at events	10% - Other solicited
Bathbuoy*	28.00	28.00	19.60	14.00	8.40	2.80
Bubble stream*	18.00	18.00	12.60	9.00	5.40	1.80
EcoBeta	47.00	47.00	32.90	23.50	14.10	4.70
'Flowpoint' Shower head	30.00	30.00	21.00	15.00	9.00	3.00
Save-A-Flush (1.2 litre)	12.90	12.90	9.03	6.45	3.87	1.29
Shower Timer	5.00	5.00	3.50	2.50	1.50	0.50
Shower save	30.00	30.00	21.00	15.00	9.00	3.00
Tap aerators	18.00	18.00	12.60	9.00	5.40	1.80
Toothy timer*	12.80	12.80	8.96	6.40	3.84	1.28
Twin-tap insert	18.00	18.00	12.60	9.00	5.40	1.80
Water butt (100l)	1.89	1.89	1.32	0.95	0.57	0.19
Water butt (210l)	3.97	3.97	2.78	1.98	1.19	0.40
Water Gel Crystals	0.50	0.50	0.35	0.25	0.15	0.05

* Some suppliers used by Wessex Water have developed their own water efficiency devices and have conducted their own trials to create an evidence base for their associated saving.

Customer participation in reducing water wastage – helping customers to fix plumbing leaks in their property

Plumbing losses are water that is lost internally from a customer's property that may have been billed as consumption. It does not include supply pipe leakage. Plumbing loss volumes are counted as water efficiency savings where the location of the plumbing loss is confirmed as being internal to the property and where Wessex Water have been instrumental in identifying and/or resolving the issue. We work with our customers to estimate the volume of water lost during the leak so that we can provide a leak allowance for their bill.

4.4.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Ml/d	1.0	2.0	3.0	4.0	5.0

Rationale for level: Improved performance from 2015-20.
Rationale for PC profile: Based on WRMP forecast.

	2045
Long-term ambition	25

Rationale for 2025-2045 forecast: To continue to improve on the proposed trend of 1 Ml/d additional per year.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Ml/d	0.7	1.4	2.1	2.8	3.5
P90	Ml/d	1.1	2.2	3.4	4.6	5.8

Rationale for P10: Forecast based on low uptake by customers and low per household reduction in water use.
Rationale for P90: Forecast based on high uptake by customers and high per household reduction in water use

Incentive rates

Incentive type	Incentive Rate (£/ML/d)
Outperformance	26,000
Underperformance	35,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Additional details

Necessary detail on measurement units	Megalitres per day
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	The calculation is based on assumed demand reductions for various activities. Wherever possible the assumed demand reductions are based on evidence. In the absence of reliable data, conservative estimates will be made.

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓ (partial)	✗	✓	✓	✗	✓

Summary of challenge: Our customers have told us they want to be empowered to reduce their water use. This is a continuation of the PR14 measure and aligns with the assumptions in the Water Resource Management Plan. The target is set to achieve a greater than 20% improvement on our PR14 activity, which requires a challenging level of delivery, equating in each year of PR19 to a performance only achieved once in the 10 years prior to PR19.

We were able to perform CBA on c.30% of the total programme (Homecheck and our new dashboard), both of which were shown to be cost beneficial.

Other companies do not report this measure, so we cannot make comparisons and there is no theoretical maximum to be achieved.

4.4.4 Supporting information for the six-challenge process

Cost Benefit Analysis: A CBA for Homecheck and customer engagement dashboard were undertaken. These activities contribute to approximately 30% of the savings. The outputs indicate both schemes are cost-beneficial showing strong customer support via WTP.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
WR_WE_S1	Water Use Dashboard	✓	3.42	4.19
WR_WE_S2	Home Check	✓	20.19	3.00

Comparative information: not applicable.

Historical information (single year):

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Ml/d	0.6	0.7	0.6	0.6	0.6	0.7	0.9

The cumulative figures are only appropriate to show progression within the five-year period. As data is provided for multiple periods, it would be inappropriate to display these figures as cumulative.

Current performance (single year):

Unit	2017-18
Ml/d	1.2

Forecast performance (single year):

Unit	2018-19	2019-20
Ml/d	1.0	0.7

Rationale for initial service level: Based on WRMP forecast.

The cumulative figures are only appropriate to show progression within the five-year period. As data is provided for multiple periods, it would be inappropriate to display these figures as cumulative.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Ml/d	0.7	1.4	2.2	3.0	3.8

$R^2 = 0.77$

Maximum level attainable: no theoretical maximum.

Expert knowledge: Customers told us in our in-depth research on leakage and the wider context of using water efficiently that they want to be empowered to reduce their use and are keen to play their part in water saving.

Our proposed savings are consistent with our Water Resources Management Plan and take account of the in-year savings that can be achieved by the delivery of water efficiency schemes including Homecheck, the water use dashboard digital engagement tool and our schools' education service.

4.5 Customer response: Efficient use of water

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'efficient use of water':

Household Customer Reactions (Engagement Events)

- ✓ Rationally understood that it would cost more to reduce leakage than the cost of processing water
- ✓ Appreciate that Wessex Water is trying to do more, even if it makes sense financially to do less
- ✓ Felt an increase of £8 to further reduce leakage was acceptable

- ? Struggle to balance how any amount of leakage could be justified
- ? Ideally would like leakage to be much lower than 20%, but most unsure of what would be required to achieve this

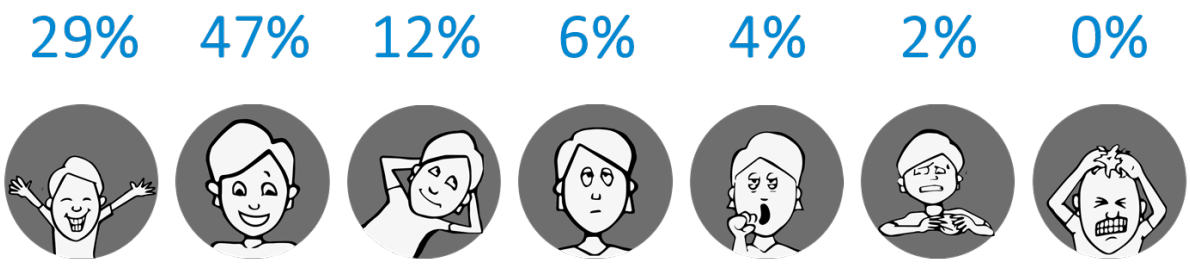
Stakeholder Reactions

- ✓ Stakeholders with an environmental role understand the issues surrounding leakage and understand water companies' position
- ✓ Most accept highlighting the link between leakage and reduced usage
- ✓ Most also accept that much progress has been made

- ? Some felt there were more hidden costs/issues associated with leakage (e.g. contamination of fresh water supply, pressure reduction causing problems for businesses)
- ? A minority reject the Economic Level of Leakage argument

Leakage = most contentious area of the plan

Following feedback from phase one, the performance commitment level for 'volume of water leaked' was adjusted to 15% and the overall bill impact was updated. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'efficient use of water, they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O..

5. Outcome: Excellent drinking water quality

Safe, wholesome and pleasant drinking water which complies with mandatory standards and supports the wellbeing of our customers and communities.

Strategic action points:

We will proactively maintain our water treatment works and distribution system using the latest technology in order to maintain excellent quality drinking water quality.
We will use catchment management to protect sources of raw water from contamination wherever feasible.

In addition to ensuring high levels of compliance we will manage risks to water quality by using source-to-tap drinking water safety plans.

We will continue to work closely with WRAS, the water fittings agency, on customers' plumbing and promoting WaterSafe (the industry approved plumber scheme). The use of appropriate materials will be a key focus as a significant proportion of water quality failures can be attributed to domestic plumbing and service pipe issues such as lead pipes, copper plumbing and nickel in taps.

We will continue to replace lead pipes in combination with phosphate dosing, a process that safely coats the inside of lead pipes.

We will continue to reduce customers' concerns about the appearance, taste and odour of their water through a combination of targeted rehabilitation of water mains and improved availability of information for customers who experience problems.

Origin of performance commitments

Excellent drinking water quality
Compliance risk index (CRI)
Water quality customer contacts (appearance, taste and odour)
Tackling water quality at home and in the work place
Lead communications service pipes replaced (Wessex Water assets)
Event risk index (Wessex Water) (ERI WW)

Origin
Common measure stipulated by Ofwat
Mandatory measure stipulated by Ofwat
Existing measure
Measure from Ofwats list e.g. asset health or example metrics
Optional bespoke measure

5.1 Performance commitment: Q1 Compliance risk index (CRI)

5.1.1 Introduction

Why are we looking at this? Drinking water quality was the top priority elicited from customers in our Strategic Direction Statement research. This is a common performance commitment stipulated by Ofwat and is the headline drinking water quality measure. It is a relatively new measure introduced by the DWI in 2016.

Definition of performance measure: The DWI's Compliance Risk Index (CRI)

Customer friendly definition: Providing excellent quality drinking water.

Customer research:

- SDS research – highest quality drinking water was the highest priority by a significant margin.

Note: we did not engage on matters of public health in subsequent research projects.

5.1.2 Proposed level and outcome delivery incentives

Incentive type: Underperformance only.

Rationale for incentive type: ODI type prescribed by Ofwat as this is a common measure.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Index	0.000	0.000	0.000	0.000	0.000
Underperformance deadband	Index	1.5	1.5	1.5	1.5	1.5
Underperformance collar	Index	9.5	9.5	9.5	9.5	9.5

We accept the proposed deadband and underperformance collar from Ofwat.

Rationale for level: Theoretical maximum attainable.
Rationale for PC profile: Not relevant as profile set at an index of 0.

	2045
Long-term ambition	0.000

Rationale for 2025-2045 forecast: To remain at the theoretical maximum achievable.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Index	3.860	3.860	3.860	3.860	3.860
P90	Index	0.180	0.180	0.180	0.180	0.180

Rationale for P10: Worst WWSL historical performance.
Rationale for P90: Best WWSL historical performance.

Incentive rates

Incentive type	Incentive Rate (£/whole point)
Underperformance	580,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Enhanced incentive type	Level (whole point)	Enhanced incentive Rate (£/whole point)
Underperformance	6.258	2,500,000

Rationale for enhanced underperformance level: lower quartile based on the average of each company's (WaSC and WOC excluding small companies) performance in 2016 and 2017

Additional details

Necessary detail on measurement units	Index
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: As with all DWI data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✓	✓	✓	✓	✓

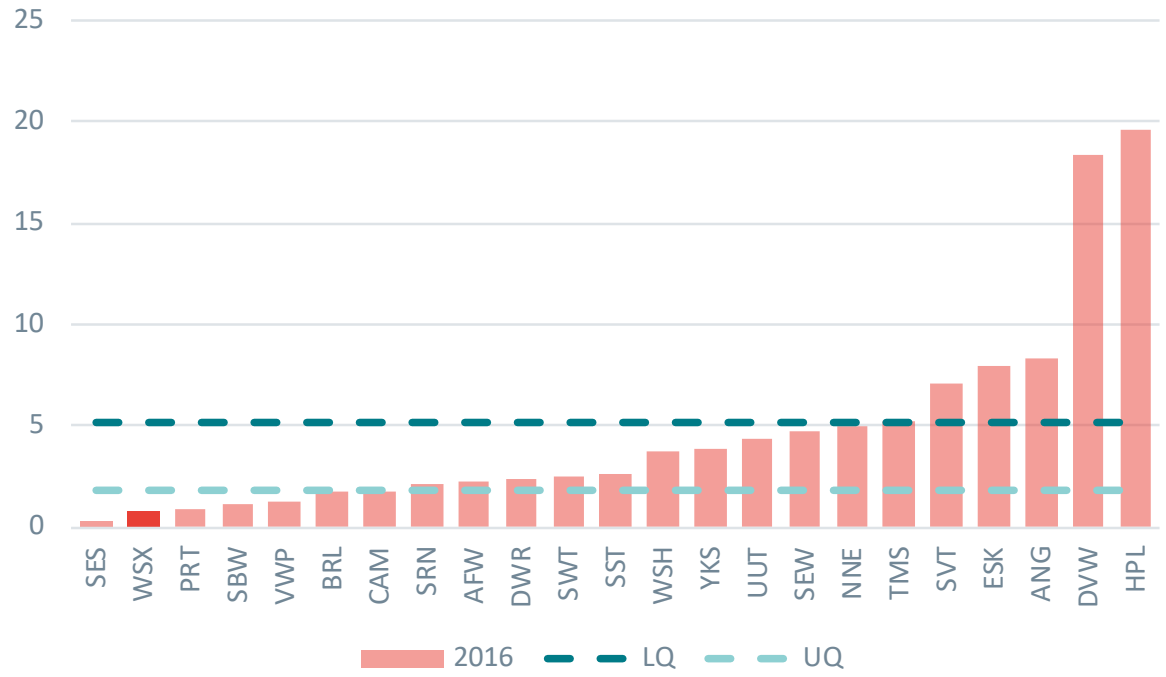
Summary of challenge: The target of zero is mandated by Ofwat. As with the previous drinking water quality measure, mean zonal compliance, we would always like to have no failures. We have therefore set our PR19 target at the theoretical maximum attainable level of 0.000 index score for this measure.

We are the best performing WaSC and in the upper quartile overall. We are aware that there will be further changes to the Drinking Water Directive, the impact of which will not be known until 2021 or later. These changes will tighten the standards further without any corresponding funding to deliver improvements. In order to reflect this situation, we have set an underperformance deadband. To demonstrate our commitment to maintain our high-class performance we have set the deadband at the upper quartile based on the average of each company's (WaSC and WOC) performance in 2016 and 2017.

5.1.3 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information (2016 data):



Source: DWI annual report

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Index	n/a	n/a	n/a	n/a	3.843	0.179	0.739	0.523

Rationale for initial service level: New measure and initial service level does not apply as target at an index of 0.

Forecast performance:

Unit	2018-19	2019-20
Index	0.523	0.523

Rationale for initial service level: There is a large level of uncertainty surrounding this measure so our forecast is to continue at 2017-18 performance.

Minimum improvement:

Unit	Minimum improvement
Index	3.843

The minimum improvement would be to remain at our current worst performance.

Maximum level attainable:

Unit	Max. level attainable
Index	0.00

We are targeting the maximum level attainable.

Expert knowledge: CRI is a new measure of drinking water quality introduced by the DWI in 2017. To date we have little confirmed data on which we can base a forecast for the next AMP, and the data we do have shows the measure is volatile and can fluctuate significantly year on year. As it stands, we have to predict the impact of each exceedance to track our performance throughout the year. Predicting scores is not simple as there is a subjective element to the calculation, which is made by the assessing Inspector and currently not confirmed to the company. The DWI do not finalise and release companies' end of year scores until at least April the following year.

Changes are due to be made to the drinking water quality legislation over the next few years which are likely to increase CRI scores in the next AMP. Recent changes to the regulation will allow companies to undertake risk based monitoring following accreditation of their drinking water safety plan methodology. An approved method for accreditation is likely to be available from 2019. We believe that these changes will have a negative impact on CRI. Furthermore, changes to the Drinking Water Directive are currently in consultation, and are likely to result in a tightening of standards and inclusion of new regulatory parameters, which will come in to force around 2021. Again, these changes are more than likely to have a detrimental effect on CRI as the number of exceedances of regulatory standards are likely to increase.

When taking this into consideration we are basing our underperformance deadband on the upper quartile. We have performed well in this measure for the three years for which we have confirmed data, and do not believe we should be penalised for results that are improvements on this setpoint. The enhanced underperformance incentive is based on lower quartile industry performance.

5.2 Performance commitment: Q2 Water quality customer contacts (appearance, taste and odour)

5.2.1 Introduction

Why are we looking at this? This is an asset health performance commitment covering our water distribution pipe network - as recommended in the PR19 Methodology and as reported on Discover Water. This was a key measure at PR14 and so we engaged with customers about this service in our Maxdiff, conjoint and online game.

Definition of performance measure: Number of times companies were contacted by customers about the appearance, taste and odour of their tap water (per 1,000 people supplied).

Customer friendly definition: Reducing the number of times customers contact us about the appearance, taste or odour of their tap water.

Customer research:

- Business plan game – lower than average improvement desired, but due to high unit costs a high WTP is attached.
- Maxdiff – low ranking of impact, and low WTP of c£0.30 for a 10% reduction in incidents.
- Conjoint Analysis – very low unit WTP <1p per incident.

Following Ofwat guidance in the initial assessment of the plan we have modified this performance commitment to include taste and odour as well as appearance.

5.2.2 Detailed definition

Information relating to the bespoke performance commitment

The aim of the performance commitment is to incentivise the company to respond to customers' dissatisfaction over the appearance of drinking water, and to maintain the assets that deliver water to customers' properties in a stable condition.

This metric is reported by the DWI in the Chief Inspector's report published in July each year and reported on Discover Water.

An increase in contacts about appearance and taste and odour may be an indicator that the asset base is deteriorating more quickly than we are maintaining it. Our research on resilience showed that customers consider that their bills already cover the costs of maintaining assets for the long-term, and it is important that we are held to account for delivering this.

Reporting follows a strict set of DWI reporting guidelines. As with all DWI data the reported figures are based on the calendar year and reported in the following financial year.

Full definition of the bespoke performance commitment

The reporting of this data is governed by the following information letter from the DWI http://www.dwi.gov.uk/stakeholders/information-letters/2006/01_2006.pdf.

As per the above reporting guidance, DWI notifiable events are excluded from the annual customer appearance and taste and odour data return. The DWI's Guidance on the Notification of Events document 2009 and The Water Industry (Supplier's Information) Direction 2017, both available at http://dwi.defra.gov.uk . The internal document 'Summary of circumstances that would lead to notification to the DWI' (DWG001) summarises the circumstances that would lead to notification to the DWI.

5.2.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No/ 1,000 population	1.28	1.23	1.18	1.13	1.08

Rationale for level: 20% improvement.
Rationale for PC profile: 20% reduction across the five-year period.

	2045
Long-term ambition	0.70

Rationale for 2025-2045 forecast: It will become harder over time to reduce a reducing number of customer contacts. To reflect this the long-term profile is to reduce contacts by a further 10% each 5-year period after PR19.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No/ 1,000 population	1.32	1.29	1.25	1.22	1.18
P90	No/ 1,000 population	1.11	1.08	1.05	1.01	0.98

Rationale for P10: Expert judgement

Rationale for P90: Expert judgement

Incentive rates

Incentive type	Incentive Rate (£/contact per 1,000 population)
Outperformance	190,000
Underperformance	190,000

Rationale for incentive rate: Incentive rate is based on our customers valuation only.

Additional details

Necessary detail on measurement units	Number of contacts per 1,000 population
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: As with all DWI data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✓	✓	✓	✓	✓

Summary of challenge: Our CBA suggests that our proposed approach is cost-benefit neutral and that targeting anything beyond that is not cost beneficial.

In our PR14 submission we proposed to reduce the contacts by a challenging level by 2025. In the Final Determination this was advanced to be achieved by 2020, a challenge that we believed was not achievable. We are currently forecasting maximum underperformance payment for the last 3 years of PR14 despite making significant improvements and, comparatively, are performing above average across the industry. We are proposing our PR19 target to be a 20% reduction in contacts which equates on a pro-rata basis to achieving the original target proposed in PR14 for 2025, which we still believe is a challenging target.

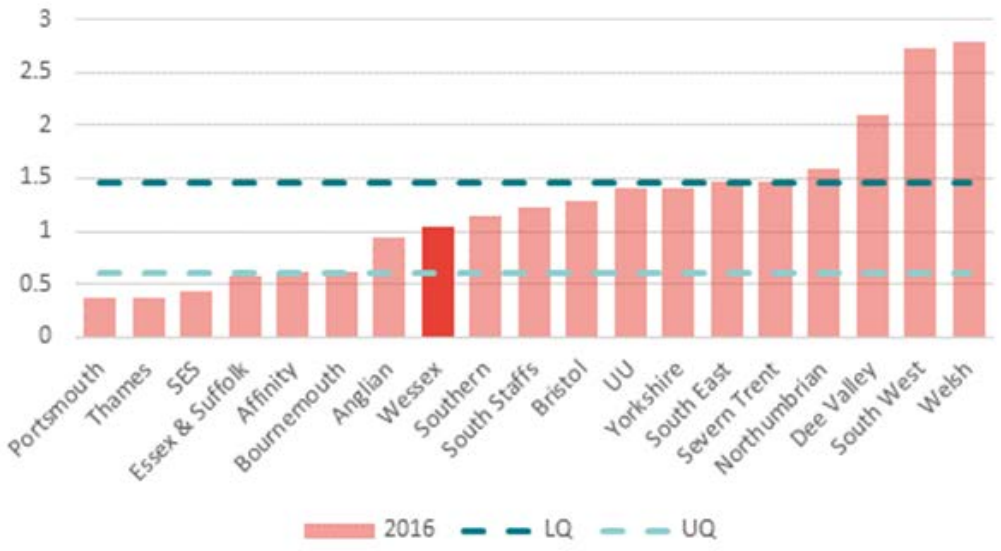
This target is significantly more stretching than the minimum level attainable and a clear improvement on our historical performance.

5.2.4 Supporting information for the six-challenge process

Cost Benefit Analysis: CBA analysis has demonstrated that asset based solutions to reduce customer contacts regarding appearance is not cost-beneficial due to a low WTP and the number of expected contacts avoided. We have however set ourselves an ambitious target to further reduce customer contacts via proactive customer engagement.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
D_WQC_S1	Do nothing	×		
D_WQC_S2	Maintain baseline (asset renewal and replacement)	×		
D_WQC_S3	Improve baseline (asset renewal and replacement) above the baseline costs.	✓	-48.46	0.39

Comparative information (Appearance, 2016):



Source: Discover Water

Historical information:

Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No/ 1,000 population	n/a	n/a	2.24	2.25	1.79	1.59

Current performance:

Unit	2017-18
No/ 1,000 population	1.47

Forecast performance:

Unit	2018-19	2019-20
No/ 1,000 population	1.47	1.41

Rationale for initial service level: This is a continuation of the 2015-20 PC adjusted to reflect customer contacts on appearance and taste and odour (excludes illness). In total we expected to have around 2000 customer contacts in 2019, of which around 1300 will relate to appearance and 600 to taste and odour.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
No/ 1,000 population	1.33	1.30	1.26	1.23	1.21

$R^2 = 0.96$

Maximum level attainable:

Unit	Max. level attainable
No/ 1,000 population	0.00

It is not currently cost/beneficial to target the maximum level attainable.

Expert knowledge: We have chosen to a challenging 2024/25 target of 1.08 contacts per year per 1,000 population = 1515 contacts. This based on our PR14 FD acceptability target of 1,608. In 2019/20 we expect to have 2,000 acceptability contacts; hence the 1,608 acceptability contacts = 80.4% of 2,000 forecast. Of the 2,000 acceptability contacts, 1,300 are expected to be appearance contacts and 600 for taste and odour. Hence we have set the appearance target at the equivalent of our PR14 FD target, i.e. 80.4% of 1,300 = 965 contacts and similarly the taste and odour contacts = 550. This is a very challenging target equating to 20% reduction over the five-year period.

5.3 Performance commitment: Q3 Tackling water quality at home and in the work place

5.3.1 Introduction

Why are we looking at this? Drinking water quality was the top issue highlighted in our Strategic Direction Statement research and often failures are caused by internal pipework issues. We have engaged with customers specifically on this issue through our online games.

This is a bespoke performance commitment to reflect our activities in the home, workplace, and public buildings aimed at improving drinking water quality, and to reflect our industry leading offering for customer lead pipes.

Definition of performance measure: Inspections and customer lead pipe replacement aimed at improvement of water quality.

Customer friendly definition: Working with customers to improve the quality of water in their property.

Customer research:
SDS research – highest quality drinking water was the highest priority by a significant margin.
Note: we did not engage on matters of public health in subsequent research projects.

5.3.2 Detailed definition

Information relating to the bespoke performance commitment

Drinking water quality has consistently been the highest priority issue raised by our customers in research for our long-term plan (Strategic Direction statement) and business plan. For the business plan, our proposals for drinking water quality were included in the customer acceptability testing.

Throughout our ongoing engagement with customers, we see an appetite for more ongoing engagement and education about our activities and the positive impact that changes in customer behaviour can have on our services. Our offer of a future partnership with customers has also been popular, but this is contingent on our making it easy for customers to play their part. This measure shows how we are going the extra mile to identify and where appropriate help solve water quality issues that are created by assets owned by our customers.

The guidance on long term planning for drinking water quality from the Drinking Water Inspectorate highlights the need to have a comprehensive and ambitious strategy to mitigate point of use issues and protect wholesomeness for consumers. This performance commitment supports the delivery of this goal. Our proposed strategy for point of use considerations was included in our drinking water quality submission to the DWI in December 2017. The CCG have been briefed on our drinking water strategy for 2020-25.

The reported figures are based on the calendar year and reported in the following financial year to match the Water Regulations Advisory Scheme (WRAS) reporting.

Full definition of the bespoke performance commitment

Water fittings inspections and other activities will be allocated a score based on the following table. The annual index score is the aggregate of all the activity scores in a calendar year.

Activity		Score
Water fittings inspections	Household Fluid category 3	2
	Non-Household Fluid category 3	3
	Agriculture Fluid category 5	3
	Non-Household Fluid category 4	3
	Educational Establishments (All fluid categories)	4
	Public Buildings (All fluid categories)	4
	Household Fluid category 5	4
	Non-Household Fluid category 5	5
Replacement of household customer lead service pipe		15
Replacement of non-household customer lead service pipe		20

Fluid categories are defined in the Water Supply (Water Fittings) Regulations 1999 and as included in the Water Regulations Guide published by WRAS second edition.

For the household customer service pipes activity:

- Following a sample exceedance and investigation to confirm the presence of a metallic pipe (e.g. lead, galvanised iron or copper), the customer supply pipe shall be replaced up to the wall of the property or as near as reasonably practicable, with the customer's agreement.
- The work includes sampling, replacement of the pipe and recording of the date and location etc. on our Geographical Information System.
- The customer supply pipe is defined as the pipe from the customer stop tap or meter, which is usually adjacent to the boundary between public and private land, to the wall of the house / property.

We have a reporting methodology statement for all the lines in the data tables including this performance commitment. The methodology statements are used by the table owners, compilers and data originators, and they are used during the audit by our external technical assurance auditor (Mott MacDonald). There is also a certification process prior to and after audit, in order than we can demonstrate to our audit committee that a robust process has been followed.

Brief details of the sources of the data for this measure and the reporting process are given below.

There are two data sources for this measure:

- Water fittings inspections. Our water fitting inspection team maintain a secure spreadsheet that record all their inspections (date, premise address, contraventions, progress with corrections etc.). The premises and their fluid category are held on our geographical information system (GIS). The spreadsheet is used to give the summary data for the calendar year. A new database is under development to improve the process and enable the data to be held on a secure corporate system.

- Lead customer supply pipe replacements. This data is held and maintained by our Engineering & Construction team, who carry out the work. For each job a lead pipe replacement form is completed and logged on a spreadsheet. As mentioned in the definition, from 2020 onwards the activity will also be recorded on GIS.

Summary data from each of these sources is then combined by the data compiler to provide an aggregate score for the year.

5.3.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Index	18297	36594	54891	73188	91485

Rationale for level: 10% improvement on 2017-18 performance.
Rationale for PC profile: Flat profile as maintaining stable performance with existing resources.

	2045
Long-term ambition	18297

Rationale for 2025-2045 forecast: To maintain the PR19 target.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Index	13494	26988	40482	53976	67470
P90	Index	20240	40480	60720	80960	101200

Rationale for P10: PC target less 20%

Rationale for P90: PC target plus 20%

Incentive rates

Incentive type	Incentive Rate (£/index point)
Outperformance	11
Underperformance	13

Rationale for incentive rate: Incentive rate is based on the unit cost only.

Additional details

Necessary detail on measurement units	Index
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: As with all DWI data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✓ (partial)	✘	✘	✓

Summary of challenge: We have not used CBA as this PC covers a very complex area – we have therefore not sought WTP information from customers. It is also not a PC that other companies report so comparative information is not available. The theoretical maximum is unknown and we are not able to predict a minimum level attainable as there is only one data point.

Water quality as a whole can only improve if both the company and customer assets are inspected and where appropriate replaced. Historically, more of our sample failures relate to customer activities and assets than ours. This measure is intended to show the work we do in partnership with our customers to improve water quality not covered by our day-to-day activities. This is something we have been doing for some time. The measure specifically focuses on the replacement of customer lead pipes which is a particular public health concern. The target is challenging as it is set to achieve a 10% improvement in activity against our latest (2017-18) performance at no additional cost. This increase will require

efficiency improvements to deliver and does reflect the high priority we place on addressing drinking water quality and the removal of lead pipes overall.

5.3.4 Supporting information for the six-challenge process

CBA: not applicable.

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available.

Historical information: not applicable as historical information is not comparable to the proposed performance commitment.

Current performance:

Unit	2017-18
Index	16634

Forecast performance:

Unit	2018-19	2019-20
Index	16634	16634

Rationale for initial service level: Continuation of current performance.

Minimum improvement: not applicable as only one confirmed data point is available.
Maximum level attainable: not applicable as the theoretical maximum is unknown.

Expert knowledge: The forecast score for this performance commitment was determined by considering the score achieved for activities carried out in 2017. Being a brand new measure, historic data was not available to further help inform the proposed figures. There is no current plan to change the number of inspectors carrying out the fittings inspection activities within 2020-25, therefore a 10% increase on top of 2017 score is considered realistic. Senior regulations inspectors were consulted regarding the individual scoring for each activity which is designed to reflect the time and energy put in by the company to complete these activities. There is more historic data available for customer lead pipe replacements carried out and especially over the past three years the numbers have been consistent without significant fluctuation. We are confident this replacement work will continue across the region and contribute to the overall score.

5.4 Performance commitment: Q4 Lead communication service pipes replaced (Wessex Water assets)

5.4.1 Introduction

Why are we looking at this? We have not engaged with customers directly on the issue of lead pipe replacement, but drinking water quality was the highest priority issue raised by our customers in our Strategic Direction Statement research and lead failures are a key contributor to this.

We have a company objective to remove all lead pipes from our network, this performance commitment supports the delivery of this goal.

This is a bespoke performance commitment covering replacement of the communication pipe as required by the protocol agreed with the DWI.

Definition of performance measure: Number of lead communication pipes replaced, including galvanised and other metallic pipes that include lead.

Customer friendly definition: Replacing lead pipes to safeguard water quality.

Customer research:

- SDS research – highest quality drinking water was the highest priority by a significant margin.

Note: we did not engage on matters of public health in subsequent research projects.

5.4.2 Detailed definition

<u>Information relating to the bespoke performance commitment</u>

Drinking water quality has consistently been the highest priority issue raised by our customers in research for our long-term plan, our Strategic Direction Statement (SDS) and business plan. This result was repeated in the qualitative part of our SDS research conducted in 2016. The guidance on long term planning for drinking water quality from the Drinking Water Inspectorate highlights the need to have a comprehensive and ambitious strategy to mitigate the risk of lead failures. Our long-term objective is to remove all lead pipes from our network by 2040; this performance commitment supports the delivery of this goal.

Our proposed strategy for lead was included in our drinking water quality submission to the DWI in December 2017. The CCG have been briefed on our drinking water strategy for 2020-25, including lead.

Our proposals for replacement of lead pipes were included in the customer acceptability testing.

The performance commitment covers replacement of lead communication pipes following sample exceedance as required by the DWI, proactive pipe replacements and pipes

replaced during day-to-day repair and maintenance activities.

The reported figures are based on the calendar year and reported in the following financial year.

Full definition of the bespoke performance commitment

Number of lead communication pipes replaced, including galvanised and other metallic pipes that include lead.

Replacement from all activities, including:

- following a sample exceedance and investigation to confirm the presence of a metallic pipe, as required by the Drinking Water Inspectorate
- proactive pipe replacements
- pipes replaced during day-to-day repair and maintenance activities, including mains replacement and relining.

The work includes sampling, replacement of the pipe and recording of the date and location etc. on our Geographical Information System.

The communication pipe is defined as the pipe from the distribution main in the street to the customer stop tap or meter, which is usually adjacent to the boundary between public and private land.

5.4.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No.	1160	2570	4580	6790	9000

Rationale for level: Improvement on historical target to align with aim to replace all lead pipes by 2040.
Rationale for PC profile: Reflects the step up required to replace all lead communication pipes by 2040.

	2045
Long-term ambition	0

Rationale for 2025-2045 forecast: We are proposing a profile that replaces all lead communications pipes by 2040.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No.	600	1200	1800	2400	3000
P90	No.	1276	2827	5038	7469	9900

Rationale for P10: Historical five-year average.
Rationale for P90: PC target plus 10%.

Incentive rates

Incentive type	Incentive Rate (£/pipe replacement)
Outperformance	66
Underperformance (in AMP)	330
Outperformance (end of AMP)	950
Underperformance (end of AMP)	4,800

The end of AMP underperformance payment will be applied if 9,000 lead pipes have not been replaced by the end of 2024-25.

Rationale for incentive rate: The incentive rate is based on the unit cost only.

Additional details

Necessary detail on measurement units	Number of pipes replaced
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Both revenue and RCV
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: This PC is strongly related to measure Q3 ‘Tackling water quality at home and in the workplace’ which is reported on a calendar year basis due to requirements from the DWI.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: When assessing if the investment for this measure is cost beneficial we compare the annual willingness to pay for replacing lead communication pipes against the annual bill impact. If we limit the incentive rate to just the WTP in the year in which the improvement is made as a revenue only incentive, it will be insufficient to incentivise the company to replace lead communication pipes.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✗	✓	✓	✓	✓

Summary of challenge: We are proposing to remove all lead communication pipes by 2040. This requires a more challenging programme of work and target profile than we have seen historically. We are proposing to step this up over the next 10-15 years in anticipation of more cost-efficient techniques being identified in the future. The proposed target reflects a more than 3-fold increase and is seen as the maximum practically deliverable at a reasonable cost to customers. Whilst a faster programme is more cost-beneficial, our expert knowledge suggests that it would be undeliverable. This programme of work has been discussed with the DWI who have confirmed their formal support for this programme of work as proposed and will issue the corresponding Regulation 28 notice in due course.

5.4.4 Supporting information for the six-challenge process

Cost Benefit Analysis: The value of ill health caused by lead pipes means that the quicker these are replaced the more our customers benefit. We have chosen to go for scenario S5, a removal of lead pipes by 2040. Though this is not the most cost beneficial level, there is a much greater uncertainty that 10 or 15 years will be achievable, and 20 years is still very cost beneficial. Our PR19 performance commitment mimics the increased replacement used in the 20-year replacement programme.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
D_LP_S1	Do nothing	✗		
D_LP_S2	Lead pipes replaced over 5 years	✗		
D_LP_S3	Lead pipes replaced over 10 years	✓	100.55	3.43
D_LP_S4	Lead pipes replaced over 15 years	✓	82.69	3.30
D_LP_S5	Lead pipes replaced over 20 years	✓	73.34	3.20
D_LP_S6	Lead pipes replaced over 25 years	✓	65.56	3.11
D_LP_S7	Lead pipes replaced over 50 years	✓	22.81	2.15
D_LP_S8	Maintain baseline profile	✓	13.18	2.06

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available.

