

PR19 OC Representations table commentaries

August 2019

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OC1 – P10 and P90 data (levels and payments) for performance commitments included in draft determinations

Overview

Table OC1 should be used to record any changes to P10 and P90 data (levels and payments), taking the PC/ODI parameters set at draft determinations as fixed. Companies should not take into account any proposed changes to these parameters on which they are making representations when completing this table.

The PC and ODI representation template Tables OC1 and OC2.1 requests for information on the P10 and P90 values for both the draft determination PC and ODI parameters and for any of our representations. The guidance states that “If parameter changes have been proposed for a given PC, then (depending on the nature of the changes) we would expect the P10 and P90 data provided in Table OC2.1 for that PC to deviate from the P10 and P90 data provided in Table OC1.”

Our representations include several changes for the performance commitment levels from the draft determination, however our P10 and P90 level of performance are the same under both scenarios.

A change in the performance commitment level will not influence our P10 and P90 values. Our P10 and P90 level of performance are derived from both a statistical approach and an operational view of our business based on our historical performance, on-going efficiency improvements and the business plan level of investment. Any change to our business plan targets in the draft determination will not impact on our probabilistic distribution. A change in the target in the DD will change the likelihood of achieving the target. In several instances the target is below our P90 level of performance, in these cases we would expect to incur a penalty given the P90 level of performance.

An example of this is supply interruptions. The table below outlines our business plan target and P10 and P90 value. The draft determination reduced our target from 8 minutes in 2024/25 to 3 minutes. Ofwat’s change to the target does not change our P10 and P90 performance. Our P90 level of performance in 2024/25 is 5 minutes therefore given Ofwat’s target of 3 minutes we would expect to incur penalties at our P90 level of performance.

Supply Interruptions (Minutes)

	2020/21	2021/22	2022/23	2023/24	2024/25
Business Plan Target	00:11:12	00:10:24	00:09:36	00:08:48	00:08:00
P10	00:19:48	00:19:06	00:18:36	00:17:24	00:17:06
P90	00:06:24	00:06:00	00:05:30	00:05:24	00:05:00
Ofwat DD Target	00:05:24	00:04:48	00:04:12	00:03:36	00:03:00

Guidance provided by Ofwat, reproduced below, directed our completion of Table OC1.

Column 1 PC name

Name of the performance commitment (free-format text with no validation)

Column 2 Unique ID

Unique identifier for the performance commitment.

Column 3 Common PC flag

Indicates whether this is a common PC

Column 4 PC unit

For example: %, £m, category, N/A, nr, rank, score, TBC, text, time

Column 5 PC unit description

Description of the PC unit (free-format text with no validation)

Column 6 Decimal places

Number of decimal places used, where applicable

Column 7 Direction of improvement

'Up' if an increase in the numeric value or score means a better (improving) performance

'Down' if a decrease in the numeric value or score means a better (improving) performance

Leave blank if neither of the above apply

Column 8 P10 underperformance payments

Number of decimal places used, where applicable

This is calculated using the draft determination underperformance rate published by Ofwat and the P10 performance level in column 9.

Column 9 P10 performance levels

Enter the performance commitment levels that are used to derive the P10 underperformance payments, for the five years 2020-21 to 2024-25.

Enter these using the same units as the 2020-25 performance commitment levels.

Further information on the calculation of the P10 level is in the supporting document 5.5.1 PR19 Outcome Delivery Incentives- ODI Payment Incentive Rates WSH, B2.4.OC.WSH AND WSH.DD.OC.2.

Column 10 P90 outperformance payments

For the five years 2020-21 to 2024-25 and also a total for the 5-year period (the 5-year total will usually be the total of the five individual years, but may not be): enter the P90 outperformance payment values, where applicable (£ million to 4 decimal places).

Outperformance payments should be entered as positive values (for example: 1.2345)

Otherwise leave blank.

P90 can be defined as follows: there is a 10% likelihood of achieving a return above the identified range. By definition P90 returns are relatively unlikely to occur and this is especially the case cumulatively across all ODIs at the same time.

We would not necessarily expect the P90 figures in table App1 to equal the P90 scenario figures in table App26.

This is calculated using the draft determination outperformance rate published by Ofwat and the P90 performance level in column 11.

Column 11 P90 performance levels

Enter the performance commitment levels that are used to derive the P90 outperformance payments, for the five years 2020-21 to 2024-25.

Enter these using the same units as the 2020-25 performance commitment levels.

