Data Table Commentaries

1 Outcomes

1. Introduction

This document covers:

a) Our approach to setting PCLs (OUT1 and the underlying tables), performance from base (OUT2), and longer-term performance in LS1 and LS2. We have organised this part according to Ofwat's classification of the common PCs.

Section 2: Overview

Section 3: Customers receiving excellent service every day

Section 4: Environmental outcomes

Section 5: Asset health measures

b) Commentary on other tables

Section 6: LS1 and LS2 Forecast Other Outcomes

Section 6: OUT6

Section 7: Outcome performance – ODIs

Section 8: OUT7

Section 9: OUT8

Section 10: OUT9

Section 11: OUT10

c) The rationale and definition for the bespoke CSO Harm measure. This information was submitted to Ofwat previously as part of the early submission on bespoke PCs and is provided again here for ease of reference.

Appendix 1 – Bespoke PC: Sewer Overflow Harm – Rationale

Appendix 2 – Bespoke PC: Sewer Overflow Harm - Definition

2. Performance Commitment - PCLs and performance from base.

A cornerstone of each Price Review is the setting of Performance Commitments (PCs) that reward and penalise company performance against a set of key metrics. For PR24, there is a greater focus on a smaller number of PCs that are common across all water and sewerage companies with minimal bespoke PCs. For these common PCs there is also a split between Performance Commitment Levels (PCLs) that Ofwat proposed to set at a common level, and those to be set at a company specific level. We have proposed PLCs for all of these PCs on the basis of what we consider to be stretching but achievable targets, taking account all relevant factors.

Common performance level	Company specific performance level
Water supply interruptions	Leakage
Internal sewer flooding	Per capita consumption (PCC)
Pollution incidents	Business demand
Unplanned outage	Bathing water quality
Serious pollution incidents	River water quality (phosphorus)
Compliance risk index (CRI)	Biodiversity
Discharge permit compliance	Mains repairs
Business customer experience in Wales[99]	Sewer collapses
Customer contacts about water quality	Operational greenhouse gas emissions - water[100]
External sewer flooding	Operational greenhouse gas emissions – wastewater
	Storm overflows

The purpose of this document is to:

1. Set out the rationale for our AMP8 targets for the common PCs;
2. Explain our proposals in terms of performance to be achieved from base expenditure; and
3. To detail our proposal for our one bespoke PC (SO harm).

Our approach

We have followed Ofwat's guidance as set out in Appendix 9 of the Final Methodology.

We have a specific section each of the PCs which covers our combined commentary for tables OUT1-5, LS1 and LS2.

For each PC we have considered:

- The proposed PC level (PCL) for 2030, taking account of:
  - The impact of enhancement expenditure on performance
  - Historic performance
  - The performance of the rest of the industry
  - The views of customers and stakeholders/regulators

- The level of performance forecast to be achieved from base expenditure, taking account of:
  - Performance in AMP7
  - Historical improvements and performance relative to other companies
  - Opportunities for innovation including making smarter use of data

- The baseline 'year 0' position for 2024-25, taking account of:
  - The target set at the PR19 Final Determination
  - Industry performance relative to FD during AMP7.

- Any differences in the PCLs for 2030-35 between OUT1-5 and LS1 and LS2.

In setting these targets we have also taken account of the 2050 ambition and outcomes. These are covered within the scope of the Long-Term Delivery Strategy (see Part Two).

In our

Measures not discussed

We have not discussed the following PCs in this document:

- **C-Mex and D-MeX** – Ofwat does not set specific targets for these PCs in the price review.
- **Biodiversity** –as explained in the PR24 Business Plan (WSH03-PR24 Business Plan Document, Section 9.3) we are not able to propose targets for this measure at this time.
- **Business Customer Satisfaction in Wales** – the definition of this measure is currently under consultation by Ofwat. The proposal is to have a measure that is somewhat different from our current (bespoke) Business Customer Satisfaction measure. Consequently, we cannot easily use historic performance to determine a target for PR24. Once the definition is confirmed we will welcome engagement with Ofwat on the process for setting an appropriate PCL.

Summary of PCLs

	Performance Commitment	2022/23	2024/25 PR19 FD Target	2024/25 forecast performance	2029/30 AMP8 PCL
Customers receiving excellent service everyday	C-MeX (residential customer measure of experience)	82.92	n/a	n/a	n/a
	D-MeX (developer services measure of experience)	84.68	n/a	n/a	n/a
	Business customer experience in Wales	-	n/a	-	-
	Water supply interruptions	00:44:31	00:05:00	00:08:00	00:04:30
	Compliance risk index (CRI)	5.40	0.00	4.50	0.00
	Water quality contacts	2.35	1.58	1.75	1.00
	Internal sewer flooding	1.14	1.34	1.33	1.07
	External sewer flooding	24.42	21.08	22.64	17.47
Environmental outcomes	Biodiversity	-	n/a	-	-
	Operational greenhouse gas emissions - water	49,087	n/a	21,408	18,020
	Operational greenhouse gas emissions - wastewater	97,101	n/a	57,544	54,827
	Leakage	-11.5%	13.3%	-2.8%	18.4%
	PCC (per capita consumption)	-6.2%	6.3%	0.5%	7.4%
	Business demand	8.7%	-	3.7%	5.1%
	Total pollution incidents	24.55	19.50	21.52	18.76
	Serious pollution incidents	5.00	0.00	0.00	0.00
	Discharge permit compliance	98.50%	100.00%	99.16%	100.00%
	Bathing water quality	90.2%	n/a	88.9%	88.9%
	River water quality (phosphorus)	0.0305	n/a	0.1038	0.2695
	Storm Overflows – Harm	53.52%	n/a	54.17%	60.98%
	Storm overflows – Average spills	43.48	n/a	49.24	38.70
Asset Health	Mains repairs	156.2	131.2	128.4	122.4
	Unplanned outage	1.07%	2.34%	1.50%	1.50%
	Sewer collapses	6.68	7.20	7.20	6.95

This next three sections describe the PCs in more detail and provide commentary on the following tables:

- OUT1 Overall outcome performance
- OUT2 Outcome performance from base expenditure
- OUT3 Outcome performance from enhancement expenditure
- LS1 Forecast outcomes
- LS2 Forecast outcomes from base expenditure

3. Customers receiving excellent service every day

Water supply interruptions

PC Ref.	WSI		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	AMP8 Target
Outcome	Customers receiving excellent service every day	**OUT1 – Overall performance**	00:44:31	00:08:00	00:05:00	00:04:30
PC Type	Common	**OUT2 – Performance from base**	00:44:31	00:08:00	-	00:05:00
Incentive type	Financial	**OUT3 – performance from enhancement**	00:00:00	00:00:00	-	00:00:30

Background

This is a common PC that will incentivise companies to minimise the number and duration of water supply interruptions.

Ofwat sets water supply interruptions at a common industry Performance Commitment Level (PCL). This is an approach that we have previously disputed. As AMP7 performance demonstrates, performance is varied across the industry in a way that is strongly correlated with the size and degree of integration of the networks that the company manages. Here smaller companies are performing better than the rest of industry due to the more integrated nature of their networks.

So far, we have not met our targets for AMP7, and we forecast that we will finish AMP7 at 8 minutes – above our FD target of 5 minutes but in line with the expectation in our PR19 Business Plan. We have set out more details on the way we have responded and sought to learn from our performance, largely driven by the impact of severe weather events. This is addressed in WSH03-PR24 Business Plan Document, Section 9.3, Section 8.

The key concern that we want to address in AMP8 is tackling the significant acceleration in the number of mains bursts on asbestos cement mains, owing to a combination of asset condition and changing ground conditions. There will be some benefit to supply interruptions from the proposed investment. We are also looking to improve resilience so that we minimise low probability-high impact supply interruptions.

Proposed PCL

For 2030 we are proposing a PCL of 4 minutes 30 seconds.

Although we do not expect to meet the PR19 FD target of 5 minutes by 2025, we acknowledge that this target was part of the 'in the round' acceptance of the FD. We therefore propose 5 minutes as the 'year 0' starting point for AMP8 and our 'performance from base' throughout. In reality we will be driving significant further improvements from base expenditure to achieve 5 minutes. We expect to deliver a

further 30 seconds of improvement in WSI through AMP8 as a result of enhancement expenditure on AC mains. Further details can be found in WSH17 (CW15) and WSH62.

AMP8 Baseline

For AMP7, companies have a common target of 5 minutes to achieve by 2024-25. In 2022/23, only four companies were able to meet this target and these companies represent four out of the six smallest companies based on the number of properties (see chart below). Almost all larger companies (generally WASCs) have failed to achieve the FD level of 5 minutes, with only three instances across the first two years of AMP7 where a company serving more than 1 million properties met the target. No company serving more than 1 million properties met the 2024/25 target in 2022/23 and as an industry the average performance was over 26 minutes.

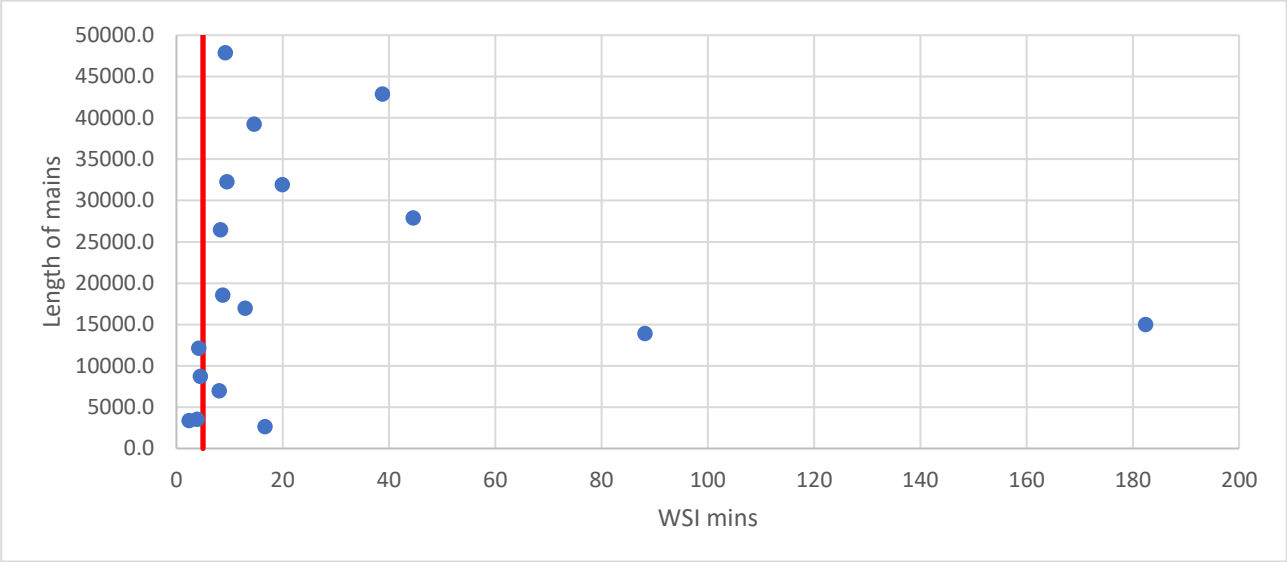

Figure 1 - 2022/23 WSI

We accept that our baseline position should not be 'worse' than the PR19 FD of 5 minutes. However, while we will be using the PR19 FD as the starting point, Ofwat should acknowledge that for the majority of larger companies the baseline will be above 5 minutes. We expect to achieve this by 2030 and with the requested Enhancement expenditure, expect to improve on this further.