Historical information (single year):

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No.	402	429	422	703	660	614	570

The cumulative figures are only appropriate to show progression within the five-year period. As data is provided for multiple periods, it would be inappropriate to display these figures as cumulative.

Current performance (single year):

Unit	2017-18
No.	600

Forecast performance (single year):

Unit	2018-19	2019-20
No.	600	600

Rationale for initial service level: Set at current investment levels in 2015-20.

The cumulative figures are only appropriate to show progression within the five-year periods. As data is provided for part of a five-year period, it would be inappropriate to display these figures as cumulative.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
No.	622	1254	1894	2542	3197

$R^2 = 0.86$

Maximum level attainable (single year):

Unit	Max. level attainable
No. per annum	9,122

The maximum level attainable reflects the number of pipes that would be required to be replaced if all lead communication service pipes were replaced during 2020-25. This is not financially or practically feasible.

Expert knowledge: We are proposing a significant increase in proactive lead replacement in this period in a significant step forward in our strategic vision to replace (or reline) all lead communication pipes by 2040 as detailed in our PR19 DWI submission. Historically we have only replaced around 500 to 600 lead communication pipes per year. As shown below we are proposing to increase this to over 2000 per year in 2024/25. In the next five-year period we will need to increase again to over 2,400 per year in order to achieve our vision of being lead free by 2040.

5.5 Performance commitment: Q5 Event risk index (Wessex Water) (ERI WW)

5.5.1 Introduction

Why are we looking at this? Drinking water quality was the highest priority issue raised by our customers in our SDS research and our response to events are a key contributor to the risks people are exposed to.

This is a new measure being developed by DWI. ERI is a measure designed to monitor how well companies respond to water quality events and manage the risk to the quality of the drinking water quality that we provide to customers.

Definition of performance measure: The DWI's Event Risk Index (ERI).

Customer friendly definition: Improving the quality of the water we provide to customers.

Customer research:

- SDS research – highest quality drinking water was the highest priority by a significant margin.

Note: we did not engage on matters of public health in subsequent research projects.

5.5.2 Detailed definition

Information relating to the bespoke performance commitment

Drinking water quality has consistently been the highest priority issue raised by our customers in research for our long-term plan (Strategic Direction statement) and business plan.

Throughout our ongoing engagement with customers, we see an appetite for them to play their part where their behaviour can have an impact on the environment and on our services. Our offer of a future partnership with customers has also been popular, but this is contingent on us always delivering the basics well.

We have chosen this measure as we believe responding well to water quality events is crucial to this. Our approach is to act quickly to identify and resolve issues and to proactively put measures in place to prevent recurrences. We have a positive, open and honest relationship with our regulator and generally the feedback we receive is that the DWI are satisfied with our response.

We also consider that ERI can be a measure of how well the company is maintaining the health of its assets. It is important that we are held to account for this over the long-term.

ERI is a brand new measure, and as such, the industry is still interpreting the definition and putting the methods in place to track progress. Using the recently published definition, we will aim to calculate the ERI score for each notified event, but it should be noted that our internal calculation is a prediction only. The final assessment is made by the DWI, and the subsequent score given to each event is currently not published until July for the previous

calendar year.

Reporting follows a strict set of DWI reporting guidelines. As with all DWI data, the reported figures are based on the calendar year and reported in the following financial year.

Full definition of the bespoke performance commitment

The definition of Event Risk Index (ERI) is posted on the Drinking Water Inspectorate's website. The last version dated March 2018 is reproduced overleaf.

The performance commitment is based on our current notification criteria which have been developed over many years to ensure that we respond appropriately and effectively to any situation where water quality or sufficiency gives rise to a significant risk to public health. Our notification criteria are based on the DWI's Guidance on Notification of Events dated August 2009.

For the purposes of this measure, should the notification criteria change, the ERI score for any additional notifiable events would be excluded from the total ERI score (Wessex Water).

DWI EVENT RISK INDEX

(ERI)

Drinking Water Inspectorate

28 March 2018

DWI Event Risk Index (ERI): Definition

A new drinking water quality measure is required to allow companies to move away from the current event response categorisation to a risk based methodology to assess the impacts of events on consumers and to promote proactive risk mitigation.

The Event Risk Index (ERI) is a measure designed to illustrate the risk arising from water quality events, and it aligns with the current risk based approach to regulation of water supplies used by the Drinking Water Inspectorate (DWI). All events are assessed by DWI using the provisions of the Water Industry Act 1991. In doing so, DWI has regard to its published Enforcement Policy, and it also follows the principles of "better regulation" to scrutinise company performance on the basis of their risk of failing to meet the requirements of the Regulations.

This is a new measure developed in consultation with water companies, alongside the Compliance Risk Index (CRI – definition link here).

The following outlines the broad principles of the ERI measure.

- the seriousness of each drinking water quality event (the Event Category score);
- a measure of the company performance in managing the event (the Inspector Assessment score); and
- the impact of each event – based on a simple measure of the population affected and duration in hours.

The formula for the calculation of the index is as follows:

$$\text{ERI} = \frac{\Sigma(\text{Seriousness} \cdot \text{Assessment} \cdot \text{Impact (population, duration)})}{\text{population served by the company}}$$

i. Seriousness score

This score (derived from the existing DWI Event classification) assesses the relative seriousness of a particular event. The score used will be the highest scoring effect of a particular event. As events are often wide and varied, the list is not intended to be exhaustive of all possibilities but provides broad categories and principles of assessment.

Score	Basis for score (examples)
5	**Health Risk:** Where consumers actually or potentially suffered harm through the presence of pathogens, toxic chemicals, contamination or undisinfected water in supply.
4	**Health Risk Indicator:** Where consumers were at a higher than normal risk of harm or suspected illness through the presence of indicator organisms, chemicals, contamination significant to health or a disinfection failure.
3	**Aesthetic and Confidence:** Where consumers are likely to or did reject the water or where advice limiting the use of the supply was given due to the presence of taste/odour/ discolouration, animalcules, nontoxic chemicals, specific advice to consumers and national media
2	**Regulatory Impact:** Where regulations were or could have been breached, but the event had no impact on the quality of water supplied to consumers such as a treatment failure, ingress or improper use of materials and local news coverage specific to water quality
1	**Non-health Risk Indicator:** Where consumers are dissatisfied or inconvenienced due to, for instance, loss of supplies, aeration, pressure or media interest not covered by other categories.
0	**Not an event:** Event reported but no effect on water quality, sufficiency or consumer confidence

ii. Assessment score

All reported events are assessed to ensure that the wellbeing and interests of consumers were protected by the companies' management of events (including mitigation of the impacts and recovery). A well-managed event with appropriate and speedy mitigation action poses a lower risk to consumers. The DWI also considers the root cause of the event and whether the company's actions led to or increased the likelihood of the event occurring, and whether further remedial action is necessary.

Therefore the DWI Inspector's assessment has been assigned a score for ERI shown below:

DWI Inspector assessment	Score
Prosecution	5
Caution	5
Warning letter	4
Enforcement – legal instrument	4
Legal instrument in place	4
Prosecution considered	4
Recommendations made	3
Suggestions made	2
No recommendations or suggestions made	1

iii. Impact score

This will be based on a simple measure of the population affected and the duration (in hours) consumers are expose to the risk.

Reporting timescales

Provisional ERI scores will be provided to companies by the end of April each year, covering the previous calendar year (i.e. ERI for 2018 will be reported April 2019). This will include ERI scores for **all events reported in the relevant calendar year.**

There may be a small number of events where investigations are still ongoing at the end of April. For these events an estimation of the individual event scores will be included based on information provided by the company and the likely assessment for each event score.

An updated ERI figure will be reported in the Chief Inspector's Report in July and again at the end of April the following year by which time the majority of events assessments for that year will have been completed.

Special Rules

For some events default duration and population failures will be used as indicated below. The burden of proof rests with the company to identify events falling into these categories.

- **Precautionary advice issued to single premises/premises on same service** (including high lead results):

  Domestic premises – population **2.4** per property affected

  Public Building – population minimum of **50**.

  Commercial premises – as stated by company

  Duration – default value **72 hours**

- **Lab/Data/Sampling Events:** these events generally have little, if any impact on consumers and any increased risk to consumers is impossible to quantify

  Population – default value of **1**

  Duration – default value **72 hours**

- **Events associated with a single operational sample (including positive Crypto):**

  Duration – 24 hours unless evidence of longer duration, e.g. repeat samples failed, compromised treatment process (i.e. duration is to restoration of wholesome supplies)

  Population – population supplied by the asset if SR or WTW outlet

- **Events that are "Not an Event"**

  Notified events where there was no impact on water quality, for example works taken out of service because of flooding; PHE report of cryptosporidiosis in community that was not found to be caused by public water supply; events associated with private water supplies.

Relationship with CRI

In some circumstances compliance failures are reported as an event, and therefore may contribute to both CRI and ERI. Most of these will attract an ERI score of 0 on the basis that they are assessed as compliance breaches. There may be circumstances, however, where it is appropriate to score such occurrences under both the CRI and ERI indices, depending on the outcome of the company investigations and DWI assessments.

5.5.3 Proposed level and outcome delivery incentive

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Index	13.720	13.720	13.720	13.720	13.720
Outperformance cap	Index	5.391	5.391	5.391	5.391	5.391
Underperformance collar	Index	591.999	591.999	591.999	591.999	591.999

WaSC and WOC excluding small companies.

Rationale for level: WWSL best performance.
Rationale for PC profile: Maintain best historical performance.

Rationale for underperformance deadband: The deadband has been removed.
Rationale for outperformance deadband: The deadband has been removed.

Rationale for outperformance cap: P90 level
Rationale for underperformance collar: P10 level

An outperformance cap has been included to protect customers from unexpected outperformance that goes beyond our P90. To ensure a balance of risk and reward, the same logic has been applied to an underperformance collar.

The performance commitment is based on our current notification criteria, should the notification criteria change, the ERI score for any additional notifiable events would be excluded from the total ERI score (Wessex Water).

	2045
Long-term ambition	13.720

Rationale for 2025-2045 forecast: Maintain best historical performance.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Index	591.999	591.999	591.999	591.999	591.999
P90	Index	5.391	5.391	5.391	5.391	5.391

Rationale for P10: 10%ile of 2017 industry performance.
Rationale for P90: 90%ile of 2017 industry performance.

Incentive rates

Incentive type	Incentive Rate (£/whole index point)
Outperformance	960,000
Underperformance	760

Rationale for incentive rate: Incentive rate is cost based only.

Additional details

Necessary detail on measurement units	Index
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	This measure takes into account all water quality related events notified to the DWI under the March 2018 definition.

Rationale for financial or calendar: As with all DWI data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✓	✓	✓	✓	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area and the cost information is very uncertain.

This is a new DWI measure which has insufficient data to set appropriate numerical targets. As a top performing company, we have set ourselves the challenge of matching our best ever performance.

This target stretches us beyond our minimum level of improvement, is challenging comparatively and ensures we continue to strive towards the maximum level attainable.

5.5.4 Supporting information for the six-challenge process

CBA: not applicable
Comparative information:

	Unit	2015-16	2016-17	2017-18
National average (Source:DWI)	Index	450.94	346.54	248.950

The national average above is not directly comparable to the underperformance deadband as the DWI have included small companies in their calculation.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Index	n/a	n/a	n/a	n/a	n/a	149.83	51.99	13.72

Forecast performance:

Unit	2018-19	2019-20
Index	13.720	13.720

Rationale for initial service level: There is a large level of uncertainty surrounding this measure so our forecast is to continue at 2017-18 performance.

Minimum improvement:

Unit	Minimum improvement
Index	149.83

The minimum improvement would be to remain at our current worst performance.

Maximum level attainable:

Unit	Max. level attainable
Index	0.00

The maximum level attainable for ERI is 0.00. As this is a new measure and bears significant uncertainty, 0.00 is not deemed realistic.

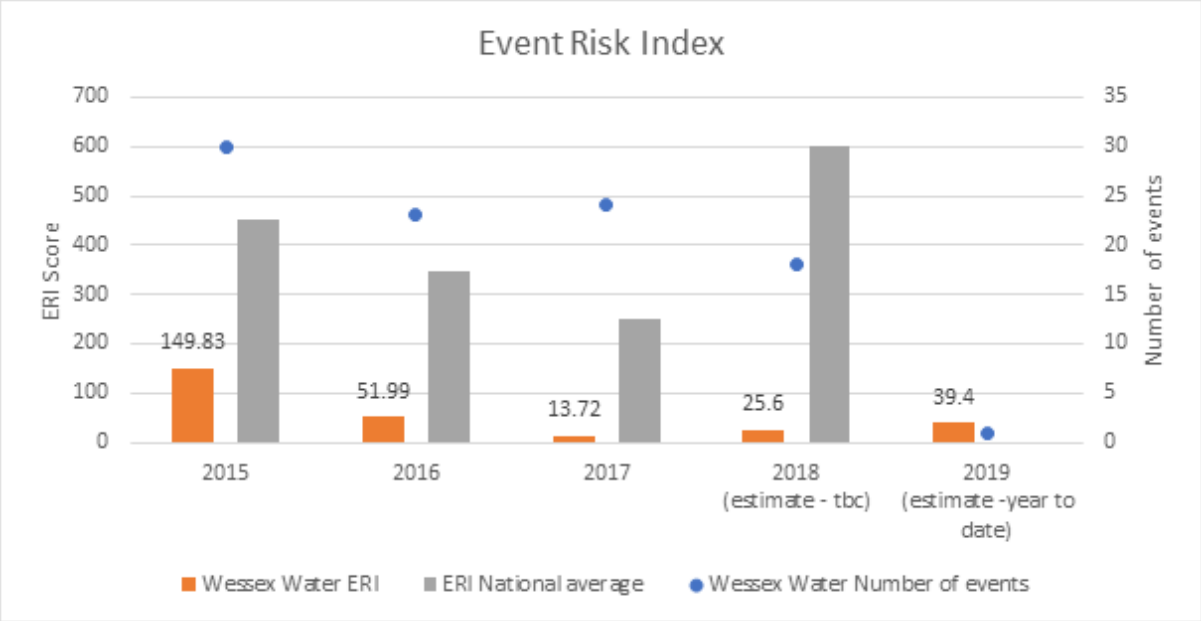
Expert knowledge: The outcome that we are delivering through this PC is excellent drinking water quality, including responsive mitigation and management of events. Customers understand that occasionally things go wrong. Our experience is that what they value highly when things do go wrong is a proactive response that "goes the extra mile". As explained in section 5.6.4 of our main business plan narrative the DWI have introduced this measure to

reflect the behaviour of companies during events. As mentioned above this is a key focus for us anyway, and thus the reason why we chose to adopt this PC.

ERI is a new measure introduced for 2018. There is currently very little confirmed past performance data on which to base a forecast. The data we do have shows the measure to be highly variable, and that one event can have a more significant impact on the index than all the others from the reporting year combined. A subjective element to the calculation of the score given to each event, which is made by the assessing Inspector, is not currently released to companies until after the end of the reporting year. Internally, we estimate this subjective element based on the facts we have and track our progress as closely as possible through the reporting year.

For this reason, we are setting our performance commitments based on our best ever historical performance.

2017/18 (calendar year 2017) was our best ever performance. Our estimated ERI score for calendar year 2018 is 25.6; this will be confirmed by DWI in July this year. Thus 2017 is our best ever score. We were the leading company in 2017, with a score that was approx. 18 times lower than the national average (see graph below). Thus we consider that a target equal to our best ever score is stretching.



5.6 Customer response: Excellent drinking water quality

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'excellent drinking water quality':

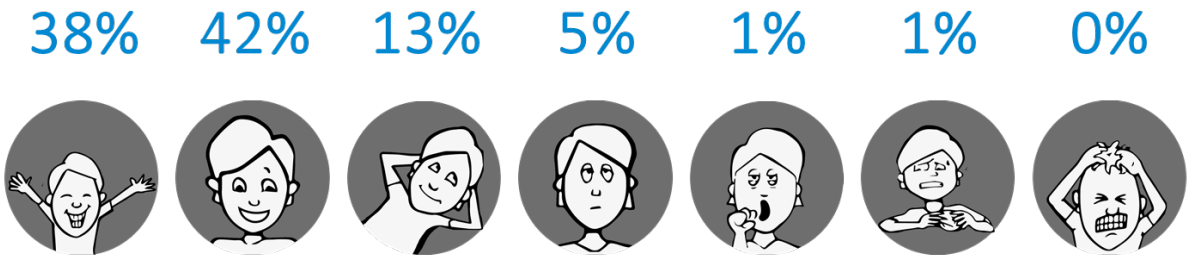
Household Customer Reactions (Engagement Events)

- ✓ Majority happy with the current quality of their drinking water
- ✓ Felt positive about Wessex Water working with farmers and other land users
- ✓ Some were shocked that lead pipes still exist, but they appreciate Wessex Water's efforts to reduce this
- ? Some felt that promoting the use of approved plumbers is a positive step, but will be hard to enforce
- ? Others questioned how water quality is measured by the Chief inspector (e.g. safety, drinking experience)
- ? A minority expected Wessex Water to mention reducing water hardness

Stakeholder Reactions

- ✓ Stakeholders agree that water quality is fundamental
- ✓ They also feel it is hard to make major improvements as standards are very high
- ✓ Felt it is a win-win to work with farmers as they are regulated by same bodies (e.g. Environmental Agency) and will welcome sympathetic partnership vs being told what to do
- ? One stakeholder felt the lead replacement commitment should be/specify customer side not just Wessex Water's network
- ? One stakeholder made a link with leakage (he believed that leakage is an under-reported cause of fresh water contamination)

Following feedback from phase one, no adjustments were made to the performance commitments in 'excellent drinking water quality' but the overall bill impact was adjusted to account for changes elsewhere in the plan. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'excellent drinking water quality', they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O.

6. Outcome: Minimise sewer flooding

The risk of sewage flooding kept to a minimum so that no-one experiences flooding more than once in their lifetime.

Strategic action points:

We will seek to keep the risk of sewage flooding to a minimum by:

- reducing blockages caused by inappropriate matter ending up in the sewers
- producing customer information and education campaigns
- lobbying manufacturers and retailers of products that do not conform to 'flushable' standards
- working with the government on appropriate legislation to counter sewer misuse
- prioritising alternatives to conventional extra storage solutions to help reduce flood risk
- working with other flood risk management authorities such as local authorities, Highways England and the Environment Agency to deliver partnered solutions where several parties share responsibility
- providing additional capacity in the sewer network by separating out surface water, by preventing groundwater from infiltrating, by building more storage and through the storage and reuse of greywater.

Origin of performance commitments

Minimise sewer flooding
Customer property sewer flooding (internal)
Customer property sewer flooding (external)
Sewer flooding risk
North Bristol Sewer Scheme - Trym catchment

Origin
Common measure stipulated by Ofwat
Mandatory measure stipulated by Ofwat
Existing measure
Measure from Ofwats list e.g. asset health or example metrics
Optional bespoke measure

6.1 Performance commitment: F1 Customer property sewer flooding (internal)

6.1.1 Introduction

Why are we looking at this? Internal sewer flooding was the highest priority (by a long way) in our MaxDiff ranking exercise, matching the preferences we saw at PR14. We have continued to engage customers through all our quantitative studies.

This is a common performance commitment that measures the number of properties that suffer flooding inside the property. It is different from PR14 as it includes S105A transferred sewers and severe weather incidents.

Definition of performance measure: The number of internal flooding incidents per year, including all incident causes and sewer flooding due to severe weather events per 10,000 sewer connections.

Customer friendly definition: Minimising the number of times sewage floods into customers' homes.

Customer research:

- PR14 – highest WTP by a significant margin.
- SDS - reducing sewage flooding was consistently of highest importance to all customer groups (80% rated importance at 8/9/10 out of 10).
- Maxdiff – received the highest impact rank of any service failure (62.09 internal flooding), c.3x higher than the next (which was external sewer flooding) and 6x higher than restriction to essential water use, they highest supply impact.
- Business plan game – Consistently high WTP valuations of c£3 to reduce incidents by 10%.
- Conjoint analysis - high WTP valuations of c£3 to reduce incidents by 10%.
- WTP sliders – relatively low WTP of c.£1.50 to reduce incidents by 10%.

6.1.2 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: As evidence by customer research and ODI type prescribed by Ofwat as this is a common measure.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No/10,000 sewer connections	1.68	1.63	1.58	1.44	1.34

Rationale for level: Forecast industry upper quartile as calculated by Ofwat.
Rationale for PC profile: Forecast industry upper quartile

	2045
Long-term ambition	0.52

Rationale for 2025-2045 forecast: We are setting ourselves a very challenging profile to achieve a further 22.5% reduction in each 5-year period.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No/10,000 sewer connections	2.40	2.40	2.40	2.40	2.40
P90	No/10,000 sewer connections	1.00	1.00	1.00	1.00	1.00

Rationale for P10: 90%ile of pre-2011 public sewers only incidents plus S105A uplift
Rationale for P90: Lowest ever recorded performance – mirrors pre-2011 public sewers only historical performance.

Incentive rates

Incentive type	Incentive Rate (£/incidents per 10,000 sewer connections)
Outperformance	7,100,000
Underperformance	11,900,000

The underperformance payment equates to £96,000 per incident.
Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Enhanced incentive type	Level (incident per 10,000 sewer connections)					Enhanced incentive Rate (£/incident per 10,000 sewer connections)
	2020-21	2021-22	2022-23	2023-24	2024-25	
Outperformance	1.24	1.24	1.24	1.24	1.24	30,500,000
Underperformance	2.99	2.99	2.99	2.99	2.99	51,200,000

The enhanced underperformance payment equates to £410,000 per incident.
Rationale for enhanced outperformance level: industry frontier.
Rationale for enhanced underperformance level: industry lower quartile based on the average of each company's 'shadow reporting' performance in 2016-17 and 2017-18.

Additional details

Necessary detail on measurement units	Number of incidents per 10,000 sewer connections
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✓	✓	✓	✓	✓

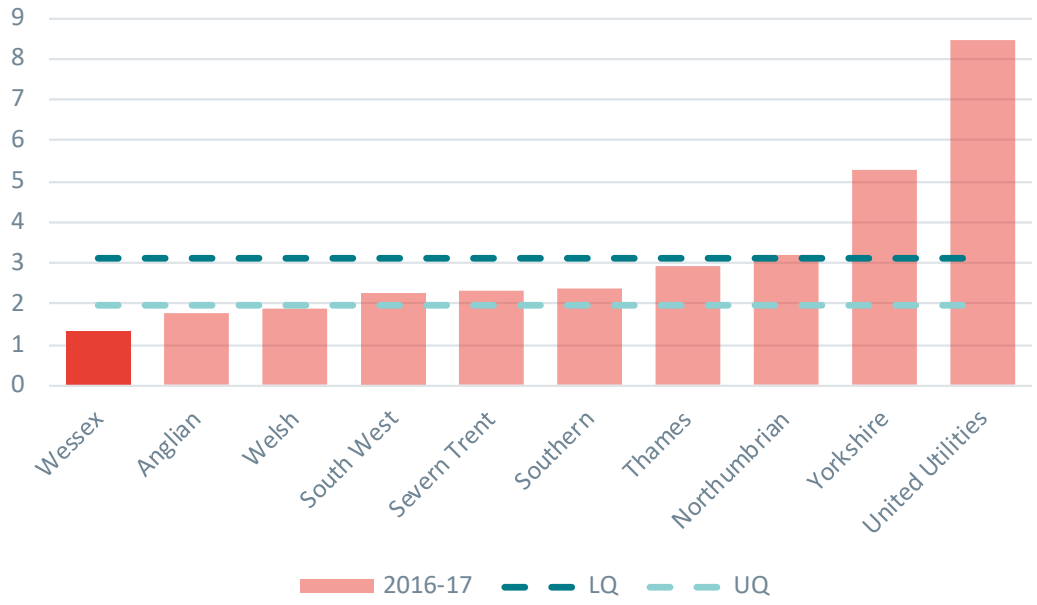
Summary of challenge: Our PC target is based at the forecast upper quartile initially, rising to our best ever historical performance (and the industry leading level) by 2024-25. This is challenging as it is highly improbable that there will not be a continuation of the benign weather conditions we have experienced over the last 3 years. The required investment is at or near the most cost beneficial level. We do not expect to be able to reach the theoretical maximum as this is dependent on customer behaviour. However, our target is stretching compared to the minimum improvement and comparative information.

6.1.3 Supporting information for the six-challenge process

Cost Benefit Analysis: A 22.5% reduction in internal events was targeted based on the combination of it being our best performance to date and the benefit to customers still being high. Any further reduction reduces the incremental benefit to customers.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
S_WWI_S1	Allow internal flooding to increase	×		
S_WWI_S2	Maintain current baseline	×		
S_WWI_S3	Reduce Internal Flooding by 5%	✓	7.1	3.7
S_WWI_S4	Reduce Internal Flooding by 10%	✓	14.1	3.7
S_WWI_S5	Reduce Internal Flooding by 15%	✓	19.8	3.4
S_WWI_S6	Reduce Internal Flooding by 20%	✓	23.6	3.1
S_WWI_S7	Reduce Internal Flooding by 25%	✓	21.7	2.2
S_WWI_S8	Reduce Internal Flooding by 30%	✓	19.5	1.8
S_WWI_S9	Reduce Internal Flooding by 35%	✓	15.6	1.5
S_WWI_S10	Reduce Internal Flooding by 40%	✓	11.5	1.3

Comparative information (2016-17):



Source: Ofwat shadow reporting

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No/10,000 sewer connections	n/a	n/a	3.31	2.01	1.91	1.54	1.32

Current performance:

Unit	2017-18
No/10,000 sewer connections	1.24

Forecast performance:

Unit	2018-19	2019-20
No/10,000 sewer connections	1.60	1.60

Rationale for initial service level: Forecast set at the five-year average.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
No/10,000 sewer connections	1.54	1.51	1.48	1.45	1.43

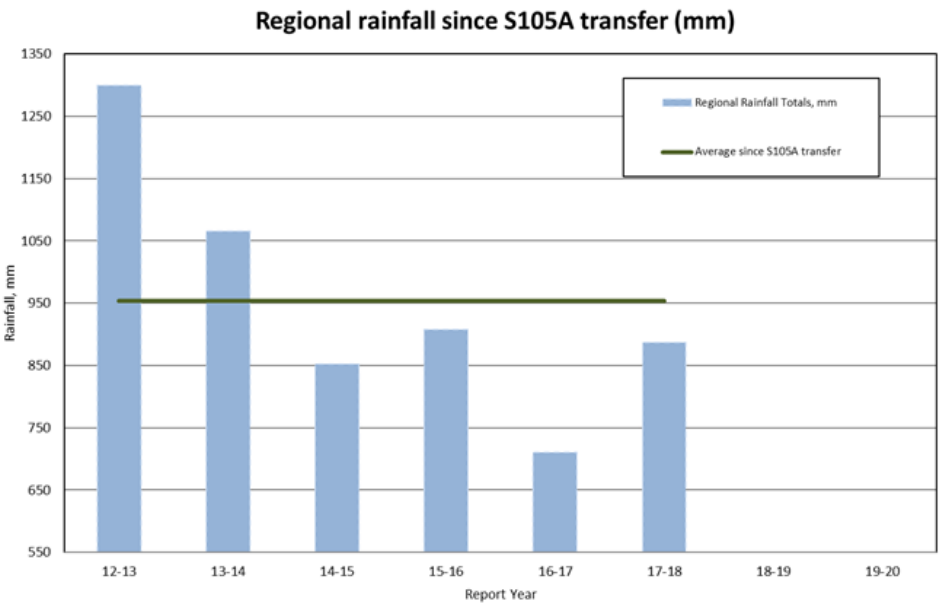
$R^2 = 0.99$

Maximum level attainable:

Unit	Max. level attainable
No/10,000 sewer connections	0.00

Whilst the theoretical maximum is 0.00 internal sewer flooding incidents, this is not practically possible as we are reliant on customers not misusing the sewers and no extreme rainfall events.

Expert knowledge: The proposed target for PR19 is to achieve a target reduction of 22.5% over the five-year period – this is challenging when industry leading but we are aiming to maintain frontier performance. Recent performance in 2015-20 has been partly due to below average rainfall as shown in the regional rainfall chart shown below.



6.2 Performance commitment: F2 Customer property sewer flooding (external)

6.2.1 Introduction

Why are we looking at this? External sewer flooding was the second highest priority in our MaxDiff ranking exercise. We have continued to engage customers through all our quantitative studies.

This is a new shadow reported metric, that we are promoting as a bespoke performance commitment. It excludes sewer flooding in roads and fields.

Definition of performance measure: The number of external sewer flooding incidents, including all incident causes and flooding due to severe weather events per 10,000 sewer connections (in line with Ofwat shadow reporting).

Customer friendly definition: Minimising the number of times sewage floods outside customers' homes (e.g. gardens).

Customer research:

- SDS - reducing sewage flooding was consistently of highest importance to all customer groups (80% rated importance at 8/9/10 out of 10).
- MaxDiff - Sewer flooding had highest impact scores (26.38 external flooding).
- Business plan game –valuation of c.£2 for a 10% reduction.
- Conjoint analysis – valuation of £1 for a 10% reduction.
- WTP sliders – valuation of c.£1 for a 10% reduction

6.2.2 Detailed definition

Information relating to the bespoke performance commitment

Our customer research has shown that external sewer flooding was the second highest priority in our MaxDiff ranking exercise in which we asked customers to consider the impact certain events would have on them. We have continued to engage customers through all our quantitative studies.

This bespoke performance commitment will be measured using the Ofwat reporting guidance for sewer flooding[1].

This performance commitment is current a shadow reporting metric (APR Table 3S Section H Line 11) that we are promoting as a bespoke performance commitment.

Full definition of the bespoke performance commitment

The measure is the total number of flooding incidents including flooding due to overloaded sewers (hydraulic flooding) and due to flooding other causes (FOC).

[1] https://www.ofwat.gov.uk/wp-content/uploads/2018/03/Reporting-guidance-sewer-flooding.pdf

A flooding incident in this measure is defined as the number of property curtilages flooded during each flooding event from a public sewer. For example, five properties which suffered two flooding events during a year, would count as ten incidents. Where a property floods both internally and externally during the same event it shall only be recorded as an internal flooding incident and not included in this measure.

A flooding event is the escape of water from a sewerage system, irrespective of size, as evidenced by standing water, running water or visible deposits of silt or sewage solids. Incidents caused by an escape from public sewers (whether foul, combined or surface water), including pumping stations, sewage treatment works and other assets under the control of the sewerage undertaker shall be reported. Incidents caused by sewers and laterals transferred under the Transfer of Private Sewers Regulations 2011 and pumping stations transferred in 2016 shall be included.

For the purposes of consistent reporting, flooding caused by the blockage or failure of a gully, shared by two or more properties and connected to a public sewer, or blockage of the gully grating, or the failure of any pipework above ground, shall be excluded. It should be noted that this is not to be taken as an opinion on the legal status of these aspects of drainage apparatus.

Flooding caused by assets which are beyond the undertaker's control is excluded, for example:
Flooding due to surface water run off which has not originated from public sewers:

- Fluvial flooding,
- Coastal flooding,
- Groundwater which has not originated from a public sewer,
- Flooding from water mains etc.
- Incidents caused by highway drains,
- Incidents caused by private assets (including drains). The Wate UK "Guide to Transfer of Private Sewers Regulations 2011", published on 30th September 2011 shall be applied to assess if the flooding incident should be attributed to the undertaker or a private asset such as a drain.

No incidents should be excluded due to severe weather.

External flooding is defined as flooding within the curtilage of a building normally used for residential, public, community and business purposes. It includes buildings in those curtilages which would not normally be reported as internal flooding. For example:

- buildings where the prime purpose is for storage or installation of domestic appliances and is not accessed from the house by means of an adjoining door to the habitable building;
- detached garages (whether situated inside the boundary of the property and separated from the main building or outside the boundary but with common access as in a garage block);

- linked detached garages (i.e. garages which are attached to a property but separated from it by an external passageway);
- sheds and outbuildings (e.g. stables, kennels, coal houses, outside toilets);
- summer houses.

In the case of golf clubs or facilities similar in type, flooding of the area immediately adjacent to the club house (paths, patios verandas etc.), and therefore the areas used by people accessing only the facilities in the clubhouse, shall be included as external flooding. Each situation needs to be considered on its own merits but it is unlikely that any greens, fairways or rough would be included.

With respect to farms, if there isn't a defined farmhouse and garden boundary akin to a typical domestic property, an appropriate allowance should be made for land that would equate to a garden.

In the case of a flooding event affecting a multiple use area in the same ownership, such as an industrial park, retail park, hospital site, university site etc., it shall be counted as one incident. This includes sections of car parking (possibly termed overflow carparks) that are separated from the main carpark or a facility by a road.

The following areas are excluded from the reported numbers:

- 'highways' – including footpaths, and
- 'public' open space, agricultural land and car parks including overflow carparks.

Where a flooding has occurred, and flooding subsides, any subsequent flooding shall be counted as a separate incident. This shall be regardless of the time between events and if any investigation or follow on work has started or been completed.

Flooding due to third party action shall be included in all cases.

Any flooding due to jetting shall be included, unless the water is fully contained within a toilet bowl.

Damp patches caused by seepage through walls or floors shall be excluded, but any area which has visible standing or running water or which has visible deposits of silt or sewage solids shall be included.

If there is a strong suspicion of potentially fraudulent reports of flooding made with the intention to gain GSS payments or receive increased service, and there is no evidence of flooding, companies should exclude the incidents unless the customer provides substantiation that the flooding occurred. Any proposal for such categorisation must be supported by robust evidence, tested by the company's assurance process, and be fully transparent to customers and regulators.

All reasonable efforts to determine the number of properties affected by a flooding incident will be made.

If there is clear site evidence that a property has flooded, then the incident shall be included despite the absence of a customer report, or a denial by a customer that flooding occurred. Where the customer is not present, companies should leave a calling card stating that they have enquired about a recent incident and encouraging the customer to make contact with the company.

6.2.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments.

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No./10,000 sewer connections	17.07	16.73	16.38	16.03	15.68

Changes made to account for 2017/18 performance.

Rationale for level: 10% improvement on current performance.
Rationale for PC profile: 2024-25 target set at a 10% improvement on the current performance.

	2045
Long-term ambition	6.42

Rationale for 2025-2045 forecast: We are setting ourselves a challenging profile to achieve a 20% reduction in each 5-year period to continue to be in the industry upper quartile.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No./10,000 sewer connections	24.19	24.19	24.19	24.19	24.19
P90	No./10,000 sewer connections	13.82	13.82	13.82	13.82	13.82

Rationale for P10: 90%ile of Discover Water incidents plus S105A uplift.
Rationale for P90: Lowest historical performance (2017-18).