Further information on the calculation of the P90 level is in the September 2018 Business Plan supporting document 5.5.1 PR19 Outcome Delivery Incentives - ODI Payment Incentive Rates WSH, IAP response document 'B2.4.OC.WSH' and DD response document 'WSH.DD.OC.2'.

Table OC2.1 – PC/ODI parameters for performance commitments in standardised measurement units

Overview

The table does not lend itself to a line by line commentary so we have provided a summary commentary by column.

Column 1 PC name

Name of the performance commitment (free-format text with no validation)

Column 2 Unique ID

Unique identifier for the performance commitment.

Column 3 Common PC flag

Indicates whether this is a common PC

Column 4 Change in PC definition?

Provide a “Yes” in column E to indicate if there has been a change in PC definition.

Column 5 Remove PC?

Provide confirmation if a PC has been removed.

Column 6 - Price Control Allocation (%)

Enter the allocation for each price control (as a percentage, to 1 decimal place)

Notes

- a PC may be allocated over more than one price control if it is appropriate for the same performance levels to apply to each of the price controls. Where a PC is allocated over more than one price control companies should explain clearly in the business plan commentary how the allocation has been derived*
- where the allocation between price controls does not remain constant over the five year period (2020-21 to 2024-25) there should be separate PCs*
- the total allocation across price controls must equal 100%*
- for PCs with a financial incentive, these percentages will be used to allocate outperformance payments and underperformance penalties across price controls*

Price control allocations have been included for seven measures where we reinstate financial incentives.

Column 14 Price control allocation (%) total

The price control allocation total is calculated - it will be highlighted in red if the total does not equal 100%

Column 15 ODI Type

NFI (no financial incentive)

OUT (outperformance payment only)

UNDER (underperformance penalty only)

OUT and UNDER (outperformance payment and underperformance penalty)

ODI type has been updated for seven measures where we reinstate financial incentives.

Column 16 ODI Form

Revenue = Revenue adjustment

Note 1: under the new customer measure of experience (C-MeX) and developer services measure of experience (D-MeX) mechanisms, any outperformance payment or underperformance penalty will be an adjustment to revenue

Note 2: all in-period ODIs are revenue adjustments

RCV = RCV adjustment

RCV or Revenue = RCV or Revenue adjustment (for example, where an outperformance payment is applied as an adjustment to the RCV and an underperformance penalty is applied as a revenue adjustment)

Shareholder = underperformance penalty is applied as an investment for the benefit of customers financed by shareholders with no RCV adjustment

Revenue or shareholder = Revenue adjustment or underperformance penalty investment financed by shareholders with no RCV adjustment (for example, where an outperformance payment is applied as a revenue adjustment and an underperformance penalty is applied as an investment financed by shareholders with no RCV adjustment)

Leave blank if the ODI type = NFI (non-financial incentive)

ODI form has been updated for seven measures where we reinstate financial incentives.

Column 17 ODI Timing

For PCs with a financial ODI, select 'In-period', 'End of AMP' or 'Both'

'Both' might apply, for example, if an ODI has 'in-period' underperformance penalties and 'end of AMP' outperformance payments

Leave blank if the ODI type = NFI (non-financial incentive)

ODI timing has been updated for seven measures where we reinstate financial incentives.

Column 18 PC unit

For example: %, £m, category, N/A, nr, rank, score, TBC, text, time

The performance commitment units have been updated in our IAP response for pollution incidents, internal sewer flooding and external sewer flooding since our September business plan. These measures are now normalised by the km of sewers or number of connections following Ofwat's standard measurement units.

Column 19 PC unit description

Description of the PC unit (free-format text with no validation)

Column 20 Decimal places

Number of decimal places used, where applicable

This column provides the number of decimal places for monitoring

Column 21 Direction of improvement

'Up' if an increase in the numeric value or score means a better (improving) performance

'Down' if a decrease in the numeric value or score means a better (improving) performance

Leave blank if neither of the above apply

Column 22 2020-25 performance commitment levels

For 2019-20 and the five years 2020-21 to 2024-25: enter the performance commitment levels

Columns W to AB outlines our performance commitment levels for 2019-25. Information showing how we arrived at these levels is detailed in WSH.DD.OC.2.

Column 29 Enhanced underperformance penalty collar

For the five years 2020-21 to 2024-25: If there is an enhanced underperformance penalty, enter the enhanced underperformance penalty collar.

The enhanced underperformance penalty collar is the last (worst) performance level at which a company can accrue the enhanced underperformance penalty.