Long-term performance (AMP9 onwards)

Out1-4: Our 'performance from base' on WSI for the period 2030-31 to 2034-35 remains consistent at 5 minutes. The enhancement made during AMP8 results in a 30 second improvement and there is no further improvement from this expenditure in AMP9.

LS1 and LS2: Throughout the period to 2050, base continues to deliver a WSI of 5 minutes. With further enhancement, we can improve our WSI performance further, achieving 3 minutes 40 seconds by the end of AMP9 with a target of 2 minutes by 2050 as agreed with the PR24 Forum and set out in our LTDS. see

Line specific commentary

Line commentary	
OUT1	No additional commentary
OUT2	We do not hold data pre-2018/19. For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT4	Our reported performance for 2018/19 to 2021/22 is as we submitted within the December Historic Data Request. We do not hold data pre-2018/19 as the definition of supply interruptions was updated in 2018/19. We have included data from 2018/19 onwards as these are the only figures that we have the capability to obtain. Prior to 2018/19, the guidance required us to demonstrate >1m/hd at each property rather than the >3m/hd that is now in effect, we do not have the data to be able to amend the historic figures. The total number of properties at year end for years 2020/21 and 2021/22 are reported as 1459.674 and 1466.630 in their respective APRs. In 2023/24 we restated these figures to exclude cattle troughs so are now reported as 1452.324 and 1459.29. This adjusted our reported performance from 00:11:05 to 00:11:08 in 2020/21 and 00:16:12 to 00:16:17 in 2021/22. The total number of properties supplied at year-end has been directly updated from table SUP1B for the period 2022/23 to 2029/30. We have followed the same methodology to forecast these numbers out to 2034/35. Performance for 2022/23 is as reported in the Annual Performance Report. For our forecast performance, we have back calculated the total minutes lost using this formula **(Target * Total number of properties * 1000).**
LS1	See our Long Term Delivery Strategy for a discussion of our long term targets
LS2	Base expenditure will not deliver the asset upgrades that we require to deliver the required improvement in performance, so are showing performance from base at 5 minutes throughout the 25-year period.

Compliance risk index (CRI)

PC Ref.	CRI		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2030 Target
Outcome	Customers receiving excellent service every day	**OUT1 – Overall performance**	5.40	4.50	0.00 (2.0)	0.00 (2.0)
PC Type	Common	**OUT2 – Performance from base**	5.40	4.50	-	1.64
Incentive type	Financial	**OUT3 – performance from enhancement**	Delivered from Base	Delivered from Base	-	1.64

Background

This is a common PC that will incentivise companies to minimise risks to tap water quality and safety.

Water companies are expected to target a CRI score of 0.00, and to do so from base expenditure.

Companies rarely if ever achieve a score of 0. We are forecasting that we will finish AMP7 with a score of 4.5. We have set out more details on the way we have responded and sought to learn from our performance, this is addressed in WSH03-PR24 Business Plan Document.

Proposed PCL

For AMP7, all WASCs have a target of 0.00. For AMP8 we are required to continue with this PCL of 0.00. This will be achieved from Base expenditure in year 1 and 2 of AMP8. In years 3-5, base will achieve a non-zero performance which will be counteracted by enhancement expenditure.

In 2022, no companies have been able to meet this target and only seven companies have been able to meet the Deadband of 2.00. We therefore propose that this target continues to have a deadband of 2.00.

AMP8 Baseline

We accept that our baseline position should not be 'worse' than the PR19 FD of 0.00. However, this is not a target that can be achieved from base owing to a number of factors, including:

- the steady increase in compliance risk arising because of deteriorating raw water quality, partly associated with climate change, but also driven by changes in land use in catchments; and
- changes in the DWI regulations that mean additional investment will be required to meet the new standards. While we have allocated all performance to be delivered from base expenditure, it's likely that this will result in deteriorating performance.

Long-term performance (AMP9 onwards)

Out1-3: Through AMP9, our performance from base on CRI continues to deteriorate delivering 1.95 by 2034/35.

LS1 and LS2: Base continues to deliver a deteriorating performance for the period to 2050. With further Enhancement expenditure, a score of 0.00 can be targeted.

Line specific commentary

Line	Commentary
OUT1	We do not hold data pre-2017/18.
OUT2	We do not hold data pre-2017/18. For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	There is an error in the formulae of OUT3, so these cells are incorrectly displaying `FALSE'. For the years 2027/28, 2028/29 and 2029/30 it is missing the cumulative impact. This results in 'FALSE' from 2028/29 onwards. **Current:** =SUMIFS('CW15'!J$10:J$520,'CW15'!$D$10:$D$520,$C11)+SUMIFS('CWW15'!J$10:J$707,' CWW15'!$D$10:$D$707,$C11) **Corrected:** =SUMIFS('CW15'!J$10:J$520,'CW15'!$D$10:$D$520,$C11)+SUMIFS('CWW15'!J$10:J$707,' CWW15'!$D$10:$D$707,$C11)**+Y11**
LS1	We are targeting a score of zero throughout the 25-year period. See our LTDS for further details.
LS2	Adverse movements in the background environment within which we operate drive a deteriorating hypothetical performance from base. This is shown in LS2.

Water quality contacts

PC Ref.	WQC		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Customers receiving excellent service every day	**OUT1 – Overall performance**	2.35	1.75	1.58	1.00
PC Type	Common	**OUT2 – Performance from base**	2.85	2.25	-	1.58
Incentive type	Financial	**OUT3 – performance from enhancement**	0.50	0.50	-	0.58

Background

This is a PC that aims to capture incidents related to appearance, taste or odour of tap water. Ofwat has proposed to set this as a common industry PC for PR24, and to set a common PCL.

This measure is a PC for Welsh Water in AMP7. Our performance for the 2022/23 was 2.35 contacts per 1,000 population and represents a continued year-on-year improvement since the start of the AMP. Despite these improvements in performance, we have not met our PR19 FD targets so far this AMP. We recognise our performance challenges this AMP and we are working closely with DWI to drive improvements here. For further information see WSH03-PR24 Business Plan Document, Section 7.

Proposed PCL

We are proposing a target of 1.00 for the end of AMP8. This is derived from our engagement with DWI who have set a target for 'black, brown and orange' discolouration incidents and has been agreed with the PR24 Forum.

Here, we are assuming that base expenditure maintains the AMP8 baseline of 1.58, even though it will be difficult to get down to this level by the start of AMP8. This is because our geographic operating area provides us with unique challenges when compared to the rest of the industry. Most contacts are related to discolouration, which is caused by a combination of our soft upland sources and the presence of relatively high concentrations of manganese in source water. Both issues are further exacerbated by the high proportion of unlined iron mains in our network, and the prevalence of oversized mains pipes.

We can achieve an improvement of 0.58 across the AMP from Enhancement expenditure as set out in table CW15 and enhancement cases WSH54 and WSH55.

AMP8 Baseline

We anticipate our water quality contacts to be at 1.75 at the end of 2024/25 which is above our FD target of 1.58. We will use the PR19 FD level as the baseline.

Long-term performance (AMP9 onwards)

Out1-4: our performance from base on this measure during AMP9 remains consistent at 1.58. The enhancement made during AMP8 results in an improvement of 0.58 and this is held throughout AMP9, maintaining our overall performance at 1.00 in OUT1 (i.e. ignoring the effects of AMP8 enhancement).

LS1 and LS2: Throughout the period to 2050, base continues to deliver a WQC of 1.58. With greater enhancement, we can improve our performance further, achieving 0.88 by the end of AMP9 with a target of 0.50 by 2050 as set out in our LTDS.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	We do not hold data for 2011/12. Between 2018/19-2024/25, Enhancement expenditure provides a cumulative benefit of 0.5.
OUT3	No additional commentary
OUT4	Our reported performance for 2012/13 to 2021/22 is as we as submitted within the December Historic Data Request. We noted in December that we do not hold the data to reliably calculate the performance for 2011/12. Performance for 2022/23 is as reported in the Annual Performance Report. For our forecast performance, we have back calculated the number of contacts using this formula **(Target / 100 * Resident Population * 1000).**
LS1	See our Long Term Delivery Strategy for discussion of our long term targets.
LS2	We are showing constant hypothetical performance from base throughout the 25-year period. This is because, if anything, the adverse background environment within which we operate, especially as regards deteriorating raw water quality caused by climate change and changes in catchment land use, is driving worse performance, and the scope for achieving performance improvements through operational initiatives or changes is limited.

Internal Sewer Flooding

PC Ref.	ISF		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Customers receiving excellent service every day	**OUT1 – Overall performance**	1.14	1.33	1.34	1.07
PC Type	Common	**OUT2 – Performance from base**	3.32	3.51	-	1.16
Incentive type	Financial	**OUT3 – performance from enhancement**	2.18	2.18	-	0.09

Background

This is a common PC that aims to reduce the number of internal flooding incidents. Ofwat is proposing to set a common industry PCL for this PC.

Our performance for the past year was 1.14 incidents per 10,000 sewer connections and represents a continued year-on-year improvement since the start of the AMP. The performance across the industry has been mixed but for 2022/23 all but one company had improved performance from the year before. We made good progress as a result of our flooding strategy and this was boosted by 2022/23 being a dry year, leading to an unusually low number of flooding incidents caused by hydraulic overload.

Proposed PCL

We are proposing a target of 1.07 for the end of AMP8. We have consistently performed well in this measure and in 2022/23 had the second lowest value in the industry. Our target is set at a level that will challenge us to continue this improvement as we aim to be the best in industry.

Most of this improvement will be delivered from base expenditure which will lead to a 0.14 reduction over the AMP. It is ambitious to achieve this target with minimal enhancement expenditure as climate change is increasing the number of peak flows in the network. For further information please see our commentary for CWW15 and our DWMP.