Incentive rates

Incentive type	Incentive Rate (£/incidents per 10,000 sewer connections)
Outperformance	480,000
Underperformance	800,000

The underperformance payment equates to £6,500 per incident.

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Additional details

Necessary detail on measurement units	Number of incidents per 10,000 sewer connections
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing.
Receiving rewards/penalties in period is the standard method.
Rationale for RCV or revenue: Default form.

Six-challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✓	✓	✗	✓	✓

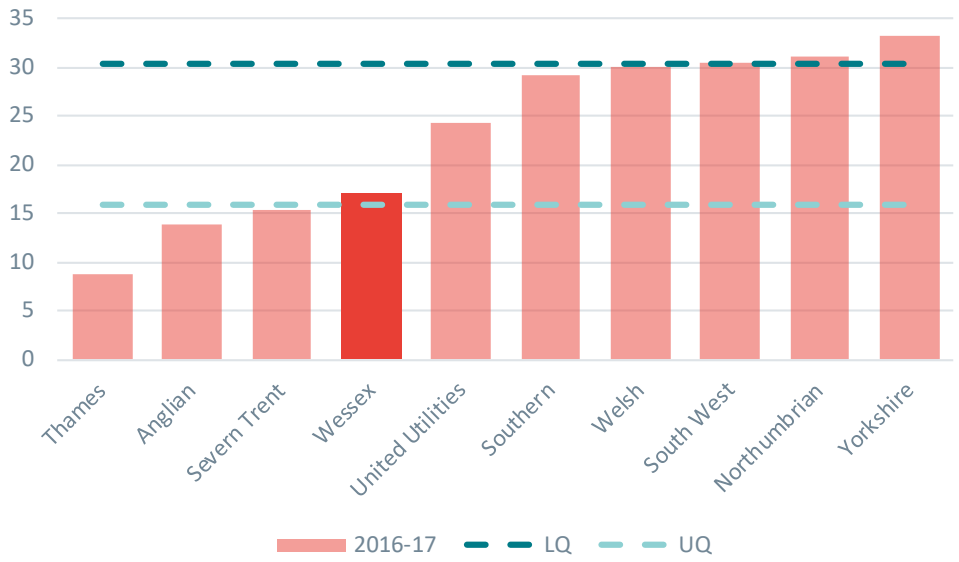
Summary of challenge: There is only one year of comparable data currently available which limits the ability to set a target relative to the industry and a minimum improvement. However, we have set our target at a 10% reduction which will get us firmly in the upper quartile and would require investment at or near the maximum cost beneficial level. Whilst further reductions are more cost beneficial, our expert knowledge tells us that this will not be achievable within the scope of PR19.

6.2.4 Supporting information for the six-challenge process

Cost Benefit Analysis: We choose to go for a 10% reduction in externals. This is because it is cost beneficial and an affordable and effective improvement for customers.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
S_WWE_S1	Allow external flooding to increase	×		
S_WWE_S2	Maintain current baseline	×		
S_WWE_S3	Reduce External Flooding by 5%	✓	7.8	4.29
S_WWE_S4	Reduce External Flooding by 10%	✓	15.5	4.29
S_WWE_S5	Reduce External Flooding 15%	✓	23.3	4.28
S_WWE_S6	Reduce External Flooding 20%	✓	30.6	4.23
S_WWE_S7	Reduce External Flooding 25%	✓	33.4	3.16
S_WWE_S8	Reduce External Flooding 30%	✓	35.2	2.64
S_WWE_S9	Reduce External Flooding 35%	✓	34.6	2.20
S_WWE_S10	Reduce External Flooding 40%	✓	33.5	1.93

Comparative information (2016-17):



Source: Ofwat shadow reporting and Discover Water

The comparative information should be used as an indicator only as there is currently low confidence that all companies are using the definition correctly.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No./10,000 sewer connections	n/a	n/a	27.35	20.81	18.75	16.79	16.94

Current performance:

Unit	2017-18
No/ 10,000 sewer connections	13.82

Forecast performance:

Unit	2018-19	2019-20
No/ 10,000 sewer connections	17.42	17.42

Rationale for initial service level: Forecast performance for the rest of PR14 based on five-year average, 2013-14 to 2017-18, which is 17.42 incidents per 10,000 properties.

Minimum improvement: It is inappropriate to extrapolate historical data as significant historical changes cannot be replicated. The definition for this measure has also changed.

Maximum level attainable:

Unit	Max. level attainable
No/10,000 sewer connections	0.00

Whilst the theoretical maximum is 0.00 internal sewer flooding incidents, this is not practically possible as we are reliant on customer not misusing the sewers and weather variances.

Expert knowledge: Current performance is approaching upper quartile (limited dataset for comparison), however, definition changes brings uncertainty whether all companies have reported consistently.

With a growing lack of customer acceptance for any form of flooding there is likely to be an increase in the number of incidents reported. With a strong customer willingness to pay we have proposed a 10% reduction in incidents for PR19.

A target tighter hasn’t been set due affordability of the overall business plan.

6.3 Performance commitment: F3 Sewer flooding risk

6.3.1 Introduction

Why are we looking at this? We talked to customers about the risk of flooding in our deliberative resilience study where it was highlighted as high priority area for investment. We have not explicitly talked to customers in our quantitative research, just covering the impact of incidents, both which were ranked very highly as discussed before.

This is a bespoke performance commitment continued from the innovative measure introduced in PR14. The definitions will be the same, based on the flood risk grid score, which covers flooding (inside properties and external flooding including roads) due to inadequate sewer capacity.

Definition of performance measure: Overall risk of flooding as measured by sewer flooding risk grid

Customer friendly definition: Managing the overall risk of sewer flooding.

Customer research:

- No specific research – research covers internal and external incidents.

6.3.2 Detailed definition

Information relating to the bespoke performance commitment

This is a bespoke performance commitment continuing from the innovative measure introduced in PR14. The definitions will be the same, based on the flood risk grid score, which covers reported flooding (inside properties and external flooding including roads) due to inadequate sewer capacity.

We talked to customers about the risk of flooding in our deliberative resilience study where it was highlighted as a high priority area for investment. We have not explicitly discussed this particular measure, but have covered the impact of flooding incidents, which was ranked very highly.

This measure aligns with the 21st Century Drainage Programme, particularly the Capacity Assessment Framework and the Drainage and Wastewater Management Plan framework. We support these new frameworks and will be using their approaches to assist our long-term sewerage planning.

Full definition of the bespoke performance commitment

The definition is unchanged from PR14.

The sewer flood risk grid (figure 1) measures the total known flood risk – properties or locations which have been flooded due to inadequate capacity,or are considered to be at risk of flooding due to their proximity to properties or locations that have flooded.
No properties will be added due to sewer modelling results alone.

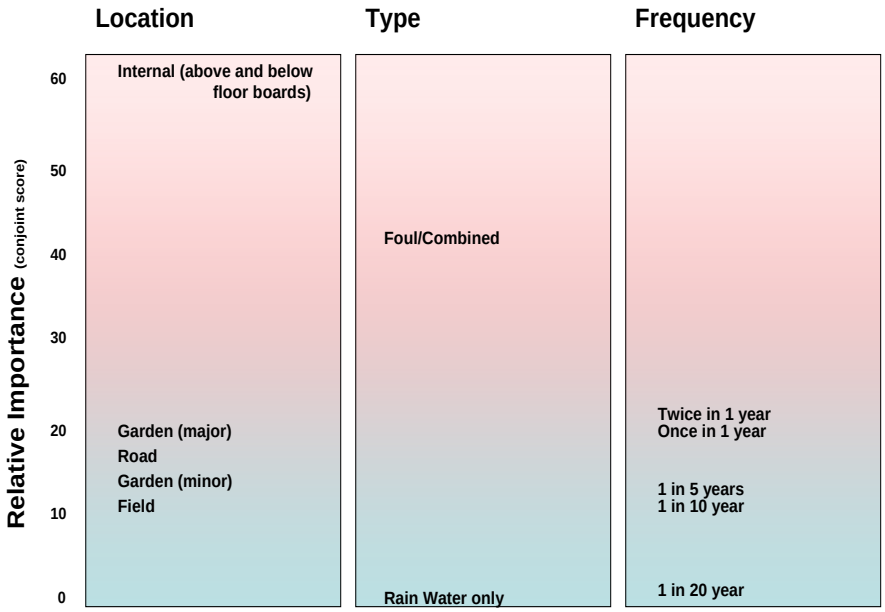
Figure 1: Sewer risk grid

Sewer Flooding Risk: Number of Properties / areas				Impact: Very Low				Very High	Nr of Properties /areas above the line of acceptable risk	Total Risk Score
				Fields (Surface water) Minor Garden (s/w) Roads (Surface water)	Major Garden (Surface) Fields (Combined)	Road (Combined) Minor Garden (Combined)	Major Garden (Combined)	Internal		
				2	3	5	6	10		50651
Probability	Very High	5	2:10yr	26	30	188	140	31	415	11158
		4	1:10yr	47	32	335	190	65	668	14232
		3	1:20yr	8	11	16	47	363	444	11971
		2	1:30yr	26	16	227	69	532	870	11470
	Very Low	1	1:50yr	7	12	195	52	182	182	1820

For each property or location, Wessex Water knows the location and type of the flooding (Impact) and has a record of how often it has reported flooding (Probability). Each property or location is 'entered' into the respective cell within the grid.

The score or weighting of each square has been derived from customer research into their priorities following a conjoint analysis study in 2008 for PR09 (Figure 2). The research involved 403 interviews, lasting 25 minutes, and its aim was to establish a relative scale determining the most urgent factors in a variety of flood scenarios using a conjoint analysis.

Figure 2: Relative importance of impact factors



The research established the customers' flooding priorities and the scoring of the impacts reflect this, with internal flooding scoring 10 and surface water flooding of fields scoring 2.

Figure 3: Impact scores on flooding risk matrix

	Impact				
	Very Low				Very High
	Fields (Surface water) Minor Garden (s/w) Roads (Surface water)	Major Garden (Surface) Fields (Combined)	Road (Combined) Minor Garden (Combined)	Major Garden (Combined)	Internal
Conjoint Analysis Score*	8-19	21-48	54-69	61	65-105
Flooding Risk Matrix Score	2	3	5	6	10

*Conjoint Analysis Impact Score = Location Score + Type Score

The conjoint analysis regarding frequency/probability showed little difference in relative weighting and so a linear scale (1 to 5) is used (figure 3).

New additions or movements to the risk grid through incidents

The probability will be assigned as per the flooding register methodology, in order to be consistent with the existing methodology and ensure Wessex Water is still able to report the traditional 2 in 10 year, 1 in 10 year and 1 in 20 year categories.

If a property/location has flooded for the first time and the storm return period is greater than 1 in 10 and less than 1 in 20 it will put into the 1 in 20 probability category. If the storm return

period is more frequent than 1 in 10 then the property is put into the 1 in 10 probability category.

If a property with a 1 in 10 year probability at the beginning of the year suffers another flooding incident during the report year it is transferred to the 2 in 10 year probability (only if a previous incident was less than 10 years ago). If a property with a 1 in 20 year probability suffers another flooding incident it is transferred to the 1 in 10 year probability (only if a previous incident was less than 20 years ago) unless, in both cases, it was caused by a severe storm.

The impact will be assigned based on the incident details and subsequent investigation. If subsequent incidents occur at the same property or location, the property or location will be placed or remain in the highest impact category of an incident that has occurred at that location.

New additions or movements to the risk grid through engineering feedback

When a flooding incident is being assessed through a high level assessment, or a capacity enhancement scheme is being appraised, the engineer will re-examine historical incidents in the area, examine the hydraulics of the sewerage network and the hydraulic model of the system. The engineer, when carrying out a site investigation, may also talk to residents of neighbouring properties or carry out a questionnaire in the area of a known problem in order to confirm the extent of the flooding problem.

From this analysis and investigation, the engineer will determine if the existing properties on the risk grid have been assigned the appropriate impact and probability categories, and may also propose that additional properties or locations in the area should be on the flooding risk grid, and to which categories they should be assigned.

No properties will be added due to sewer modelling alone – properties that haven't flooded will only be added due to their proximity to properties that have flooded.

These changes to the risk grid will need to be agreed with both Assets & Compliance (A&C) and Operations.

Properties or locations moving or being removed from the risk grid

Properties can only be removed from the flooding risk grid or moved to a lower impact and/or probability category through two methods: through better information or as a result of company action.

Movement/removals through better information will arise from the analysis and investigation undertaken by an incapacity problem being appraised (through an appraisal or through a high level assessment). An engineer will determine if the existing properties/locations on the flooding risk grid have been assigned the appropriate impact and probability categories, and may propose that a category assigned should be changed or that the property/location should be removed from the risk grid altogether i.e. the property/location no longer deemed to be at risk of flooding through inadequate hydraulic capacity.

Movement/removals through company action are where the company has undertaken capital works to install a solution to either reduce the impact, or probability, or both. When engineers design capital works, they identify both the resulting impact and probability category that the properties/locations will be moved to as a result of the capital works.

Line of reportable risk

The red line shown on the sewer flood risk grid is the line of reportable risk. The line could also be viewed as an approximate line of equal risk – with the top left hand box and the bottom right hand box both having a value of 10 for a single property or location.

The line is also a reflection of the proposed enhancement of design standards in order to take account of climate change (e.g. 1 in 50 year for internal flooding).

If a property or location moves to below the line of reportable risk (e.g. through company action) it is no longer counted towards the total risk score. Conversely, if a property or location floods for the first time and is placed above the line of reportable risk it is then counted towards the total risk score.

Total risk score

The total risk score is the number of properties/locations in each cell above the line of reportable risk, multiplied by the appropriate risk score (impact x probability) of each cell. Risk is measured by a unitless number made up of risk scores and numbers of properties.

Properties and areas that lie beneath the line of reportable risk are assumed to have no risk score. For simplicity, we assume that a property or area does not have a risk score until or unless it has an incident which brings it above the line.

The risk scoring approach has the following advantages over the DG5 register methodology:

- Total flood risk is considered rather than just internal property flood risk
- Highest risk DG5 2 in 10 year (A) & 1 in 10 year (B) properties remain highly visible
- The impacts of climate change and urban creep, making the probability of flooding events increase over time, can be accommodated. We do not have a fixed flood return period to design to. Properties at risk of internal flooding from an event up to 1:50 years still remain ‘at risk’. Previously properties at risk internally due to events greater than a 1:20 years were removed from the registers
- We are measured against reducing risk rather than just reducing probability
- Schemes that reduce risk, but not below the line of acceptable risk, still have a positive impact on the total risk score – meaning schemes that previously might have not been considered may progress despite not having all risk removed.

Prioritisation can be done simply by considering the benefits (reduced risk score) and the cost of the investment required. The most cost beneficial investments are delivered first.

6.3.3 Proposed level and outcome delivery incentives

Incentive type: Underperformance payment only

Rationale for incentive type: The incentive type has changed from outperformance and underperformance payment at PR14 to underperformance payment only. This is to ensure that every aspect of the sewer flooding programme has financial incentive while protecting our customers from the risk of double-counting of outperformance payments.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Index	50,651	50,651	50,651	50,651	50,651
Underperformance deadband	Index	55,716	55,716	55,716	55,716	55,716

Rationale for level: Maintain end of 2015-20 target.
Rationale for PC profile: Set to maintain the existing service level as a continuation of 2015-20 performance.

Rationale for underperformance deadband: 10% uncertainty that accounts for severe weather. In PR14 when we setup this measure we included a 20% deadband due to the uncertainties in this new measure. At that time we proposed that this would reduce to a 10% deadband for PR19 and this is what we propose as the process and information becomes more stable.

	2045
Long-term ambition	50,651

Rationale for 2025-2045 forecast: To continue to maintain stable risk, by countering the natural rise resulting from urban creep and climate change.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Index	59,405	59,405	59,405	59,405	59,405
P90	Index	49,796	49,796	49,796	49,796	49,796

Rationale for P10: Impact of two severe winters and delayed delivery of schemes due to third party constraints.
Rationale for P90: Best historical performance

Incentive rates

Incentive type	Incentive Rate (£/index point)
Underperformance	180

Additional details

Necessary detail on measurement units	Index
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✘	✓	✓	✓	✓

Summary of challenge: We introduced this measure as an innovative and more appropriate way of prioritising investment to mitigate sewer flooding risk in PR14. This measure has meant that we have prioritised the right solutions to improve the service to our customers. We are proposing to retain this measure for PR19. In order not to double-count outperformance payments with the internal and external sewer flooding measures we are proposing not to include an outperformance payment.

There is an average rise in the number of risk points each year, and our programme will hold the risk score at a stable level for our customers. This is challenging as it must counteract the impact of urban creep and climate change. It is the most cost beneficial approach, in line with the minimum improvement and consistent with our historical information.

6.3.4 Supporting information for the six challenge process

CBA: We have chosen the most cost beneficial level to base this performance level on. In this CBA case, we have included the costs of maintaining the baseline in the baseline case.

Scenario	Scenario Name	NPV- 60	BCR- 60
S_WWRG_S2	Maintain baseline (maintain risk grid)	221.6	5.8
S_WWRG_S3	10% reduction in the Risk Grid (excluding baseline costs)	14.6	1.4
S_WWRG_S4	20% reduction in the Risk Grid (excluding baseline costs)	-19.2	0.8
S_WWRG_S5	30% reduction in the Risk Grid (excluding baseline costs)	-30.6	0.7
S_WWRG_S6	40% reduction in the Risk Grid (excluding baseline costs)	-187.5	0.3

Comparative information: This is an innovative measure that is bespoke to Wessex Water, no comparative data is available.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Index	n/a	n/a	n/a	n/a	50,651	51,509	51,125

Current performance:

Unit	2017-18
Index	49,796

Forecast performance:

Unit	2018-19	2019-20
Index	50,651	50,651

Rationale for initial service level: Set at the 2019-20 target level.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Index	50,651	50,651	50,651	50,651	50,651

Maximum level attainable:

Unit	Max. level attainable
Index	0

This is not applicable because intense rainfall can occur anywhere and flooding will occur regardless of the capacity of infrastructure. For example properties (or basements) being located in inappropriate locations.

Expert knowledge: The total risk is dynamic as points will be added to the total risk score through flooding incidents as well as being removed through the flooding programme, as shown in table below.

	2014-15	2015-16	2016-17	2017-18+	Total
Total Risk Score	50,651	51,509	51,125	49,990	
Risk points removed through flooding programme		986	2,468	2,022	5,476
Internal outputs*		18	62	62	160
External outputs*		33	55	25	136
Total number of outputs		51	117	87	296
Risk points added through incidents	3,266	2,031	2,153	1,016	8,466

*Note: Output equals any reduction of risk not removal of risk to a particular standard

+Note: Subject to APR audit and review

Thus on average approximately 2,100 risk points are added each year. Our programme will hold the risk score at a stable value, in the face of additions each year and the pressures of urbanisation and climate change.

This is a bespoke performance commitment which is the PR14 performance commitment 'Risk of flooding from public sewers due to hydraulic inadequacy' renamed.

6.4 Performance commitment: F4 North Bristol Sewer Scheme – Trym catchment

6.4.1 Introduction

Why are we looking at this? The North Bristol Sewerage Strategy was agreed at PR14 final determination. It included two phases. The first phase, the Frome Valley scheme, will be delivered by 2019. The second phase, the additional capacity for the Trym catchment, will be delivered in 2022/23.

This PC covers completion of the second part of the North Bristol sewerage strategy, which comprises the construction of the Trym relief sewer.

We have not talked to customers specifically about this scheme – just about the service improvements it will deliver in terms of sewer flooding and pollution incidents.

Through this work customers were engaged in defining the priority of the North Bristol overlap programme as a whole. This is a bespoke performance commitment completing the North Bristol Strategy from PR14. By the time of submission we will have commitment by contract to the delivery of the remainder of this project.

Definition of performance measure: Delivery of additional capacity for the Trym catchment by 2022/23 in line with the agreed North Bristol Sewerage strategy.

Customer friendly definition: Delivering one of our major projects – a big new sewer in the north of Bristol.

Customer research:

- Wide ranging support from stakeholders at PR14 for the project that crosses into PR19.

6.4.2 Detailed definition

<u>Information relating to the bespoke performance commitment</u>

We have a 2015-20 performance commitment for the North Bristol Sewerage Strategy that includes a milestone to ensure we have achieved sufficient progress on the design, consultation and construction of the Trym scheme by 2018, such that it can be completed by 2023.

The North Bristol sewerage strategy is an integrated strategy providing multiple benefits including provision of foul sewerage capacity for new development to the north of Bristol, reducing sewer flooding in the Blaise Castle area, minimising the risk of pollution in the Frome and Trym river valleys and reducing spill frequency at CSOs. Thus the strategy meets several of the expectations set out in WISER: reducing sewer flooding, reducing pollutions and providing effective drainage.

We have engaged with customers (specifically campaign groups in Frome). Through this

work, customers were engaged in defining the priority of the North Bristol overlap programme as a whole.

We delivered the PR14 Trym milestone and have awarded the contract for the detail design and construction by 2023.

Full definition of the bespoke performance commitment

The Trym relief sewer will transfer flows from the existing Frome Valley sewer at the Bristol Golf Club, Almondsbury and discharge into the Bristol trunk sewer at Saltmarsh Drive, Avonmouth. It will also accept flows from the existing sewerage network via six intermediate connections at Cribbs Causeway, Filton Airfield and two areas of Henbury.

The proposed sewer will be a deep tunnel providing 30,000m^3 of storm storage, mobilised through the use of automatic level controlled penstocks. It is designed to ensure no deterioration in the performance of existing overflows, significantly reduce flooding and pollution risks and allow for future growth and climate change.

The performance commitment will be considered met when the following works have been completed:

- 5km of 2.5m diameter sewer or larger
- Four flow control penstocks, with instrumentation to enable 'real time control'

Our technical auditor (Mott MacDonald) has been engaged on progress to date to ensure there is clear understanding of what progress is required for delivery. A letter confirming we met the 2018 milestone is provided in Appendix 8.5.A. This Appendix also contains letters of support from the Council and the Environment Agency. The Trym scheme is currently under construction.

6.4.3 Proposed level and outcome delivery incentive

Incentive type: Underperformance payment only

Rationale for incentive type: This performance commitment has an underperformance ODI only as it covers the non-delivery of the North Bristol Sewer Scheme so there is no ability for outperformance.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC				Scheme delivered		

Rationale for level: Continuation of 2015-20 target.
Rationale for PC profile: Scheme specific PC so this does not apply.

The exact nature of the target is under review as the project will be subject to contract conditions that are currently being finalised.

	2045
Long-term ambition	n/a

Rationale for 2025-2045 forecast: Not applicable as this is a scheme specific performance commitment.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10					Scheme delivered	
P90			Scheme delivered			

Rationale for P10: Delivering the scheme one year late.
Rationale for P90: Delivering the scheme one year early

Incentive rates

Incentive type	Incentive Rate (£)
Underperformance (delay)	1,000,000/year delay
Underperformance (non-delivery)	27,500,000

Rationale for incentive rate for delay: Set at half of the value of the annualised benefits that society has not received from the completion of the North Bristol strategy.
Rationale for incentive rate for non-delivery: 50% of net scheme benefit as per Ofwat's methodology

The underperformance payment for delay will increase relative to the length of the delay.

Additional details

Necessary detail on measurement units	Scheme delivered/ Scheme delayed/ Scheme not delivered
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	A milestone for the Trym catchment was introduced in 2017/18 from PR14 which requires the company to demonstrate, in line with its delivery plan, that the design, consultation and construction of the Trym scheme has been progressed. This was met.

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✗	✗	✗	✓	✓

Summary of challenge: We will be completing our North Bristol Sewerage strategy in PR19. We propose a scheme specific performance commitment for the second part of the strategy which has commenced in PR14 but will not complete until PR19 as part of the overlap programme. There are the following elements to this measure:

- A target completion date which continues from PR14 for the full North Bristol strategy to be completed by the end of 2022/23.
- A graduated revenue underperformance payment if the scheme is delayed in its completion
- At the end of the PR19 period there will be an RCV underperformance payment in the unlikely event that the scheme does not get completed at all.

These risks are small as the contract has been awarded and initial construction has commenced. The overall project is cost beneficial.

6.4.4 Supporting information for the six challenge process

CBA: CBA was undertaken to determine if the scheme was still cost-beneficial based on recent customer WTP data. The analysis confirms the scheme is still cost-beneficial.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
SD_NBS_S1	North Bristol Sewerage	✓	17.9	1.4

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available

Historical information: not applicable

Rationale for initial service level: Scheme specific PC so this does not apply.

Minimum improvement: not applicable

Maximum level attainable:

Unit	Max. level attainable
n/a	Scheme delivered

As this performance commitment is a binary measure, the maximum level attainable would be to deliver the scheme.

Expert knowledge: The Trym sewer is the second phase of an integrated sewerage strategy for North Bristol agreed with Ofwat at PR14. The scheme supports development and regeneration in north Bristol, improves the performance of overflows and reduces flooding. We have started construction of this scheme as agreed in PR14 see cost adjustment claim WSX01 North Bristol Trym in Appendix 8.5.A.

6.5 Customer response: Minimise sewer flooding

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'minimise sewer flooding':

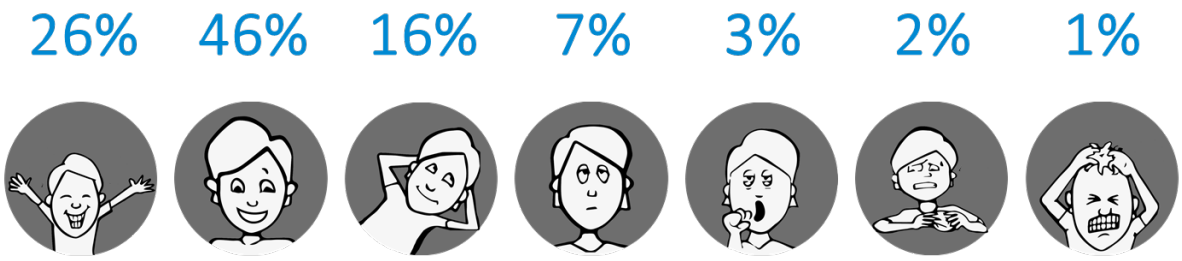
Household Customer Reactions (Engagement Events)

- ✓ Pleased to see Wessex Water know how important it is to address this but also felt it is important customers 'do their bit' to help
- ✓ Felt that if more people were educated about what not to put in the system, the number of sewer blockages would decrease
- ? Felt that it will be hard to change customer behaviour while many manufacturers market their products as 'flushable' (e.g. wet wipes)
- ? Some admitted they flush wet wipes so will be personally challenged

Stakeholder Reactions

- ✓ Stakeholders agree that a partnership approach is important to deal with sewer flooding
- ✓ They also like the idea of working with developers (although some feel this is easier said than done)
- ✓ While a severe problem when it happens, some felt that sewer flooding is uncommon and so less of a priority than other issues
- ? Retailers would also like to see comms included in the plans, although they acknowledge that responsibility can be ambiguous

Following feedback from phase one, no adjustments were made to the performance commitments in 'minimise sewer flooding' but the overall bill impact was adjusted to account for changes elsewhere in the plan. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'minimise sewer flooding', they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O.

7. Outcome: Resilient services

High quality, reliable and secure services to customers and the environment in the face of acute shocks and gradual stresses.

Strategic action points:

We will institute an annual assessment of our resilience in relation to our business, assets, services and the wider environment.

We will set targets to ensure that objectives and working practices are aligned, and make sure we learn from events.

We will also:

- actively promote and assist changes in customer behaviour that can add resilience to our services and to the environment
- develop our risk management processes to facilitate targeted investment in the areas at greatest risk now and in the future
- engage with our customers to understand their resilience priorities and target our investment to meet them
- invest in up-to-date cyber security systems
- improve incentives for developers to build in greater resilience at a local level
- work with flood risk authorities to share data and plans, and protect our assets from flooding
- ensure that our future water resources plans have adequate headroom and allowances for population growth and climate change
- form partnerships with neighbouring companies and other organisations which have an impact on our water catchments, to build resilience into our services and to the eco-systems that provide our resources

Origin of performance commitments

Resilient services
Water supply interruptions
Risk of severe restrictions in a drought
Risk of sewer flooding in a storm
Asset health: water mains bursts
Asset health: unplanned outage
Asset health: sewer collapses
Restrictions on water use (hosepipe bans)

Origin
Common measure stipulated by Ofwat
Mandatory measure stipulated by Ofwat
Existing measure
Measure from Ofwats list e.g. asset health or example metrics
Optional bespoke measure

7.1 Performance commitment: R1 Water supply interruptions

7.1.1 Introduction

Why are we looking at this? This is one of 14 common measures outlined by Ofwat with a cross company target. We have talked to our customers about this in all our quantitative work and undertaken detailed studies to work out the impact that going without water has on our customers.

Definition of performance measure: Number of minutes lost per property with supply interruptions greater than three hours including planned, unplanned and third party interruptions.

Customer friendly definition: Minimising interruptions to customers water supply

Customer research:

- SDS research – majority of people thought reducing supply interruptions was important.
- Business plan game – low WTP valuations.
- Maxdiff – low WTP valuations & low ranking of importance except those over 12 hours.
- WTP sliders – low WTP valuations.
- Conjoint analysis – low WTP valuations
- Operational data – much less important that sewer flooding.
- Post-event surveys – low valuation per incident.

7.1.2 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments

Rationale for incentive type: As evidenced by customer research, and ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Min/prop	00:04:17	00:03:58	00:03:40	00:03:22	00:03:00

Rationale for level: Industry forecast upper quartile.
Rationale for PC profile: 2024-25 target set at forecast industry upper quartile.

	2045
Long-term ambition	00:00:00

Rationale for 2025-2045 forecast: We have set a very challenging profile to achieve zero minutes lost by 2035.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Min/prop	00:09:30	00:09:00	00:08:30	00:08:30	00:08:30
P90	Min/prop	00:04:17	00:03:58	00:03:40	00:03:22	00:03:00

Rationale for P10: Expert knowledge
Rationale for P90: Forecast upper quartile and PC target

Incentive rates

Incentive type	Incentive Rate (£/min per property)
Outperformance	69,000
Underperformance	39,000

Rationale for incentive rate: The outperformance payment is based on the Ofwat standard calculation. However, the underperformance payment can not be calculated using the standard methodology as to achieve the required industry upper quartile performance the investment is not cost-beneficial. To ensure that customers are protected we have set the incentive rate at he maximum of the annualised marginal costs and the willingness to pay.

Enhanced incentive type	Level (min per property)	Enhanced incentive rate (£/min per property)
Outperformance	00:01:18	300,000
Underperformance	00:22:05	170,000

Rationale for enhanced outperformance level: industry frontier based on the average of each company's 'shadow reporting' performance in 2016-17 and 2017-18
Rationale for enhanced underperformance level: industry lower quartile based on the average of each company's 'shadow reporting' performance in 2016-17 and 2017-18

Additional details

Necessary detail on measurement units	Minutes per property
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✓	✓	✓	✓	✓

Summary of challenge: The target has been based on the forecast upper quartile performance based on comparative information, resulting in a more than 75% improvement by 2025.

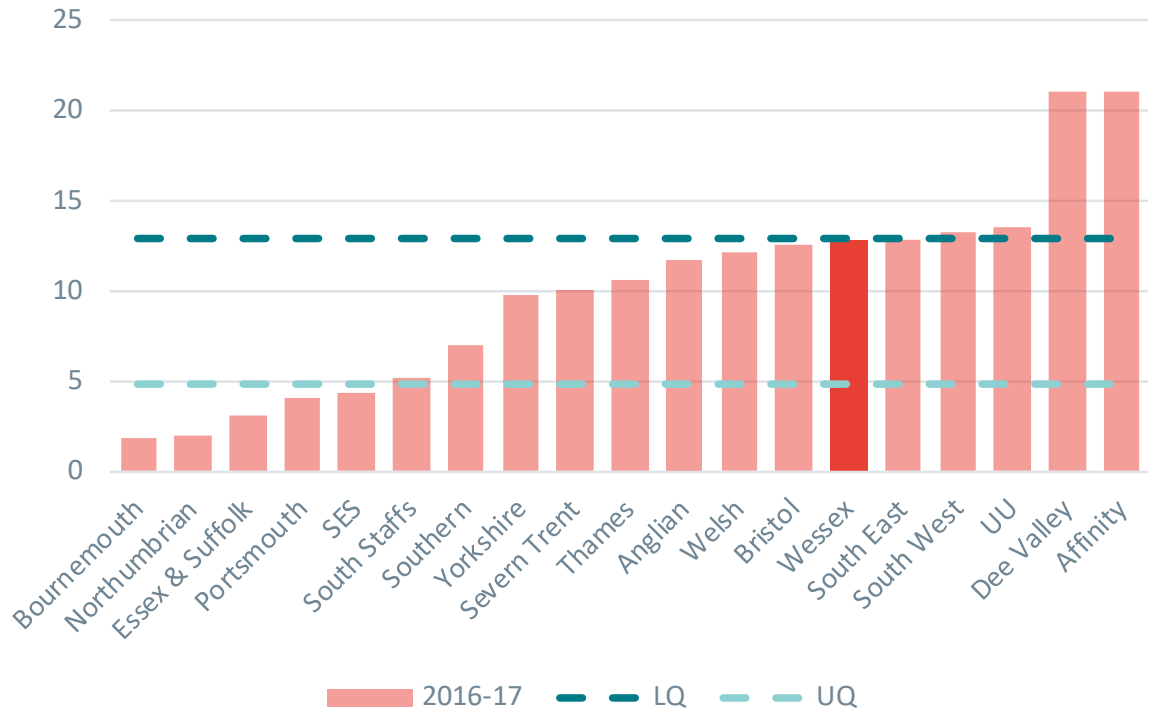
It is significantly more stretching than our historical performance and the minimum improvement. CBA suggests that a target of 4 minutes on average is cost beneficial to all customers but our research shows that non-household customers value a reduction in interruptions c.10 times more than household customers. As such, we have made a trade-off on the overall CBA to ensure that our non-household customers get as close as possible to the maximum level attainable that they would like to experience.