The enhanced underperformance penalty collar is set at a worse performance level than the standard underperformance penalty collar, if there is an enhanced underperformance penalty.

Leave blank if there is no enhanced underperformance penalty.

We are not proposing any enhanced underperformance payments. This column has been left blank in accordance with the guidance.

Column 34 Standard underperformance penalty collar

For the five years 2020-21 to 2024-25: enter the standard underperformance penalty collar, where applicable. Otherwise leave blank.

The standard underperformance penalty collar is the last (worst) performance level at which a company can accrue the standard underperformance penalty.

The standard underperformance penalty collar is set at a worse performance level than the underperformance penalty deadband, if there is a standard underperformance penalty.

We have revised the underperformance collar reflecting changes in the performance targets and where we are reinstated financial incentives. Further information can be found in WSH.DD.OC.2.

Column 39 Underperformance penalty deadband

For the five years 2020-21 to 2024-25: enter the underperformance penalty deadband, where applicable. Otherwise leave blank.

The underperformance penalty deadband is the first performance level at which the standard underperformance penalty rate applies.

For standard underperformance penalties it is the performance level against which underperformance penalties are calculated.

Column 44 Outperformance payment deadband

For the five years 2020-21 to 2024-25: enter the outperformance payment deadband, where applicable. Otherwise leave blank.

The outperformance payment deadband is the first performance level at which the standard outperformance payment rate applies.

For standard outperformance payments it is the performance level against which outperformance payments are calculated.

Column 49 Standard out performance payment cap

For the five years 2020-21 to 2024-25: enter the standard outperformance payment cap, where applicable. Otherwise leave blank.

The standard outperformance payment cap is the last (best) performance level at which a company can accrue the standard outperformance payment.

The standard outperformance payment cap is set at a better performance level than the outperformance payment deadband, if there is a standard outperformance payment.

Column AW to BA. We have revised the outperformance collar reflecting changes in the performance targets and where we are reinstated financial incentives. Further information can be found in WSH.DD.OC.2.

Column 54 Enhanced outperformance payment cap

For the five years 2020-21 to 2024-25: If there is an enhanced outperformance payment, enter the enhanced outperformance payment cap.

The enhanced outperformance payment cap is the last (best) performance level at which a company can accrue the enhanced outperformance payment.

The enhanced outperformance payment cap is set at a better performance level than the standard outperformance payment cap, if there is an enhanced outperformance payment.

Leave blank if there is no enhanced outperformance payment.

Column BB to BF. We are not proposing any enhanced outperformance payments. This column has been left blank in accordance with the guidance.

Column 59 Standard underperformance penalty rates

Standard underperformance penalty rates (£ million to 6 decimal places), where applicable.

Otherwise leave blank.

Standard underperformance penalty rates should be entered as negative values (for example: -1.2345)

Standard underperformance penalty rates 2 and 3 should only be used if the 'Standard ODI calculation' indicator is set to 'No'

Note: AIM underperformance penalty rates should be entered in table App3, not in table App1

This column any changes to the underperformance penalty rate from Ofwat's DD. Further information on the calculation of the underperformance rate is outlined in the supporting document WSH.DD.OC.2.

Column 60 Enhanced underperformance penalty rate

Enhanced underperformance penalty rate (£ million to 6 decimal places), where applicable.

Otherwise leave blank.

Enhanced underperformance penalty rates should be entered as negative values (for example: -1.2345)

We are not proposing any enhanced underperformance payments. This column has been left blank in accordance with the guidance.

Column 61 Standard outperformance payment rates

Standard outperformance payment rates (£ million to 6 decimal places), where applicable. Otherwise leave blank.

Standard outperformance payment rates should be entered as positive values (for example: 1.2345)

Standard outperformance payment rates 2 and 3 should only be used if the 'Standard ODI calculation' indicator is set to 'No'

Note: AIM outperformance payment rates should be entered in table App3, not in table App 1

Further information on the calculation of the underperformance rate is outlined in the supporting document WSH.DD.OC.2.

Column 62 Enhanced outperformance payment rate

Enhanced outperformance payment rate (£ million to 6 decimal places), where applicable. Otherwise leave blank.

Enhanced outperformance payment rates should be entered as positive values (for example: 1.2345)

We are not proposing any enhanced outperformance payments. This column has been left blank in accordance with the guidance.

Column 63 Additional cost recovery incentive rate

Additional cost recovery incentive rate -£m (2017-18 CPIH deflated, financial year average)

We are not proposing any additional cost recovery incentive rates.