AMP8 Baseline

We forecast our internal flooding performance to be at 1.33 at the end of 2024/25 which is just below our FD target of 1.34. Whilst recent performance has exceeded the end of AMP target, a key driver of this good performance was the dry weather that led to an unusually low number of flooding incidents caused by hydraulic overload. Therefore, we are proposing to use our forecast position of 1.33 as our baseline.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: our performance from base on ISF during AMP8 leads to improvement. Combined with the enhancement made during AMP8, this results in an overall improvement of 0.26. In AMP9, due to increasingly challenging conditions caused by climate change and urban creep, base expenditure will deliver a lower level of performance of 1.32 by 2034/35.

LS1 and LS2: Throughout the period to 2050, base expenditure continues to deliver lower levels of performance for ISF. With further enhancement, we currently estimate that we will improve our performance, achieving 0.93 by the end of AMP9 with a target of 0.55 by 2050 as agreed with the PR24 Forum and set out in our LTDS.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	Between 2011/12-2024/25, Enhancement expenditure provides a cumulative benefit of 2.18. For AMP8, we have recalibrated what Base expenditure achieves as at the end of AMP7. This results in a significant decrease in OUT2 between 2024/25 and 2025/26.
OUT3	No additional commentary
OUT5	Our reported performance for 2011/12 to 2021/22 is as we as submitted within the December Historic Data Request. Performance for 2022/23 is as reported in the Annual Performance Report. OUT5 Lines 2,4 and 6 have been reported in APR under 3G lines 1-3 since 2020. Prior to this they were shadow reported internally from 2017 as part of completing APR table 3S. We have retrospectively recalculated our internal flooding performance from 2011-12 to 2016-17 to match the regulatory guidance adopted for AMP7. Historical performance has been proportionally assigned based on 2017-2022 performance. Blind years have been assigned the percentage proportion based on the AMP7 final determination targets.
LS1	No additional commentary (though see above)
LS2	No additional commentary (though see above)

External Sewer Flooding

PC Ref.	ESF		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Customers receiving excellent service everyday	**OUT1 – Overall performance**	24.42	22.64	21.08	17.47
PC Type	Common	**OUT2 – Performance from base**	26.94	25.16	-	18.15
Incentive type	Financial	**OUT3 – performance from enhancement**	2.52	2.52	-	0.68

Background

This is a common PC that aims to reduce the number reduce the number of external sewer flooding events. Ofwat is proposing to set a common industry PCL for this PC. Historically we have targeted primarily internal sewer flooding incidents, and external sewer flooding has received lower priority. Although it is a common PC, there is some doubt as to whether companies are verifying the numbers of properties affected by an incident in a consistent way, leading to disparities in the reported figures.

Our performance for the past year was 24.42 incidents per 10,000 sewer connections which is above our FD target for 2022/23. Although we have demonstrated a general improvement in performance, so far this AMP we have only met the FD target once. Sewer defects and blockages caused 96% of our external flooding incidents in 2022/23. Reducing the blockages (and underlying defects) that cause flooding to properties is therefore a key part of our ongoing strategy.

Proposed PCL

We are proposing a target of 17.47 for the end of AMP8. Most of this improvement will be delivered from base expenditure which will reduce the number of incidents from 21.08 (PR19 FD) down to 17.47 incidents at the end of AMP8. There is also some limited benefit on external flooding incidents achieved (an additional 42 incidents avoided over the AMP) by the enhancement investment in hydraulic overloading which is specifically targeting internal flooding incidents. More details on this can be found in table commentary (CWW15) and WSH67.

AMP8 Baseline

We currently forecast that performance for External Sewer Flooding will be at 22.64 for the end of AMP7. This is above the PR19 FD target of 21.08. We are therefore proposing to use our PR19 FD target as our baseline for AMP8.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: In AMP9, due to increasingly challenging conditions caused by climate change and urban creep, base expenditure will deliver a lower level of performance of 19.14 by the end of AMP9.

LS1 and LS2: Throughout the period to 2050, base expenditure continues to deliver a lower level of performance for ESF. With further enhancement expenditure, we estimate our performance will achieve 14.79 by the end of AMP9 with a target of 7.59 by 2050 as agreed with the PR24 Forum and set out in our LTDS.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	We do not hold data pre-2016/17. Between 2016/17-2024/25, Enhancement expenditure provides a cumulative benefit of 2.52. For AMP8, we have recalibrated what Base expenditure achieves. This results in a significant decrease in OUT2 between 2024/25 and 2025/26.
OUT3	No additional commentary
OUT5	Our reported performance for 2016/17 to 2021/22 is as we as submitted within the December Historic Data Request. We do not hold data for pre-2016/17, so these cells are blank. Performance for 2022/23 is as reported in the Annual Performance Report. OUT5 Line 9 and 11 have not been reported historically or under the APR process. Line 13, total external sewer flooding incidents have been reported under 3B line 8 since 2020. Prior to this they were shadow reported from 2017 as part of completing APR table 3S. Historical performance has been proportionally assigned based on 2017-2022 performance. Blind years have been assigned the percentage proportion based on the AMP7 final determination targets.
LS1	No additional commentary
LS2	No additional commentary

4. Environmental Outcomes

Operational Green House Gas Emissions – Water & Wastewater

PC Ref.	OGW/OGWW			2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	OUT1 – Overall performance	W	49,087	21,408	n/a	18,020
			WW	97,101	57,544	n/a	54,827
PC Type	Common	OUT2 – Performance from base	W	49,087	21,408	-	17,915
			WW	97,101	57,544	-	56,392
Incentive type	Financial	OUT3 – performance from enhancement	W	0	0	-	-104.63
			WW	0	0	-	1,565

Background

This is a common PC designed to incentivise companies to reduce greenhouse gas emissions. Ofwat is proposing to set a company-specific PCL for this PC. Companies will report Tonnes of carbon emissions for water and wastewater separately, the percentage reduction, and the reduction adjusted for changes in volume of water treated/delivered. Our 2020 'Journey to Net Zero' strategy set 2040 as a target for achieving net zero on total (operational and embedded) carbon emissions. Our strategy continues to be based on the total emissions measure, as agreed with the PR24 Forum. We have calculated the resulting forecast values for tonnes of emissions based on the PR24 PC.

Proposed PCL

We are proposing a target of 18,020 Tonnes for Water and 54,827 Tonnes for Wastewater for the end of AMP8. For Water, this reduction will be delivered predominantly through Base with a small amount of improvement achieved from Enhancement expenditure. For Wastewater, this reduction will be delivered predominantly through Enhancement expenditure with Base expenditure also achieving a level of improvement through the AMP.

AMP8 Baseline

For our AMP8 Baseline, we are proposing to use our end of 2024-25 forecast of 21,408 for Water and 57,544 for Wastewater.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: Base expenditure maintains performance in AMP9.

LS1 and LS2: Base expenditure maintains performance out to 2050. With further Enhancement we can achieve 9,010 OGW and 27,413 OGWW by 2035, and 0 for both measures by 20540.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT4/5	The carbon emissions forecasted for AMP8 are based on best available assumptions for the Annual Performance Report requirements and were prepared as part of the Net-Zero strategy we produced in 2020 which encompasses all Net-Zero related investment to achieve a Net-Zero carbon business by 2040 in line with the United Nations Framework Convention on Climate Change pledge. The carbon calculations followed the 2022 Annual Performance Report methodology and scope as in Version 17 of the carbon Accounting Workbook.
LS1	No additional commentary
LS2	No additional commentary

Leakage

PC Ref.	LEA		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	**OUT1 – Overall performance**	-11.5%*	-2.8%*	13.3%	18.4%
PC Type	Common	**OUT2 – Performance from base**	-12.7%*	-5.9%*	-	10.9%
Incentive type	Financial	**OUT3 – performance from enhancement**	1.2%	3.1%	-	7.5%

* a negative number denotes an increase from the baseline.

Background

This is a common PC that aims to reduce leakage to improve water resources supply/demand balance, reduce the need for water abstraction and increase water supply network resilience. It is measured on a 3-year rolling average basis against a 2019-20 baseline. Ofwat sets the PCL at a company specific level.

Note that there are governmental targets for leakage reduction in England which do not apply in Wales.

Following our end of year audit process for 2021/22, we engaged in a comprehensive review of the data components, methodologies and reported outcomes for both Leakage and PCC. This process has resulted in the identification and implementation of a number of improvements across data sources and reporting methodologies, and human resources that contribute to our performance outcomes. The impact of the results of the review are significant and has resulted in an increase in the base level of leakage.

In 2022-23 we have not met our Leakage PCL of 7.3%, reporting a performance level of -11.5% following the restatement. We have allocated an additional £54 million to support intensive leakage reductions in the remaining 2 years of this AMP.

Proposed PCL

We are proposing a target of 18.4% by the end of AMP8. The targets set by the PR24 Forum is a 10% reduction in AMP8, following a 15% reduction by 2025.

We anticipate that we will deliver 11.0% of the leakage improvement from Base expenditure with 7.4% from enhancement as a result of schemes set out in WSH17 (CW15). Further details of the Leakage reductions strategies are contained in our draft WRMP.

AMP8 Baseline

We are current expecting to achieve a leakage reduction figure of -2.8% for the end of AMP7 on a 3-year average basis, owing to the results of the leakage restatement and the rapid reductions targeted subsequently. We are therefore proposing to use our PR19 FD target of 13.3% as our baseline and this is aligned with our updated WRMP.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT4: In AMP9, Base continues to achieve further reductions. Enhancement expenditure in AMP8 results in 9.8% improvement overall.

LS1 and LS2: As set out in the LTDS, from AMP9 all leakage improvement will be delivered from Base expenditure. We are targeting a 50.3%% reduction by 2050 in line with the PR24 Forum expectation. Base will deliver 40.5% of this target, with the remaining 9.8% delivered through the Enhancement spend made in AMP8.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT4	Regions 1 and 2 do not apply to Welsh Water, so we have left these cells blank. The errata log (17/09/23) provided additional guidance on the inclusion of void consumption for the period 2022-23 to 2029-30. We do not have any estimates of void consumption, and as such, we are not providing any additional numbers to those reported in OUT4.
LS1	No additional commentary
LS2	No additional commentary

Per capita consumption

PC Ref.	PCC		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	**OUT1 – Overall performance**	-6.2%	0.5%	6.3%	7.4%
PC Type	Common	**OUT2 – Performance from base**	-6.6%	-4.1%	-	3.1%
Incentive type	Financial	**OUT3 – performance from enhancement**	0.3%	4.6%	-	4.3%

Background

This is a common PC that aims to reduce Per Capita Consumption (PCC) to improve water resources supply/demand balance and reduce the need for water abstraction. Ofwat sets the PCL at a company specific level. It is measured on a 3-year rolling average basis against a 2019-20 baseline.