7.1.3 Supporting information for the six challenge process

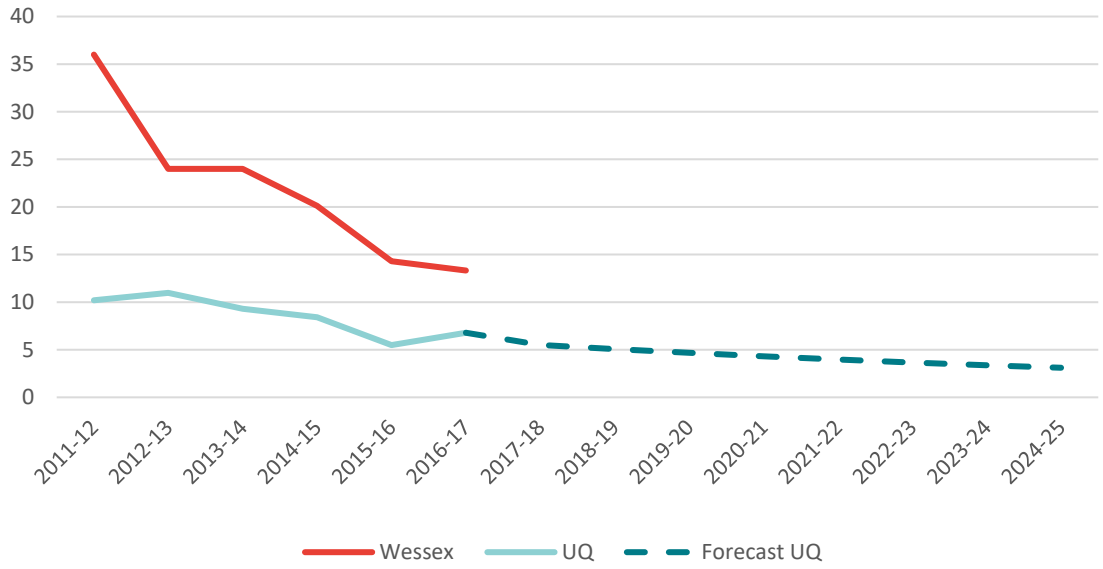
CBA: CBA assessed a range of service levels to reduce supply interruptions from the baseline. The outputs indicate that reductions down to 00:04:00 minutes on average are cost-beneficial. The chosen CBA scheme service level is 00:03:30 minutes on average which aligns closely to our chosen performance commitment of 00:03:07. This is a stretching target in order to achieve upper quartile performance.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
R_SI_S1	Do nothing	×		
R_SI_S2	Do less (12 minutes)	×		
R_SI_S3	Maintain Baseline	×		
R_SI_S4	Reduce Baseline (00:07:05 minutes on average)	✓	36.08	15.02
R_SI_S5	Reduce Baseline (00:05:45 minutes on average)	✓	33.37	3.66
R_SI_S6	Reduce Baseline (00:04:45 minutes on average)	✓	25.65	2.12
R_SI_S7	Reduce Baseline (00:04:15 minutes on average)	✓	17.45	1.54
R_SI_S8	Reduce Baseline (00:04:00 minutes on average)	✓	10.67	1.27
R_SI_S9	Reduce Baseline (00:03:40 minutes on average)	✓	-0.84	0.98
R_SI_S10	Reduce Baseline (00:03:30 minutes on average)	✓	-18.35	0.74

Comparative information:



Source: Discover Water (2016/17)



Source: Discover Water (2011-12 – 2015-16) and industry data share (2016-17)

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Min/prop	00:49:18	00:35:54	00:25:48	00:26:48	00:20:42	00:14:18	00:13:19

Current performance:

Unit	2017-18
Min/prop	00:12:34

Forecast performance:

Unit	2018-19	2019-20
Min/prop	00:12:20	00:12:20

Rationale for initial service level: The initial service level is set at the 2015-20 target.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Min/prop	00:09:14	00:08:20	00:07:30	00:06:45	00:06:04

R^2= 0.86

Maximum level attainable:

Unit	Max. level attainable
No.	00:00:00

It is not currently cost/beneficial to target the maximum level attainable.

Expert knowledge: The target has been set following the Ofwat methodology at our estimate of individual year Industry upper quartile performance.

7.2 Performance commitment: R2 Risk of severe restrictions in a drought

7.2.1 Introduction

Why are we looking at this? This is a common performance commitment that is new for PR19. This is designed to measure the company's resilience to extreme drought events. We forecast that 0% of our population will experience severe supply restrictions in a 1-in-200 year drought.

Definition of performance measure: Percentage of the population the company serves, that would experience severe supply restrictions (e.g. standpipes or rota cuts) in a 1-in-200 year drought.

Customer friendly definition: Ensuring that people don't experience severe water supply restrictions (e.g. standpipes) in extreme droughts.

Customer research:

- Maxdiff – highest impact our supply business could have on customers, although low WTP due to extreme unlikeliness

7.2.2 Proposed level

Incentive type: Reputational only

Rationale for incentive type: ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	0	0	0	0	0

Rationale for level: Maximum level attainable.
Rationale for PC profile: Flat, set at the maximum level attainable.

	2045
Long-term ambition	0

Rationale for 2025-2045 forecast: To remain at the theoretical maximum attainable level.

Additional details

Necessary detail on measurement units	Percentage of population
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	n/a
Form of ODI	n/a
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✗	✗	✗	✓	✓

Summary of challenge: The target is based on our modelling and is set at the theoretical maximum attainable level of 0% risk.

7.2.3 Supporting information for the six challenge process

CBA: not applicable

Comparative information: not applicable

Historical information: not applicable

Rationale for initial service level: Set at the maximum level attainable.

Minimum improvement: not applicable

Maximum level attainable:

Unit	Max. level attainable
%	0

Expert knowledge: We have not had the need to implement a hosepipe ban for more than 40 years. Modelling undertaken for our Drought Plan and Water Resources Management Plan has shown that our services are resilient to a repeat of any of the drought events that have occurred in the last one hundred years without the need to restrict customer's water use. Therefore we would not expect to impose temporary use restrictions (hosepipe bans) more than once every 100 years on average.

We have good weather records for the last 100 years and we have used these to estimate the magnitude of more severe droughts that might happen once only every two hundred years. Our modelling and assessment using the methodology specified indicates customers would not face the risk of stand pipes or rota cuts during such events.

7.3 Performance commitment: R3 Risk of sewer flooding in a storm

7.3.1 Introduction

Why are we looking at this? This is a common performance commitment that is new for PR19. Hydraulic model predictions will be used where they exist with engineering judgement needed elsewhere - especially regarding surface water flood risk.

Definition of performance measure: Percentage of population at risk of sewer flooding in a 1-in-50 year storm.

Customer friendly definition: Ensuring people do not get flooded by sewage in serious storms.

Customer research:

- No specific research – see other flooding measures for details

7.3.2 Proposed level

Incentive type: Reputational only

Rationale for incentive type: ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	8.37	8.37	8.37	8.37	8.37

Rationale for PC level and profile: Maintain stable risk

The target will be re-baselined where there have been improvements in data quality but will not be rebased on actual performance in 19-20.

	2045
Long-term ambition	8.37

Rationale for 2025-2045 forecast: Maintain stable risk

Additional details

Necessary detail on measurement units	Percentage of population
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	n/a
Form of ODI	n/a
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✓ (partial)	✘	✓	✓

Summary of challenge: This is a new measure with no comparable information. More modelling will be required to improve the data. There is only one year of data and we propose to set the target at that level, the measure being flat for the PR19 period while the modelling and data improve, to provide a sound basis for the measure in PR24.

7.3.3 Supporting information for the six challenge process

CBA: not applicable

Comparative information: not applicable as information is not available

Historical performance: not applicable

Current performance:

Unit	2017-18
%	8.37

Forecast performance:

Unit	2018-19	2019-20
%	8.37	8.37

Minimum improvement: not applicable

Maximum level attainable:

Unit	Max. level attainable
Index	0

This is not applicable because intense rainfall can occur anywhere and flooding will occur regardless of the capacity of infrastructure. For example properties (or basements) being located in inappropriate locations.

Expert knowledge: This is a new metric. An initial assessment of the current performance has been made which is an appropriate level of risk to maintain.

7.4 Performance commitment: R4 Water mains bursts

7.4.1 Introduction

Why are we looking at this? This is a common performance commitment covering long term asset health of water distribution pipe network. We have also engaged with our customers on this through our online game and conjoint analysis.

Definition of performance measure: Number of mains bursts/repairs on water mains per year (water mains only - excludes service pipes).

Customer friendly definition: How often our water mains burst.

Customer research: *Crossover with interruptions and leakage*

- Business plan game – pipe bursts received one of the highest customer valuations.
- Conjoint – customer WTP of £0.69 to reduce bursts by 10%.

7.4.2 Proposed level and outcome delivery incentives

Incentive type: Underperformance only

Rationale for incentive type: ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No./ 1,000 km	<165	<164	<164	<163	<163

Rationale for level: Stable asset health
Rationale for PC profile: The target is set to maintain stable asset health with each years figures adjusted to reflect the forecast mains length.

	2045
Long-term ambition	<163

Rationale for 2025-2045 forecast: To maintain stable asset health in the long term.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No./1,000km	174	173	173	172	171
P90	No./1,000km	138	137	137	136	136

Rationale for P10: PC target plus 10%
Rationale for P90: Best historical performance (2015-16)

Incentive rates

Incentive type	Incentive Rate (£/bursts per 1,000km)
Underperformance (in AMP)	89,000

The underperformance payment equates to £7,500 per burst.
Rationale for incentive rate: Incentive rate is based on the unit cost only.

Incentive type	Level (bursts per 1,000km)					Enhanced Incentive Rate (£/bursts per 1,000km)
	2020-21	2021-22	2022-23	2023-24	2024-25	
Underperformance (in AMP)	165	164	164	163	163	380,000

The enhanced underperformance payment equates to £32,000 per burst.
Rationale for enhanced underperformance payment: Exceedance of stable asset health
Rationale for incentive rate: Incentive rate is based on the unit cost only * 4.3 (enhanced incentive rate multiplier).

Additional details

Necessary detail on measurement units	Number of bursts per 1,000km mains
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✓	✓	✓	✓	✓

Summary of challenge: We have not used CBA as this PC covers a very complex area and the costs associated are convoluted. However, we would expect this target to be beyond the cost-beneficial level.

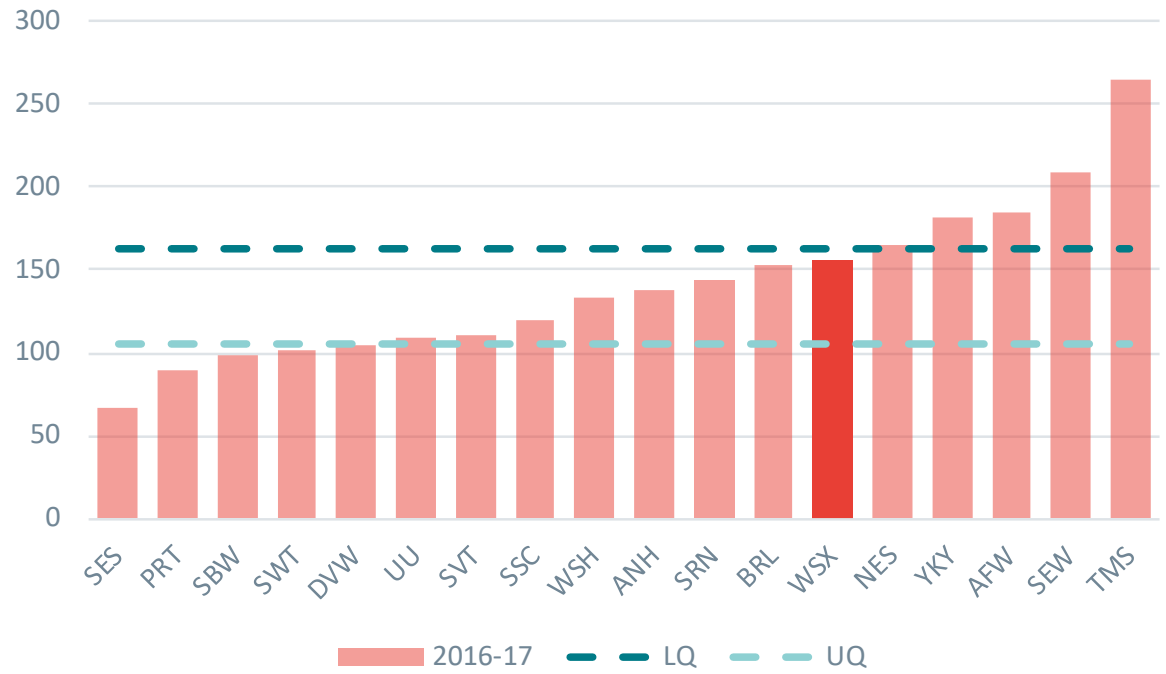
We propose to set the target at the PR14 target level which maintains asset health at our historical level, aligned with the minimum improvement. Maintaining asset health is a challenging target as we need to counter the impact of the leakage target which would otherwise increase the mains bursts.

7.4.3 Supporting information for the six challenge process

CBA: not applicable

The target is above the cost-beneficial level and goes beyond customers willingness to pay.

Comparative information:



Source: Discover Water (2016/17)

Whilst this data is available, it is not appropriate to use.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No./1000 km	164	151	145	153	162	141	157

Current performance:

Unit	2017-18
No.	161

Forecast performance:

Unit	2018-19	2019-20
No.	<165	<165

Rationale for initial service level: Set at the 2017-18 performance adjusted for the forecast length of mains.

Minimum improvement: The minimum improvement is to maintain our mains burst at the 2015-20 target which is <1993 bursts. This is the basis on which the performance commitment has been set.

Maximum level attainable:

Unit	Max. level attainable
No.	0

It is not currently cost/beneficial to target the maximum level attainable.

Expert knowledge: The target is to maintain stable asset health, i.e. maintain the existing PR14 underperformance only level of < 1993 repairs per annum for PR19. As leakage is driven down to lower levels we would expect the total number of mains bursts to increase. The common definition for mains bursts includes detected leaks on company mains. To account for an increased level of bursts as a consequence of lower future leakage levels it could be argued that the < 1993 bursts per year target should be revised upwards to account for this. We have set the performance commitment level for the whole five year period based on the < 1993 bursts per year expressed as per 1000km year as shown below.

The target is to maintain stable asset health. The above represents a challenging target given the increased level of Active Leakage Control (ALC) activity and hence mains bursts required to achieve our 15% leakage reduction target. Analysis has clearly shown that to reduce the number of bursts per year would require many years of widescale mains replacement which would be hugely disruptive and unaffordable.

Following our initial submission of the business plan, we have commissioned an independent industry leading leakage and asset management consultant (RPS) to review the data on the relationship between mains bursts and leakage reduction. Their report, which is included as Appendix 14 of our response to the IAP, provides compelling evidence that increased active leakage control to achieve a 15% reduction in leakage will significantly increase the number of mains bursts.

Hence, against the background of an upward pressure on the number of mains bursts due to increased active leakage control, our proposal for slight reduction in the mains bursts target over the five years is stretching.

7.5 Performance commitment: R5 Unplanned outage

7.5.1 Introduction

Why are we looking at this? This is a common performance commitment that is intended to be a measure of asset health. The measure aims to show the extent to which unplanned events lead to a reduction in the maximum sustainable production capacity of a company and the length of time and impact of those events.

Definition of performance measure: Annualised unavailable output, based on the peak week production capacity (or PWPC).

Customer friendly definition: How often our water treatment works have to be taken out of service unexpectedly.

Customer research:

- No specific research – Ofwat mandated PC

7.5.2 Proposed level and outcome delivery incentives

Incentive type: Underperformance only

Rationale for incentive type: ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	<2.34	<2.34	<2.34	<2.34	<2.34

Rationale for level: Stable asset health shown by no change from worst historical performance.
Rationale for PC profile: This is a new measure and the target is based on maintaining stable asset health.

The target will be re-baselined where there have been improvements in data quality but will not be rebased on actual performance in 19-20.

	2045
Long-term ambition	<2.34

Rationale for 2025-2045 forecast: To maintain stable asset health in the long term.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	%	2.34	2.34	2.34	2.34	2.34
P90	%	0.57	0.57	0.57	0.57	0.57

Rationale for P10: Worst historical performance since 2008

Rationale for P90: Best historical performance since 2008

Incentive rates

Incentive type	Incentive Rate (£/%)
Underperformance	1,200

Rationale for incentive rate: As outlined in our DWRMP the level of unplanned outages we are targeting, and indeed up to the enhanced underperformance payment rate level, will have no impact on our ability to provide reliable services to our customers. It may however mean we cannot supply our customers in the most efficient manner; in light of this we are proposing an underperformance payment rate to ensure that customers do not end up paying for any inefficiency caused by higher levels of unplanned outages. We have calculated this based on the short run marginal costs of water treatment, taking the difference between our cheapest and most expensive source, so as to ensure that any alternative set up is properly covered by this incentive rate

Incentive type	Level (%)	Enhanced Incentive Rate (£/%)
Enhanced underperformance	2.34	5,200

Rationale for enhanced underperformance payment level: Exceedance of stable asset health

Additional details

Necessary detail on measurement units	Percentage of production capacity
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
The revenue portion of the outperformance or underperformance payments will be received in period. The adjustment to the RCV will happen at the end of the price control period.
Rationale for RCV or revenue: This measure ensures that we manage our assets for the long-term benefit of customers over several generations. To reflect this we are proposing both a revenue and an RCV incentive. The in-year revenue adjustment is calculated using the standard Ofwat calculation. However, if our average performance by the end of the AMP falls below the target it may represent a significant deterioration in our assets. In order to protect customers from this theoretical situation we are proposing and end of AMP RCV adjustment to continually refund customers for this underinvestment.

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✗	✓	✗	✓	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area, that is not the final outcome for customers – we have therefore not sought WTP information from customers. It is also not a PC that other companies report consistently yet so comparative information is not available.

Having completed the implementation of the water supply grid, we have significant resilience in our system, meaning it would be unlikely that an unplanned outage event would result in any impact to our customers. Our approach to this target is to continue to deliver industry leading service to customers while maintaining stable asset health. This then allows us to prioritise our response to unplanned events in the way that we do by maintaining service at lowest cost in order to allow management flexibility. From the limited historical data available, the worst performance still did not affect the services provided to our customers. In fact, the performance would have to be approximately twice as bad for customers to start to be affected. We have set the target at the worst historical performance as it is a conservative view of the stable asset health that can be maintained while preserving service to customers.

7.5.3 Supporting information for the six challenge process

CBA: not applicable

Comparative information: not applicable

Historical information:

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
%	1.43	2.34	1.77	1.34	2.12	0.84	0.57

Current performance:

Unit	2017-18
%	0.64

Forecast performance:

Unit	2018-19	2019-20
%	<2.34	<2.34

Rationale for initial service level: This is a new measure and the target is based on maintaining stable asset health. The target is set at the worst historical performance.

Minimum improvement: not applicable

Maximum level attainable:

Unit	Max. level attainable
%	0

It is not currently cost/beneficial to target the maximum level attainable.

Expert knowledge: We have a very resilient supply system, a supply demand balance surplus and the vast majority of our customers can be supplied by more than once source of water. Therefore, it is unlikely that an unplanned outage event would result in any impact to our customers. Because of this resilience, we are able to prioritise how and when best to respond to unplanned outage events to ensure the efficient and effective management of our supply network. For example, we will often leave sites off overnight if they fail where we have sufficient storage in our network to cope with out them for a period of time, thus allowing us to minimise standby hours. Our aim in setting our target for this performance commitment is to ensure that we maintain stable serviceability for our customers and are able to continue to prioritise our response to unplanned events in the way we do currently (we do not want to create a perverse incentive).

We have reviewed our unplanned outage records for the past 10 years to understand any trends or underlying reasons for outage. We have removed from this analysis any outages that occurred at sites that have since been abandoned or mothballed. For the unplanned outages there is no apparent trend in the data; the highest percentage of outage we experienced over the past 10 years was in 2011/12 (2.34%) and this is for a variety of reasons which include the impact of power outages at some of our sites. We are not aware of this level of outage causing any adverse impact to our customers and it is within the limits we plan for. On this basis, we have set our target at maintaining our unplanned outage at a level below the worst experienced over the past 10 years (<2.34%).

7.6 Performance commitment: R6 Sewer collapses

7.6.1 Introduction

Why are we looking at this? This is a common performance commitment covering long term asset health. This has a new common definition. It includes sewers collapses and burst rising mains causing an impact on service to customers or the environment. It excludes proactively discovered collapses. The new definition closely follows our current reporting methodology. We have engaged with our customers on this through our online game.

Definition of performance measure: Number of sewer collapses per thousand kilometres of all sewers causing an impact on service to customers or the environment.

Customer friendly definition: How often we have to repair a sewer because it has collapsed.

Customer research:

- No specific research – Ofwat mandated PC

7.6.2 Proposed level and outcome delivery incentives

Incentive type: Underperformance only

Rationale for incentive type: ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	collapses/ 1,000 km	18.1	18.1	18.1	18.1	18.1

Rationale for level: Six year average of historical data to maintain stable asset health
Rationale for PC profile: Stable asset health each year

	2045
Long-term ambition	18.1

Rationale for 2025-2045 forecast: To maintain stable asset health in the long term.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	collapses/ 1,000 km	20.9	20.9	20.9	20.9	20.9
P90	collapses/ 1,000 km	15.3	15.3	15.3	15.3	15.3

Rationale for P10: Worst historical performance (2013-14)
Rationale for P90: Best historical performance (2016-17)

Incentive rates

Incentive type	Incentive Rate (£/collapse per 1,000km)
Underperformance (in AMP Revenue)	230,000

The underperformance payment equates to £6,600 per collapse.

Rationale for incentive rate: Incentive rate is based on the unit cost only.

Incentive type	Level (collapses/ 1,000 km)	Enhanced Incentive Rate (£/collapses/ 1,000 km)
Enhanced underperformance	18.1	990,000

The enhanced underperformance payment equates to £28,000 per collapse.
Rationale for enhanced underperformance level: Exceedance of stable asset health
Rationale for incentive rate: Incentive rate is based on the unit cost only * 4.3 (enhanced incentive rate multiplier).

Additional details

Necessary detail on measurement units	Sewer collapses per 1,000km of sewers
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✓	✓	✓	✓	✓

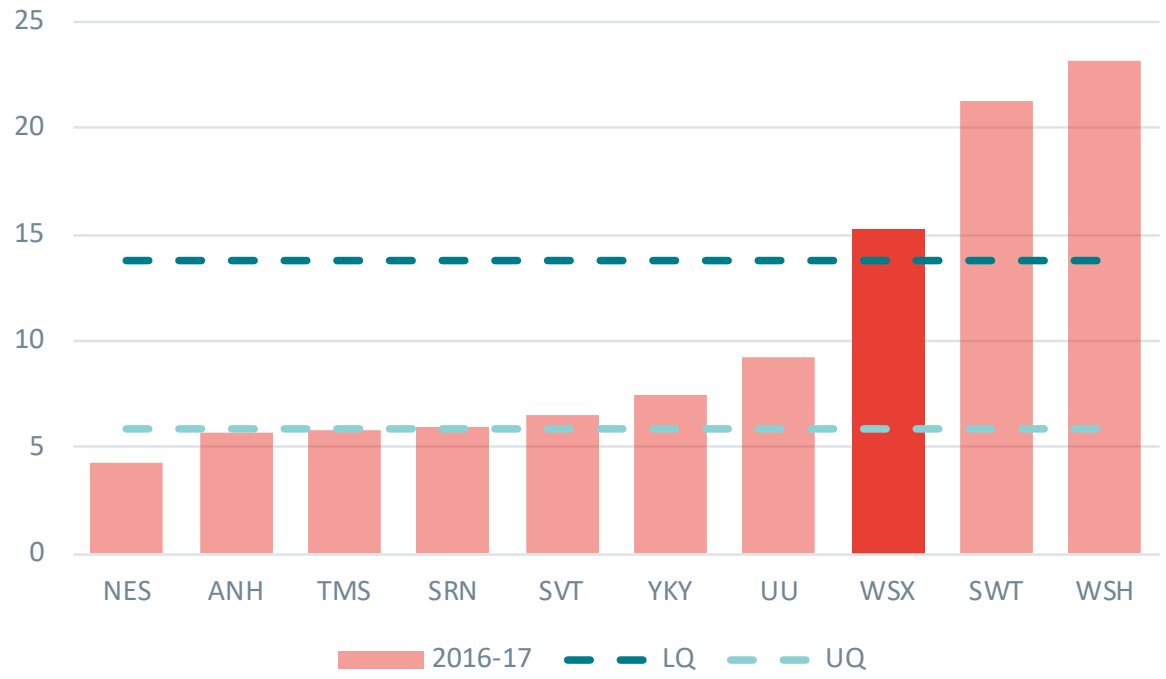
Summary of challenge: We have not used CBA as this PC covers a very complex area and the costs associated are convoluted. However, we would expect this target to be beyond the cost-beneficial level.

We have set the target at the six year average. This is a challenging target as we will be keeping an ageing asset base in a stable condition.

7.6.3 Supporting information for the six challenge process

CBA: not applicable

Comparative information:



Source: Industry data share (2016-17)

Whilst this information is available, it is not appropriate to use as companies have used different definitions.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Per 10,000km/ sewer	n/a	n/a	19.9	20.9	19.3	18.4	15.3

Current performance:

Unit	2017-18
Per 10,000km/ sewer	14.8

Forecast performance:

Unit	2018-19	2019-20
Per 10,000km/ sewer	18.1	18.1

Rationale for initial service level: Six year average of historical data

Minimum improvement:

Unit	Minimum improvement
Per 10,000km/ sewer	20.9

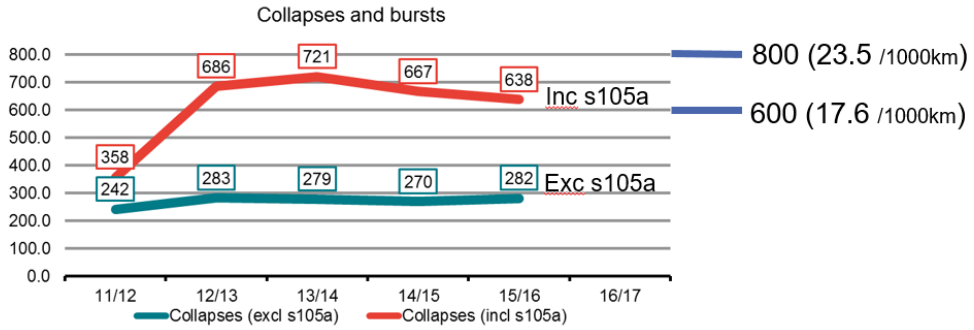
The minimum improvement would be to remain at our current worst performance.

Maximum level attainable:

Unit	Max. level attainable
Per 10,000km/ sewer	0

It is not currently cost/beneficial to target the maximum level attainable.

Expert knowledge: The proposed target equates to 630 bursts and collapses per year in the Wessex region. Historically we have set ourselves a target of 300, which excluded section105 a sewers. Now our asset stock has doubled (s105a transfer) we are experiencing more than double the number of incidents.



The sewer collection is the largest asset group with over 34,000 km of sewers. The asset group is reasonably low risk, with a long-life expectancy. However, our sewerage infrastructure assets are aging and there is increasing pressure to increase the rate of replacement to increase the rate of rehabilitation to match the depreciation of these assets. National research highlighted that the current rate of replacement needs to increase four-fold to fully address this. We are not proposing this step-up level of rehabilitation in the short term, but plan to ensure we are delivering the rehabilitation as efficiently as possible and use better network data to ensure the correct interventions are made. Then to gradually increase

rehabilitation rates over the medium and long term, once we have made these gains. Thus keeping a stable performance against an ageing asset base will be challenging.

Further information can be found in Appendix 9, Section 3.2.

7.7 Performance commitment: R7 Restrictions on water use (hosepipe bans)

7.7.1 Introduction

Why are we looking at this? We have engaged with our customers on hosepipe bans in our deliberative resilience study and then again in our quantitative studies (MaxDiff, Conjoint & online game), although it wasn't highlighted as an area for high investment in the deliberative study it was highlighted as a priority in the quantitative work.

This is a continuation of the PR14 bespoke performance commitment which reflects our commitment not to impose temporary water use bans on our customers during the PR19 period.

Definition of performance measure: The number of temporary use (hosepipe) bans imposed on customer to restrict their water use.

Customer friendly definition: Ensuring we don't have to enforce a hosepipe ban.

Customer research:

- Business plan game – relatively high WTP attached, c£3 to reduce likelihood of hosepipe ban
- Maxdiff – low ranking of impact and relatively low WTP
- Conjoint Analysis – very low WTP valuation

7.7.2 Detailed definition

Information relating to the bespoke performance commitment

Modelling for our Drought Plan and Water Resources Management Plan has shown that our services are resilient to a repeat of any of the drought events experienced in the last 100 years without the need to ask our customers to restrict their water use. Therefore we would not expect to impose temporary use restrictions (hosepipe bans) more than once every 100 years on average. Similarly we would not expect to impose non-essential use bans for commercial customers more than once in every 150 years on average.

This level of drought resilience is amongst the highest for all water companies in the UK and research with customers suggest they find it acceptable.

In our Strategic Direction Statement research, 87% of customers thought that reliable services even in extreme weather was important; it is one of our customers' highest priorities. We subsequently engaged with our customers on hosepipe bans in our deliberative resilience study and then again in our quantitative studies (MaxDiff, Conjoint & online game); although it wasn't highlighted as an area for high investment in the deliberative study it was again highlighted as a customer priority in the quantitative work.

Full definition of the bespoke performance commitment

A temporary use (hosepipe) ban is defined as per the Flood and Water Management Act 2010, the Water Use (Temporary Bans) Order 2010 and the Drought Direction 2011.

We will meet this performance commitment in any year that we do not need to impose customer restrictions (a hosepipe ban). The underperformance payment will apply for any imposition of a temporary use ban that is a first step towards further restrictions resulting from severe dry weather. This includes non-essential use bans for non-household customers.

The underperformance payment is applicable for each individual temporary use ban that is imposed during the five-year period.

The underperformance payment will apply even if we experience extreme dry weather that is worse than our 1 in 100 stated level of service (equivalent to the dry weather experienced in 1975/76).

This is a stretching performance commitment and reflects our commitment to providing resilient services for our customers, and our confidence in our ability to manage our water resources system to mitigate the risk and impact of extended periods of dry weather.

7.7.3 Proposed level and outcome delivery incentives

Incentive type: Underperformance payment only

Rationale for incentive type: We agree with our customers that we should not be having hosepipe bans and given our long-term track record in this area, we feel it is most appropriate to have underperformance payments only.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No.	0	0	0	0	0

Rationale for level: Maximum target attainable
Rationale for PC profile: Flat, set at the maximum target attainable.

	2045
Long-term ambition	0

Rationale for 2025-2045 forecast: To remain at the theoretical maximum attainable level.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No.	0	0	1	0	0
P90	No.	0	0	0	0	0

Rationale for P10: One hosepipe ban in the AMP
Rationale for P90: Maximum attainable, no hosepipe bans

Incentive rate

Incentive type	Incentive Rate (£/per ban)
Underperformance	160,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Additional details

Necessary detail on measurement units	Number of hosepipe bans
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

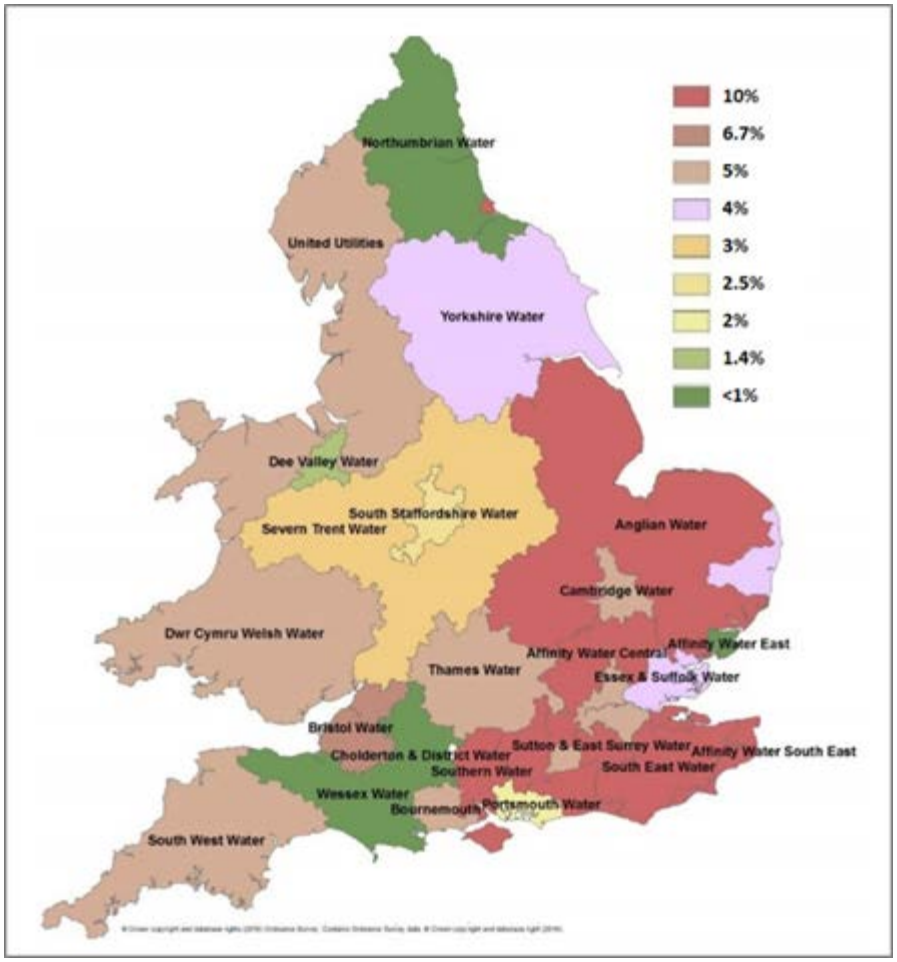
CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✓	✓	✓	✓	✓

Summary of challenge: The target is set at the theoretical maximum level attainable of zero restrictions. Our network is resilient following the implementation of the water supply grid and we do not expect to have a restriction on water use during the PR19 period but this is obviously dependent on the weather we experience so this is a stretching commitment.

7.7.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information:



Source: Long-term Water Resources Planning Framework, Water UK, 2016
This shows the percentage likelihood of customers experiencing a hosepipe ban in any given year. It indicates that we have an industry leading level of resilience to drought events.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No.	0	0	0	0	0	0	0

Current performance:

Unit	2017-18
No.	0

Forecast performance:

Unit	2018-19	2019-20
No.	0	0

Rationale for initial service level: Set at the maximum target attainable.

Minimum improvement:

Unit	Minimum improvement
No.	0

Maximum level attainable:

Unit	Max. level attainable
No.	0

We are targeting the maximum level attainable which is no hosepipe bans.

Expert knowledge: We have not had the need to implement a hosepipe ban for more than 40 years. Modelling undertaken for our Drought Plan and Water Resources Management Plan has shown that our services are resilient to a repeat of any of the drought events that have occurred in the last one hundred years without the need to restrict customer's water use. Therefore we would not expect to impose temporary use restrictions (hosepipe bans) more than once every 100 years on average.

Research with our customers indicates that they find this level of resilience and frequency of restrictions acceptable.