Column 64 Standard ODI calculation

'No' if the PC has a non-standard financial incentive, otherwise leave blank.

For the purposes of this indicator a standard ODI is one that can be derived using this calculation:
 $| ((\text{Actual performance level} - \text{deadband}) \times \text{incentive rate in } \text{£m}) \times \text{standard ODI operand} |$
So, for example, if the actual performance level is 1.37, the deadband is 1.29, the incentive rate* is 0.412, and the standard ODI operand is 1.000, the result as an absolute value would be:

$| (((1.37-1.29) \times 0.412) \times 1.000) | = 0.08 \times 0.412 \times 1.000 = 0.03296 = \text{£}32,960$

* either underperformance penalty incentive rate 1 or overperformance payment incentive rate 1
Leave blank for a PC with an enhanced outperformance payment and/or underperformance penalty if the calculation of both outperformance payments (standard and enhanced) and underperformance penalties (standard and enhanced) follows the calculation above (where you would use 'standard outperformance payment cap' instead of 'deadband' for the enhanced outperformance payment and 'standard underperformance penalty collar' instead of 'deadband' for the enhanced underperformance penalty).

Non-standard financial incentives will be calculated manually using the additional details in the PR19 final determination company-specific appendices (plus recalibrated ODI rates and/or corrigenda, where applicable).

This column denotes whether the standard ODI calculation applies. 'No' has been applied to C-Mex and D-Mex following the guidance. Standard ODI calculations apply to the remaining ODIs.

Column 65 Standard ODI operand

Some PCs with a financial ODI have an incentive rate that uses a fraction or multiple of the PC unit. This field is used to hold the conversion factor, to 3 decimal places.

For example, if rather than being calculated as:

$\text{£m} / \text{PC unit} / \text{year}$

the outperformance payment or underperformance penalty is calculated as:

$\text{£m} / 0.1 \text{ PC unit} / \text{year}$

then the conversion factor is 10.000

This column applies a conversion factor to PC Unit.

Column 66 P10 underperformance payments

Number of decimal places used, where applicable

Column 71 P10 performance levels

Enter the performance commitment levels that are used to derive the P10 underperformance payments, for the five years 2020-21 to 2024-25.

Enter these using the same units as the 2020-25 performance commitment levels.

Further information on the calculation of the P10 level is in the supporting document 5.5.1 PR19 Outcome Delivery Incentives- ODI Payment Incentive Rates WSH, B2.4.OC.WSH AND WSH.DD.OC.2.

Column 76 P90 outperformance payments

For the five years 2020-21 to 2024-25 and also a total for the 5-year period (the 5-year total will usually be the total of the five individual years, but may not be): enter the P90 outperformance payment values, where applicable (£ million to 4 decimal places).

Outperformance payments should be entered as positive values (for example: 1.2345)

Otherwise leave blank.

P90 can be defined as follows: there is a 10% likelihood of achieving a return above the identified range. By definition P90 returns are relatively unlikely to occur and this is especially the case cumulatively across all ODIs at the same time.

We would not necessarily expect the P90 figures in table App1 to equal the P90 scenario figures in table App26.

Columns BX to CB. The column is the outperformance payments at P90.

Column 81 P90 performance levels

Enter the performance commitment levels that are used to derive the P90 outperformance payments, for the five years 2020-21 to 2024-25.

Enter these using the same units as the 2020-25 performance commitment levels.

Further information on the calculation of the P90 level is in the supporting document 5.5.1 PR19

Outcome Delivery Incentives- ODI Payment Incentive Rates WSH, B2.4.OC.WSH AND WSH.DD.OC.2.

Table OC2.2 – PC/ODI parameters for performance commitments included in draft determination, expressed in alternative measurement units (in line with Post-IAP App 1 table submission)

Overview

Table OC2.2 should be used to report parameter changes using alternative measurement units that companies deployed for their post-IAP App1 table submissions. This table sets out all the common PCs for which this reporting requirement applies, and no further rows should be added to this table. When completing this table, companies should ensure that they convert any parameter changes (from the first table) into the alternative measurement units requested. Some companies will find this table empty, because their previously submitted App1 table provided all common PCs in standardised measurement units, and in these cases no action is required.

We have proposed an alternative unit for the calculation of the ODI outperformance and underperformance payments for supply interruptions. The number in App1 is in hours:minutes:seconds, but in order to work out the financial payments this needs to be expressed in decimal places. This is what we have entered in this line, without any change to the levels of performance.