Water consumption per head is generally higher in our operating area than for many of the other water companies. This is not inconsistent with the general water resources situation which is less pressurised than is the case for many companies in the south and east of England. There are governmental targets for PCC reduction in England which do not apply in Wales.

For 2022-23 we have not met our PCL of 3.0% reporting a performance level of -6.2%. Our reported PCC number was also impacted by the leakage review and restatement mentioned above.

PCC for many water companies went up during the Covid-19 pandemic and Ofwat has committed to look at the impacts and review the regulatory targets for AMP7.

Proposed PCL

We are proposing a target of 7.4% reduction by 2030. The PR24 Forum set the target of a 6% reduction during PR24.

We will achieve this target through improvement from both base and some enhancement expenditure, notably through our metering strategy and Project Cartref. More details on this can be found in the WSH17 (CW15) and details of these demand reduction strategies driving the reduction in household demand can be found in our draft WRMP24.

AMP8 Baseline

We are currently expecting to achieve a PCC reduction of 0.5% by the end of the current AMP. This represents an underperformance from our expected position, so we are therefore using our PR19 FD target of 6.3% as our baseline going forwards.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT4: In AMP9, Base continues to achieve increasing amounts of PCC reduction.

LS1 and LS2: Base continues to achieve increasing levels of PCC reduction out to 2050. As a result of enhancement expenditure through this period, we go on to achieve our LTDS target of 25.1% reduction in PCC. This is aligned with the PR24 Forum target of achieving 110 litres per capita by 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so have assumed all expenditure is from base.
OUT3	No additional commentary
OUT4	Regions 1 and 2 do not apply to Welsh Water, so we have left these cells blank.
LS1	No additional commentary
LS2	No additional commentary

Business Demand

PC Ref.	NHH		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	**OUT1 – Overall performance**	8.7%	3.7%	n/a	5.1%
PC Type	Common	**OUT2 – Performance from base**	8.7%	3.7%	-	3.7%
Incentive type	Financial	**OUT3 – performance from enhancement**	0.0%	0.0%	-	1.4%

Background

This is a common PC that aims to incentivise the company to promote the water efficiency of business customers. Ofwat proposed to set a company-specific PCL.

This is a new PC for AMP8, and we have not previous targeted reductions in NHH demand specifically, although we make forecasts as part of the WRMP.

For 2022/23 the result on this measure was 8.7%, but this is artificially high, due the impact of the pandemic in 2020-21 in particular, and the three-year rolling average.

Proposed PCL

We are proposing a target of 5% for 2029-30 against the baseline. This means that there will be minimal net reduction over AMP8. However, our activities will have the effect of cancelling out the forecast background increase in NHH demand, as set out in the WRMP. In future AMPs we are forecasting a higher net reduction in demand, and our longer-term ambitions are aligned with the governmental targets in England.

The PR24 Forum agreed that we should seek reductions in business demand, but that the target should be aligned with the requirements set out in the WRMP, making an appropriate assumption about the background increase in demand for economic growth.

Base expenditure maintains a performance of 3.7%. We aim to achieve a 1.4% performance improvement from Enhancement expenditure by the end of AMP8.

AMP8 Baseline

We forecast our starting to position to be 3.7% for AMP8. By the end of AMP7, the pandemic will have a significantly lower impact on our three-year average performance, and so using 3.7% is a more representative value.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT4: In AMP9, Base expenditure achieves improvements in Business Demand reduction.

LS1 and LS2: Base expenditure continues to deliver improvement through to 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025. Regions 1 and 2 do not apply to Welsh Water, so we have left these cells blank.
OUT3	No additional commentary
OUT4	Regions 1 and 2 do not apply to Welsh Water, so we have left these cells blank.
LS1	No additional commentary
LS2	No additional commentary

Total pollution incidents

PC Ref.	POL		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environment	**OUT1 – Overall performance**	24.55	21.52	19.50	18.76
PC Type	Common	**OUT2 – Performance from base**	24.55	21.52	-	21.52
Incentive type	Financial	**OUT3 – performance from enhancement**	0.00	0.00	-	2.76

Background

This is a common PC that incentivises companies to reduce the number of pollution incidents. Ofwat proposed to set a PCL for this PC at a common industry level, normalised by the length of sewer across companies. We continue to dispute this approach, as pollution incidents are not just related to sewer length but can originate from other wastewater assets, of which we have a high number relative to our size.

Nevertheless we have generally performed well for pollution incidents in AMP7, typically achieving top five performance when compared across industry and for the first two years of AMP7 we exceeded our targets. For 2022/23 we slightly underperformed and did not achieve our target.

Proposed PCL

We are proposing a target of 18.76 for the end of AMP8. The PR24 Forum did not set a specific target but said that we should be seeking improvements and not falling behind the rest of the industry.

We currently forecast we will be above our FD Target for 2024-25 of 19.50 achieving 21.52 pollution incidents per 10,000km of sewer length.

Base expenditure will maintain a performance level of 21.52 through to 2030. Enhancement expenditure will therefore deliver all the improvement for this PC. See WSH17 (CWW15).

AMP8 Baseline

We will be using our end of AMP7 forecast of 21.52 as our baseline.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: Base expenditure maintains the AMP8 baseline performance of 21.52 through AMP9.

LS1 and LS2: After AMP9, base expenditure begins to achieve lower performance because of the increasingly adverse effects of climate change and urban creep on our wastewater networks. With continued enhancement expenditure we can improve performance through AMP9 and beyond, achieving our target of 5.82 as set out in out LTDS.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so have assumed all expenditure is from base.
OUT3	No additional commentary
OUT5	Our reported performance for 2011/12 to 2021/22 is as we as submitted within the December Historic Data Request and the follow-on query (WSH-CA-PC-001) response. Performance for 2022/23 is as reported in the Annual Performance Report. As per the PC definition, our forecast number of pollution incidents has been normalised against the Environmental Performance Assessment (EPA) version 9 sewer length (36,249 km).
LS1	No additional commentary
LS2	No additional commentary

Serious pollution incidents

PC Ref.	SPL		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environment	**OUT1 – Overall performance**	5	0	n/a	0
PC Type	Common	**OUT2 – Performance from base**	5	0	-	3
Incentive type	Financial	**OUT3 – performance from enhancement**	0	Delivered from Base	-	-

Background

This is a common PC that aims to reduce the number of serious pollution incidents. Ofwat proposes to set a common PCL for the industry.

Our result for the past year was five serious pollution incidents. Over the past 10 years, our performance has consistently been at five incidents or fewer, but never achieving zero. This is a major concern for us and does not meet the requirements of the NRW, the Welsh Government and the PR24 Forum, nor the expectations of customers. Tackling serious pollution incidents is therefore a priority of our Business Plan.

Proposed PCL

As this is a compliance measure, we are proposing a target of 0 for each year of AMP8.

There is an unavoidable level of risk, even if small, of serious pollution incidents occurring. We will do all we can to minimise such risks. Given this, the forecasting of the small number of serious pollution incidents in any given year, and the impact of any expenditure to reduce the risk, is probabilistic.

We have made a probabilistic estimate of the number of pollution incidents that will arise in the absence of the enhancement expenditure in our plan and shown this as 'performance from base'. We estimate this as zero for the first three years of the AMP, and then the 'performance from base' increases in years 4 and 5 as risks increase.

Details of our approach are set out in WSH03 (Main PR24 Business Plan), WSH18 (CWW3 commentary), and enhancement case WSH64 and WSH74.

AMP8 Baseline

As this is a compliance measure and it is important for our stakeholders, we have set the target at zero.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: performance of 0 is delivered from the combination of Base and Enhancement expenditure for AMP8.

LS1 and LS2: Throughout the period to 2050, base expenditure delivers deteriorating performance for Serious Pollutions Incidents on a probabilistic basis. We have derived this deterioration from modelling in the DWMP. Expenditure in the core pathway returns forecast performance to zero.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT5	Our reported performance for 2011/12 to 2021/22 is as we as submitted within the December Historic Data Request and the follow-on query (WSH-CA-PC-001) response. Performance for 2022/23 is as reported in the Annual Performance Report.
LS1	No additional commentary
LS2	No additional commentary

Discharge Permit Compliance

PC Ref.	DPC		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environment	**OUT1 – Overall performance**	98.50%	99.16%	100%	100%
PC Type	Common	**OUT2 – Performance from base**	98.50%	99.16%	-	99.83%
Incentive type	Financial	**OUT3 – performance from enhancement**	0.00%	0.00%	-	0.17%

Background

This is a common PC that helps protect the environment by incentivising companies to fully comply with their discharge permits. Ofwat is proposing to set a common PCL for this PC of 100%.

Our performance for the past year was 98.50%. We perform reasonably well on a comparative basis – in reality companies are unlikely to be able to achieve 100% compliance but work to get as close to it as possible.

Proposed PCL

As this is a compliance measure, we are proposing a target of 100% for every year of AMP8. This will be delivered primarily from base expenditure throughout AMP8 except in year 5 by which time we estimate that in the absence of enhancement expenditure our performance is likely to dip by 0.17%. This is then offset by enhancement expenditure.

AMP8 Baseline

As this is a compliance measure, we will use 100% as the baseline.

Long-term performance (AMP9 onwards)

OUT1-5: Base expenditure achieves 100% compliance until year 4 of AMP8. Subsequently base expenditure achieves 99.83% compliance from year 5 of AMP8 through to end AMP9. The enhancement in AMP8 closes the 'gap' to 100% performance in AMP9.

LS1 and LS2: From 2035, we have calculated that there will be an impact on this PC from wider enhancement expenditure. Base expenditure begins to achieve deteriorating performance. We will continue to target 100% to 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	We do not hold values for 2011/12. For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT4 and OUT5	Our reported performance for 2012/13 to 2021/22 is as we as submitted within the December Historic Data Request. We do not hold values for 2011/12.
LS1	No additional commentary
LS2	No additional commentary

Bathing water quality

PC Ref.	BWQ		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	**OUT1 – Overall performance**	90.2%	88.9%	N/A	88.9%
PC Type	Common	**OUT2 – Performance from base**	90.2%	88.9%	-	88.9%
Incentive type	Financial	**OUT3 – performance from enhancement**	0.00%	0.00%	-	0.00%

Background

This is a new common PC that incentivises companies to improve bathing water quality within its region.

In our operating area there are 107 designated bathing waters of which 79% are classed as Excellent. This is high both in absolute and comparative terms. This is partly the result of substantial investment in our coastal assets in previous AMP periods.