7.8 Customer response: Resilient services

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'resilient services':

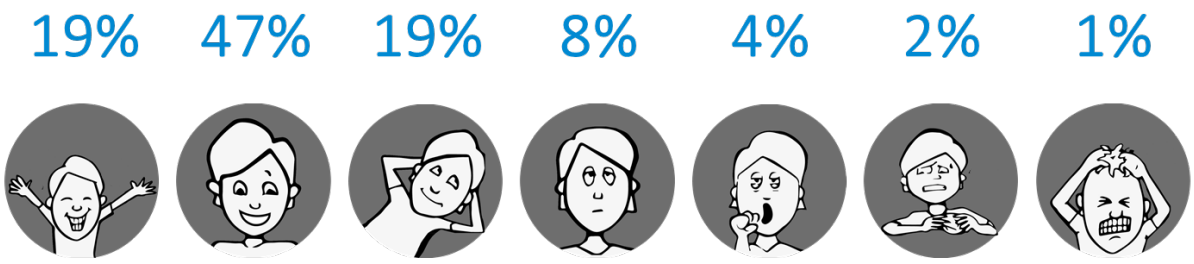
Household Customer Reactions (Engagement Events)

- ✓ Felt Wessex Water had considered and covered several important areas, although they tended not to experience them directly
- ✓ Pleased to see Wessex Water has enough water to cope with the region's needs for the next 25 years
- ? Some thought the commitments were too ambitious, in particular *having no planned interruptions lasting longer than 3 hours* and *no more than 50 customers a year to have a break in supply of more than 12 hours*. They would have liked to see an explanation of how Wessex Water plans to do this

Stakeholder Reactions

- ✓ Those more involved in the water industry understand robustness of long range resilience planning and broadly accept the argument
- ✓ Maintaining supply is key – especially for some vulnerable audiences and Non Household customers, and so commitments welcome
- ✓ Greater commitment to zero 3 hour plus planned breaks was appreciated as a strong, concrete commitment
- ✓ Cyber security stands out as unexpected – on balance a welcome addition
- ? However a minority felt that this was business-as-usual rather than a significant improvement (generally those with a background in the industry)

Following feedback from phase one, no adjustments were made to the performance commitments in 'resilient services' but the overall bill impact was adjusted to account for changes elsewhere in the plan. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'resilient services', they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O.

8. Outcome: Protecting and enhancing the environment

Watercourses in good condition, with our abstractions, discharges and runoff maintained within sustainable environmental levels. High standards of bathing water quality that all can enjoy. Achieving carbon neutrality in the long term and generating our own renewable energy.

Strategic action points:

- We will maintain watercourses in good condition, with our abstractions, discharges and runoff kept within sustainable environmental levels.
- We will favour an innovative, low carbon programme to improve the water environment with catchment management at its centre and much more integrated management of land and watercourses.
- We will help to improve river flow where needed and will work to improve the quality and ecology of rivers through investment in sewage treatment works, catchment management and control of pollutants at source.
- We will use data about our rivers to reduce spills from combined sewer overflows that are a risk to the environment, where the benefits to the environment and society outweigh the costs.
- We will continue to gain a greater understanding of the occurrence and impacts of a wider range of existing and emerging chemicals in sewage.
- We will continue to protect water sources through catchment initiatives and look for wider applications for improving watercourses and land use with novel methods such as nutrient trading.
- We will monitor our sewer overflows, invest to keep surface water and groundwater out of foul sewers to reduce the risk of spills from overflows, model river catchments and establish where best to act to reduce pollution risks, improve the efficacy of disinfection processes, work to raise awareness among beach users about how to keep beaches clean
- We will achieve carbon neutrality in the long term and generating our own renewable energy.

Origin of performance commitments

Protecting and enhancing the environment	Origin
Asset health: treatment works compliance	Common measure stipulated by Ofwat
Wastewater pollution incidents - category 1-3	Mandatory measure stipulated by Ofwat
Abstraction Incentive Mechanism (AIM)	Existing measure
Natural capital: improve SSSI sites	Measure from Ofwats list e.g. asset health or example metrics
Greenhouse gas emissions	Optional bespoke measure
Working with communities to improve bathing water experience	
Working with catchment partners to improve natural capital	
Satisfactory sludge disposal	
Reduce frequent spilling overflows (non-WINEP)	
Length of river with improved water quality through WINEP delivery	
Km of river improved (non-WINEP)	
Abstraction Incentive Mechanism (Stubhampton)	

8.1 Performance commitment: E1 Treatment works compliance

8.1.1 Introduction

Why are we looking at this? We have routinely seen environmental issues high on our customers list of priorities and although we have no direct customer engagement on discharge compliance it is a key driver of our ongoing environmental performance.

Discharge permit compliance measures progress against EA expectation to achieve 100 per cent compliance for all licences and permits, and reduced impact on the water environment. The detail behind the measure is given in Environment Agency Environmental Performance Assessment (EPA) Methodology v3

Definition of performance measure: Percentage of sewage treatments works and water treatment works that are compliant with their discharge permit as reported to the Environment Agency.

Customer friendly definition: Ensuring our treatment works return wastewater back to the environment meeting the allowed standards.

Customer research:

- No specific research – Ofwat mandated PC

8.1.2 Proposed level and outcome delivery incentives

Incentive type: Underperformance payment only

Rationale for incentive type: ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	100.0	100.0	100.0	100.0	100.0
Underperformance deadband	%	99.0	99.0	99.0	99.0	99.0

Rationale for level: Maximum level attainable
Rationale for PC profile: Consistent target of the maximum level attainable.

	2045
Long-term ambition	100.0

Rationale for 2025-2045 forecast: To remain at the theoretical maximum attainable level.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	%	98.7	98.7	98.7	98.7	98.7
P90	%	100.0	100.0	100.0	100.0	100.0

Rationale for P10: Four failing sites which is currently graded as 'amber' by the EA.
Rationale for P90: No failing sites

Incentive rates

Incentive type	Incentive Rate (£/%)
Underperformance	530,000

The underperformance payment equates to £170,000 per failing treatment works.
Rationale for incentive rate: Incentive rate is based on the unit cost only.

Enhanced incentive type	Level (%)	Enhanced incentive Rate (£/%)
Underperformance	97.7	2,300,000

The enhanced underperformance payment equates to £750,000 per failing treatment works.
Rationale for enhanced underperformance level: industry lower quartile based on the average of each company's performance in 2016 and 2017.

Additional details

Necessary detail on measurement units	Percentage of works that are compliant
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: As with all EA data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✓	✓	✓	✓	✓

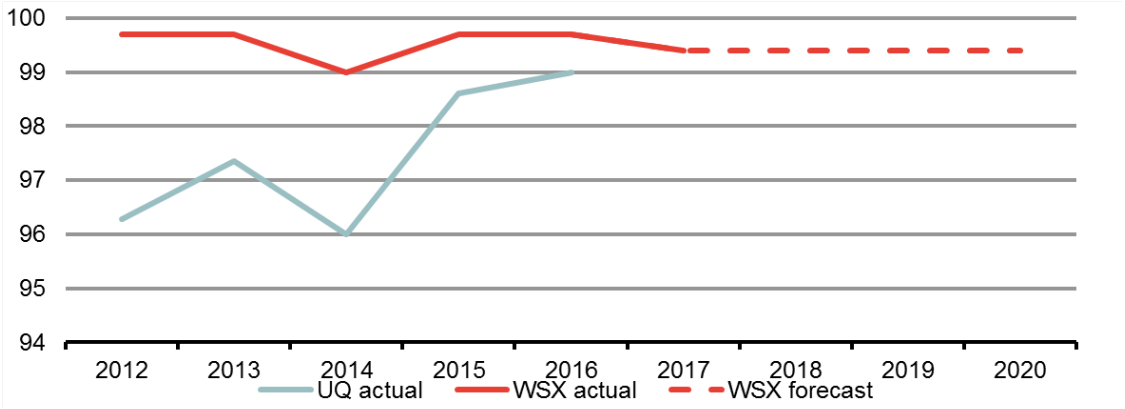
Summary of challenge: CBA is not appropriate as we are unable to estimate the incremental cost/benefit due to it being a flat target for four years. The target is set at the theoretical maximum level attainable for 2024-25, which is clearly a stretching target. Prior to that we have set the target at one failure, which is our best ever performance, our forecast upper quartile position and higher than the EA's industry leading performance level.

We are proposing an underperformance payment dead band set at the threshold for performance graded as 'green' for this measure in the EA's EPA measure. This maintains our commitment to delivering industry leading performance and is appropriate as we would not expect to receive underperformance payments when other companies are not and have not achieved our current performance level.

8.1.3 Supporting information for the six challenge process

CBA: This is not appropriate as we are unable to estimate the incremental cost/benefit due to it being a flat target for four years.

Comparative information:



Source: Environment Agency

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
%	98.7	99.4	99.7	99.0	99.7	99.7	99.4

Current performance:

Unit	2017-18
%	99.0

Forecast performance:

Unit	2018-19	2019-20
%	99.3	99.3

Rationale for initial service level: Set at two compliance failures which is the average of the last three years.

Minimum improvement:

Unit	Minimum improvement
%	99.4

When graphed there is low statistical significance between the data (historical and forecast). Above is the output of the graphed minimum improvement and it is also the average performance (historical and forecast).

Maximum level attainable:

Unit	Max. level attainable
%	100

Expert knowledge: We have 306 discharge Permits included in this measure at present. %-compliance is calculated using whole numbers of discharges. P10 was therefore set at 4; the minimum number of Permit failures that would fall below the ‘green’ threshold for this EPA measure. We do not expect further significant changes in the number of discharge Permits included unless the definition of this measure were modified. However, should the number of Permits drop below 297 then %-compliance, rounded to one decimal place, would fall below P10 with only 3 failed Permits.

8.2 Performance commitment: E2 Wastewater pollution incidents – category 1-3

8.2.1 Introduction

Why are we looking at this? This is one of 14 common measures outlined by Ofwat with a cross company target. It is a key measure of the adverse impact we have on the environment. In addition, it is also supported by our customer engagement through our conjoint analysis; although the exact definition of pollutions in this context is not the easiest to engage with customers on, we have routinely seen environmental issues high on our customers list of priorities.

The detail behind the measure is given in Environment Agency Environmental Performance Assessment (EPA) Methodology v3.

Definition of performance measure: Category 1-3 pollution incidents per 10,000km of wastewater network, as reported to the Environment Agency.

Customer friendly definition: Minimising events that pollute the water environment.

Customer research:

- Immersive resilience study - environmental resilience was highlighted as a key area for investment
- WTP sliders - second highest priority and WTP of £0.09 per incident.
- Conjoint Analysis – WTP of c.£0.15 per incident.

8.2.2 Proposed level and outcome delivery mechanism

Incentive type: Outperformance and underperformance payment

Rationale for incentive type: As evidenced by customer research, and ODI type prescribed by Ofwat as this is a common measure

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Incidents per 10,000 km of sewers	24.51	23.74	23.00	22.40	19.50

Rationale for level: Forecast industry upper quartile as calculated by Ofwat.
Rationale for PC profile: Forecast industry upper quartile.

	2045
Long-term ambition	0

Rationale for 2025-2045 forecast: We have set ourselves a challenging profile to remove all pollutions by 2045.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Incidents per 10,000 km of sewers	27	27	27	27	27
P90	Incidents per 10,000 km of sewers	13	13	13	13	13

Rationale for P10: Expert knowledge based on modelling
Rationale for P90: 25% from current frontier performance

Incentive rates

Incentive type	Incentive Rate (£/incident per 10,000km of sewers)
Outperformance	260,000
Underperformance	270,000

The underperformance payment equates to £77,000 per pollution.

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Enhanced incentive type	Level (incident per 10,000km of sewers)					Enhanced incentive Rate (£/incident per 10,000km)
	2020-21	2021-22	2022-23	2023-24	2024-25	
Outperformance	21	20	19	18	17	1,100,000
Underperformance	33	33	33	33	33	1,200,000

Rationale for enhanced outperformance payment level: industry frontier based on the average of each company's performance in 2016 and 2017
Rationale for enhanced underperformance payment level: industry lower quartile based on the average of each company's performance in 2016 and 2017

The enhanced underperformance payment equates to £340,000 per pollution.

Additional details

Necessary detail on measurement units	Incidents per 10,000 km of sewers
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: As with all EA data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✓	✓	✓	✓	✓	✓

Summary of challenge: The target of 25% reduction is set at the point where the investment is maximised and is still just cost beneficial. It continues to push the industry frontier. The most cost beneficial level would mean a target of 10% reduction.

This proposed target is challenging because we will be the frontier performer addressing the most complicated issues. It is a continued improvement on our historical performance.

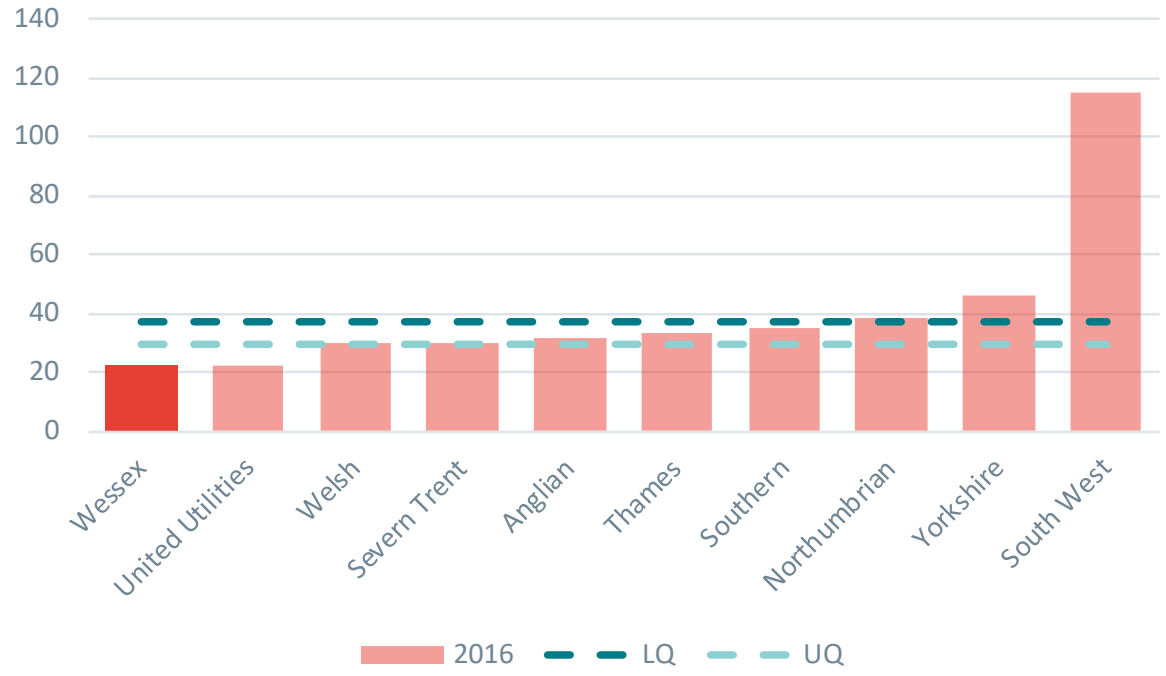
If, nationally, the water industry achieved our 2016 performance by 2025, this alone would bring about a 35% reduction in all water company pollution incident numbers. If all companies were to achieve our proposed 2025 target, this would achieve a 50% reduction.

8.2.3 Supporting information for the six challenge process

CBA: We chose the highest possible cost beneficial improvement for our pollutions reduction. There is also a large increase in the totex spend between the 25% and 40% reduction levels.

Scenario	Scenario Name	Selected for CBA	NPV- 60	BCR- 60
S_WWP_S1	Allow pollution incidents to increase	×		
S_WWP_S2	Maintain current baseline	×		
S_WWP_S3	5% reduction in pollution incidents	✓	3.6	1.75
S_WWP_S4	10% reduction in pollution incidents	✓	7.2	1.75
S_WWP_S5	15% reduction in pollution incidents	✓	5.7	1.38
S_WWP_S6	20% reduction in pollution incidents	✓	3.6	1.18
S_WWP_S7	25% reduction in pollution incidents	✓	0.2	1.01
S_WWP_S8	30% reduction in pollution incidents	✓	-6.4	0.81
S_WWP_S9	35% reduction in pollution incidents	✓	-10.8	0.75
S_WWP_S10	40% reduction in pollution incidents	✓	-17.6	0.65

Comparative information:



Source: Discover Water (2016/17).

Historical information:

Unit	2011	2012	2013	2014	2015	2016
Incidents per 10,000 km of sewers	n/a	n/a	25	23	25	22

Historical information is not directly comparable before and after 2013 due to a change in the classification of pollution incidents by the EA.

When the EA revised the '16_02' guidance issued in April 2012 for Water Co self-reported pollution incidents they stated "*This guidance is important as it sets the basis for information that will be reported in due course as the June Return to OFWAT. The revision has been primarily aimed at securing consistency across the sector. But in so doing the revision is expected to bring changes to the numbers and categories of incidents that are reported and recorded. The changes may affect each water company in different ways and to different extents.*"

Current performance:

Unit	2017-18
Incidents per 10,000 km of sewers	23

Forecast performance:

Unit	2018-19	2019-20
Incidents per 10,000 km of sewers	24	22

Rationale for initial service level: Set at upper quartile performance.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
Incidents per 10,000 km of sewers	22	22	22	21	21

R^2= 0.83

Maximum level attainable:

Unit	Max. level attainable
Incidents per 10,000 km of sewers	0

It is not cost-beneficial to target zero pollutions.

Expert knowledge: If nationally, the water industry were to meet Wessex Water's 2016 performance by 2025, this alone would bring about a 35% reduction in all water company pollution incident numbers. If all companies were to achieve Wessex Waters 2025 target of 17 incidents per 10,000 km of sewer by 2025, this would achieve a 50% reduction, and 20 incidents per 10,000 km of sewer would achieve the 40% reduction required by WISER.

There has been extensive discussion with the EA and the Wessex Water Partnership about our proposals for pollutions. Our latest position is summarised in section 5.6.1 of the main business narrative.

We consider that the basis for setting the targets for pollution incidents is consistent with the EA's response to Ofwat's PR19 methodology consultation. For completeness we attach a copy of the EA's response in Annex A. In particular their response included the following statement:

- Upper quartile performance should be seen as the industry benchmark and we would expect leading companies to be striving for frontier performance and beyond. W*e consider that this is the approach we have followed.*

8.3 Performance commitment: E3 Abstraction Incentive Mechanism (Mere)

8.3.1 Introduction

Why are we looking at this? This is a mandatory measure that encourages us to reduce abstraction at potentially environmentally sensitive sources during periods of low river flow where the impact is not certain enough to warrant abstraction licence changes. We have identified Mere as a suitable source to apply this measure.
This is a continuation of the innovative PR14 measure.

Definition of performance measure: The volume of water abstracted from the Mere source and exported from the catchment over the course of the year when river flows are low.

Customer friendly definition: Reducing the amount of water we take from environmentally sensitive sites.

Customer research:

- Local Engagement – We have spent significant time working with local interest groups to inform where there are concerns around our abstractions

8.3.2 Detailed definition

Information relating to the bespoke performance commitment

This measure encourages us to reduce abstraction at potentially environmentally sensitive sources during periods of low river flow, where the impact is not certain enough to warrant abstraction licence changes. To identify suitable sites for an AIM measure, we reviewed abstraction licences listed in the WINEP with the Environment Agency and also considered other abstraction licences where we have ongoing community engagement relating to abstraction. This process reconfirmed Mere as a suitable AIM site and identified Stubhampton as a potential candidate site for an AIM measure (see separate performance commitment details for further information).

We introduced an AIM performance commitment for Mere for the 2015-20 period. Since then we've reduced the volume of water abstracted to export from the local catchment by around 40% and undertaken regular community engagement on the subject of abstraction and water conservation. We therefore propose the continuation of the AIM at Mere for the next 5-year period from 2020-25.

Whilst this is a continuation of the AIM performance commitment in 2015-20, we are setting a stretching target:

- We are making a minor change to the trigger for the AIM window for the 2020-25 period, which will have the effect of extending the length of the window for around 28 days per annum. In the 2015-20 period we are using a groundwater level trigger; from 2020 we intend to use the flow in the Shreen Water and the Ashfield Water as this is more appropriate for community engagement due to its visibility to all.

The trigger levels for the streams are set at around Q44 which means that the flow in the rivers will be below the trigger levels for 45% of the time (on average).

Full definition of the bespoke performance commitment

The total volume of water abstracted from Mere source that is exported from the local river catchment to Whitesheet service reservoir when flow in the Shreen Water and/or the Ashfield Water is less than 2 Ml/d (measured from 1 April – 31 March).

Flow in the Shreen Water will be monitored daily at the Shreen Water gauging station (thin plate weir). Flow in the Ashfield Water will be measured daily at the Ashfield Water gauging station (Burton Flume).

The volume of water exported to Whitesheet will be measured by the flow meter at Mere water treatment works (our meter 'Flow to Whitesheet DF304').

In addition to the specific measurement of river flows and export volumes, we commit to undertake regular community engagement with the Mere Rivers Group to discuss abstraction, water conservation and other relevant matters of mutual interest.

The baseline abstraction for the AIM at Mere is 462 Ml per annum abstracted during the AIM period. This is based on the volume of water we abstracted from this source between 2002 and 2012. This period has been used because it is representative of our abstraction for the period prior to AIM and includes some notable dry periods: 2003, 2006 and 2011.

8.3.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payment

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Ml/year	100	100	100	100	100

Rationale for level: Continuation of AMP6 target which goes beyond the PR19 methodology.
Rationale for PC profile: Flat, set to continue the existing performance target.

	2045
Long-term ambition	100

Rationale for 2025-2045 forecast: Continuing the existing AIM target level.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Ml per year	340	340	340	340	340
P90	Ml per year	10	10	10	10	10

Rationale for P10: Worst historical performance (2016-17) since AIM was introduced which represents a dry year
Rationale for P90: Likely use in a very wet year based on historical analysis

Incentive rates

Incentive type	Incentive Rate (£/ML per year)
Outperformance	27
Underperformance	27

Rationale for incentive rate: based on the additional cost incurred of the alternative source of water.

Additional details

Necessary detail on measurement units	Megalitres per year
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	This performance commitment will cease to apply if an alternative approach to reduce the impact of abstraction at Mere such as a licence reduction or stream support, is put in place. The alternative approach will be subject to approval of the Wessex Water Partnership.

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✓	✘	✓	✓

Summary of challenge: CBA is not appropriate for this measure as this PC is not designed to provide the most cost-beneficial approach but to consider the wider implications of our abstraction that do not have easily definable benefit cases. As this is a bespoke measure, specific to our area, there is no comparative information.

This is a continuation of the PR14 measure which has the same target but now includes an outperformance and underperformance payment to reflect the PR19 methodology. The target has been set at the same level as in PR14 as this has been agreed with stakeholders. This reflects a more challenging target than Ofwat's methodology would require.

8.3.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Ml/year	n/a	n/a	n/a	n/a	88	172	341

Current performance:

Unit	2017-18
Ml/d	30

Forecast performance:

Unit	2018-19	2019-20
Ml/d	50	50

Rationale for initial service level: Set at midpoint of 2019-20 performance target.

Minimum improvement: not applicable

Maximum level attainable:

Unit	Max. level attainable
Ml/d	0

It is currently not feasible to target 0 Ml/d.

Expert knowledge: In setting the performance commitment for AIM (Mere) expert knowledge played a significant role. We first undertook an investigation of the impact of abstraction at Mere in the 2005-2010 period, this study concluded the impact was not significant enough to warrant an abstraction licence change. From 2011 we began liaison with the local community (the Mere Rivers Group) when they raised concerns about the level of abstraction this led us to trial an AIM type approach from 2012 and formally adopt it as a

performance commitment for 2015-20. Hydrological modelling of stream flows and groundwater levels has underpinned our assessment of appropriate trigger levels and led us to set stretching performance commitment for the 2020-25 using 100 Ml/a as our baseline (more stretching than the 462 Ml/a historical average).

8.4 Performance commitment: E4 Natural capital: improve Sites of Special Scientific Interest (SSSI sites)

8.4.1 Introduction

Why are we looking at this? Wessex Water has a long-term commitment to maximising biodiversity on our landholding and moving towards an approach to assess and improve its natural capital value. This is a core theme of our Sustainability Vision and strongly aligns with the Government's 25-year environment plan.

We are progressing our innovative AMP6 measure to assess 100% of landholding for biodiversity. Wessex Water currently has over 95% of our SSSI land (c.312ha) in favourable or unfavourable/recovering condition. Around 87% (269ha) of our SSSI landholding is tenanted and the remainder is directly managed (40ha). The tenanted SSSI land is typically within agri-environment schemes such as HLS or CSS, however, this will change within AMP7 due to Brexit and changes to agricultural funding. This new measure for AMP7 moves a step further by ensuring that there is an enduring management plan to improve the condition of 100% of our SSSI landholding.

Due to the uncertainty around future funding we are proposing that the performance commitment focusses on the delivery of actions rather than the attainment or maintenance of a specific land area, or percentage, in favourable or unfavourable/recovering status.

This measure will focus on our landholdings of highest biodiversity value. This, combined with the other PR19 natural capital performance commitments, will pave the way for a PR24 commitment to enhance the natural capital value of our entire landholding.

Definition of performance measure: Percentage of actions delivered to improve SSSI sites on Wessex Water landholding as agreed with Natural England

Customer friendly definition: Improving habitats for plants and wildlife on the SSSI land we own.

Customer research:

- Other research – There have been multiple national and European studies to value SSSI sites, valuing the full ecosystem services of each site at over £6k, The EA's view was that this undervalued the true benefits of these sites.

8.4.2 Detailed definition

<u>Information relating to the bespoke performance commitment</u>

The Government's Biodiversity 2020 strategy outlines the target to achieve 95% of all SSSIs in unfavourable recovering and favourable condition, of which 50% should achieve favourable status. In order to achieve this, we have put management plans in place to identify the actions required to enable habitat condition to improve. This has included the

development of Site Environment Plans on operational sites, and working with tenants to encourage the delivery of Higher Level Stewardship agreements.

There are no ongoing targets for SSSIs beyond 2020. The recent 25 Year Environment Plan does not explicitly refer to SSSIs but sets a lower target for Protected Areas. Also, the key delivery mechanism for SSSI status, agri-environment subsidies, will change following our exit from the European Union. These changes mean that there is the potential nationally for management commitments on SSSI condition to waver in a time of uncertainty. The purpose of this performance commitment is to ensure that Wessex Water continues to manage our SSSIs to enable favourable condition to be achieved on both operational and tenanted land.

This is part of a wider suite of performance commitments, from both AMP6 and AMP7, to enable the company to assess and understand our natural capital provision across the Wessex Water region. Combined with our current performance commitment on assessing our landholding for biodiversity, current Engineering and Construction targets to deliver no net loss of biodiversity, and proposed commitments on partnership working, will enable the establishment of a natural capital 'gain' target for PR24. This will be incorporated into a future performance commitment. The aim is to establish a natural capital improvement target for the landholding which we own, and the wider Wessex Water region.

Natural England and the Wessex Water Catchment Panel have been extensively consulted on the development of this performance commitment.

Our overriding aim is to ensure that all eligible SSSI land is within an appropriate management regime, which can deliver the required conservation status over time. Bespoke actions have been identified and agreed with Natural England, these are over and above any actions identified by the NE Remedies Database. We do not feel that Remedies is the best tool to inform this PC. This PC relates to terrestrial SSSIs within our ownership. Currently Remedies shows 87 actions over 23 SSSIs, of which only 8 actions are on land within our ownership and are shown as underway or complete. This is a lower number of SSSI sites and activities than proposed within the PC.

It is intended that this is a phased programme which corresponds with expiry dates of agri-environment or tenancy agreements. This means that there will be a rolling programme addressing a varying number of sites each year. We would like to develop a consistent engagement process with our tenants and Natural England.

Customer research using our slider tools showed strong support for improved biodiversity, ranking it only below leakage and pollution incidents. This is in line with generally high support from our customers for measures that improved the natural environment.

Full definition of the bespoke performance commitment

This Performance Commitment is to deliver 100% of the actions agreed with Natural England. These actions have been identified and assessed to deliver an improvement, over time, to the current SSSI condition.

The company is liaising with Natural England during 2018 to develop a master list of SSSI sites and appropriate actions (based on the 'Proposed Approach' in Table 1, below), to be delivered between 2020 and 2025, to improve SSSI condition.

This master list will be broken down into annual actions relating to specific sites, for each financial year between 2020 and 2025. This will be agreed with Natural England. This will become the basis for the annual performance commitment target.

Wessex Water will deliver the agreed actions for each financial year. An end of year report will be completed, detailing actions undertaken and providing evidence of action. This concise annual report will identify the actions undertaken and the sites improved that year.

The annual report will be shared with Natural England and the Wessex Water Catchment Panel at the end of March. The Catchment Panel will be asked to approve/confirm the action undertaken to sign off the performance commitment as complete.

Condition Assessments will be undertaken by Wessex Water every two years to monitor progress towards the agreed SSSI outcomes. This will be reported back to the Catchment Panel.

Table 1: Categories and Extent of SSSI Landholding

N.B. Parcels under 5,000m^2 and amounting to less than 1% of the unit area have been excluded. MLG = Major Landowners Group

OPERATIONAL & OTHER LAND						
SSSI_NAME	**SSSI units**	**WW Site Name**	**Extent of WW SSSI ownership, approx.(ha)**	**Combined unit area ha**	**% area of combined units**	**Proposed Approach - to be discussed**
Black Hill Heath	2	Black Hill Reservoir	0.84	0.92	91.60	Review the current management plan and any operational constraints. Ensure that risks and remedies identified by NE MLG reports continue to be addressed
Box Mine	1	Fiveways (Hawthorn) Reservoir	0.88	51.23	1.72	SSSI is an old stone mine designated for its bat roosts. Review the current management plan and

						investigate if there are any options to enhance the setting of the roost for bats. Review Major Landowners Group (MLG) remedies in ownership to confirm relevance and completion.
Bratton Downs	13	Luccombe Springs (BEING SOLD)	3.29	191.67	1.72	There is potential to improve the condition of the site's plantation wood and mature scrub habitats and display the geomorphological features, as well as buffering and enhancing the adjoining grassland SSSI (unit 8)
Canford Heath	4	Canford Heath Reservoir	0.36	7.50	4.78	Review the current management plan and any operational constraints
Monkswood Valley	1,2,3,4	Monks Woods, Hunterwick Wood & Hartley Wood	10.04	30.97	32.42	Review management requirements and delivery options. Planning may include ash die-back mitigation actions. Review MLG remedies in ownership to confirm relevance and completion.
Morden Bog and Hyde Heath	30	Blackheath STW	0.81	4.20	19.16	Review management requirements and delivery options. The designated area functions to buffer the SSSI from the waste treatment works.
North Exmoor	9	Hawkcombe Reservoir & Pipes	0.68	7.20	9.40	Review management requirements and delivery options.

						The status of our leasehold needs to be resolved but there may be potential for co-operative management between Wessex Water and our neighbours.
North Exmoor SSSI	13,25,26	Nutscale Reservoir	6.34	902.55	0.70	Review the current management plan and any operational constraints
Poole Harbour	19,27	Moorland Way SPS	0.44	149.11	0.29	Review management requirements and delivery options.
Poole Harbour SSSI	21,27,28	Lytchett Minster STW	1.21	147.74	0.82	Review management requirements and delivery options within the constraints of the tenancy agreement.
Purbeck Ridge (East)	4,5,6	Ulwell Source	1.19	19.89	5.98	Review the current management plans and any operational constraints.
Quants	3	Leigh Source	0.41	15.05	2.75	Review Forestry Commission agreements for Quants. If the parcel is outside any tenancy, review management requirements and delivery options.
Severn Estuary	2	Bleadon Level STW	5.52	45.88	12.03	Review management requirements and delivery options.
South Dorset Coast	33	Worth Matravers STW	0.20	1.07	18.67	Review the current management plans and any operational constraints.
South Exmoor	23	Haddon Hill Wimbleball Reservoir	3.01	61.22	4.92	Review the current management plan and any operational constraints.

Trill Quarry	1	Thornford STW	1.39	1.40	98.96	Review the current management plan and any operational constraints.
Upton Heath	3, 28	Corfe Hills Reservoir	1.20	4.09	29.30	Review the current management plan and any operational constraints.
White Horse Hill SSSI	5,13	Sutton Poyntz woodland & springhead enclosure	2.10	18.34	11.46	Review the current management plans and any operational constraints.
Total area (relevant) Operational and other land – 39.91ha						
CONSERVATION TENANCIES						
SSSI_NAME	**SSSI units**	**WW Site Name**	**Extent of WW SSSI ownership, approx. (ha)**	**Combined unit area ha**	**% area of combined units**	**Proposed Approach - to be discussed**
Avon Valley (Bickton to Christchurch)	157, 158, 161	Blashford Lakes	19.07	67.73	28.16	Review land management aims and agreements. Review MLG remedies in ownership to confirm completion.
Black Hill Heath	1	Black Hill Reservoir	0.28	69.62	0.40	Review land management aims and agreements including possible agri-environment options after the Higher Level Stewardship (HLS) agreement ends. Ensure that risks and remedies identified by NE MLG reports continue to be addressed.

Ruttersleigh	4	Mount Fancy Source	13.83			Review land management aims and agreements including possible agri-environment options after the HLS agreement ends. Ensure that risks and remedies identified by NE MLG reports continue to be addressed.
Shapwick Heath	41,43,46, 48,51,55, 57,58,61, 62	Shapwick, Avalon Lake & Ashcott	101.36	228.07	44.44	Review land management aims and agreements.
Upton Heath	2,3	Corfe Hills	2.87	479.24	0.60	Review land management aims and agreements.
Total area Conservation Tenancy - 137.42ha						
FORESTRY TENANCIES						
Prior's Park & Adcombe Wood	1,3,4	Culmhead Source	36.83	75.18	48.99	Confirm no action. Confirm length of lease & any sub-lets. Develop an outline plan for future management on expiry of the leases
Quants	1, 2,3,4, 5	Leigh Source	20.45	54.67	37.40	Confirm no action. Confirm length of lease & any sub-lets. Develop an outline plan for future management on expiry of the leases

Total area Forestry Tenancy 57.28ha						
AGRICULTURAL TENANCIES						
Purbeck Ridge (East)	3,4, 5	Ulwell Source	11.64	54.35	21.41	Review land management aims and agreements.
St. Catherine's Valley	2.3.4	Holly Barn Farm, Marshfield	19.26	76.87	25.05	Review land management aims and agreements.
St. Catherine's Valley	5	Beek's Farm, Marshfield	21.99	27.85	78.96	Review land management aims and agreements including options at the end of the Entry Level Scheme (ELS) and HLS agreement.
St. Catherine's Valley	6	Nailey Farm, Marshfield	3.16	18.57	17.01	Review land management aims and agreements.
White Horse Hill	1,10,13	Sutton Poyntz PS & Northdown Reservoir	18.95	23.61	80.29	Review land management aims and agreements. Ensure that risks and remedies identified by NE MLG reports continue to be addressed.
Total area Agricultural Tenancy 75.00ha						

8.4.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payment

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	20	40	60	80	100

Rationale for level: Maximum attainable.
Rationale for PC profile: Profiled for equal step improvements each year to 2024-25 which is set at the maximum attainable.