Table OC2.3 – PC/ODI parameters for additional performance commitments proposed as part of draft determinations representations

Overview

Table OC2.3 should be used to provide details of any new performance commitments that a company is proposing in its representations (i.e. PCs that aren't featured in the draft determinations). The yellow shading used throughout much of this table underlines the need for a comprehensive set of PC and ODI parameters for all new PCs, as per the colour coding guidance above. Companies must not seek to add additional common performance commitments.

Three new PCs are proposed to provide customer protection for the resilience schemes that we are including in our revised plan.

The proposed PCs and the linked schemes are as listed in the table below:

Name of PC	Reference	Link to representation documents
Delivery of our Hereford water supply resilience scheme	PR19WSH_BI9	WSH.DD.CE.5
Delivery of our South Wales Grid water supply resilience scheme	PR19WSH_BI10	WSH.DD.CE.4
Delivery of our new visitor centres	PR19WSH_BI11	WSH.DD.CE.7

The three sections below provide proposed definitions and PC levels for each of these.

1.1. Delivery of our Hereford water supply resilience scheme

Purpose: This commitment incentivises the company to deliver a scheme to improve the resilience of the water supply or to return the expenditure in full to customers.

Benefits: The supply system in Hereford will become more resilient against low probability risks, reducing the risk of prolonged interruptions to supply to 117,000 customers in the area.

Definition

Unique Reference	PR19WSH_BI9
Detailed definition of performance measure	Has the company delivered the project to improve the resilience of water supply in Hereford.
Additional detail on measurement units	None
Specific exclusions	N/A
Reporting and assurance	No specific requirements
Measurement unit and decimal places	Text stating either “delivered” or “not delivered”. Delivered = 0, Not delivered =1
Measurement timing	Reporting year
Incentive form	Revenue

Incentive type	Underperformance payments
Timing of underperformance and outperformance payments	End of period
Price control allocation	100% water network plus
Frequency of reporting	Annual
Any other relevant information	NA
Links to relevant external documents	NA

Performance commitment levels

	Unit	Company forecast	Committed performance level				
		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Performance commitment level	£m	NA	NA	NA	NA	NA	“Delivered”
Enhanced underperformance collar	£m		NA	NA	NA	NA	NA
Standard underperformance collar	£m		NA	NA	NA	NA	NA
Underperformance deadband	£m		NA	NA	NA	NA	NA
Outperformance deadband	£m		NA	NA	NA	NA	NA
Standard outperformance cap	£m		NA	NA	NA	NA	NA
Enhanced outperformance cap	£m		NA	NA	NA	NA	NA

Incentive rates

Incentive type	Incentive rate (£m/unit)
Underperformance payment - standard	-13.601
Underperformance payment - enhanced	NA
Outperformance payment - standard	NA
Outperformance payment - enhanced	NA

1.2. Delivery of our South Wales Grid water supply resilience scheme

Purpose: This commitment incentivises the company to deliver a scheme to improve the resilience of the water supply or to return the expenditure in full to customers

Benefits: The supply system in South Wales will become more resilient against low probability risks, reducing the risk of interruptions to supply to over 50,000 customers in the Western Cardiff area.

Definition

Unique Reference	PR19WSH_BI10
Detailed definition of performance measure	Has the company delivered the project to provide a bi-directional transfer of 30MI/d between the West (TCUS) and East (SEWCUS) conjunctive use systems?
Additional detail on measurement units	None
Specific exclusions	N/A
Reporting and assurance	No specific requirements
Measurement unit and decimal places	Text stating either “delivered” or “not delivered”. Delivered = 0, Not delivered = 1
Measurement timing	Reporting year
Incentive form	Revenue
Incentive type	Underperformance payments
Timing of underperformance and outperformance payments	End of period
Price control allocation	100% water network plus
Frequency of reporting	Annual
Any other relevant information	NA
Links to relevant external documents	NA

Performance commitment levels

	Unit	Company forecast	Committed performance level					
			2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Performance commitment level	£m	NA	NA	NA	NA	NA	NA	“Delivered”
Enhanced underperformance collar	£m		NA	NA	NA	NA	NA	NA
Standard underperformance collar	£m		NA	NA	NA	NA	NA	NA
Underperformance deadband	£m		NA	NA	NA	NA	NA	NA
Outperformance deadband	£m		NA	NA	NA	NA	NA	NA

Standard outperformance cap	£m		NA	NA	NA	NA	NA
Enhanced outperformance cap	£m		NA	NA	NA	NA	NA

Incentive rates

Incentive type	Incentive rate (£m/unit)
Underperformance payment - standard	-19.908
Underperformance payment - enhanced	NA
Outperformance payment - standard	NA
Outperformance payment - enhanced	NA

Table OC3 – ODI rate input data for performance commitments included in draft determination as well as additional bespoke performance commitments recorded in Table OC2.3

No updates to the ODI input parameters have been made therefore this table is blank.