Where designated bathing water quality is less than adequate, we will investigate and seek to address the issue if caused by our assets, in discussion with NRW.

We have also agreed to work with the Welsh Government and NRW on inland bathing waters. This is covered in WSH03-PR24 Business Plan Document, Section 6.5.

Proposed PCL

Further improving bathing water quality designation classifications overall has not been identified as a priority for our business plan by NRW, the Welsh Government, or the PR24 Forum.

Our approach has been to forecast the score on this PC at the end of AMP and seek to maintain this over the long-term. This means that where there is deteriorating water quality we will investigate and if our assets are found to be the cause we will take action in agreement with NRW. This approach is aligned with the NEP.

Based on currently available information, we have some enhancement investment planned to prevent future deterioration at one of our bathing waters.

AMP8 baseline

We have estimated our baseline based on current bathing water classifications but considering newly designated bathing waters and their anticipated classification. This means there is a small 'deterioration' in the score between 2022-23 and 2024-25.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: All performance is delivered from base.

LS1 and LS2: All performance out to 2050 is delivered from base.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so have assumed all expenditure is from base.
OUT3	No additional commentary
OUT5	No additional commentary
LS1	No additional commentary
LS2	No additional commentary

River water quality (% reduction in phosphorous discharged)

PC Ref.	RWQ		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	**OUT1 – Overall performance**	3.05%	10.38%	N/A	26.95%
PC Type	Common	**OUT2 – Performance from base**	3.05%	10.38%	-	10.38%
Incentive type	Financial	**OUT3 – performance from enhancement**	0.0000	0.0000	-	16.57%

Background

This is a new common PC that incentivises companies to improve water quality in the rivers within their area by reducing the amount of phosphorus entering rivers from wastewater discharges. Ofwat is proposing to set a company-specific PCL.

43% of rivers in Wales are designated as having 'good' status under the WFD, compared to about 15% in England. The share of the problem attributed to water companies is also, generally, lower in Wales compared to England. However we are committed to playing our part in improving river water quality and are playing a key role in the multi-stakeholder Better River Water Quality Taskforce.

Proposed PCL

We are proposing a target of 26.95% reduction for 2029-30. This improvement will all be achieved through Enhancement expenditure that will deliver an improvement of 16.57% across the AMP. Base expenditure will maintain performance of 10.38%.

Our approach to phosphorous reduction is set out in WSH03-PR24 Business Plan Document, Section 6.3. In agreement with the Welsh Government and the PR24 Forum our objective is primarily to achieve targeted reductions on Special Areas of Conservation rivers. We have calculated the impact of this programme, focusing initially on SAC rivers, on this PC.

AMP8 baseline

We are proposing to use our 2024/25 forecast of 0.1038 as our baseline.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: Base expenditure maintains performance in AMP9. There is an improvement in performance in Year 2 AMP9 because of delayed benefit from enhancement expenditure in AMP8.

LS1 and LS2: Base expenditure continues to maintain performance out to 2050. With additional enhancement expenditure we improve performance further achieving 30.82% by the end of AMP9 and 43% by 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT5	There is an improvement in performance in Year 2 AMP9 because of delayed benefited from Enhancement expenditure in AMP8.
LS1	No additional commentary
LS2	No additional commentary

Methodology to calculate River Water Quality

Our calculations of phosphorous reductions are based on the following methodology and assumptions:

1. Regulatory final effluent samples taken across the period 1 January to 31 December are used to calculate the annual mean concentration of phosphorus.
2. Regulatory flow measurement (Monitoring Certification Scheme) data is used to calculate mean daily flow across the year.
3. Phosphorus discharged (kg/year) = mean concentration x mean daily flow x 365.
4. In the case where the mean phosphorus concentration of the discharge cannot be calculated, a concentration of 5mg/l is used.
5. In the case where the mean daily flow cannot be calculated for a year, a discharge flow equal to 1.2 x dry weather flow in the initial permit that also has a phosphorus limit.

Storm Overflow Spills – average per SO per annum

PC Ref.	SOF		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	**OUT1 – Overall performance**	43.48	49.24	N/A	38.70
PC Type	Common	**OUT2 – Performance from base**	43.48	49.24	-	49.24
Incentive type	Financial	**OUT3 – performance from enhancement**	0.00	0.00	-	10.54

Background

This is a common PC designed to incentivise a progressive reduction in the number of spills from the company's storm overflows. Ofwat will set this PCL at a company specific level.

The PR24 Forum has set out clearly that the primary objective of our investment should be reducing the environmental harm from SOs, not the average number of spills. We have provided a forecast of the figures against this measure which will be the indirect result of our SO strategy, but we are not seeking to be incentivised on this measure. Instead we have put forward a bespoke Storm Overflows Harm measure as per the Strategic Steer from the PR24 Forum. This is set out in Appendix 2.

Further explanation is provided in WSH03-PR24 Business Plan Document, Section 6.1-6.4. and WSH40-Storm Overflows strategy.

Proposed PCL

We have forecast 38.70 for the end of AMP8. We are not directly targeting a reduction in the number of Storm Overflow spills as this does not align with Welsh Government policy. Our focus is on reducing the number of spills that cause ecological harm using our proposed bespoke PC set out in Appendix 2 of this document.

Base expenditure will maintain the forecast baseline of 49.24 throughout AMP8. However there would be significant variation on this measure caused by differences in rainfall amounts and patterns from year to year.

Enhancement expenditure on our SO programme will produce a forecast improvement of 10.54 by the end of the AMP, again, subject to the impact of annual rainfall.

AMP8 Baseline

We are proposing to use our 2024/25 forecast performance of 49.24 as our baseline.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: In AMP8, Base expenditure maintains the baseline performance across the five years. In AMP9 there is a slight improvement in what Base expenditure can achieve due to the Enhancement expenditure in AMP8 that does not improve performance until the start of AMP9. This results in performance improving from 49.24 to 48.74.

LS1 and LS2: Base continues to deliver a spill count of 48.74 out to 2050. With further enhancement expenditure in the LTDS we will achieve 29.20 by the end of AMP9 and 10.00 by 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025. In AMP9 there is a slight improvement in what Base expenditure can achieve due to the change in `uptime' shown in OUT5. This results in performance improving from 49.24 to 48.74.
OUT3	No additional commentary
OUT5	No additional commentary
LS1	No additional commentary
LS2	No additional commentary

Storm Overflow Harm

PC Ref.	SOFH		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Environmental	**OUT1 – Overall performance**	52.26%	52.91%	n/a	60.98%
PC Type	Bespoke	**OUT2 – Performance from base**	52.26%	52.26%	n/a	52.26%
Incentive type	Financial	**OUT3 – performance from enhancement**	n/a	0.65%	n/a	8.72%

Background

This is a bespoke PC proposed by Welsh Water, following the direction of the PR24 Forum Strategic Steers, and reflecting the approach of the Welsh Government and the Better River Water Quality Taskforce. It has been developed collaboratively with NRW and others through the Taskforce.

We put forward the measure in the early submission to Ofwat on bespoke PCs. We note the feedback from Ofwat and its rejection as a bespoke PC. However as the final PR24 Forum Strategic Steers includes the direction for the company to be incentivised on this basis, we are obliged to put forward the measure.

Further explanation is provided in WSH03-PR24 Business Plan Document, Section 6.1-6.4. and WSH40-Storm Overflows strategy.

The measure shows the percentage of our SOs causing 'no harm' or 'very little harm' to the environment. A definition of this PC is provided in Appendix 1. We have created shadow data tables for the relevant tables for this measure and this can be found in WSH201-Additional BP Tables WSH.xlsx.

Proposed PCL

We are proposing a target of 60.98%. Base expenditure will maintain a performance of 52.26% across AMP8 with Enhancement expenditure achieving an 8.72% improvement.

AMP8 Baseline

We have set our baseline of 52.91% using the current forecast 2024/25 position. This is based on the results of the SOAF impact assessments completed to date, combined with some assumptions. As we complete further assessments the basis of this estimate will change, and the evidential basis will improve. We propose to engage with Ofwat on an approach to updating the baseline if necessary if the latest data suggests it should be adjusted ahead of the PR24 Draft Determination.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: Base expenditure maintains performance through AMP9.

LS1 and LS2: Base expenditure maintains performance of 52.26% through to 2050. With further Enhancement expenditure we can achieve 80.95% by the end of AMP9 and 100% by 2040.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	We have not provided values pre-2022/23.
OUT3	No additional commentary
OUT5	We have not provided values pre-2022/23.
LS1	No additional commentary
LS2	No additional commentary

5. Asset Health Measures

Mains Repairs

PC Ref.	MRP		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Asset Health	**OUT1 – Overall performance**	156.2	128.4	128.4	122.4
PC Type	Common	**OUT2 – Performance from base**	156.2	128.4	-	122.4
Incentive type	Financial	**OUT3 – performance from enhancement**	0.00	0.0	-	0.0

Background

This PC will incentivise companies to appropriately maintain and improve the asset health of the infrastructure and below-ground water mains network and demonstrate its commitment to its asset stewardship responsibility. Ofwat will set this PCL at a company specific level.

We have generally demonstrated performance close to industry average for this measure. For 2022/23, our performance was significantly worse than expected due to freeze thaw weather conditions in December 2022.

Proposed PCL

We are proposing a target of 122.4 for the end of AMP8. There will be improvement delivered through base expenditure. There is no enhancement expenditure allocated to this measure.

AMP8 Baseline

For this measure, we will use the PR19 FD target as our baseline.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT4: Base expenditure maintains the performance at the end of AMP8 through AMP9.

LS1 and LS2: Base expenditure continues to deliver the end of AMP8 performance of 122.4 through to 2050. With enhancement expenditure in AMP9 we will improve this measure further to 116.3 and to 99.10 by 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT4	Our reported performance for 2011/12 to 2021/22 is as we as submitted within the December Historic Data Request. We have not provided data for on the split between proactive and reactive replacements between 2011/12 and 2019/20 as we do not hold the data to reliably calculate the figure. The total length of Mains Repairs for these years has been update into OUT4.94 (Mains repairs – proactive – actual). Performance for 2022/23 is as reported in the Annual Performance Report. The forecast number of Mains Repairs from 2023/24 to 2034/35 has been back calculated against the proposed targets using the formula **(Target / 100) * Mains Length * 1000).**
LS1	No additional commentary
LS2	No additional commentary

Unplanned Outage

PC Ref.	UPO		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Asset Health	**OUT1 – Overall performance**	1.07%	1.50%	2.34%	1.50%
PC Type	Common	**OUT2 – Performance from base**	1.07%	1.50%	-	1.69%
Incentive type	Financial	**OUT3 – performance from enhancement**	0.00%	0.00%	-	0.19%

Background

This is a common PC designed to incentivise companies to appropriately maintain and improve the asset health of the non-infrastructure or above-ground water assets. Ofwat is proposing to set a common industry PCL for this PC.