	2045
Long-term ambition	100

Rationale for 2025-2045 forecast: We would anticipate continuing this measure and therefore maintaining the current target and profile for each 5 year period.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	%	5	20	40	60	80
P90	%	25	45	65	85	100

Rationale for P10: Slower completion of actions
Rationale for P90: Actions completed ahead of schedule

Incentive rates

Incentive type	Incentive Rate (£/%)
Outperformance	170
Underperformance	200

Rationale for incentive rate: Incentive rate is based on the unit cost only.

Additional details

Necessary detail on measurement units	Percentage of agreed actions delivered
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	Outperformance achieved through completing additional actions or achieving agreed actions early. This performance commitment will be measured against an agreed list of site based actions only and not other SSSI management tools such as the Natural England Remedies database. Land <5,000m^2 has been excluded as part of a long-standing agreement with Natural England covering our SSSI management. Land parcels of this size are too small to alter the overall SSSI condition. They will be managed appropriately but excluded from this target.

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✘	✘	✓	✓

Summary of challenge: This measure relates to delivery of a programme of activities to be agreed with Natural England. As these activities will be agreed at a later date, the target is to achieve 100% of these agreed actions delivered evenly through the PR19 period. As a result, CBA, comparative information, historical information and minimum improvement are not appropriate in this case.

8.4.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information: There is no comparative information available as this is a bespoke performance commitment

Historical information: This is a new measure but our previous performance in improving SSSI condition is good, with 99.5% of our landholding currently in favourable or unfavourable recovering status. 62% of this SSSI land is in favourable status.

Rationale for initial service level: New measure, no initial service level required.

Minimum improvement: As this is a new measure, minimum improvement is not applicable.

Maximum level attainable:

Unit	Max. level attainable
%	100

Expert knowledge: This is a bespoke performance commitment which has been developed in collaboration with Area Officers from Natural England. The measure identifies the management actions required on each SSSI land parcel to achieve an improvement in site habitat condition. The measure is based on delivery of actions, rather than improvement in condition, as on many sites it could take years to see a biological response.

8.5 Performance commitment: E5 Greenhouse gas emissions

8.5.1 Introduction

Why are we looking at this? We have engaged customers on greenhouse gas emissions through our online game where there was support to improve services.

This is a continuation of the PR14 measure with one principal modification. We propose to use total gross emissions (the sum of scope 1, scope 2 and scope 3 emissions), instead of net emissions – which has been the basis of this performance commitment during AMP6.

Definition of performance measure: Annual gross greenhouse gas emissions from operational services.

Customer friendly definition: Reducing the amount of greenhouse gases our activities cause.

Customer research:

- SDS Research – 66% of customers viewed reducing our carbon footprint as important.
- Business plan game – attracted a relatively low valuation.

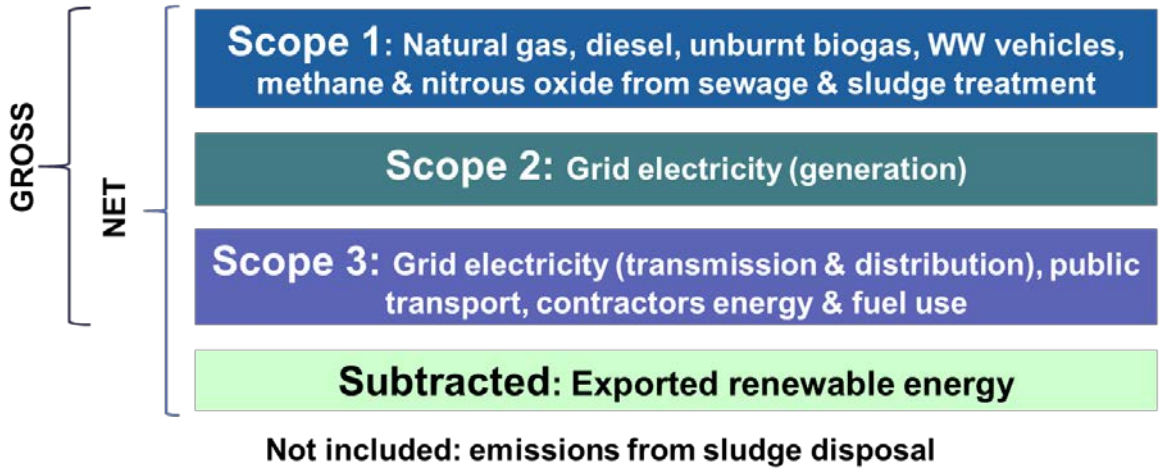
8.5.2 Detailed definition

Information relating to the bespoke performance commitment

The company is committed to becoming carbon neutral by 2040. Our research with customers continues to show that they consider reducing carbon to be important, with three quarters saying that it is important to them, although other priorities ranked higher.

Full definition of the bespoke performance commitment

Wessex Water has reported its carbon footprint since 1998 – voluntarily in the early years and as part of the annual return to Ofwat since 2009/10. Our net greenhouse gas emissions is one of our AMP6 performance commitments, alongside our renewable energy generation; we are the only water and sewerage company to have both as an AMP6 performance commitment. Greenhouse gas emissions are reported each year in line with national and international reporting guidelines. Broadly, emissions cover the following categories:



As the diagram indicates, reporting net emissions involves subtracting the equivalent emissions of exported renewable energy. For example, exported renewable electricity is 'carbonised' at the average grid electricity emissions factor and then subtracted from the gross figure. Meanwhile, the end-user of that renewable electricity is required to report it as if it were conventional grid electricity. More recently we have seen the introduction of 'green gas certificates' associated with exported biomethane. In this instance, the end user buys certificates associated with the biomethane that they have consumed and can then account for them as zero carbon. This means that the generator (i.e. ourselves) can no longer subtract the carbon equivalence of this gas from its gross emissions.

1a. AMP7 – proposed performance commitments

For AMP7 we propose to include gross emissions (and not renewable energy generation) as one of our environmental performance commitments. The main reason is that it gives our non-regulated business the freedom to sell renewable energy certificates without impinging on a WWSL performance commitment. This also removes an area of forecasting uncertainty i.e. future choices made by the unregulated business about exporting energy in response to available renewable energy subsidies.

In parallel with regulatory reporting we will continue to disclose our net emissions in our annual sustainability indicators report.

1b. Measurement, reporting and forecasting

While we do not use a British Standard or and ISO standard for emissions calculation and reporting, we employ the same methods used by other UK water companies for regulatory reporting. Specifically, emissions are calculated using UKWIR's carbon accounting workbook for annual calculation and reporting, which in turn uses the standard conversion factors for company reporting published by BEIS. Our published emissions figures are audited by the same external auditors as used from other performance commitments.

We use our own Excel workbook for forecasting, using standard national emissions factors.

One methodological exception to be noted is in relation to emissions from grid electricity consumption. We propose to use the Department for Business, Energy and Industrial Strategy (BEIS) December 2017 forecast of the carbon intensity of grid electricity for each

year of AMP7, rather than the updated *actual* value that is published each year and used in the UKWIR workbook. This represents the government's official published forecast, and by fixing the emissions factor profile for AMP7, we avoid the risk of mis-forecasting an important element that is outside our own control.

1c. Other considerations

This performance commitment has been part of our engagement with customers and other stakeholders (such as our Catchment Panel). While it ranks relatively low in terms of customers' priorities, we consider it to be an important part of our overall environmental performance. As such it contributes to a rounded set of performance commitments.

8.5.3 Proposed level and outcome delivery incentives

Incentive type: Underperformance payment only

Rationale for incentive type: In PR14 this has been a reputational only measure. Whilst this is an important area for us, we don't believe it's appropriate to get an outperformance payment.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	KtCO2e	111	109	106	104	101

Rationale for level: Maintain steady decrease of emissions despite increasing energy demands.
Rational for PC profile: The profile is set to maintain a steady decrease of emissions despite increasing energy demands.

	2045
Long-term ambition	69

Rationale for 2025-2045 forecast: Maintain a steady decrease of emissions despite increasing energy demands.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	KtCO2e	118	116	113	111	107
P90	KtCO2e	104	102	99	97	93

Rationale for P10: Based on historic variability around the linear trend
Rationale for P90: Based on historic variability around the linear trend

Incentive rate

Incentive type	Incentive Rate (£/KtCO2e)
Underperformance	4,100

Rationale for incentive rate: Incentive rate is based on the social cost of carbon.

Additional details

Necessary detail on measurement units	Kiloton of CO2 equivalent
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	The measure does not include methane emitted as part of biosolids disposal. This exception is standard practice among the UK sewerage operators following Ofwat's decision on the boundaries for regulatory emissions reporting (from 2009-10 onwards).

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✓	✓	✓	✓

Summary of challenge: We have not used CBA as this PC covers a very technical area – we have therefore not sought WTP information from customers. It is also not a PC that other companies report so comparative information is not available.

There are increasing energy demands which put upward pressure on emissions. We are proposing a steady decrease, which is challenging as it requires us to counter act the impact of the trend in energy demands. It is beyond the minimum improvement level and a stretching improvement on our historical performance.

Overall we are targeting carbon neutrality by 2040.

8.5.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information: Whilst comparative information is available for net emissions, this is not comparable to the PC which measures gross emissions. The data is also not wholly accurate as at least one company has misreported their figures by including renewable energy imported from the grid.

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
KtCO2e	160	145	158	148	152	156	146

Current performance:

Unit	2017-18
%	135

Forecast performance:

Unit	2018-19	2019-20
%	126	117

Rationale for initial service level: Based on an improving trend in the AMP and converted to PR19 units which are 'gross' values.

Minimum improvement:

Unit	2020-21	2021-22	2022-23	2023-24	2024-25
KtCO2e	134	131	128	125	123

$R^2 = 0.65$

Maximum level attainable:

Unit	Max. level attainable
KtCO2e	0

It is not presently cost-beneficial to reach the maximum level attainable.

Expert knowledge: We have developed capability for reporting greenhouse gas emissions since 1998, and forecasting since 2007 for inclusion in PR09 and PR14 business plans. Forecasts are dependent in part on the expert knowledge of asset planning managers and their assessments of the additional energy requirements resulting from capital investment. We also use forecasts from third parties, notably those based in the energy sections of BEIS.

8.6 Performance commitment: E6 Working with communities to improve bathing water experience

8.6.1 Introduction

Why are we looking at this? Wessex Water has worked closely with the Litter Free Coast and Sea projects in Somerset and Dorset to raise education and engagement to improve community understanding and ownership of local beaches and bathing water. We recognised that promoting community engagement activities focused on beaches raises awareness and changes behaviour. Some of these changes in behaviour can lead to an improvement in bathing water quality, in addition to the overall beach experience.

Definition of performance measure: Number of beaches with community projects that have been agreed by the Catchment Panel which improves bathing water experience.

Customer friendly definition: Supporting or creating community projects at beaches to improve the experience of beach users.

Customer research:

- Tracker research – highlighted that engaging with customers was a key driver of satisfaction.
- Conjoint Analysis – Maintaining bathing water standards attracted a high unit WTP of £0.78 per bathing water.
- Maxdiff - Although bathing waters do not have a large direct impact on customers, attracted a medium WTP of c.£0.30 per bathing water.
- Business plan game – unit WTP of c.£1.20 per bathing water.
- WTP sliders – unit WTP of c.£2 per bathing water.

8.6.2 Detailed definition

<u>Information relating to the bespoke performance commitment</u>

One of our eight priority areas is developing engaged communities – improving the relationship we have with the people we serve.

Our offer of a future partnership with customers has been popular in our research, but this is contingent on our making it easy for customers to play their part, being seen to play our part and being responsive to customers when they interact with us.

In our Strategic Direction research customers also considered bathing waters an area with room for improvement. This measure incentivises us to work with local communities to make improvements to the amenity value of beaches with bathing water. By doing so we will encourage a wider participatory approach, which will have benefits across all our goals where customer behavior and participation can play a part in improving our services and the environment.

This performance commitment seeks to improve the beach amenity, improve public engagement and promote behavior change within school, residential, visitor and business communities. These actions should lead to a greater awareness of and improvements to bathing water quality and the wider beach environment. This performance commitment goes above and beyond our statutory duties to manage and improve our assets to comply with the requirements of the Bathing Water Directive.

This measure was developed in consultation with our Catchment Panel, which includes local environmental stakeholders and other agencies that impact on the water catchments in our region. The chair of the Catchment Panel sits on the Wessex Water Partnership (our CCG).

There are 49 bathing waters within the Wessex Water region. Bournemouth Manor Steps has been newly designated by Defra for the 2018 bathing season, as notified in March. This number includes one private inland swimming lake (Henleaze Swimming club) and one closed bathing water, Portland Harbour Castle Cove (since 2014). For the purposes of this performance commitment, these two bathing waters have been excluded, meaning that there are 47 bathing waters to be included at the time of writing.

Working with the Litter Free Coast and Sea Steering Groups, Environment Agency, relevant Local Authorities and prior Wessex Water knowledge, including information obtained from Catchment Partnerships, Surfers Against Sewage and the Marine Conservation Society, the main issues impacting each bathing water will be identified and classified. This information will help to inform the engagement projects to be promoted at each individual beach.

Engagement activities could include but are not limited to:

- actions to improve beach cleanliness such as sponsored #2minutebeachclean stations, beach clean groups or voluntary dog patrol groups
- projects engaging with local communities to reduce litter, understand where litter comes from and minimise waste through initiatives such as business accreditation schemes
- awareness campaigns running over the year with local groups such as Parish Councils and clubs, focusing on key issues such as plastics and fats, oils and greases
- working with farmers to reduce levels of run off with high bacteriological loadings, e.g. farmyard manures and slurries

These projects should be self-sustaining and lasting rather than just individual isolated events.

These projects will primarily be delivered through the Litter Free Coast and Sea Partnerships in Dorset and Somerset, but may also include projects and campaigns run through Surfers Against Sewage, Marine Conservation Society, Catchment Partnerships and Wessex Water activities such as Operational teams, Streamclean and customer excellence programmes. Currently the Litter Free Coast and Sea projects cover the minority of bathing waters within

the Wessex Water area. This will be expanded to ensure that there is an active issue specific project or partnership at every bathing water by 2025.

Wessex Water will actively steer these projects and undertake specific deliverables, such as Streamclean (misconnection) projects, catchment advisory visits and project initiation, wider PR such as talks and educational visits. Wessex Water will enable and facilitate partnership projects where they do not already exist or where further focus or targeting is required. These will relate to addressing issues impacting bathing waters identified through Bathing Water profiles. Wessex Water will also share learning and best practice from other partnership projects which may include communication techniques and resources such as information packs, videos, links to funding streams etc.

The Wessex Water Catchment Panel will direct and agree the work programme and audit the outcomes annually.

Data will typically be provided through annual reports prepared by the two Litter Free Coast and Sea projects, as detailed below. Data might include:

- Kg litter collected per beach and/or number of beach clean events
- Number of businesses engaged during the bathing season through business accreditation packs, Fats, Oils and Greases (FOG) audits and advisory visits
- Number of campaigns delivered
- Number of topical projects delivered, for example Yellow Fish, Only Rain Down the Drain or Refill stations
- Number of education projects co-designed and delivered and wider community talks or activities
- Level of agricultural engagement through Catchment Sensitive Farming (CSF), WW activities or bespoke initiatives

The activities will cover the entire beach, including beach streams and access points, and will not be limited to the designated bathing water area. It is also noted that many of the contributory activities will be upstream of the beach within local towns, villages and farmland.

Full definition of the bespoke performance commitment

The Environment & Catchment Strategy team will identify the number of bathing waters which are classified (and open) within the Wessex Water region each November when published by Defra (Gov.uk website). At the time of writing, there are 49 designated bathing waters in the region, one of which is a private inland swimming lake and one is closed due to a landslide. Therefore, a total of 47 bathing waters has been considered.

This performance commitment is based on the designated bathing waters within our area but not limited to the specific area of designation under the Directive. The PC will encompass the wider beach and activities will be focussed on the ‘last mile’ before the bathing water. Whilst this PC should deliver improvements to bathing water quality, as a result of the

partnership activities, there is no specific bathing water quality improvement targeted, for example moving from sufficient to good standard at specific locations.

Prior to the commencement of this performance commitment the key issues impacting the quality of the bathing water or beach amenity will be identified and recorded. This work will be undertaken in collaboration with the Litter Free Coast and Sea Project Officers and relevant Local Authorities in the first instance, and then checked with the Environment Agency and wider Wessex Water and third-party groups. This will inform the engagement approach and priority projects.

During PR19, 10 bathing water 'ambition' investigations have been identified and included within WINEP3 (March 2018). These investigations are required to identify the actions required to deliver a robust good or excellent classification. The outcomes of these investigations, which report in 2021, will inform additional non-asset interventions which could be delivered to support this performance commitment.

The annual target for numbers of beaches with community engagement projects will be defined at the start of AMP6 and fixed for the period to 2025. The delivery of these targets will be proposed through the Litter Free Coast & Sea Projects in the first instance, and informed by other partnership projects where appropriate. Whilst the target number of bathing waters will be fixed, the method for delivery will be discussed annually. There might be opportunities for outperformance at non-designated beaches or beaches (Bathing waters) which become designated during AMP7, or by delivering projects ahead of schedule.

End of year reports are produced by the Litter Free Coast & Sea (Dorset and Somerset) projects summarising the activities completed and engagement work undertaken through the partnership. These reports will be analysed to record the number of bathing waters where there are sustained/enduring community engagement projects which satisfy this performance commitment.

The Environment & Catchment Strategy Team will liaise with the Litter Free Coast & Sea Project Officers to understand whether there are any further community engagement projects which have been established, and fit the criteria, during the calendar year, which have been led by different organisations or partnerships. If appropriate, these projects will also be recorded against this performance commitment. This consultation will also include contact with internal Wessex Water PR and customer excellence teams, to identify any qualifying projects or campaigns supported, and the Catchment Partnership Co-ordinators. These additional projects will be discussed with the Catchment Panel to ascertain whether Wessex Water can provide any additional support which would enhance the outcomes for the relevant bathing water. Where opportunities for enhancement have been identified with the Catchment Panel, these projects will be included in the programme for subsequent years.

This performance commitment will also include relevant projects working with the agricultural sector to reduce farming contributions which may impact bathing water quality. This

engagement could be through third parties such as Catchment Sensitive Farming projects or working with Wessex Water catchment delivery teams.
Only partnership projects agreed by the Catchment Panel will contribute towards the performance commitment, informed by the Engagement Matrix. Wessex Water activities such as educational advice, existing agricultural/catchment management work or existing StreamClean activities will not be counted towards this PC, although may be delivered in combination with partnership projects identified.

The number of qualifying projects delivered during the calendar year will be summarised and presented to the Catchment Partnership for audit. This summary will also include an outline of the projects and engagement proposals for the forthcoming calendar year. Where the activities are focused on the agricultural influences, reports will be sought from the Wessex Water Catchment Delivery Team, relevant CSF leads and other delivery groups.

Moving beyond 2025, it is intended that the relevant projects developed will continue to be sustainable to ensure that there is a lasting improvement in beach amenity.

The Wessex Water Catchment Panel have been extensively engaged in the development of this performance commitment. Discussions have been held with the Litter Free Coast and Sea Projects in Somerset and Dorset to understand the deliverability of this measure.

8.6.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No. of beaches	20	26	33	40	47

Rationale for level: Phased profile to maximum attainable with an agreed weighting factor. There is the potential to include a weighting element to this performance commitment, reflecting that some beaches may have a greater level and number of different engagement activities. It is likely that there will be some beaches remote from communities where it may not be as possible or appropriate to provide engagement activities.
Rationale for PC profile: Phased between current levels of activity and the 2024-25 target which is set at the maximum attainable level.

	2045
Long-term ambition	47

Rationale for 2025-2045 forecast: We anticipate continuing to improve all of our bathing waters going forward.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Number of beaches	14	19	24	29	34
P90	Number of beaches	22	30	38	46	47

Rationale for P10: Slower completion of actions
Rationale for P90: Based on doing 8 beaches per year which is our best historical performance

Incentive rates

Incentive type	Incentive Rate (£/beach)
Outperformance	700
Underperformance	850

Rationale for incentive rate: Incentive rate is based on the unit cost only.

Additional details

Necessary detail on measurement units	Number of beaches
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	Wessex Water will agree a monitoring report process with the Litter Free Coast and Sea projects. The intention will be to report annually for each of the 47 beaches, identifying the nature of the engagement activity and, where possible, the numbers of people engaged. This might include the kg of litter collected through beach clean activities, new beach clean stations and groups, number and details of targeted campaigns etc. This data will be presented to the Catchment panel (or equivalent) on an annual basis for sign off.

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method

Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✗	✗	✗	✓	✓

Summary of challenge: The target is set at the theoretical maximum level attainable of 46 which is a total number of bathing waters and well above statutory obligations. We do not have historical or comparative data as this is a new bespoke measure.

8.6.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information: not applicable as this is a bespoke measure.

Historical information: not applicable as this is a new measure.

Current performance;

Unit	2017-18
%	0

Forecast performance:

Unit	2018-19	2019-20
%	14	14

Rationale for initial service level: Forecast activity.

Minimum improvement: not applicable as this is a new measure.

Maximum level attainable:

Unit	Max. level attainable
No. of beaches	47

There are only 47 beaches in our region that are appropriate for this measure.

Expert knowledge: There are currently 49 designated bathing waters within the Wessex Water area but two have been excluded for the following reasons:

- Closure (since 2014) due to a landslip
- Private, members only swimming club

Therefore, 47 beaches is the maximum number attainable at time of writing.

8.7 Performance commitment: E7 Working with catchment partners to improve natural capital

8.7.1 Introduction

Why are we looking at this? We recognise the benefits of working in partnerships to deliver a wider range of natural capital benefits.

We have a strong track record in working with farmers and biodiversity partners to deliver improvement projects. We have been actively involved in Catchment Partnerships since their inception in 2011, piloting the approach in the Frome and Piddle, and now hosting partnerships in the Bristol Avon and Dorset. Our Biodiversity Action Plan was launched in 1998, the first published by a water company, a key element of this is the Partners Programme, providing enduring support to key delivery projects.

This performance commitment identifies the number of catchment based, partnership projects delivered during the AMP which will give rise to natural capital benefits. The number of projects delivered will be reported annually and a natural capital benefit assessment will be reported at the end of the AMP. This natural capital assessment will help to inform a PR24 natural capital performance commitment.

Typically, this performance commitment will focus on land not owned by Wessex Water, in water resource catchments and not necessarily designated for biodiversity value.

This performance commitment includes two elements:

- WINEP3 (March 2018) schemes which are delivered in partnership as detailed in WINEP3 (March 2018), and
- Non-WINEP3 (March 2018) partnership schemes and projects, including:
    - Operational catchment management/delivery schemes, e.g. catchment management schemes initiated in previous business plans which are now operational outputs
    - Support for Catchment Partnerships, including those hosted by Wessex Water Services Ltd
    - Co-funded partnership projects, e.g. B&NES WaterSpace Study. Enhancement of Shapwick Heath NNR and Natural Flood Management projects
    - Biodiversity Action Plan projects delivered through the Partners Programme e.g. Dorset Wild Rivers

Definition of performance measure: Number of schemes working with catchment partners to improve natural capital on non-Wessex Water landholding (excluding SSSI sites)

Customer friendly definition: Doing projects with partners that have wider benefits to the natural environment as well as protecting our water supplies and local rivers.

Customer research:

- Tracker research – Highlighted that engaging with customers was a key driver of satisfaction.

8.7.2 Detailed definition

Information relating to the bespoke performance commitment

This performance commitment will cover schemes delivered as part of our operational and discretional activities. However, the focus will be on those activities above and beyond the requirements of our PR19 Business Plan. The intention is that this will help Wessex Water better understand our contribution to improving the natural capital of our region and will feed into a natural capital improvement target in PR24.

The intention is to work in partnership to identify projects which deliver multiple benefits. At this stage the performance commitment is based on outputs, i.e. number of partnership projects supported, but through common metrics the natural capital benefits delivered will be derived.

It is intended that data collected by partners, using common metrics, will enable us to identify the natural capital benefits delivered by these projects. Natural capital benefits may include: water purification, flood attenuation, carbon sequestration and biodiversity enhancement, for example. These will be delivered through projects such as catchment management and agronomic advice, working with Wildlife Trusts and Rivers Trusts on specific projects and enabling the delivery of a wide range of beneficial projects through the Catchment Partnerships which we host.

Our Strategic Direction research showed that customers support innovative approaches to achieve goals, particularly when this offers preventative, collaborative, environmentally friendly and cost-effective solutions. Our research has also consistently shown high priorities for actions that improve the natural environment.

This performance commitment identifies the number of catchment based, partnership projects delivered during the AMP which will give rise to natural capital benefits. The number of projects delivered will be reported annually and a natural capital benefit assessment will be reported at the end of the AMP.

The Wessex Water Catchment Panel has been extensively engaged in the development of the performance commitment. The Catchment panel comprises of external environmental experts whose role is to challenge company direction and to (annually) sign off the completion of our PR19 bespoke environmental performance commitments, including this one. The Catchment Panel is represented, via the Chair, on the Wessex Water Partnership.

Full definition of the bespoke performance commitment

The company will consider:

- WINEP3 (March 2018) schemes which are delivered in partnership as detailed in WINEP3 (March 2018), and
- Non-WINEP3 (March 2018) - Annual reports produced via partners

A summary of the projects delivered during the year will be prepared for audit by the Catchment Panel every April. This will include the following information for the non-WINEP3 (March 2018) projects:

- Catchment management annual reports detailing levels of activity, engagement and pollutant trends, e.g. tonnes of nitrogen/phosphorus reduced, area of habitat improved or created for biodiversity
- Catchment Based Approach (CaBA) data returns including the projects delivered and supported, funding sources and outcomes, e.g. length of river improved
- Co-funded project annual reports identifying activities undertaken and levels of engagement, including metrics such as length of river improved, habitat/wetlands created, volunteers engaged, children engaged etc.
- Partners Programme annual reports identifying level of activity and engagement and outcomes, e.g. length of river improved, area of habitat improved/created, volunteer hours etc.

It is anticipated that this performance commitment will inform the company's approach to Natural Capital Accounting. Post 2025 it is anticipated that there will be a Natural Capital performance commitment, establishing targets on how to grow our Natural Capital Provision across the region through our activities. The detail of this has yet to be developed but ideally it will link with other natural capital tools and metrics used by other organisations such as Local Authorities, Environment Agency and Natural England.
The currentl list of projects are included in the following tables::

WINEP3 (March 2018) Partnership Projects

Scheme Name/Name of Investigation/Site Name	Driver Code (Primary)	Completion Date	WINEP3 (March 2018) output	PC outcome (quantified using NC metrics by 2025)
Shepherd's Shore	DrWPA_ND	31/03/2022	Catchment measures to reduce nitrate in groundwater	Wider natural capital benefits resulting from interventions such as cover crops, grassland

				reversion, woodland and hedgerow planting.
Ashford Reservoir - catchment scheme total pesticides	DrWPA_ND	22/12/2024	Catchment management to reduce pesticide levels in reservoirs	Use of EnTrade to deliver wider Natural capital benefits such as nectar rich buffer strips and Habitat improvements
Briantspuddle DrWPA - catchment scheme nitrate	DrWPA_ND	22/12/2024	Catchment measures to reduce nitrate in groundwater	Wider natural capital benefits resulting from interventions such as cover crops, grassland reversion, woodland and hedgerow planting.
Cherhill DrWPA - catchment scheme nitrate	DrWPA_ND	22/12/2024	Catchment measures to reduce nitrate in groundwater	Wider natural capital benefits resulting from interventions such as cover crops, grassland reversion, woodland and hedgerow planting.
Diversbridge DrWPA - catchment scheme nitrate	DrWPA_ND	22/12/2024	Catchment measures to reduce nitrate in groundwater	Wider natural capital benefits resulting from interventions such as cover crops, grassland reversion, woodland and hedgerow planting
Durleigh Reservoir DrWPA - Catchment scheme River Tone u/s Firepool Locks Pesticides and metaldehyde	DrWPA_ND	22/12/2024	Catchment management to reduce pesticide & metaldehyde in the River Tone	Use of EnTrade to deliver wider Natural capital benefits such as nectar rich buffer strips, on-farm wetlands etc.
Goodshill DrWPA - catchment scheme nitrate	DrWPA_ND	22/12/2024	Catchment measures to reduce nitrate in groundwater	Wider natural capital benefits resulting from interventions such as cover crops, grassland reversion, woodland and hedgerow planting
Litton Cheney DrWPA - catchment scheme nitrate	DrWPA_ND	22/12/2024	Catchment measures to reduce nitrate in groundwater	Wider natural capital benefits resulting from interventions such as cover crops, grassland

				reversion, woodland and hedgerow planting
Nailsea partnership project - Improving the quality of the surface water outfall discharging to Tickenham, Nailsea and Kenn Moor SSSI	SSSI_IMP	31/03/2025	Water quality improvements	No outcomes included in PC as completion dates are March 2025.
Ubley STW IUDM	SSSI_IMP	31/03/2025	Reduced infiltration to sewerage network	

Non-WINEP3 (March 2018) Partnership Projects

Category	Project Name	PC Outcome (quantified using NC metrics by 2025)	Reporting
Catchment management /delivery	**15 no**. AMP6 catchment management groundwater schemes for nitrate: Deans Farm, Fonthill Bishop, Bulbridge, Shapwick, Sturminster Marshall, Milborne St Andrew, Eagle Lodge, Empool, Belhuish, Sutton Poyntz, Alton Pancras, Forston, Friar Waddon, Winterbourne Abbas, Hooke. **5 no.** catchment management surface water schemes for metaldehyde, pesticides and nutrients, Ashford, Durleigh, Sutton Bingham, Leigh and Luxhay Reservoirs. **1 no** catchment management surface water schemes for phosphate: Brinkworth Brook (to 2022)	Delivery of >95ha habitat improvements on land not owned by Wessex Water. Including wider natural capital benefits associated with interventions.	Annual Report summarising engagement and delivery actions submitted to EA
Catchment Partnerships	**4 no** catchment partnerships: Dorset and Bristol Avon Catchemnt Partnerships- hosted by Wessex Water Somerset and Hampshire Avon- supported by Wessex Water	A wide range of projects to be delivered to promote water quality and natural capital benefits	Annual reports publicised on partnership websites and data returns to CaBA

Co-funded partnership projects	These projects may vary depending on issues and funding streams available. Projects due to be supported in PR19 include: B&NES WaterSpace Study, Natural Flood Management feasibility and delivery projects, West of England Nature Partnership and West of England Adaptation and Resilience Framework June 18: Natural England have promoted a partnership project on Shapwick Heath which could fall within this category, to be delivered from 2020	A wide range of projects to be delivered to promote water quality and natural capital and community benefits.	Annual Reports
Partners Programme	Comprising the Large and Small Grant funds. Projects have yet to be decided for PR19	Delivery of projects focussed on improving WFD status and biodiversity.	Annual reports and Implementers meeting

8.7.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payments, as detailed below.

	WINEP3 (March 2018) schemes	Non-WINEP3 (March 2018) projects
Outperformance	n/a	Deliver greater number of projects
Underperformance	Failure to deliver WINEP3 (March 2018) outputs	Deliver fewer projects

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No. of schemes	29	37	37	37	37

This consists of:

- 8 AMP7 WINEP3 (March 2018) projects delivering natural capital benefits from 2021-22
- 21 non-WINEP3 (March 2018) catchment management projects (Brinkworth Brook 2020-2022 only)
- 4 partners programme large grant project
- 4 catchment partnerships (supported or hosted)

Rationale for level: All current schemes (excluding biodiversity BAP small grants and co-funded projects) and regulatory outputs, to be confirmed in WINEP3 (March 2018). Biodiversity BAP small grants and co-funded projects have been excluded as Wessex Water's contribution cannot be determined against the required criteria (financial contribution is >25% of total project cost or >£15,000 contribution over the course of the AMP) at this time.
Rationale for PC profile: Consistent with maintaining current catchment activities and additional WINEP3 (March 2018) within stipulated timeframes.

	2045
Long-term ambition	n/a

Rationale for 2025-2045 forecast: We will continue to work with catchment partners but it is anticipated that this performance commitment will be revised into a new natural capital measure for PR24.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No. of schemes	25	33	32	32	32
P90	No. of schemes	35	43	43	43	43

Rationale for P10: All schemes are continued as per company commitments other than the catchment partnerships (supported or hosted) which are discretionary
Rationale for P90: Accounts for additional biodiversity small grants projects (2 per year) and 4 co-funded discretionary projects per year.

Incentive rates

Incentive type	Incentive Rate (£/scheme)
Outperformance	3,300
Underperformance	4,000

Rationale for incentive rate: Incentive rate is based on the unit cost only.

Additional details

Necessary detail on measurement units	Number of schemes The target is based on current catchment activities continuing into AMP7 and catchment schemes identified in WINEP3 **(March 2018)**.
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	The performance commitment will report on the number of schemes active during that year, the level and types of activity and the outcomes delivered. The outcomes delivered will include, for example: • the load of nutrient reduced, • the area of habitat planted, restored or improved • the km of river habitat improved It is intended that this will be reported to the Catchment Panel (or equivalent) on an annual basis. Each project supported will either submit an annual report of final regulatory report once completed. A criteria assessment needs to be developed with the Catchment Panel to highlight which non-WINEP3 (March 2018) partnership projects can be included, and which should be excluded. The criteria could relate to the level of financial support of in-kind funding provided by Wessex Water, for example, where the WW contribution is >25% of the overall project or a specific amount over the life of the project, this can be claimed as a non-WINEP3 (March 2018) catchment project. The level of financial contribution is still under consideration and being discussed with the Catchment Panel.

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✗	✓	✓	✗	✗

Summary of challenge: The target has been set at the minimum level attainable which is the number of outputs in the WINEP3 (March 2018) with an expectation that we will work closely with local communities to exceed statutory obligations and create a wider range of natural carbon benefits.

8.7.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available

Historical information:

Unit	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
No. of schemes	n/a	n/a	n/a	n/a	n/a	32	33

Current performance:

Unit	2017-18
%	33

Forecast performance:

Unit	2018-19	2019-20
%	33	35

Rationale for initial service level: 2015-2020 data includes:

- 20 catchment management schemes (21 2016/17-2019/20)
- 4 biodiversity partners programme large grant projects (2015-2020)
- 4 biodiversity partners programme small grant projects
- 2 hosted catchment partnerships (2015-2020)
- 2 supported catchment partnerships (2015-2020)

Minimum improvement:

	Minimum improvement				
Unit	2020-21	2021-22	2022-23	2023-24	2024-25
No. of schemes	37	37	37	37	37

The minimum improvement is to continue all appropriate AMP6 schemes and achieve all regulatory outputs from the WINEP3 (March 2018).