Table OC4 – Shadow performance reporting data for performance commitments included in draft determination as well as additional bespoke performance commitments recorded in Table OC2.3

Overview

We have provided shadow performance data, where available, for our PR19 performance commitments. For several measures we have responded to elements of the commitment definition in our representations. We explain in this commentary whether we have provided values that are consistent with our original definition or to the draft determination definition. For some commitments it is not appropriate to report a figure for 2018-19, for example commitments that relate to delivery of AMP7 investment and commitments relating to the 2019-20 baseline, so we have marked these as NEW in the shadow reporting.

There is a mixed level of assurance across the measures, due to the short timescales associated with the data request.

Wt1 Water quality compliance (CRI)

The figure is the final CRI result as published in the Chief Inspectors report July 2019.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Wt2 Water supply interruptions

The figure is as reported in the 2018/19 APR 5S line 5.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

En4 Leakage (Megalitres per day, three-year average, absolute level)

We have taken our reported leakage under the new definition for 2016/17, 2017/18 and 2018/19 and averaged them.

2016-17 192.2

2017-18 194.4

2018-19 191.9

Average 192.8

Assurance Year 2016/17 has not been assured through our Assurance Framework Process which includes our three lines of defence and therefore should be regarded as an indicative number.

En4 Leakage (Megalitres per day, three-year average, % reduction from 2019-20 baseline)

This is a new measure and therefore no shadow reporting performance has been provided.

En5 Per capita consumption (Litres per person per day, three-year average, absolute level)

We have taken our reported Per Capita Consumption values for 2016/17, 2017/18 and 2018/19 and averaged them.

2016-17 145.3

2017-18 144.7

2018-19 151.3

Average 147.1

Assurance Each year's performance, used to calculate the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

En5 Per capita consumption (Litres per person per day, three-year average, % reduction from 2019-20 baseline)

Assurance This is a new measure and therefore no shadow reporting performance has been provided.

Wt4 Mains repairs

The figure is as reported in the 2018/19 APR 5S line 6.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Wt5 Unplanned outages

The figure is as reported in the 2018/19 APR 3S line 7.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Ft1 Risk of severe restrictions in a drought

The figure reported in the 2018/19 APR 3S line 9 was 4.43%. At the APR submission we submitted a number based on our actual population served number at risk in that year and had not forecast out on a 25 year average. Now the 25 year average has been recalculated the actual number is 4.52%. We are providing our calculation spreadsheet with our representations in document reference WSH.DD.OO.5 Section 2.

Assurance The revised 2018/19 figure of 4.52% (recalculated using the 25 year average) has not been through our full Assurance Framework Process, however all elements up to the calculation of average were assured as part of the APR.

Sv5 Priority services for customers in vulnerable circumstances

The figure is as reported in the 2018/19 APR 3S line 14.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Rt1 Internal sewer flooding

The figure of 250 incidents was reported in the 2018-19 APR 3S Line 10, and has been normalised by the sewer connections figure of 1,458,152, as reported in 2018-19 APR 4U Line 10.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

En3 Pollution incidents

We have used our 101 incidents reported in the EPA 2018 and normalised by sewer length of 36,260, as reported in 2017-18 APR 4R Lines 21+22. This value is aligned with our updated definition proposed in our performance commitment annex.

Assurance The numbers used to calculate the 2018 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Ft2 Risk of sewer flooding in a storm

The figure is as reported in the 2018/19 APR 5S line 13.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Rt3 Sewer collapses

The figure is as reported in the 2018/19 APR 5S line 12. The APR requested the value reported to one decimal place, we have amended to two decimal places as requested in this table.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

En1 Treatment works compliance

The figure is obtained by expressing the number of final effluent discharges that are fully compliant with their numeric discharge permit conditions, as a percentage of the total number of permitted final effluent discharges in the calendar year. This was published in the NRW / EA Environmental Performance Assessment (EPA) for 2018.