Our results on this PC have exceeding the target every year of AMP7 so far.

Proposed PCL

We are proposing a target of 1.50% for the end of AMP8 which means we will maintain our good performance from the end of AMP7.

Base expenditure will deliver this performance through years 1-4 of AMP8.

In year 5, base expenditure will achieve a lower level of performance of 1.69% due to growing risks of unplanned outages being realised. We have forecast this on a probabilistic basis. We have allocated some benefit from resilience enhancement expenditure from resilience schemes which manifests in 2029-30. This is set out in CW15 and brings performance back to 1.5%.

AMP8 Baseline

For this measure, we are proposing to use our forecast end AMP7 position of 1.50%. This is an improvement upon the PR19 FD.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT4: In years 1-4 of AMP9, Base expenditure maintains performance of 1.50%. In year 5 of AMP9, base expenditure will achieve a slightly worst performance of 1.53% on a probabilistic basis. We have allocated some benefit from resilience enhancement expenditure which offsets this deterioration to maintain overall performance at 1.5% in 2034-35.

LS1 and LS2: Base expenditure maintains the end of AMP9 baseline of 1.72. Enhancement expenditure means that we forecast to maintain 1.50% out to 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so have assumed all expenditure is from base.
OUT3	No additional commentary
OUT4	Our reported performance for 2017/18 to 2021/22 is as we as submitted within the December Historic Data Request and the follow-on query (WSH-CA-PC-001) response. We are unable to provide data prior to 2017/18 as we do not hold the underlying data to back calculate historical performance. Performance for 2022/23 is as reported in the Annual Performance Report. Please note that we have recently responded to a query (WSH-APR-CA-009) that may result in this value increasing slightly to 1313.01.
LS1	No additional commentary
LS2	No additional commentary

Sewer Collapses

PC Ref.	SCO		2022/23 Actual	2024-25 Forecast	2024-25 FD Target	2029-30 Target
Outcome	Asset Health	**OUT1 – Overall performance**	6.68	7.20	7.20	6.95
PC Type	Common	**OUT2 – Performance from base**	6.68	7.20	-	6.95
Incentive type	Financial	**OUT3 – performance from enhancement**	0.00	0.00	-	0.00

Background

This is a common PC designed to incentivise a incentivise companies to appropriately maintain and improve the asset health of the infrastructure or below-ground wastewater assets. Ofwat are setting the PCL at a company specific level.

Our performance here has generally been good in AMP7 so far, exceeding the target in the past two years and being in the top four in the industry of the last three years.

Proposed PCL

We are proposing a PCL of 6.95 for the end of AMP8. This improvement will all be delivered through base expenditure.

AMP8 Baseline

We are proposing to use the PR19 FD for 2024-25 as the baseline.

Long-term performance (AMP9 onwards)

OUT1-3 and OUT5: In AMP9, base expenditure maintains the performance of 6.95 through the AMP**.**

LS1 and LS2: Enhancement expenditure will produce improvement to 6.81 by the end of AMP9 and 6.44 by the end of 2050.

Line specific commentary

Line	Commentary
OUT1	No additional commentary
OUT2	For values pre-AMP8, we do not the hold data to reliably separate performance from base and performance from enhancement, so we are showing base as having delivered all changes in performance up to 2025.
OUT3	No additional commentary
OUT5	Our reported performance for 2011/12 to 2021/22 is as we as submitted within the December Historic Data Request. Performance for 2022/23 is as reported in the Annual Performance Report. Our forecast performance has been calculated against the forecast length of main.
LS1	No additional commentary
LS2	No additional commentary

6. LS1 and LS2 Forecast Other Outcomes

Line	Commentary
LS1.33	*Supply-side scheme benefit - Forecast outcomes* We are not forecasting any volumetric supply-side scheme benefits. See https://www.dwrcymru.com/en/our-services/water/water-resources/draft-water-resources-management-plan-2024
LS1.34	*Wastewater network storage volume delivered or avoided - Forecast outcomes* We are unable to provide data for AMP11 and AMP12 figures for LS1.34 "Wastewater network storage volume delivered or avoided". Extrapolation of data through AMP9 and AMP10 is based upon the volumetric data used to calculate our AMP8 profile. This data is taken from the known 10th spill volumes for sites having an impact as defined by the models created by the Storm Overflow Assessment Framework (SOAF) investigations. The assets being prioritised for those investigations are those with high numbers of average spills. Our AMP8-10 SO investment programmes are based upon reducing environmental harm. Some 25% of assets in the SOAF Programme have No/Very Low Impact. A significant proportion of SOs that are likely to dealt with as part of the AMP11 and AMP12 programmes will have a significantly lower average spill number than those that have been assessed so far, meaning the volumes involved and scales of solutions on average will be significantly lower than data used to create the AMP8 profile. This means that the data unsuitable to utilise for extrapolation across AMP11 and AMP12. As Welsh Water delivers SO Impact Assessment and Classification under the W_U_O_INV1 driver in AMP8, a wider data set will be produced across a full range of average spill categories, and the resulting data can then be utilised to provide more accurate forecast and extrapolation for AMP11 and AMP12 figures.
LS2.33	*Supply-side scheme benefit - Forecast outcomes from base expenditure* No additional commentary
LS2.34	*Wastewater network storage volume delivered or avoided - Forecast outcomes from base expenditure* No additional commentary

7. OUT6 Summary information on Outcome Delivery Incentive payments

This table contains the outputs of the PR19 ODI performance reconciliation models based on forecast performance for 2023-24 and 2024-25 reported in table OUT8.

We have included an end of period penalty of -£0.243 for 2023/24 for Water Network Plus. Whilst this does not match the figure of -£1.350 shown in table 3H, our commentary on the ODI model and the restatement of our PCC data explains our rationale.

ODI Models

We restated our historic PCC figures in 2023. The accrued ODIs of -1.310 (20/21) and -2.282 (21/22) are incorrect based on our restated performance. Our recalculated ODIs for these years are -0.986 and -1.499 respectively, based on the calculation in OUT5. As we are unable to amend the models for these years in the 'Accrued ODI payments' tab, we have applied the difference to the 2023-24 forecast:

A similar adjustment was made for our Leakage measure in our 2022/23 in-period ODI model submission which can be viewed on our website.

PCC	2021/22 (£m, 2017/18 Prices)	2022/23 (£m, 2017/18 Prices)	Total (£m, 2017/18 Prices)
APR reported ODI	-1.310	-2.282	
Restated ODI	-0.986	-1.499	
Difference	0.324	0.783	1.107

The following table shows our accrued 2023/24 forecast penalty, taking in to account the adjustment for our re-statement.

PCC	2023/24 (£m, 2017/18 Prices)
Forecast PCC Penalty	-1.350
Adjustment for data re-statement	1.107
Accrued PCC ODI	-0.243

2023/24 End of Period ODIs as reported in Accrued ODI payments tab.

	2023-24 End of Period ODIs Reported in 3H (£m, 2017-18 Prices)	Accrued PCC Adjustment (£m, 2017-18 Prices)	2023-24 Accrued ODIs reported in PR24 ODI Models (£m, 2017-18 Prices)
Water resources	1.235		1.235
Water network plus	-1.350	1.107	-0.243
Wastewater network plus	3.025		3.025
Total	2.910	1.107	4.017

We have entered the 2023/24 number to the full decimal accuracy within the 'Accrued ODI payments' tab. However, both models are returning a 'FALSE' validation which we believe should be 'TRUE'. The 'FALSE' validation is likely to be as a result of our restated PCC adjustment from -1.350 in table 3H to -0.243 in this tab.

We have noted that in our APR for 2022/23 an accrued ODI of -£0.089 was included for Performance Commitment Bl10 – Delivery of our South Wales grid water supply resilience scheme. We believe this to be incorrect. We will restate our 2022/23 APR tables to correct this.

Our APR submission showed an end of period accrual of -1.91 for water network plus in table 3H. The table below shows our rationale for including an accrual of -1.82 in the Accrued ODI payments tab of our PR24 Business Plan table submissions.

APR 2022/23	
Per capita consumption	-1.823
Delivery of our South Wales grid water supply resilience scheme	-0.089
Total	-1.912

Adjustment for incorrect accrued penalty	0.089

PR24 table submission	
Per capita consumption	-1.823

Due to potential rounding issues between the OUT4 table and the ODI model we have noted the following discrepancies:

PCC

2023/24 – 3-year average consumption calculated as 148.9 (-2.2%) in OUT 5 and 149.0 (-2.3%) in ODI model.

2024/25 – 3-year average consumption calculated as 144.9 (0.5%) in OUT 5 and 145.0 (0.5%) in ODI model.

Leakage

2024/25 – 3-year average consumption calculated as 223.3 (-2.8%) in OUT5 and 223.3 (-2.9%) in ODI model.

2023-24 - ODI Model Amendments (Company_PC_inputs tab)

PR19WSH_Wt8 – Lead pipes replaced: End of AMP measure so financial incentives accrue or apply this year changed to false.

PR19WSH_VIS01 - Delivery of our new visitor centre: Standard underperformance payments - override (must be negative) updated to 0.000 for model to calculate.

PR19WSH_DPC01 - Cwm Taf Water Supply Strategy Scheme (Underperformance): Standard underperformance payments - override (must be negative) updated to 0.000 for model to calculate.

PR19WSH_DPC02 - Cwm Taf Water Supply Strategy Scheme (Outperformance): Standard outperformance payments – override updated to 0.000 for model to calculate.

PR19WSH_Rt4 - Total complaints: Standard outperformance payments – override and Standard underperformance payments - override (must be negative) both updated to 0.000 for model to calculate.

2024-25 - ODI Model Amendments (Company_PC_inputs tab)

PR19WSH_VIS01 - Delivery of our new visitor centre: Standard underperformance payments - override (must be negative) updated to 0.000 for model to calculate.

PR19WSH_DPC01 - Cwm Taf Water Supply Strategy Scheme (Underperformance): Standard underperformance payments - override (must be negative) updated to 0.000 for model to calculate.

PR19WSH_DPC02 - Cwm Taf Water Supply Strategy Scheme (Outperformance): Standard outperformance payments – override updated to 0.000 for model to calculate.

PR19WSH_Rt4 - Total complaints: Standard outperformance payments – override and Standard underperformance payments - override (must be negative) both updated to 0.000 for model to calculate.