Maximum level attainable: no theoretical maximum

Expert knowledge: not applicable

8.8 Performance commitment: E8 Satisfactory sludge disposal

8.8.1 Introduction

Why are we looking at this? Wessex Water relies entirely on recycling of sludge to agricultural land for its sludge disposal. This measure aims to ensure and demonstrate that this is done responsibly, and helps reassure stakeholders who may have concerns about use of sludge on agricultural land. The detail behind the measure is provided in the Environment Agency Environmental Performance Assessment (EPA) Methodology v3.

Definition of performance measure: Percentage of sludge disposed that complies with appropriate legislation and regulation, as reported to the Environment Agency

Customer friendly definition: Safely disposing of the solids that are left at the end of the waste treatment process.

Customer research:

- No specific research

8.8.2 Detailed definition

Information relating to the bespoke performance commitment

The reported figures are based on the calendar year and reported in the following financial year.

Full definition of the bespoke performance commitment

This PC is defined in accordance with the Environment Agency 'Water & Sewerage Company Environmental Performance Assessment (EPA) Methodology (version 3), November 2017' other than as outlined in the above Mitigation/ exceptions. It includes compliance with the Sludge (Use in Agriculture) Regulations and EPR Regulations in so far as they apply to the recycling or disposal of sewage sludge-containing products and residual wastes, and compliance with the Safe Sludge Matrix.

It applies to the permits and exemptions listed below, but this is open to review as this list may become out of date and so has not been recorded in the definition itself:

- Standard Rules SR2010No4 Mobile plant for landspreading.
- Standard rules SR2010No5 Mobile plant for the reclamation, restoration or improvement of land.
- Standard rules SR2010No6 Mobile plant for landspreading of sewage sludge.
- Bespoke mobile plant permits or site based permit which lists sewage sludge or sewage sludge containing materials.
- End of waste opinions for sewage sludge or sewage sludge containing materials.
- Exemptions covering recycling (use) or disposal of sewage sludge or sewage sludge containing materials, including U6 (Use of sludge for the purpose of re-seeding a waste water treatment plant), and S3* (Storage of sludge), but excluding T21**

(Recovery of waste at a waste water treatment works)*.

Reporting will be on the basis of tonnes dry solids (tds) sent to any outlets in a compliant manner, when under the control of the sludge producer, reported as a percentage of overall tds sludge production utilised in a compliant manner, i.e.

(1- unsatisfactory use or disposal tds utilised / total raw tds production) * 100

The current revised definition was agreed in April 2016 by Water UK, all water and sewerage companies and the Environment Agency. Prior to this, each water company used its own definition of this measure so that direct comparison of company performance was not possible.

8.8.3 Proposed level and outcome delivery incentives

Incentive type: Underperformance payment only

Rationale for incentive type: The outcome delivery incentive for this measure is underperformance only. This is a result of the stretching target which means that outperformance is not possible.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	%	100	100	100	100	100

Rationale for level: Maximum attainable
Rationale for PC profile: Flat, set at maximum attainable level.

	2045
Long-term ambition	100

Rationale for 2025-2045 forecast: To remain at the theoretical maximum attainable level.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	%	97	97	97	97	97
P90	%	100	100	100	100	100

Rationale for P10: ‘Red’ in EAs EPA assessment
Rationale for P90: Maximum level attainable

Incentive rate

Incentive type	Incentive Rate (£/%)
Underperformance	98,000

Rationale for incentive rate: Incentive rate is based on the unit cost only.

Additional details

Necessary detail on measurement units	Percentage of sludge
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	This PC applies to sewage sludge as defined in the Sludge (Use in Agriculture) Regulations. Thus it includes sludges derived from any Organic Waste which is discharged to sewers or sewage treatment works and becomes part of the Urban Waste Water flow. The PC excludes any Organic Waste delivered directly into a sewage sludge or Organic Waste treatment process. The PC excludes any sludge exported to a third party for treatment, disposal or recycling to agricultural or non-agricultural outlets where the third party is authorised by an appropriate and relevant environmental permit, exemption or regulatory position allowing the sludge to be utilised in this manner.

Rationale for financial or calendar: As with all EA data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✓	✓ (partial)	✓	✓	✓

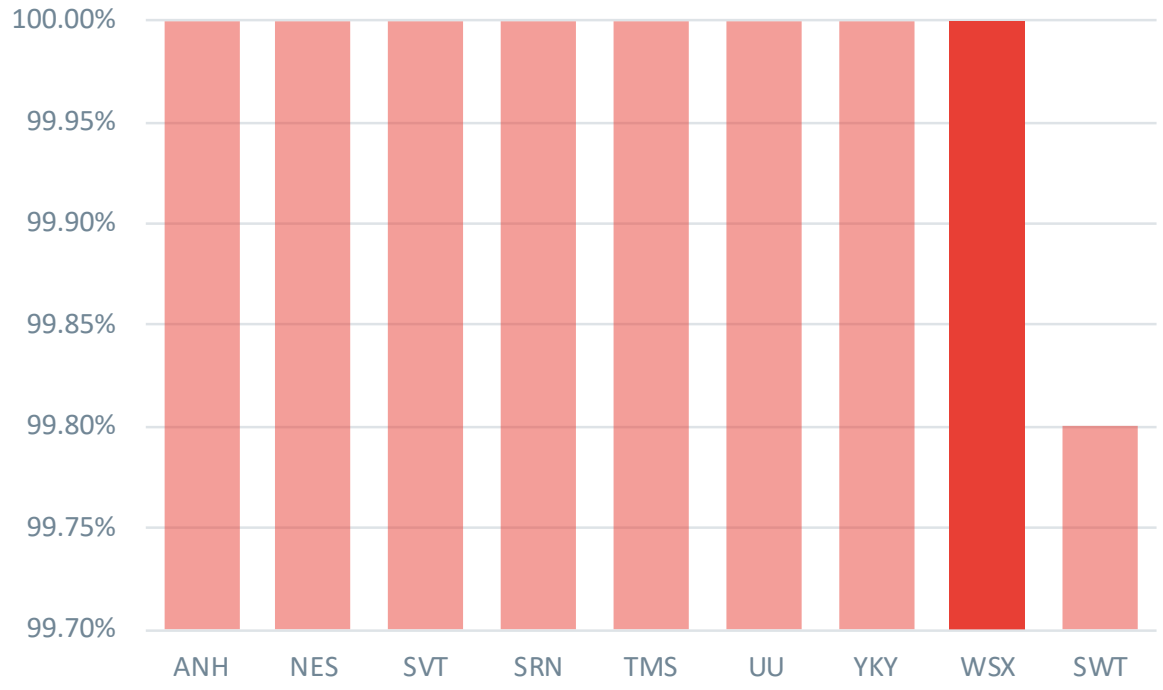
Summary of challenge:

This is a continuation of the PR14 measure included within the EA's EPA measure. The target has been set based on the historical level which is also the maximum level attainable.

8.8.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information (2016):



Source: Environment Agency

Historical information: not applicable as historical information is not directly comparable.

EPA methodology states that the current definition is “the revised definition developed by Water UK (water industry trade association) that describes performance and was agreed by all water and sewerage companies and then the Environment Agency in April 2016.” Prior to this, each water company used their own methodologies for reporting satisfactory sludge disposal. These addressed Sludge (Use in Agriculture) Regulations and Safe Sludge Matrix compliance but did not usually include Environmental Permit or Exemption compliance (now included in the revised measure). It is not really possible to back-calculate what historic compliance would have been using the new measure.

Current performance:

Unit	2017-18
%	100

Forecast performance:

Unit	2018-19	2019-20
%	100	100

Rationale for initial service level: Set at 2019-20 performance target.

Minimum improvement:

Unit	Minimum improvement
%	100

The minimum improvement is to maintain 2017-20 performance at 100%

Maximum level attainable:

Unit	Max. level attainable
%	100

Expert knowledge: Wessex Water currently recycles all its sludge to agricultural land, providing nutrient and soil structure benefits to the land to which it is applied. This measure ensures that this activity complies with all necessary regulations and codes of practice and continues to be sustainable.

8.9 Performance commitment: E9 Reduce frequent spilling overflows (non-WINEP)

8.9.1 Introduction

Why are we looking at this? Throughout our customer engagement, we have routinely seen environmental issues high on our customers list of priorities. In our deliberative research on resilience, customers thought of environmental resilience as an area of high likelihood and of high impact, and so labelled it as a high priority for investment, specifically around the scenario we looked at with them talking about spills into rivers and onto beaches. We have then seen this supported by high valuations in our Maxdiff research. With this scale of customer support there should be incentives in place to encourage us to continue to deliver improvements that are cost beneficial.

Definition of performance measure: Number of combined sewer overflows (CSO) improvements achieved in addition to WINEP requirements.

Customer friendly definition: Improving the environment by reducing the number of overflows that frequently spill sewage into rivers and the sea.

Customer research:

- SDS Research – 86% of people thought we needed to do more to reduce the number of spills
- Maxdiff - Although bathing waters do not have a large direct impact on customers, attracted a high WTP.

8.9.2 Detailed definition

<u>Information relating to the bespoke performance commitment</u>

Research for our Strategic Direction statement has shown that river water quality is a high priority for customers. Our quantitative willingness to pay analyses also show high willingness to pay.

Our customer engagement has routinely rated environmental issues high on our customers list of priorities. In our research on resilience, customers also recognised environmental resilience as an area of high priority for investment, specifically around the scenario we looked at with them, which talked about spills into rivers and onto beaches.

We have also seen this supported by high valuations in our customer research. With this scale of customer support there should be incentives in place to encourage us to continue to deliver improvements that are cost beneficial.

The Environment Agency have been working with the Intermittent Group and the 21st Century Drainage programme to develop a framework for improvements to frequent spilling overflows. This is known as the Storm Overflow Assessment Framework (SOAF).

This performance commitment has been set to allow a mechanism for us to improve the environment by delivering more CSO improvements than the thirteen schemes currently on the WINEP, as encouraged by the Storm Overflow Assessment Framework.

Full definition of the bespoke performance commitment

The Storm Overflow Assessment Framework (SOAF) includes a flowchart for assessment of overflow performance, impact and cost benefit analysis to determine whether investment is required.
The SOAF process is summarised below:

- Using Event Duration Monitoring data at CSOs, calculate the spill frequency (using the 12/24 hour method)
- If spills from a CSO are above 60 in any year, above 50 in two years or above 40 on average over three years, then they are deemed to be a frequent spilling overflow (FSO)
- FSOs require an assessment of the cause of the high frequency
- If the cause of high frequency of spills is due to too much rainfall arriving at the overflows, then the impact on the environment needs to be assessed
- If the overflow is deemed to have an impact on the environment (for example high polluting properties, low dilution, high aesthetics) then a cost benefit analysis is required
- If a FSO improvement option is assessed as cost beneficial, then this will lead to investment.

The purpose of this performance commitment is to provide a mechanism to make hydraulic improvements to FSOs within the period 2022 – 2025 that are not included in the WINEP.

We have agreed with the Environment Agency that the governance of agreeing the most cost beneficial improvement and the sign-off procedure will be that of the WINEP frequent spilling overflow schemes. The sign-off of these non-WINEP schemes will be logged on a seprate sheet from the WINEP schemes.

We have developed this bespoke performance commitment to show our commitment to the Storm Overflow Assessment Framework and to improve the environment, above and beyond the WINEP, where customers support this.

8.9.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance payment only

Rationale for incentive type: This performance commitment has been set as an outperformance payment only to allow a mechanism for us to improve the environment by delivering more CSO improvements than the thirteen schemes currently on the WINEP, as encouraged by the Storm Overflow Assessment Framework.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	No of schemes.	0	0	0	0	0

Rationale for level: We are already improving 13 CSO's as part of WINEP3 (March 2018). This is of high importance to our customers and this measure gives us scope to make further improvements in line with customer views.
Rationale for PC profile: Flat, profile set at zero additional projects delivered in addition to the WINEP.

	2045
Long-term ambition	0

Rationale for 2025-2045 forecast: Continuation of 2020-25 target due to the uncertainty of future requirements.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	No of schemes.	0	0	0	0	0
P90	No of schemes.	0	0	0	0	13

Rationale for P10: No additional schemes are undertaken outside of those stated in WINEP3 (March 2018)
Rationale for P90: Double the number of schemes stated in the WINEP3 (March 2018) are achieved.

Incentive rates

Incentive type	Incentive Rate (£/scheme)
Outperformance (in AMP)	180,000
Outperformance (end of AMP)	2,600,000

The end of AMP outperformance payment will be applied to the number of schemes completed above 0.

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Additional details

Necessary detail on measurement units	Number of schemes Any additional cost beneficial improvements identified following the storm overflow assessment framework (21st Century Drainage). Improvement refers to either hydraulic improvements to reduce spill frequency or screening to improve amenity. Assessment to be based on company's cost benefit analysis used in determining schemes for inclusion in the WINEP.
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	Both in period and end of period
Form of ODI	Both revenue and RCV
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
The revenue portion of the outperformance or underperformance payment will be received in period. The adjustment to the RCV will happen at the end of the price control period.
Rationale for RCV or revenue: The purpose of this commitment is to incentivise us to invest in cost-beneficial improvements to overflows that arise during the PR19 period and which are not funded in the Final Determination. We have got a customer valuation per CSOs improved, undertaking this improvement will result in substantial capital investment but will also improve the CSO for many years. When assessing if these investments are cost beneficial we compare the annual willingness to pay for an improved CSO against the annual bill impact. If we limit the outperformance payment to just the WTP in the year in which the improvement is made as a revenue only incentive, it will be insufficient to incentivise the company to improve additional cost beneficial CSOs.

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✖	✖	✓	✖	✖

Summary of challenge: CBA is not appropriate for this measure as each overflow will be assessed individually. This is a new bespoke measure and so we do not have comparative or historical information. The intention of this measure is to incentivise the delivery of more overflow improvements than in the WINEP if any are identified to be cost beneficial and thereby exceed statutory obligations.

8.9.4 Supporting information for the six challenge process

CBA: not applicable

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available

Historical information: information is not available.

Rationale for initial service level: New measure, no initial service level required.

Minimum improvement:

Unit	Minimum improvement
No.	0

Maximum level attainable: no theoretical maximum. It is not feasible to determine the maximum number of FSOs as the figure changes frequently. This is because we have an ongoing process to investigate combined sewer overflows and determine whether they are FSOs.

Expert knowledge: not applicable in this instance as it refers to work over and above the WINEP.

8.10 Performance commitment: E10 Length of river with improved water quality through WINEP delivery

8.10.1 Introduction

Why are we looking at this? Ofwat's methodology requires us to link expenditure for delivery of WINEP requirements to an outcome and a unit cost.

Definition of performance measure: Length of river with improved water quality through WINEP delivery.

Customer friendly definition: Delivering the environmental improvements required by the Environment Agency

Customer research:

- SDS Research – 75% of customers rated improving river quality a high priority.
- Maxdiff - Although river water quality did not have a large direct impact on customers, attracted a high WTP.
- Sliders – river water quality received one of the highest WTP valuations.
- Conjoint analysis - river water quality received one of the highest WTP valuations.
- Business plan – river water quality received one of the highest WTP valuations.

8.10.2 Detailed definition

Information relating to the bespoke performance commitment

Ofwat's methodology statement requires us to link expenditure for delivery of unconfirmed WINEP requirements to an outcome and a unit cost.

Our proposed approach to protecting customers comprises two parts:

1. A unit cost uncertainty mechanism. In our business plan we will include a unit cost mechanism that can be used to make an adjustment at the end of the period should the schemes not be confirmed. Our understanding is that the amber/uncertain schemes in WINEP will be confirmed or not following a Defra ministerial decision on affordability in 2021, prior to the commencement of the third river basin management plan in January 2022. We envisage that the unit cost mechanism will be a matrix of cost by scheme type and size or a cost curve
2. A performance commitment to monitor delivery of the confirmed schemes within the WINEP – as per this definition.

Our business plan will include cost allowances for all the certain (green) and indicative (amber) schemes, and we propose that this performance commitment includes the total length of river improved from both green and amber schemes. However, should some of the amber schemes not be confirmed, it would be necessary to adjust the targets accordingly; this would be done in full consultation with the EA and the Wessex Water Partnership.

Our customer engagement has been based around lengths of river improved, with our aim to move away from output based measures. Our proposed strategy for environmental improvements has been presented to our CCG on several occasions.

The Environment Agency are also supportive of us using the information in the WINEP to monitor progress. Delivery of WINEP outputs will continue to be one of the metrics within the Environment Agency's annual Environmental Performance Assessment.

Full definition of the bespoke performance commitment

The measure will be back-to-back with the lengths stated in the WINEP. Thus the PC target will equal the total of the lengths of river improved stated in the WINEP, providing transparency with the lengths quoted by the EA.

In Column CA of the WINEP spreadsheet, 'Quantitative Km River Length Improved' is stated for the following categories of scheme:

- Continuous discharge (from STWs) – with the exception of four schemes
- Eel screens
- Some adaptive management schemes
- Some land management/habitat restoration/physical improvement schemes.

The lengths of river improved in the WINEP have been estimated by the EA using the guidance note produced by the EA entitled 'Completing the WINEP spreadsheet supplementary guidance: Environmental outcomes' dated 8/11/2017.

This performance commitment excludes schemes described in the WINEP3 (March 2018) as a 'catchment measure'. These catchment schemes have been included in the performance commitment E7 Working with catchment partners to improve natural capital. Catchment measures are based on delivering terrestrial rather than riverine improvements and so cannot be described in Km of river.

Our aim is to deliver all the schemes in the WINEP. However the PC will provide a mechanism to compensate customers should we fail to deliver a WINEP output. Should we fail to deliver a WINEP output, underperformance performance in the year would be calculated by either:

- Using the length stated in the WINEP, if a length is stated, or,
- If a length is not stated, using the appropriate length for the category of scheme from the table below. The lengths are based on the scale and cost of the relevant projects.

Our incentive rate for this PC uses customers' willingness to pay values based on the length of river improved, providing a direct link between the PC incentive rate and the customer valuations.

Table: Underperformance lengths of river improved (where a length is not included in WINEP)

WINEP section	Type of scheme	Underperformance length (km)
Water Quality	Continuous discharges STW continuous discharges STW flow meter relocation	 31.31 0.08
	Intermittent discharges EDM installations at CSOs CSO/SSO improvements EDM installations at STWs/SSOs STW FFT increase STW Storm storage STW flow meter investigations STW flow meter relocations	 0.06 8.50 0.09 18.32 2.85 0.01 0.27
	Catchment measure	Included in E7
	Land Management / Habitat Restoration / Physical Improvement	6.16
	Catchment investigation	Included in E6
	Investigation	0.57
	Investigation + CSO/SSO improvements	 4.37
	Investigation and Options Appraisal	1.77
Fisheries, Biodiversity and Geomorphology	Adaptive Management	0.12
	Fish Passage	0.40
	Land Management / Habitat Restoration / Physical Improvement	3.29
	Investigation	0.19
	Investigation and Options Appraisal	1.62
Water Resources	Adaptive Management	0.91
	Land Management / Habitat Restoration / Physical Improvement	Included in E7
	Investigation and Options Appraisal	1.33
	Options Appraisal	0.87

Key:
E6 - Working with the community to improve bathing water experience
E7 - Working with catchment partners to improve natural capital

8.10.3 Proposed level and outcome delivery incentives

Incentive type: Underperformance payments only

Rationale for incentive type: This performance commitment has an underperformance ODI only as it covers the non-delivery of the WINEP so there is no ability for outperformance.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Km	151.8	167.4	167.4	463.2	628.8

Rationale for PC level and profile: Profile set as an index based on the regulatory output date of each WINEP deliverable.

This performance commitment (PC targets, P10/P90 and incentive rates) includes the total length of river improved from both certain (green) and indicative (amber) schemes (as agreed with the EA). However, should some of the amber schemes not be confirmed, it would be necessary to adjust the targets accordingly; this would be done in full consultation with the EA and the Wessex Water Partnership following confirmation in 2020-21.

	2045
Long-term ambition	n/a

Rationale for 2025-2045 forecast: This measure may not be relevant after 2025 as it relates to improvements in schemes.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Km	136.6	150.7	150.7	416.9	565.9
P90	Km	167.0	184.1	184.1	509.6	691.7

Rationale for P10: PC target minus 10%
Rationale for P90: PC target plus 10%

Incentive rate

Incentive type	Incentive Rate (£/km)
Underperformance	17,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Additional detail

Necessary detail on measurement units	Kilometre of river improved
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Cumulative
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✗	✗	✗	✓	✗	✗

Summary of challenge: This measure has been set up to protect customers against a lack of delivery of our most challenging environmental programme, and it records the delivery of WINEP regulatory outputs converted to the km of river improved. The outcome will reflect any changes resulting from the updated WINEP. As a result, the other challenges are not appropriate here.

8.10.4 Supporting information for the six challenge process

CBA: CBA has not been used for this measure. The target originates from the WINEP. To define the WINEP, we have provided information to the EA for them to define what schemes are cost beneficial or cost effective depending on the relevant designation.

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available

Historical information: not applicable as this is a new measure for AMP7

Rationale for initial service level: New measure, no initial service level required.

Minimum improvement: This measure has been constructed to protect customers from failure to deliver WINEP outputs. The target has therefore been based on completing the outputs stated in the WINEP.

Maximum level attainable: no theoretical maximum
Expert knowledge: not applicable

8.11 Performance commitment: E11 Km of river improved (non-WINEP)

8.11.1 Introduction

Why are we looking at this? Throughout our customer engagement, we have routinely seen environmental issues high on our customers list of priorities. We have asked our customers about river water quality in all our quantitative studies, often seeing some of the highest valuations. With this scale of customer support there should be incentives in place to encourage us to continue to deliver improvements that are cost beneficial.

There are some catchments in our region where further improvements to the ecology are required (notably Hampshire Avon river and Poole Harbour), but where, having already removed our “fair share” of nutrients, there are no further improvement obligations in the AMP7 WINEP.

The performance of our STWs in these catchments show that there may be potential to outperform against our discharge permit.

We propose to use the SAGIS (Source Apportionment GIS) SIMCAT model to estimate the lengths of river improved by any such out-performance or off-setting work.

Where catchment management off-setting is used to aid the delivery of this PC, we will capture the natural capital benefits associated with this. E.g. area of buffer strips, area of grassland restorations, area of hedgerow improvements. The reporting mechanism will be developed but it is anticipated this will likely be in the form of annual reports to the Catchment panel.

Definition of performance measure: Length of river with improved quality by company action outside of the WINEP. Improvements will include additional nutrient removal through out-performance of our STWs, and/or additional catchment management off-setting.
Customer friendly definition: Improving river quality by reducing the amount of unwanted nutrients.

Customer research:

- SDS Research – 75% of customers rated improving river quality a high priority.
- Maxdiff - Although river water quality did not have a large direct impact on customers, attracted a high WTP.
- Sliders – river water quality received one of the highest WTP valuations.
- Conjoint analysis - river water quality received one of the highest WTP valuations.
- Business plan – river water quality received one of the highest WTP valuations.

8.11.2 Detailed definition

Information relating to the bespoke performance commitment

Our Strategic Direction statement research has shown that rivers are one of the areas that are most likely to be identified as being considered in need of improvement. Our quantitative willingness to pay analyses also showed high willingness to pay.

Our customer engagement has routinely rated environmental issues high on our customers' list of priorities. In our research on resilience, customers also recognised environmental resilience as an area of high priority for investment, specifically around the scenario we looked at with them, which talked about spills into rivers and onto beaches.

We have also seen this supported by high valuations in our customer research. With this scale of customer support there should be incentives in place to encourage us to continue to deliver improvements that are cost beneficial.

Additionally, stakeholders have told us that there is an environmental need to make further improvements in the Hampshire Avon river and also to the rivers discharging into Poole Harbour.

This performance commitment developed through a concern from several stakeholders that further improvements to water quality were required in the Hampshire Avon river. This river has been recognised as a site of European importance for nature conservation, and forms part of a European network of protected sites referred to as **Natura 2000.** It is a **Special Area of Conservation (SAC)** designated under the Habitats Directive3; and the lower reaches of the SAC also lie within the **Avon Valley Special Protection Area (SPA)** which is classified as a separate site under the Birds Directive. In addition it is a listed **Ramsar** site.

Poole Harbour is also designated as an **SSSI** and a **Special Protection Area (SPA**) under the Habitats Regulations 1994, and as a **Ramsar** site, the harbour is also a Sensitive Area under the UWWTD.

Significant development growth is planned at towns in the Hampshire Avon river catchment area and this will increase the overall volume of treated sewage discharging into the river. Natural England (NE) have expressed concern about any increase in base flows and nutrient (P) loads into the river, and have stated that any development needs to be "nutrient neutral". However, with the single exception of Warminster STW, EA and NE have not included any STWs in the Hampshire Avon for nutrient improvement in the PR19 WINEP(3).

Local Authorities, developers and special interest groups including, New Forest DC, Wiltshire CC, MoD, the Salisbury and District Angling Club and the Salmon and Trout Conservation UK, have all requested that we consider what more we can do at our STWs discharging into the R. Avon, to help keep development "nutrient neutral" and to further improve the water quality in the R. Avon.

Wessex Water has 19 STWs discharging into the Hampshire Avon river with nutrient removal processes installed. . The discharges from nearly all of these STWs already significantly out- perform the levels stated in their permits.The potential to take measures to improve the performance of our STWs further beyond their current level is limited and is counteracted by the impact of growth in the catchment area which will increase the loads and flows on to these STWs. Without intervention the discharge of nutrients from these STWs will increase as population increases, although still remaining well within the permit requirements.

We recognise the wider stakeholder support for further improvements and intend to target such improvements as this will help ensure the ecological functioning of the river, such that it can continue to deliver wider benefits to the public through associated leisure and recreational activities.

Where cost effective, the alternative of using catchment management to reduce nutrient run-off from agricultural land can often be a more sustainable option.

Full definition of the bespoke performance commitment

This performance commitment relates to the length of river water quality improved through removal of additional nutrients by company action, and outside of the WINEP. These actions will include an improvement in the performance of our STWs against their existing discharge performance (average of previous 5 years, 2013-17) and further stretching of the current out-performance of their discharge permits. They may also include implementation of additional catchment management off-setting work in the river catchment. This specifically applies to rivers where stakeholders agree there is a need for further improvement, but no improvement is included in the WINEP.

The achievement of this performance commitment will be determined each year by assessing whether our interventions have resulted in an overall reduction in the measured load of nutrient discharged into the watercourse under consideration. This will include discharges from our STWs. (i.e. 19 No. in the Hampshire Avon catchment or 2 No. in Poole Harbour catchment with nutrient removal), as well as reductions in nutrient run-off through our catchment management off-setting activities. The measured discharge load of P or N will be compared with the average discharge load over the last 5 years. (2013-17), taking account of the impact of previously recorded reductions in nutrient run-off from our catchment management off-setting activities. This calculation is shown in Annexe 1 for the Hampshire Avon river and Poole Harbour catchment. The performance commitment will have been met for the watercourse under consideration if there is a net overall reduction in the nutrient load discharged into the catchment.

The Wessex Water Catchment Panel will assess and decide each year whether or not this PC has been achieved for that year.

The length of river quality improved will be assessed by using the SAGIS-Simcat* river water quality modelling tool based on the actual measured out-performance of STWs in the river catchment under consideration. The SAGIS-Simcat model will be used to set a baseline of

river water quality, based on permit conditions on 31/03/20. The Environment Agency have confirmed their agreement with this method.

(*This is the recognised industry tool for WQ planning. The industry, in collaboration with EA, Scottish Environment Protection Agency (SEPA) and NE, has developed this model. Wessex Water hold and use an agreed copy of this model, covering the rivers in our region, which has been developed by the Environment Agency).

The calculation of the reduction in the amount of Phosphorus (Hampshire Avon) or Nitrogen (Poole Harbour) run-off from agricultural sources through catchment management measures will be carried out using the “Farmscoper”* software.

(* Farmscoper is an industry standard model, developed by ADAS and used by the EA and Natural England to verify payments to farmers for Catchment Sensitive Farming (CSF).

The calculation will follow the methodology described below: -

1. At the end of each calendar year, the STWs, farms and associated rivers for consideration under this PC, will be identified by Wessex Water and agreed with our Catchment Panel. These will include STWs where there has been the opportunity to “out-perform” the quality of the nutrient in the treated effluent, as compared to the stated permit discharge standard, and farms where catchment management measures have been applied.
   It is anticipated that this assessment will focus on the Hampshire Avon river (and its tributaries) and also the rivers flowing into Poole Harbour, but there may be other rivers where there exists both the opportunity and stakeholder interest for a level of out-performance.

2. The average annual performance for each STW under consideration, with respect to nutrient removal (Phosphorus or Nitrogen) , will be confirmed by Wessex Water from audit sample data.

3. Associated measured flow data for these selected STWs will be obtained from our certified flow meters.

4. Measures carried out on farms to reduce nutrient run-off will be reported by our Catchment Management team.

5. The reduction in nutrient run-off from the measures reported in “4” above will be calculated using the Farmscoper model.

6. The measured flow and average performance data for the year for all STWs discharging into the stretch or stretches of river under consideration, collected under “2.” and “3” above together with the reduction in nutrient run-off calculated in “5” above, will be used to calculate the load of nutrient discharged.
   This performance commitment will have been met if the total nutrient load discharged

into the river from these sources is less than the historical measured nutrient load.

An example of how this has been calculated is shown in Annexe 1 for the Hampshire Avon and Poole Harbour catchments .. In these cases, the historical average load of nutrient discharged is 11.3 tpa Phosphorus for the Hampshire Avon and 127 tpa Nitrogen for Poole Harbour.

7. The measured flow and annual average performance data for all STWs discharging into the stretch or stretches of river under consideration, collected under “2.” and “3.” above, and the reduction in nutrient run-off calculated in “5” above, will be used as a data set to operate an “improved length of river” version of the SAGIS water quality model.

8. The results from the SAGIS model will be used to calculate the length of river where the concentration of nutrient (Phosphorus or Nitrogen) in the river shows “significant improvement”, as compared to the agreed baseline model.

The following assumptions have been made:

1. A key assumption is that the baseline against which the calculation of the length of any “improvement” will be measured will be based on the discharge permit conditions for the STWs in the river(s) under consideration. This includes both the concentration of nutrient (P or N) in mg/L as an annual average standard, and also the permit dry weather flow expressed in m3/d. The baseline will assume an “average daily flow” of 1.25 x the permitted DWF.

2. The calculation will only count lengths where the modelled concentration of nutrient in the river is lower (i.e. better) by 10% or more, compared to the baseline concentration.

Annexe 1: – Calculations of Historical measured nutrient loads for Hampshire Avon and Poole Harbour catchments

Hampshire Avon annual average phosphorus results

Treatment Works	Existing P mg/L	*Permit Discharge Load tpa*	*Measured Discharge tpa 2013*	*Measured Discharge tpa 2014*	*Measured Discharge tpa 2015*	*Measured Discharge tpa 2016*	*Measured Discharge tpa 2017*
Amesbury STW	1.00	0.83	0.38	0.37	0.37	0.38	0.42
Barford St Martin STW	2.00	0.08	0.08	0.04	0.02	0.02	0.02
Downton STW	1.00	0.55	0.42	0.40	0.37	0.33	0.24
Fordingbridge STW	1.00	1.26	0.65	0.70	0.59	0.46	0.43
Fovant STW	1.00	0.16	0.07	0.09	0.10	0.06	0.04
Hurdcott STW	1.00	0.93	0.76	0.58	0.65	0.67	0.47
Marden STW	2.00	0.17	0.12	0.18	0.05	0.05	0.02
Netheravon STW	1.00	0.68	0.10	0.13	0.11	0.10	0.05
Pewsey STW	1.00	0.73	0.61	0.46	0.48	0.34	0.43
Ratfyn STW	1.00	2.07	0.62	0.43	0.55	0.58	0.61
Ringwood STW	1.00	2.08	1.58	1.02	1.10	1.26	1.07
Salisbury STW	1.00	10.72	5.99	6.42	4.02	5.08	3.78
Shrewton STW	1.00	0.22	0.18	0.15	0.19	0.17	0.16
Tisbury STW	1.00	0.42	0.19	0.22	0.13	0.09	0.06
Upavon STW	1.00	0.19	0.11	0.12	0.04	0.07	0.06
Warminster STW	1.00	2.51	0.99	1.34	0.82	0.51	0.87
Wishford STW	1.00	0.36	0.24	0.26	0.24	0.23	0.18
All Cannings STW	5.00	0.55	0.19	0.24	0.18	0.22	0.18
East Knoyle STW	5.00	0.47	0.06	0.08	0.06	0.07	0.06
		25.0	13.3	13.2	10.1	10.7	9.2 tpa

Five year average discharge = 11.30 tpa

*Discharge loads for 2013-17 for All Cannings and East Knoyle STWs calculated using an effluent P concentration of 1.0mg/L, representing the AMP6 quality enhancement which takes effect from 31/03/20.

Poole Harbour Catchment annual nitrogen results

Year	Existing N mg/L	Permit Discharged Load tpa	Measured Discharged Load tpa 2013	Measured Discharged Load tpa 2014	Measured Discharged Load tpa 2015	Measured Discharged Load tpa 2016	Measured Discharged Load tpa 2017
Poole STW	10.0	217.6	111.1	155.3	144.4	133.1	122.6
Wareham STW*	15.0	35.8	17.6	21.7	15.9	17.5	14.5
Catchment off-setting**		-40			-38.9	-40	-40
Discharged Total N tpa		213.5	128.7	177.0	121.4	110.6	97.1

Five year average discharge 127.0 tpa

- *Discharge loads for 2013-17 for Wareham STW calculated using an effluent N concentration of 15.0 mg/L, representing the AMP7 quality enhancement, which takes effect from 31/03/21.

- ** AMP6 catchment off-setting measures in lieu of N removal at Dorchester STW assumed to continue at the AMP6 NEP rate of 40 tpa.