Assurance The reported number for the 2018/19 shadow measure, has been assured by Natural Resources Wales rather than ourselves.

Wt3 Acceptability of drinking water

The number of contacts received from customers in the calendar year regarding the appearance, taste or odour of drinking water per 1,000 population served is as reported to the DWI.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Wt6 Tap water quality event risk index

The figure is as reported in the 2018/19 APR 4Q line 29.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Wt7 Water catchments improved

This is a cumulative measure starting at zero at the beginning of AMP7 so no shadow reporting is applicable.

Wt8 Lead pipes replaced

This is a cumulative measure starting at zero at the beginning of AMP7 so no shadow reporting is applicable.

En2 Wastewater treatment works 'look-up table' compliance

Percentage of wastewater treatment works with numeric limits, which were compliant with: Sanitary look-up table limits, Urban Wastewater Treatment Directive (UWWTD) look-up table limits, and all phosphorus and nitrogen annual average limits.

This figure is calculated using the details of individual failing discharges from NRW / EA Discharge Environmental Permit Compliance Report.

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

En6 km of river improved

This is a cumulative measure starting at zero at the beginning of AMP7 so no shadow reporting is applicable.

En7 Bioresources product quality

The percentage of our total Waste Water sludge processed through our Advanced Anaerobic Digestion facilities, producing an Enhanced Treated biosolids product and meeting the Biosolids Accreditation Scheme (BAS) accredited standard.

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

En8 Bioresources disposal compliance

The performance commitment is calculated as the percentage of the total sewage sludge disposed of, which is confirmed as complying with the Sludge Use in Agriculture Regulations (SUIA), Safe Sludge Matrix and Environment Permit Regulations (EPR)

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

Sv3 Customer trust

The reported number is taken from the CC Water Matters 2017 report and converted back from a % to a score out of 10 as requested in the definition.

Assurance This is an externally published measure therefore no assurance is undertaken by ourselves.

Sv4 Business customer satisfaction

The figure reported is as per our updated definition in our response. The figure is reported in our 2018/19 APR Part 3 on page 23.

Assurance The reported number for 2018/19 shadow measure has been calculated and assured by the survey provider rather than through our own assurance processes.

Sv6 Customers on Welsh language register

The figure reported is the number of customers who have told us that they wish to receive correspondence from us in Welsh. We obtain the figures by using the Welsh language indicator on our internal billing system (Rapid) to identify the number of customers who have signed up to our Welsh Register.

Assurance The reported number for the 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

Rt2 Sewer flooding on customer property (external)

4,162 incidents was reported in the 2018-19 APR 3S Line 11, which has been normalised by our sewer connections figure of 1,458,152 as reported in 2018-19 APR 4U Line 10.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Rt4 Total complaints

This is a new measure and therefore no shadow reporting performance has been provided.

Rt5 Worst served customer for water service

This is a new measure, with recent changes in definition proposed in the draft determination, and therefore no shadow reporting performance has been provided.

Rt6 Worst served customer for wastewater service

The figure reported is the number of customers that experience repeat sewer flooding incidents.

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

BI1 Change in average household bill

This is a new measure, which reflects performance against a 2019/20 baseline, and therefore no shadow reporting performance has been provided.

BI2 Vulnerable customers on social tariffs

For unique customers on social tariffs we have taken the total number of Help U customers (78,738) and WaterSure Wales customers (31,713) from the APR Part 3 MOS E2 on page 26. This definition aligns with our original proposal and the representation we have made rather than the change proposed in the draft determination.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

BI3 Company level of bad debt

The figure is calculated from our value of bad debt taken from APR table 2C line3 total (£20.997m) and Total Revenue taken from 1A line 1 total (£773.553m).

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

BI4 Unbilled properties

This figure has been calculated as the percentage of void HH and NHH properties (69,793) in our total HH and NHH connected properties (1,579,038).

Assurance The numbers used to calculate the % voids have been assured as part of the 2018/19 APR Assurance Framework Process, but are not all directly reported in the APR.

BI5 Financial resilience

Following the guidance document for this measure we have taken the 2018/19 APR reported values of ANeg/A2Neg/AIs (page 37) and derived a value of High for the shadow reporting unit of measure requested in the table.

Assurance The reported value for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Ft3 Energy self-sufficiency

Electricity generated and gas injected to grid as a percentage of all electricity and gas consumed (gas expressed as an electricity equivalent).

Assurance The reported number for the 2018/19 shadow measure has not been assured through our Assurance Framework Process, which includes our three lines of defence and therefore should be regarded as an indicative number.