8. OUT7: Outcome performance - ODIs (financial)

Our approach to determining ODI rates is set out in WSH1- ODI Rates. These are reported in columns 14 and 15. The marginal benefit in column 12 is calculated by multiplying the ODI rates reported in column 14 and 15 with the benefit sharing factor in column 13. The benefit sharing factor is in line with Ofwat's indicative view, though we understand that this is no longer relevant given the revised approach to setting ODI rates.

Note that a zero is appearing in OUT7.6 for Biodiversity. As explained in WSH1- ODI Rates we are not providing a view on the appropriate ODI at this time – we understand this is not a requirement and Ofwat will consult further on this ahead of the Draft Determination.

For Storm Overflows we have entered a zero in column 0 for marginal benefits, so that a zero appears as the ODI. As explained in Sections 4.10 and 4.11 above this is because we are aligning with the PR24 Forum Strategic Steer, by which we should be incentivised according to the reduction in environmental harm from SOs, using our bespoke SO harm measure.

Enhancement outperformance thresholds

No enhanced outperformance thresholds have been proposed.

9. OUT8: PR19 outcome performance summary

The purpose of this table is to forecast our performance against each of our Performance Commitments (PCs) for the reporting years 2023/24 and 2024/25. It also shows our predicted out or under performance payments based on this forecast performance.

We carry out a review of our PCs each year, usually in the January prior to the next reporting year. The purpose of the review is to assess our PC targets for the coming year, based on the latest performance information available. Based on this information and the expert knowledge of data owners, a proposal on our forecast performance is prepared and submitted to our Executive Team for review and approval. In January 2023 the Executive Team approved the targets and they were subsequently discussed and approved by our Board at their meeting in February 2023.

The forecast performance payments have been taken directly from the ODI Models (v1.11) for 2023/24 and 2024/25. The payments are based on the approved targets.

10. OUT9: Biodiversity – habitat information

The purpose of this table is to collect information about types and sizes of habitats within a company area. After we receive business plans, we will consider if this information could provide a more appropriate normalisation and it will also provide context to understand the performance commitment levels that companies propose. This information will also be used to help calibrate and determine companies' incentive rates for the biodiversity performance commitment.

We have completed this table as far as we can on a best endeavours basis. Some of the information is not available, and some of the line definitions are not fully clear. Note that as set out elsewhere WSH03-PR24 Business Plan Document Section 9.3 we are unable to put forward targets against the Biodiversity PC at this time due to a lack of information and with agreement with NRW on the nominated land pending.

Categorisation of company land expected at 31 March 2025

OUT9.1 *Company owned land*

Has been sourced from the Land Registry data set

OUT9.2 *Company land that is a protected site*

Has been sourced from the Land Registry dataset intersected with Dissolved Protected Sites Dataset (Nature Reserves, RAMSAR, SAC, Ancient Monuments, SPA and SSI).

OUT9.3 *Land considered to have 'Wildlife-rich' habitats or 'Areas of strategic significance'*

We do not currently have the information available to complete this line. We do expect to have agreement with NRW on 'Areas of strategic significance' by November 2023.

OUT9.4 *Company land associated or expected to be associated with obligations, including planning processes, in 2025-30*

We do not currently have the information available to complete this line.

OUT9.5 *Company land expected to be used for solar arrays in 2025-30*

Our reported value is zero as we have no new solar schemes funded in PR24. The current land area for solar schemes is equal to 0.084km^2, which rounds down to zero.

OUT9.6 *Company land with long term tenancies (>=5 years)*

Data is based on land area subject to Farm Business Tenancies (FBT) and Agricultural categories in our land database.

NRW leasehold (Leasehold Land – March 2020 dataset).

OUT9.7 *Company land with short term tenancies (<5 years)*

Data is based on land area classified as 'grazing' in our land database.

OUT9.8 *Company land subject to shooting rights*

No shooting is allowed on company land therefore the value is zero.

However, this value does not include any shooting that is on tenanted land. The assumption is that this is still zero due to our policy and tenancy agreements.

OUT9.9 *Company land subject to other rights*

We have no land subject to other rights.

OUT9.10 *Company land that is standing water*

This has been sourced from the Land Registry Dataset Intersected with Ordnance Survey Mastermap.

DescTerm.

- Reeds, Reservoir
- Reeds, Static Water
- Reservoir
- Static Water
- Well

OUT9.11 *Company land that is running water*

We have sourced data using Land Registry Dataset intersected with Ordnance Survey Mastermap using the following terms:

DescTerm

- Aqueduct, Watercourse
- Collects
- Drain
- Ford
- Reeds, Watercourse
- Running Water
- Spring
- Watercourse
- Waterfall
- Wier

OUT9.12 *Company land that is sealed surfaces*

We have sourced data using the Land Registry Dataset intersected with Ordnance Survey Mastermap

Anything manmade

Theme

- Buildings
- Structures
- Roads, Tracks and Paths
- Rail

OUT9.13 *Company land that has tree canopy and woodland cover*

We have sourced data using the Land Registry Dataset intersected with Ordnance Survey Mastermap

DescTerm

- Coniferous Trees
- Non-Coniferous Trees
- Orchard

OUT9.14 *Company land that has estuaries and coastal water habitats.*

We do not have the information available to complete this line.

OUT9.15 *Company land that has open habitats*

We do not have the information available to complete this line.

Further splits of company land expected at 31 March 2025

OUT9.16 *Land being managed as part of biodiversity plans – Good status*

OUT9.17 *Land being managed as part of biodiversity plans – Moderate status*

OUT9.18 *Land being managed as part of biodiversity plans – Poor status*

Lines 16 to 18

We do not have the information available to complete these lines. We have identified which sites have active plans, and the status of those sites, but we have not been able to source the land area.

11. OUT10: Underlying calculations for bespoke performance commitments

We have not completed OUT10. We submitted our bespoke PC under a separate submission. Details have been included in Appendix 1 and 2, and WSH201-Additional BP Tables WSH.xlsx.

12. Appendix 1 – Bespoke PCL: Sewer Overflow Harm - Rationale

Introduction

The PR24 Forum has been clear in its Strategic Steers that:

"We expect DCWW to reduce the use of Storm Overflows (SOs) prioritised on the basis of delivering the maximum improvement to the environment in terms of reducing harm."

This approach is also aligned with the Welsh Government-led Better River Water Quality Taskforce. Our approach is set out in more detail in: WSH03-PR24 Business Plan Document Section 6.1, 6.2 and 6.4, and in WSH40-Storm Overflows strategy.

We are therefore proposing a bespoke PC measure which captures the proportion of our SOs which are not causing ecological harm, and an investment programme which targets maximum increases in this. In our case we have a storm overflow impact assessment programme which is sufficiently advanced to form a robust basis (albeit with some assumptions for now) for the baseline for this measure.

Using ecological harm of SOs has several benefits over a simple SO count measure:

1. It is not influenced by weather conditions. The biggest driver of spills frequency is weather. SOs spill more frequently in wet years compared with dry years such as 2022. Consequently, Ofwat will reward companies in dry years who may have taken minimal action to reduce SO impact on a longer-term basis. Likewise, companies that have invested and taken action to address SOs could still be penalised if there happens to be a wetter than average year.

2. Better targeting of investment to prevent harmful spills. The problem of weather-dependent variability is amplified by the fact that in years when SOs operate more frequently due to wet weather, the presence of more rainfall normally means higher flows in our rivers. This results in a greater dilution of the overflow, greatly mitigating the ecological impact. Conversely in dry years the impact of a SO overflow is likely to be greater as the overflow will be less dilute. This means that using a spill count method, not only would companies be rewarded as a result of a dry year, but they would also be rewarded at a time when the SOs are likely to be causing the greatest levels of harm. Using our bespoke PC, we will be incentivised to target SOs that cause the most harm.

3. The SO Harm measure will incentivise more efficient investment choices. The evidence of ecological impact from a sample of over 250 (table 1) of our frequently operating SOs we have assessed so far shows that there is no clear relationship between spill frequency and impact for these sites that all spilled more than 40 times a year. Therefore incentivising companies using a spill count measure may result in companies targeting SOs that have no/very low ecological impact. This would lead companies to receive rewards for reducing their spill counts, even though there has been little or no environmental benefit from the investment.

Table 1 - environmental impact of SOs that are spilling more than 40 times per year.

Impact	Sites	Percentage	Average Spills
Severe +	77	30%	83.1
High/Very High	42	17%	96.7
Moderate	51	20%	74.3
Low	23	9%	94.3
No / Very low	60	24%	83.6
Total	253	100%	86.4

We therefore believe that a PC focused on ecological impact, based on the industry standard Urban Pollution Manual and Storm Overflow Assessment Framework (SOAF) methodologies, would be a more appropriate way to report progress and incentivise company investment. This framework takes a longer time series of data on rainfall and is not affected by variations in rainfall from year to year.

2025-2030 baseline

Welsh Water started before most other companies in installing Event and Duration Monitors (EDMs) across its SOs, and we are also more advanced in undertaking assessments of the harm caused by SOs, using an established methodology (the Storm Overflow Assessment Framework – SOAF). This was recognised by Ofwat at PR19 as part of our SOAF investment case. The roll-out of these assessments is focused on high-spilling SOs but will not be complete until sometime in AMP8. We have, however, completed enough assessments to form a robust interim view of the harm caused by high-spilling SOs, and we can make reasonable interim assumptions about the harm caused by SOs spilling less frequently.

The advantage of this approach is that it enables us to set out long-term targets based on this measure, in line with Welsh policy and stakeholder expectations, and a programme of work that will deliver against those targets. The baseline may need to be adjusted at PR29 based on the results of the assessments of lower spilling SOs.

We propose to set targets in our PR24 Business Plan for 2025-2030 on the basis of assessments completed up to 1 July 2023, but would propose to update the figures based on additional assessments completed up to 1 July 2024 ahead of the PR24 Final Determination.

Development of the SO impact target

We recognise that our proposed bespoke SO harm commitment will develop in maturity over time. Key to this will be the assessments of SO impact. We expect to have completed these on at least 500 frequently spilling sites (those spilling more than 40 times per year on average) by the end AMP7 as a result of our SOAF investigation programme. The remaining sites (including the 33% of our SOs that spill on average 10 times per year or less) will be completed before 2030, prioritising those that discharge to the most sensitive waters. Until then our reported number on this measure will be subject to some caveats. However, we will have sufficient assessments completed by 2025 to agree a reasonably robust and transparently derived target of what our investment plans should deliver as a stretch target for PR24.