Discharge of Nitrogen from our other STWs in Poole Harbour catchment assumed not to change; as we are not proposing any N removal work in AMP7 at these STWs (listed below)

STW	Treatment type
GODMANSTONE	Activated Sludge
BROADMAYNE	Activated Sludge
TOLLER PORCORUM	Activated Sludge
LYTCHETT MINSTER	Activated Sludge
WOOL	Activated Sludge
BLACKHEATH	Biological filter
CORFE CASTLE	Biological filter
EAST STOKE	Biological filter
HARMANS CROSS	Biological filter
MILBORNE ST ANDREW	Biological filter
PIDDLEHINTON	Biological filter
STUDLAND	Biological filter
DORCHESTER	Biological filter
EVERSHOT	RBC/MBR
CERNE ABBAS	Biological filter
HIGHER ANSTY	Biological filter
MAIDEN NEWTON	Biological filter
PUDDLETOWN	Biological filter
SYDLING ST NICHOLAS	Biological filter

8.11.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance payments

Rationale for incentive type: There is no underperformance payment attributed against this performance commitment. This is because Wessex Water will be using best endeavours to achieve stretch targets at the STWs identified, and will be incurring additional operational costs in chemicals, labour and sludge treatment and transport to target these improvements. Should the target of “significant improvement” in river water quality not be met, then although we will have incurred additional costs, we would not be gaining any outperformance payment. It would be unreasonable, and involve an element of double-counting, if a further

underperformance payment was charged in relation to such improvements. For further information on the support for this measure, please see Appendix 18.

Proposed performance commitment level

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Km	0	0	0	0	0

Rationale for level: This is of high importance to our customers and this measure gives us scope to make further improvements in line with customer views.
Rationale for PC profile: Flat, profile set at zero additional projects delivered in addition to the WINEP.

	2045
Long-term ambition	0

Rationale for 2025-2045 forecast: We would propose a similar arrangement in future, working on projects in addition to those in the WINEP. As such the target will be zero.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Km	0	0	0	0	0
P90	Km	76	76	76	76	76

Rationale for P10: Zero additional projects delivered in addition to the WINEP
Rationale for P90: This PC has been developed to make improvements in the Hampshire Avon river, which are supported by stakeholders, but not included in the WINEP. The 76km P_{90} figure has been calculated based on the improvement which would result in the Hampshire Avon if the target Phosphorus levels proposed by EA and NE in their email of 15 December 2017 were achieved. Their targets have been set for 20 STW discharges and based on performance levels recorded in 2011. We consider that this level of performance could only be sustained with the installation of additional capital works, which we are not proposing. Our objective is to stretch the performance of the existing treatment processes, based on the optimisation of existing assets only.

Incentive rate

Incentive type	Incentive Rate (£/km)
Outperformance	23,000

Rationale for incentive rate: Incentive rate is based on the standard Ofwat methodology.

Additional details

Necessary detail on measurement units	Kilometre of river improved
Frequency of PC measurement and any use of averaging	Annual (calendar year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	n/a

Rationale for financial or calendar: As with all EA data the reported figures are based on the calendar year and reported in the following financial year.
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✘	✘	✘	✓	✘	✘

Summary of challenge: This measure is intended to incentivise innovative and alternative ways to deliver P removal improvements over and above those schemes being delivered in the WINEP thereby exceeding statutory obligations. The target is therefore set at the minimum improvement achievable. As a result, the other challenges are not appropriate here.

8.11.4 Supporting information for the six challenge process

CBA: not applicable as the target is zero.

Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available

Historical information: not applicable

Rationale for initial service level: New measure, no initial service level required.

Minimum improvement:

Unit	Minimum improvement
Km	0

The minimum improvement is to maintain 0km of river improved.

Maximum level attainable: no theoretical maximum

Known scope of potential improvements:

- 76km in the Hampshire Avon
- 26km downstream of Dorchester STW.

Whilst it is known that there is a potential for 102km of river to be improved, we cannot quantify the maximum km of improved in the Wessex Water region.

Expert knowledge: not applicable in this instance as it refers to work over and above the WINEP.

8.12 Performance commitment: E12 Abstraction Incentive Mechanism (Stubhampton)

8.12.1 Introduction

Definition of performance measure: The volume of water abstracted from the Stubhampton source (boreholes) over the course of the year when river flows are low.

Customer friendly definition: Reducing the amount of water we take from environmentally sensitive sites.

Customer research:

- Local Engagement – We have spent significant time working with local interest groups to inform where there are concerns around our abstractions

8.12.2 Detailed definition

Information relating to the bespoke performance commitment

This measure encourages us to reduce abstraction at potentially environmentally sensitive sources during periods of low river flow, where the impact is not certain enough to warrant abstraction licence changes. To identify suitable sites for an AIM measure, we reviewed abstraction licences listed in the WINEP with the Environment Agency and also considered other abstraction licences where we have ongoing community engagement relating to abstraction. This review highlighted Stubhampton as a good candidate for AIM.

The Stubhampton source (borehole) is located in the upper reach of the River Tarrant Valley. The source draws water from the underlying chalk aquifer, which is drained by the River Tarrant, which is a tributary of the River Stour. The Stubhampton source has been used since the 1950s and in the last 20 years the source has been used at close to 85% of full licence (2.18 Ml/d). The River Tarrant is a winterbourne stream, as such the river can naturally dry during extended dry weather (as experienced in 1976).

The magnitude of flow, or more precisely the periods of no flow, in the River Tarrant has been the subject of local residents' concerns for several years. Concerned parties have formed the River Tarrant Protection Society (RTPS) which has lobbied the EA and Wessex Water that abstraction is adversely impacting the flow and hence ecology of the River Tarrant. The impact of public water supply abstractions upon the River Tarrant is the subject of a current NEP Water Framework Directive (WFD) 'no deterioration' investigation.

The NEP results suggest that our groundwater abstractions from neighbouring catchments do not impact flows along the River Tarrant. Therefore, any river flow change is due to the abstraction at Stubhampton. Hydrological modelling outputs suggest that on average between 1970 to 2016, the historical use of Stubhampton has caused 14 days/year of extra drying (along the winterbourne reach from Gunville to Luton) compared to natural conditions, and 16 days/year if we were to abstract at the full licence.

Conclusions from the ecological assessment indicate that the modelled scale of hydrological impact will not adversely impact the ecology of the River Tarrant.

Stubhampton was originally included in the WINEP as a sustainability change however, because our investigation shows that the impact of abstraction is not environmentally significant but local concern remains, we proposed to the EA to run an AIM scheme at the source to manage abstraction during low flow periods rather than changing our abstraction licence. Local liaison with the EA and RTPS has confirmed their support for this approach.

We are proposing a stretching target for applying AIM at this source, which is commensurate with our long-term strategy to ensure abstractions do not impact the environment. Our target is to reduce abstraction during the AIM window (the period during which groundwater levels at Ivy Cottage are below 78m AOD Ml/d). We estimate that applying AIM at this source using the proposed trigger levels will result in abstraction being reduced around 70% of the time.

Ivy Cottage is a privately-owned borehole that we have monitored during AMP6 with permission of the owner. We have assumed that we will be able to continue to access this site. In the event that this is not possible, an alternative location with an equivalent groundwater trigger level will be agreed in discussion with the EA and RTPS.

Full definition of the bespoke performance commitment

The total volume of water abstracted from Stubhampton when groundwater levels measured at Ivy Cottage are lower than 78m AOD (measured from 1 April – 31 March).

The volume of water abstracted at Stubhampton will be measured by the flow meter at Stubhampton water treatment works (Meter DF252‘).

In addition to the specific measurement of river flows and abstraction volumes, we commit to undertake regular community engagement with the River Tarrant Protection Society to discuss abstraction, water conservation and other relevant matters of mutual interest.

The AIM baseline for Stubhampton is 1.81 Ml/d abstracted over the AIM period (average abstraction of 479.9 Ml for an average of 264 days) as shown in the table below. This is based on our abstraction from this source between April 2011 and March 2018. This period has been used because it is representative of our abstraction for the period prior to AIM and includes the drier than average weather experienced in 2011/12 and 2016/17.

	Historical public water supply (PWS) use in AIM Window	AIM window	Average historic use in AIM window
	Ml/a	days	Ml/d
2011/12	673.4	366	1.84
2012/13	223.5	129	1.73
2013/14	505.4	262	1.93
2014/15	435.1	236	1.84
2015/16	445.4	249	1.79
2016/17	583.9	321	1.82
2017/18	493.0	288	1.71
Average	**479.9**	**264**	**1.81**

8.12.3 Proposed level and outcome delivery incentives

Incentive type: Outperformance and underperformance payment

Rationale for incentive type: Our research shows that customers support the concept of outperformance and underperformance payments across the board. This is supported by our new quantitative research by Turquoise, available in Appendix 22, in which customers were asked to remove individual measures from consideration for outperformance payments. The evidence from this research shows that none of the performance commitments were excluded by the majority of customers.

Proposed performance commitment target

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
PC	Ml/year	45	45	45	45	45

Rationale for target: Target agreed with the relevant stakeholders (EA) following detailed environmental investigations. The target goes beyond the PR19 methodology.
Rationale for PC profile: Flat target assuming that AIM will apply from the start of PR19.

	2045
Long-term ambition	45

Rationale for 2025-2045 forecast: This is a new measure and is subject to change. However, if there are no issues we would continue the existing AIM target level.

P10 and P90

	Unit	2020-21	2021-22	2022-23	2023-24	2024-25
P10	Ml per year	98	98	98	98	98
P90	Ml per year	0	0	0	0	0

Rationale for P10: Likely use in a very wet year based on historical analysis
Rationale for P90: Likely use in a very dry year based on historical analysis

Incentive rates

Incentive type	Incentive Rate (£/Ml)
Outperformance	21
Underperformance	21

Rationale for incentive rate: Standard Ofwat methodlogy or based on the additional cost incurred of the alternative source of water.

Additional details

Necessary detail on measurement units	Megalitres per year
Frequency of PC measurement and any use of averaging	Annual (financial year)
Single or cumulative target	Single
Timing of ODI	In period
Form of ODI	Revenue
Any other relevant information or clarifications	This performance commitment will cease to apply if an alternative approach to reduce the impact of abstraction at Stubhampton, such as a licence reduction, is put in place. The alternative approach will be subject to approval of the Wessex Water Partnership.

Rationale for financial or calendar: Default timing
Receiving rewards/penalties in period is the standard method
Rationale for RCV or revenue: Default form

Six challenge process

CBA	Comparative information	Historical information	Minimum improvement	Max. level attainable	Expert knowledge
✖	✖	✓ (partial)	✖	✓	✓

Summary of challenge: CBA is not appropriate for this measure as this PC is not designed to provide the most cost-beneficial approach but to consider the wider implications of our abstraction that do not have easily definable benefit cases. As this is a bespoke measure, specific to our area, there is no comparative information.

This new measure will provide a means of maintaining greater system resilience to the benefit of our customers while limiting the amount of flows. The target level has been agreed with stakeholders following extensive environmental investigations.

8.12.4 Supporting information for the six challenge process

CBA: not applicable
Comparative information: not applicable as this is a bespoke performance commitment and no comparable data is available

Historical information: historical data is not available as is this a new measure.

Current performance:

Unit	2017-18
Ml/d	179

Forecast performance:

Unit	2018-19	2019-20
Ml/d	192	192

Rationale for initial service level: Calculated using Ofwat's PR19 methodology.

Minimum improvement: not applicable

Maximum level attainable:

Unit	Max. level attainable
Ml/d	0

It is not feasible to target 0 Ml/d.

Expert knowledge: In setting the performance commitment for Stubhampton expert knowledge has played a significant role. The River Tarrant Protection Society (RTPS) has expressed concern about the impact of abstraction upon flow in the River Tarrant for many years, this concern was also shared by the Environment Agency. A study commission by Wessex Water in 2003 indicated a low level of impact, but this was effectively a qualitative assessment. Since then the Wessex Basin (groundwater/river flow) Model has been developed by Wessex Water and the Environment Agency to answer this very type of question. Between April 2015 and March 2018 our investigations and modelling have established the impact of the Stubhampton abstraction upon the River Tarrant. The study concluded that the flow change was not detrimental to the river ecology, however, the RTPS has residual concerns. The Environment Agency initially proposed a licence reduction of 1.09 Ml/d from the current daily limit of 2.18 Ml/d. We discussed the concept of using an Abstraction Incentive Mechanism (AIM) at Stubhampton to manage the impact on flows, whilst retaining greater network system resilience to the benefit of customer supplies. Hydrological modelling of river flows and groundwater levels has underpinned our assessment of appropriate trigger levels for the AIM period.

8.13 Customer response: Protecting and enhancing the environment

Two phases of research were conducted to determine acceptability and affordability of the business plan. As part of the first phase, customers and stakeholders responded with the following feedback on 'protecting and enhancing the environment':

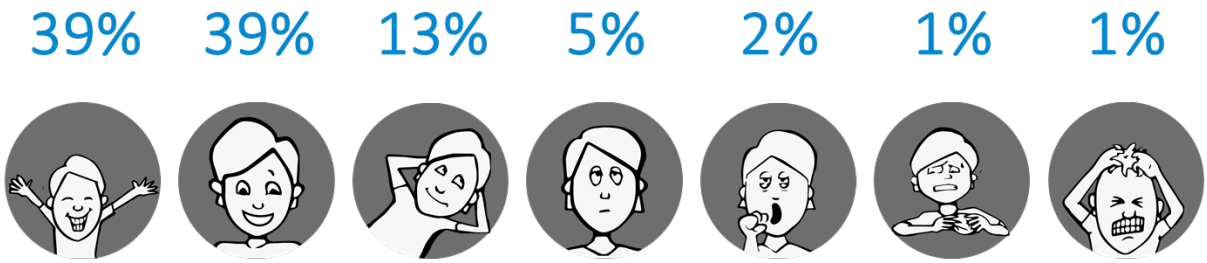
Household Customer Reactions (Engagement Events)

- ✓ Impressed to see how well Wessex Water perform on pollution incidents
- ✓ Customers very positive about the proposed plan
- ✓ Clear that Wessex Water want to positively impact environment, and many surprised at how much Wessex Water is prepared to do to make it a reality
- ? Being environmentally responsible is a common aim for companies, so it is hard for Wessex Water to 'overachieve'
- ? Impressed but general view is that more can always be done
- ? Most customers had not considered Wessex Water environmental impact before and think more should be done to communicate improvement efforts

Stakeholder Reactions

- ✓ Stakeholders from all backgrounds believe environmental protection should be front and centre of Wessex Water's activities
- ? But several felt that this programme was more business-as-usual than new commitments (i.e. what water companies already have to do)
- ? A number would like to see specifics before being unreservedly positive:
  - ? How will Wessex Water deliver the proposals
  - ? How will the measures help the environment
- ? Some wanted to see a link made between leakage and environmental protection

Following feedback from phase one, no adjustments were made to the performance commitments in 'protecting and enhancing the environment' but the overall bill impact was adjusted to account for changes elsewhere in the plan. In relation to the final business plan, customers were asked how they feel about the proposed approach to 'protecting and enhancing the environment', they responded as follows:



Further detail can be found in supporting document 1.1 and appendix 1.1.O.

Annexes

Annex A EA response to Ofwat consultation on methodolgy for the 2019 price review

Response to Ofwat consultation Methodology for the 2019 Price Review

1.0 Summary

1.1 We are pleased to respond to the PR19 draft methodology consultation. Over the last twenty years there has been significant progress in enhancing the water environment and Ofwat's contribution has been critical. We believe this price review methodology will provide another important step towards ensuring high quality, sustainable and resilient water and wastewater services, a healthy water environment and communities better protected from flooding.

1.2 We support the proposals to strengthen the outcomes approach and the introduction of a new resilience framework. We agree with the expectation that companies need to innovate and plan for the long-term. These proposals closely align with our own ambitions for the water industry and should help companies ensure excellent environmental performance; help protect and enhance the wider environment; and further improve their resilience to drought and flooding.

1.3 We agree with plans to introduce separate price controls for water resources and bioresources and greater integration across water resources and wastewater.

1.4 As the environmental regulator for the water industry in England our role is to advise government, water companies and Ofwat on the likely environmental opportunities and risks associated with the price review. We set out a summary of our consultation response below followed by more detailed answers to 21 of the 68 questions posed in the consultation.

1.5 The main points of our response are:

- Company performance commitments should take account of local environmental and flood risk pressures and opportunities,

customer priorities and the regulatory expectations and best practice set out in the Water Industry Strategic Environmental Requirements (WISER) strategic steer.

- We expect to see an allowance in price limits for all 'green' and 'amber' measures in the Water Industry National Environment Programme (WINEP3).

- Upper quartile performance should be seen as the industry benchmark and we would expect leading companies to be striving for frontier performance and beyond.
- Requiring companies to adopt resilience principles and resilience performance commitments shows the outcomes approach is evolving in the right direction and will give all parties confidence that companies are planning for the long-term.
- Moving away from a sustainable economic level of leakage (SELL) is a positive step. Leakage performance commitments should be stretching and we expect those companies facing the greatest challenges (high levels of leakage in water stressed areas) to be doing the most.
- We expect to see common performance commitments for pollution incidents mirror the metrics used in the Environmental Performance Assessment (EPA).
- We would like to see natural asset and natural capital type metrics included as part of the asset health long list.
- Sewer blockages are the main cause of sewer flooding and pollution incidents and should be added to the list of common performance commitments.
- We support higher rewards for very high levels of performance but we do not want to see companies compromise their regulatory obligations as a result.
- We would like to see Ofwat promoting the transition programme as a mechanism for investing in early delivery environmental measures.
- Past performance and evidence relating to prosecution rates, non- compliance and incident self-reporting should be taken into account in the initial assessment of business plans.
- High quality plans should include evidence that companies have worked closely with partners and stakeholders to identify, agree and design joint solutions on flooding and catchment management.

1.6 In answering the consultation questions we have limited our comments to specific issues that we feel are relevant to our role in protecting people, communities and the environment.

2.0 Delivering outcomes for customers

Q1. Do you agree with our proposals for common and

bespoke performance commitments?

2.1 Yes, we strongly agree with the proposals. They encourage the right balance of common and bespoke performance commitments. While it is important to be able to compare company performance across the industry different pressures mean that company business plans will need to reflect local priorities and customer preference. The examples of bespoke environmental commitments set out in chapter 2 are a good starting point for this. We strongly agree that performance commitments should be supported by long- term performance projections.

Q1a. Do you agree with the common Performance Commitments (1 - 14)?

2.2 We agree with some of the proposals but not all. Overall, we support using common performance commitments with standard definitions as the basis for ensuring that companies have sufficiently stretching targets. It is right that the list of common performance commitments covers the services that are most important to customers and the company activities that have the biggest effect on the environment. The inclusion of resilience performance commitments shows the outcomes approach is evolving in the right direction. The focus on flooding and drought appropriately captures the need for companies to consider the resilience of their assets to the increasing occurrence of extreme weather. These metrics will help give all parties confidence that companies are planning for the long term. We will continue to support Ofwat and the water industry develop these resilience metrics.

2.3 For the wastewater flooding risk metric, we believe option 1b is more advanced than 1a, and will better quantify risk in a consistent way. We support the proposal that where there is no data (no model), and the risk grade of the catchment is between 2 to 5, the pipes in that catchment should be assumed to surcharge. This will incentivise the wider application of sewer models and support long-term wastewater planning activities. We support option 2 and believe it has the potential to positively reward those companies that take action to understand the performance of their sewerage networks and the interaction of combined sewer overflows with environmental and social benefits. Option 3 also offers a metric that we think should be investigated and developed further.

2.4 We are pleased to see pollution incidents as a common performance commitment. These can have significant effects on customer's current and their future use and enjoyment of the water environment. Our preference is for this common performance commitment to mirror the pollution incidents metrics in the EPA. This would mean a commitment based on serious pollution incidents (category 1 and 2), or a total pollution incidents commitment covering category 1, 2 and 3 incidents. A category 3 incident is where pollutants enter the water course but have limited effect.

Category 3 incidents are a useful indicator of potential operational problems but are not of greatest concern to ourselves, businesses and customers. Setting a common performance commitment based on category 1 and 2 serious pollution incidents would help reinforce the WISER expectation that serious pollution incidents should be trending to towards zero.

2.5 We support having a separate package of common performance commitments for asset health, but would like to see sewer blockages added to the list. Sewer blockages are the main cause of sewer flooding and pollution incidents and we know that what is flushed down the drain has a huge impact on blockages. A common performance commitment in this area would better incentivise companies to make household and business customers' part of the solution. Companies should be assessing the health of their current assets using metrics that record performance of the infrastructure throughout the lifetime of the structure(s) rather than catastrophic failure such as sewer collapse.

2.6 We would like permit compliance to be a common performance commitment using the EPA definition. This will enable bench marking between companies and drive greater compliance with legal obligations. We do not think that asset health measure 4: pollution incidents caused by non-infrastructure (above ground) assets should be based on the number of category 4 pollution incidents. Category 4 incidents are no-impact events and we do not collect or validate this data, or use it to report performance.

Q1b. Do you agree with our approach to asset health outcomes?

2.7 We agree with some of the proposals for asset health outcomes but not all. Partially standardising the approach to asset health seems sensible and we strongly support the removal of aggregated sub-measures. Introducing a long list of bespoke measures is a positive step but the list is very focussed on existing built assets. We would like to see some examples of natural asset and natural capital type metrics included in the asset health long list.

2.8 Customers and Customer Challenge Groups (CCGs) will require support to help them challenge companies on their asset health proposals. This is a complicated area and while preventing the aggregation of measures will reduce complexity and increase transparency we would like to see Ofwat develop proposals for helping customers to better understand this area of performance.

2.9 Although sewer blockages is on the long list of asset health measures our preference is for it to replace sewer collapses as a common performance commitment. Blockages have previously replaced collapses as a serviceability measure. We believe there is

little incentive for companies to choose sewer blockages as an additional measure as it is more challenging to meet than sewer collapse. We disagree with including category 4 pollution incidents on the long list of asset health measures for the reasons set out in 2.6.

2.10 Asset health performance commitments should drive innovation and stretching performance and we would expect to see upper quartile performance as a starting point.

2.11 There is some inconsistency in the definition of category 1 and 2 pollution incidents in appendix 3. It is listed as a 'wastewater metric' but the definition refers to pollution from 'all asset types'. We believe this should be sewerage only (in line with the EPA).

2.12 The bespoke performance commitment 'percentage of total population equivalent served by sewage treatment works in breach of Water Resources Act (WRA) or Urban Wastewater Treatment Directive (UWWTD) consent look- up table' should be revised. This is a subset of overall numeric compliance. We suggest a commitment based on the percentage of population equivalent served by sewage treatment works with numeric limits which were non- compliant with sanitary look-up table limits or nutrient limits, UWWTD look-up table limits or nutrient limits. We undertake numeric compliance assessments

on a calendar year basis and population equivalent figures are submitted annually by the companies to Ofwat. The WISER expectations in this area are not limited to biochemical oxygen demand and / or phosphorus so we expect to see 100% compliance with all look up table permits.

Q1c. Do you agree with our approach to bespoke PCs including areas that bespoke PCs should cover?

2.13 We strongly agree with the approach. Bespoke performance commitments are an opportunity to focus on local service pressures and priorities. For the environment and flood risk this could mean going beyond statutory obligations, adopting new approaches or trialling innovative techniques with customers and partners. Companies should use bespoke commitments as a way of improving their operations and the culture of the organisation. For example, working across company boundaries on issues such as security of supply, collaborating with other risk management authorities on flooding improvements and applying sustainable catchment approaches.

2.14 The examples of bespoke environmental commitments set out in

chapter 2 are a good starting point. When developing bespoke commitments companies should take account of local environmental pressures, customer priorities and the regulatory expectations set out in WISER.

2.15 We continue to support the use of the Abstraction Incentive Mechanism (AIM) to improve the resilience of water supply and ensure that it is provided in a more sustainable way. AIM should be used to enable companies to deliver solutions quicker, or achieve outcomes that go beyond current regulatory requirements.

Q2. Do you agree with our proposals on setting performance commitment levels?

2.16 Yes, we agree with the proposals. Companies should be setting stretching performance commitments to meet the needs of the environment and customers. Engaging customers and stakeholders must be the first step in determining appropriate performance levels. We accept that setting the initial service levels can be difficult, however, we do not believe that companies should receive rewards for deteriorating performance, especially when these relate to pollution incidents, non-compliance or customer priorities such as sewer flooding. CCG scrutiny and the proposed approaches to assessing performance levels in Table 4.4 will help but other mechanisms should be put in place to ensure that initial service levels are accurate and do not lead to perverse rewards.

2.17 We strongly agree with companies setting long-term performance commitment projections using best available evidence, for example drainage strategies. These should align with other strategic planning requirements such as water resource management plans, river basin management plans and WISER.

2.18 Upper quartile performance should be seen as the industry benchmark and we would expect leading companies to be striving for frontier performance and beyond. Creating a more ambitious culture is essential if the industry is to innovate in a way that helps it meet the challenges ahead. This is an opportunity for the water industry to turn the good practice from PR14 into common practice for PR19.

Q2c. Do you agree with our proposals to setting leakage performance commitment levels?

2.19 Yes, we strongly agree with the proposals. We see these proposals as a great improvement. They align with the WISER expectation that water companies will set challenging targets for leakage based on customers' views and the potential for innovation. Moving away from SELL is a positive step and we expect those companies with the greatest challenges (high levels of leakage in water stressed areas)

to be doing the most. Ofwat should consider using the companies' current resource position and existing levels of leakage to determine appropriate performance levels. We expect the downward trend in leakage to be reflected in companies' long-term commitment projections. We welcome the requirement to use the new reporting method and definition for the Final Determination, recognising that it may take some companies' time to implement.

Q3. Do you agree with our proposals for strengthening outcome delivery incentives?

2.20 Yes, we agree with the proposals. We support the use of outcome delivery incentive (ODIs) rewards where companies are looking to go beyond their statutory duties or are delivering quicker or achieving additional outcomes beyond those intended. We do not support the use of ODIs to reward companies for complying with their existing statutory requirements.

2.21 Reputational ODIs can be an effective way of encouraging innovation and new approaches, for example catchment based solutions or source control options. Open reporting of performance is extremely important and we support the use of comparative tables for reputational ODIs where appropriate.

2.22 Financial ODIs should be transparent, proportionate and effective. We support using in-period ODIs, applying end-of-period ODIs to revenue rather than the Regulatory Capital Value (RCV) and discouraging the use of deadbands. We agree with the use of higher rewards for very high levels of performance but we do not want to see companies compromise their regulatory obligations as a result. Where high level performance commitments are made business plans should contain supplementary information on how companies intend to achieve them.

Q4. Do you agree with our proposed Customer Measure of Experience (C-MeX)?

2.23 Yes, we agree with the proposals and support option 1. Focussing on the overall customer experience as well as customer service will provide an insight into customers' wider view of company performance, including the environment and resilience. We accept the purpose of C-MeX is to incentivise excellence for the whole customer journey but we hope the measure can also be used to consider areas such as reputation, legacy and customer engagement.

3.0 Securing long-term resilience

Q1. Do you agree with our resilience planning principles?

3.1 Yes, we strongly agree with the principles. The principles touch on all the key aspects of resilience and should rightly form part of the initial assessment of business plans. They could be further improved by asking companies to make it clear how their understanding of risk has informed their final options, thereby drawing out the "golden thread" that links assessment to options to investment.

3.2 Principle 3 should reflect the need to engage with stakeholders and partners as well as customers. Customers' focus will principally be on resilience to events that directly impact them. They will not necessarily be concerned to the same degree over resilience to environmental impacts and this should be taken into account when considering the outcome of customer engagement on decision making and weighting.

3.3 The figure 5.1 and the supporting commentary focusses on resilient services, underpinned by resilient organisations. Would like to see the resilience of catchments and the rewards of enhancing our natural capital featuring more prominently. Long-term planning and climate change adaptation are implicit elements in how companies address the resilience agenda.

Q2. Do you agree with our approach to assessing resilience in the initial assessment of plans?

3.4 Yes, we strongly agree with the approach. Building long-term resilience requires collaboration and co-operation and companies can show leadership by clearly setting out the issues and sharing their understanding of risk and forward programmes of work. Water companies have choices in how they address resilience challenges, including working with and through third parties. For example, a company could make a critical network asset more resilient to coastal flooding by either; building a bund to protect the asset, investing in a third parties flood defence or re-locating the asset. These choices and their cost and benefits will need to be clearly presented to CCGs, so customers are assured that most cost effective options have been considered.

4.0 Targeted controls, markets and innovation

Q1. Do you agree with our draft guidance that appointees should focus on projects likely to deliver the greatest customer value for DPC at PR19?

4.1 Yes, we agree with the guidance. It is right that companies, as procurer of the service, continue to be responsible for ensuring compliance with requirements and standards enforced by the regulators. We expect water company Boards to provide assurance that a competitively appointed provider will deliver the expected

outcomes on its behalf.

5.0 Securing cost efficiency

Do you agree with our overall approach to cost assessment?

5.1 We do not fully agree with the approach to assessing abstraction charges. Compensation payments are no longer relevant to water companies so subsistence charges alone should be used to assess the materiality of abstraction charges and determine the best approach going forward. We agree that there should be an efficient allowance for abstraction charges but do not have a view on whether charges should be included in benchmarking models or not.

5.2 It should be clear when requesting abstraction charges evidence from companies whether this relates to existing licence stock, projected licence stock the current Environment Agency charge regime.

Q3. Do you agree with our proposals to funding unconfirmed environmental requirements? Which of the two options do you consider is more appropriate, and why?

5.3 Water companies have an obligation to complete Water Framework Directive measures that are deemed technically feasible, cost effective and affordable. The WINEP will identify which of these measures water companies must include in business plans. To help companies plan for measures where there is a time difference between business plan final determination (2019) and ministerial signoff of the cycle 3 river basin management plans (2021) we have added a traffic light system to reflect the different levels of uncertainty associated with the development of measures, economic appraisal and ministerial decisions.

5.4 The table below summarises the criteria used in the WINEP managing uncertainty traffic light coding.

		Justification		
Traffic light	Certainty	Evidence that water company action is needed	Evidence that measures are cost beneficial	Ministerial agreement on affordability
Green	High	✓	✓	✓
Amber	Medium	✓	✓	×
Red	Low	✓	×	×
Purple	Minimal	×	×	×

5.5 We expect to see an allowance in price limits for the measures in WINEP3 associated with high (green) and medium (amber)

certainty. Information on red measures is provided to companies to inform business plans rather than be associated with specific cost allowances. We expect companies to make

cost estimates for red measures during planning as these may change to amber or green as planning progresses.

5.6 Overall, the PR19 environmental measures are more certain than PR14 since economic analysis is complete, there is an established list of specific measures and a technically achievable limit for phosphorus has been
agreed. Measures should be complete 3 years after the plans are published and we will be looking for any measures signed-off by ministers in 2021 to be completed during AMP7.

5.7 Setting a cost allowance based on the full scale of the high (green) and medium (amber) certainty programme will ensure water companies are able to fulfil their obligation to protect and enhance the water environment. We agree that customers should be protected and would therefore support linking efficient funding to a clear and transparent adjustment mechanism; one that both penalises companies for non-delivery and also rewards them for going further and faster in the delivery of their obligations where there is customer support.

Q7 Do you agree with our proposals for the transition programme?

5.8 Yes, we agree with the proposals. Transition programmes can help companies to plan and deliver programmes of work that do not necessarily align with the 5 year AMP period. WINEP3 will be released to water companies in March 2018 and where there is a relatively high degree of certainty around measures (green and amber) we think companies should be able to start designing and implementing solutions before the start of AMP7. We would like the see the methodology specifically promote the transition programme as a mechanism for helping companies meet early delivery environmental requirements within the AMP period, for example, bathing and shellfish waters measures and investigations that will inform PR24.

6.0 Accounting for past delivery

Do you agree with our proposed approach for reflecting how well the company is delivering for customers over the 2015-20 period in the initial assessment of business plans? If not, please explain your alternative approach and why this would be in customers' interests.

6.1 Yes we agree with the approach. Past performance provides a good indication of how well companies understand their business and

assets and how realistic their plans are looking forwards.

6.2 Company performance goes beyond the commitment made in business plans. How effectively companies respond to and recover from incidents is a strong guide of performance. Evidence such as prosecution rates, non-compliance and incident self-reporting should also be taken into account in the initial assessment of business plans. Any past performance assessment should factor in "how" as well as "what" commitments were achieved. Evidence that poor practice was employed in order to achieve commitments should be factored into the assessment of past performance.

6.3 Some environmental performance commitments relating to rivers improved currently only have a target set for the end of the period i.e. 2019-20. Where this is the case it would be helpful for companies to provide evidence of progress to date i.e. to 2017-2018.

7.0 Securing confidence and assurance

Q2. Do you agree that our approach to assessing assurance can provide us and stakeholders with confidence in the companies' business plans?

7.1 Yes, we agree with the approach. Boards should be satisfied that the company will meet its statutory obligations. We welcome the proposals to publish the whole of companies' business plans, including data table commentaries and supplementary information on outcomes, performance commitments and investment decisions.

7.2 As referenced in section 13.7.2 and in line with the government's strategic policy statement we have written to all water companies outlining the obligations and expectations for the water industry during the price review period 2020-2025. Water companies should set out in their business plans and commentaries how they plan to deliver against these WISER expectations. We will also be looking for formal assurance from company Boards that they are planning and investing appropriately to enable them to meet these obligations.

8.0 The initial assessment of business plans: securing high quality, ambition and innovation

Q1. Do you agree with our proposed approach to the initial assessment of business plans?

8.1 Yes, we agree with the proposal to base the initial assessment of business plans on the quality and level of ambition and innovation.

The business plan tests relating to outcomes and securing resilience should look specifically at whether companies have taken account of the expectations in WISER. This should be in addition to the tests relating to Board assurance. High quality and fast-track business plans should include robust evidence that companies have engaged customers and partners on non-statutory environment expectations. High quality plans should also include evidence that companies have worked closely with partners and stakeholders to design and agree joint solutions that deliver wider benefits for customers and the environment, for example catchment approaches and integrated drainage solutions. We expect business plans that do not demonstrate that companies will meet their statutory and statutory plus expectations to be categorised as slow-track.

Q1a. In terms of the nine test areas?

8.2 We agree with some of the proposals but not all. We believe the second test area should be retitled 'delivering outcomes for customers and the environment'. This will highlight the role that companies play in protecting and improving the environment and maximising the benefits that customers receive from a healthy water environment.

Q1c. In terms of the business plan categories we propose to assign companies to (significant scrutiny, slow track, fast track, exceptional)?

8.3 Yes, we agree with the guidance. The use of a four tier scoring mechanism and removing an obvious middle ground should encourage companies to aim for the top 2 rather than the bottom 2 categorises.

Q1d. In terms of the financial, procedural and reputational incentives we propose to put in place?

8.4 Yes, we agree with the proposals.

Q2. Do you agree with our proposed approach to assessing a company's ability to deliver results for customers and the environment from innovation?

8.5 Yes, we strongly agree with the approach. Companies should be looking to innovate and develop new ways to improve services and tackle environmental issues. A number of companies pioneered new technologies and techniques at PR14 and we would expect these to be adopted more widely.

Further information

Further information to this response can be obtained from Pete Fox, Director Land, Water and Biodiversity, by post at Environment Agency, Richard Fairclough House, Knutsford Road, Latchford, Warrington, Cheshire, WA4 1HT or by telephone on +442030250929 or by e-mail at pete.fox@environment-agency.gov.uk

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