Ft4 Surface water removed from sewers

The figure of 87,307 cubic metres has been calculated as per Draft Determination guidance, based on the SAAR and impermeable area removal from each of the 7 schemes delivered in 2018-19.

Assurance The reported number for the 2018/19 shadow measure has been recalculated in cubic metres, using assured figures from the 7 capital schemes delivered in 2018-19, which were assured as part of our current performance commitment, C1. These schemes were assured through our

Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Ft5 Asset Resilience (reservoirs)

A resilience score for our critical impounding reservoirs based on the company resilience scorecard. The figure reported is aligned to our definition submitted in the IAP. There is no change to the reported number, based on our definition update in the Draft Determination Representation.

Assurance The reported number for the 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

Ft6 Asset Resilience (water network+ above ground)

A resilience score for critical water network+ above ground assets based on the company resilience scorecard. The figure reported is aligned to our definition submitted in the IAP. There is no change to the reported number, based on our definition update in the Draft Determination Representation.

Assurance The reported number for the 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

Ft7 Asset Resilience (water network+ below ground)

A resilience score for critical water network+ below ground assets based on the company resilience scorecard.

The figure reported is aligned to our definition submitted in the IAP. There is no change to the reported number, based on our definition update in the Draft Determination Representation.

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number. Please note that this figure does not align with figures previously reported in App1. The reason for the difference is explained in our document, WSH.DD.OC.1 Section 15.

Ft8 Asset Resilience (waste network+ above ground)

A resilience score for critical water network+ below ground assets based on the company resilience scorecard. The figure reported is aligned to our definition submitted in the IAP. There is no change to the reported number, based on our definition update in the Draft Determination Representation.

Assurance The reported number for the 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

Ft9 Asset Resilience (waste network+ below ground)

A resilience score for critical water network+ below ground assets based on the company resilience scorecard. The figure reported is aligned to our definition submitted in the IAP. There is no change to the reported number, based on our definition update in the Draft Determination Representation.

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

Ft10 Community education

The total number of children and adults who have participated in our educational activities.

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process which includes our three lines of defence and therefore should be regarded as an indicative number.

Ft11 Visitors to recreational facilities

The number of visitors is calculated as follows:

Number of cars accessing our recreational sites multiplied by 2.4 (assumed average number of car

occupants)+ Number of coaches multiplied by 52 + Number of mini busses multiplied by 12 + Number of pedestrians (Lisvane/Llanishen only) +Number of cyclists = Total number of visitors

Assurance The reported number for 2018/19 shadow measure has not been assured through our Assurance Framework Process and therefore should be regarded as an indicative number.

Co1 Reportable injuries

The figure is as reported in the 2018/19 APR part 3 page 35.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Co2 Employee training and expertise

The figure is as reported in the 2018/19 APR part 3 page 36.

Assurance The reported number for the 2018/19 shadow measure has been assured through our Assurance Framework Process, which includes our three lines of defence as part of the Annual Performance reporting.

Co3 Employee Engagement

The figure is as reported in the 2018/19 APR part 3 page 41.

Assurance Our employee engagement survey is carried out by an external service provider and therefore we do not carry out an assurance process on the results.

BI6 Delivery of our reservoirs enhancement programme

This is a new measure relating to delivery of investment in AMP7 and therefore no shadow reporting performance has been provided.

BI8 Delivery of our water network improvement programme

This is a new measure relating to delivery of investment in AMP7 and therefore no shadow reporting performance has been provided.

En9 Combined sewer overflow storage systems

This is a new measure relating to delivery of investment in AMP7 and therefore no shadow reporting performance has been provided.

NEP01 NEP and WINEP Delivery

Following the guidance document for the measure we have taken the Green (99.3% compliance) performance reported in the Environmental Performance Assessment (EPA), and derived a value of "Not Met" for the shadow reporting unit of measure.

Assurance The reported number for the 2018/19 shadow measure, has been assured by Natural Resources Wales rather than ourselves.

BI9 Delivery of our Hereford water supply resilience scheme

This is a new measure relating to delivery of investment in AMP7 and therefore no shadow reporting performance has been provided.

BI10 Delivery of our South Wales Grid water supply resilience scheme

This is a new measure relating to delivery of investment in AMP7 and therefore no shadow reporting performance has been provided.

BI11 Delivery of our new visitor centre

This is a new measure relating to delivery of investment in AMP7 and therefore no shadow reporting performance has been provided.