The definition of ecological impact is currently based on the standard definition in the Urban Pollution Manual and SOAF methodologies. Stakeholders have asked us to run a workshop to explore this definition in detail and it may be subject to some refinement that could be incorporated into future AMP commitments. However the current definition is well documented, and delivering the improvements required by this methodology would constitute a 'least regrets' plan with a reasonable degree of certainty attached to its outcome.

A proposed definition of the bespoke PC is provided in Appendix 2, using Ofwat's template.

13. Appendix 2 – Bespoke PC: Sewer Overflow Harm: Definition

Combined Storm Overflow environmental impact

Purpose: This performance commitment is designed to incentivise a progressive reduction in the environmental impact of discharges from the company's combined storm overflows (CSO).

Benefits: This performance commitment incentivises the company to reduce the impact of its combined storm overflows which will lead to environmental benefits.

Version control [not required for initial submission, for completion at draft determinations]

Version	Date of issue	Performance commitment changes
0.1		
1.0		
2.0		

1

Performance commitment definition and parameters

1.1 Detailed definition of performance measure

The percentage of CSOs that produce "no" or "very low" ecological impact which will be calculated as a percentage to two decimal places as follows:

$$= \frac{\text{Total number of storm overflows with } \textit{no} \text{ or } \textit{very low} \text{ ecological impact}}{\text{Total number CSOs}} \times 100$$

1.2 Additional detail on measurement units

This Performance Commitment has been developed to support the objectives of the Wales Better River Quality Task Force which is led by the Welsh Government and is focused on improving river water quality.

Counted CSOs will include wastewater network storm overflows, pumping station storm overflows, and emergency overflows operating as storm overflows and WWTW storm tank overflows, but not other emergency overflows.

Ecological impact assessment and classification

The ecological impact of each CSO will be assessed using the methodology set out in the 2018 Storm Overflow Assessment Framework (see https://www.water.org.uk/wp-content/uploads/2018/12/SOAF.pdf - stage 2, pages 7-17). CSOs will be given an impact classification ranging from "No impact" to "Severe[1]" as shown below, and this will be used to provide the baseline against which improvements are measured.

Impact classifications:

- No / very low impact
- Low impact
- Moderate impact
- High/very high impact
- Severe impact

As described in the SOAF methodology the ecological impact of a CSO following intervention by Welsh Water will be determined using water quality modelling as

[1] "Severe" in this instance will include the "Very Severe" and "Extremely Severe" classifications that could be attributed when considering the invertebrate impact in stage 2b of methodology.

specified in the third edition of the Urban Pollution Management manual (UPM) (see http://www.fwr.org/UPM3/).

Baseline for performance

The SOAF investigation programme is assessing CSOs that have spilled at least 40 times per year for 3 consecutive years, 50 times per year for 2 consecutive years or 60 times per year in a single year.

Ecological impact assessments for all CSOs will be completed during 2025–2030. Targets for the measure proposed in the company's PR24 Business Plan for 2025–2030 will be set on the basis of assessments completed up to 1 July 2023. An updated baseline will be based on all assessments completed up to 1 July 2024 (ahead of the PR24 Final Determination).

This set of baseline assessments, and the assumptions for non-assessed CSOs extrapolated from them (see below), would then be fixed for the purposes of the Performance Commitment until the 2030–2035 period. Any change in classifications, and hence changes in reported performance, would only be the result of interventions by Welsh Water (see below) and not as a result of additional assessments.

Where the ecological impact of a CSOs has not been assessed, the following assumptions will be used to calculate the baseline:

- CSOs operating an average (see appendix 1) of 10 times per year or less will be classified as having 'no' or 'very low' impact.
- CSOs operating more than 40 times per year on average (see appendix 1),the percentage with "no" or "very low" ecological impact will be estimated by extrapolating from the assessment results for those storm overflows operating more than 40 times per year on average which have been assessed. For example, if at the cut-off date 50% of assessed CSOs spilling more than 40 times per year have 'no' or 'very low' impact, it will be assumed that 50% of all CSOs spilling more than 40 times per year on average are have 'no' or 'very low' impact, for the purposes of the PC.
- For CSOs operating between 10 and 40 times per year and which have not yet been assessed, these will be estimated at 40% having 'no' or 'very low' ecological impact and 60% having "low" or greater impact.

The denominator of the measure is the number of CSOs in operation at the start of the 2025–2030 period. Where investment solutions lead to the abandonment of a CSO it will count towards the total number of CSO sites until 2030, and will also be counted as a CSO with *no* ecological impact until 2030.

CSOs removed from the asset list as a result of improvements in DCWW's base records will not be included as improvements to reported performance.

If CSOs are added to the asset register during the 2025–2030 period, the total number of CSOs in operation will be corrected in the year following the change to the company's asset register.

Process by which CSOs will be improved and the reported performance updated

The process by which CSOs will be assessed and reported as having 'no' or 'low' impact will be as follows:

- Pre-intervention spill frequency for each CSO will be measured using spill Event Duration Monitoring (EDM) reporting.
- The impact of a CSO will be assessed and then classified using the 2018 SOAF methodology. CSOs will be classified using the impact categories below.

  No / very low impact
  Low impact
  Moderate impact
  High/very high impact
  Severe impact

- A UPM model will be used to determine the reduction in average spill frequency needed to reduce a CSO's impact to "no" or "very low".
- The interventions needed to deliver the required reduction in average spill frequency will be determined and delivered on the site.
- Post intervention the site will continue to be monitored using the installed EDM. Confirmation that the intervention has been successfully delivered will be given when the reported spill frequency meets the new average spill frequency performance determined by the UPM modelling.
- Once the reduction in average spill frequency to the UPM model target has been confirmed the total number of CSOs having "no" or "very low" impact will be incremented by 1.
- The percentage of CSOs that have "no" or "very low" impact will be recalculated at the end of each year to account for all interventions confirmed as successfully delivered in that year by the company's EDM reporting.

1.3 Specific exclusions

Emergency overflows are in general excluded from this measure. However, any EOs that are known to be operating as CSOs, in that they can operate as a result of excess rainfall, not just equipment failure, will be counted in the measure.

1.4 Reporting and assurance

Reports, modelling results and source data for the modelling will be kept for at least six years from the date the impact was assessed.

Annual reporting of this measure will be subject to DCWW's normal quality management and audit procedures. DCWW shall ensure that its outcome delivery incentive payments only relate to real performance changes and not definitional, methodological or data changes in performance commitments. This means that only CSOs where action has been taken to improve the impact of the CSO will contribute to performance improvements. This may include improvements in monitoring, operational changes and capital investment.

Compliance checklist

DCWW shall complete the checklist below and report to Ofwat if any element is not green. Where an element is not green, Ofwat may intervene to protect customers and ensure that DCWW does not benefit from insufficient data quality. See Annex 1 for assessment rules for each element.

Table 1 Compliance checklist for [measure]

	Component / Element	**Component R/A/G**	**Element R/A/G**	**Reason for any non-compliant component**	**Confidence grade**
1	**Coverage**				
1a	At least 21% of storm overflows spilling on average 10 times per year or more have completed ecological assessments by 2025 increasing to at least 99% by 2030.				

Table 2 Definition parameters

Parameters	
Measurement unit and decimal places	Percentage of storm overflows with "no" or "very low" ecological impact reported to 2 decimal places
Measurement timing	Reporting year
Incentive form	Revenue
Incentive type	Underperformance and outperformance payments
Timing of underperformance and outperformance payments	End of AMP to ensure improvements are focused on a range of CSOs and not just the easiest to improve.
Price control allocation	100% wastewater network plus
Frequency of reporting	Annual, on a reporting year basis. For example, performance assessment for 2025-26 will be based on the reporting year starting 1st April 2025, whereas 2029-30 assessment will be based on the reporting year starting 1st April 2029.
Any other relevant information	N/A
Links to relevant external documents	• Storm Overflow Assessment Framework - https://www.water.org.uk/wp-content/uploads/2018/12/SOAF.pdf • UPM manual - http://www.fwr.org/UPM3/

Annex 1 Compliance Checklist

This annex sets out the criteria on which to report checklists where specified in the performance commitment definition.

Compliance for elements is reported against:

R	Not compliant with the guidance and having a material impact on reporting
A	Not compliant with the guidance and having no material impact on reporting
G	Fully compliant with the guidance

An overall RAG to be assigned for each component based on the following rules:
Compliance for overall components is reported against:

R	There are one or more red elements in the component, or the combined effect of amber elements is considered to produce a material impact.
A	Half or more of the elements in the component are amber and the combined effect of the amber elements is considered not to produce a material impact
G	More than half of the elements in the component are green

For each component on the checklist, and for the overall performance measure, the company will report a confidence grade. Confidence grades provide a reasoned basis for companies to qualify the reliability and accuracy of the data.

The company shall employ a quality assured approach in the methodology used to assign confidence grades, particularly if sampling techniques are in place. The confidence grade combines elements of reliability and accuracy, for example:

A2 – Data based on sound records etc. (A, highly reliable) and estimated to be within +/– 5% (accuracy band 2) Reliability and accuracy bands are shown in the tables below.

Reliability Band	Description
A	Sound textual records, procedures, investigations or analysis properly documented and recognised as the best method of assessment.
B	As A, but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation.
C	Extrapolation from limited sample for which Grade A or B data is available.
D	Unconfirmed verbal reports, cursory inspections or analysis.

Accuracy band	Accuracy to or within +/-	But outside +/-
1	1%	-
2	5%	1%
3	10%	5%
4	25%	10%
5	50%	25%
6	100%	50%
X	Accuracy outside +/- 100 %, small numbers or otherwise incompatible (see table below)	

Certain reliability and accuracy band combinations are considered to be incompatible, and these are blocked out in the table below.

Compatible confidence grades				
Accuracy band	Reliability band			
	A	B	C	D
1	A1			
2	A2	B2	C2	
3	A3	B3	C3	D3
4	A4	B4	C4	D4
5			C5	D5
6				D6
X	AX	BX	CX	DX

Appendix 1 (Part of CSO definition)

Average SO spill frequency

The annual spill frequency is very dependent on local weather conditions with SOs spilling more frequently in wet years and less frequently in dry. The ecological impact assessment methodology (as described earlier and referenced above) accounts for such variation and the likelihood that SOs operating in dryer weather tend to have a greater ecological impact than during wetter periods. Importantly this is currently recognised as best practice in both the Welsh and English regulatory regimes.

In order to assess the impact and design the improvements needed to reduce ecological impact to *no* or *very low,* a rainfall series covering a minimum of 10 years must be used. The solution designed should deliver an average spill frequency which, when measured over a 10-year period and would confirm that the impact reduction has been successfully delivered and provide assurance that the design is successful. In the short term the improvement can be considered to be successfully delivered if the resulting spill frequency falls within the normal distribution for site.