
PR24

NORTHUMBRIAN
WATER *living water*

ESSEX & SUFFOLK
WATER *living water*

OUTCOMES TABLE COMMENTARY

NES_COM1



1.	OUT1	3
2.	OUT2	3
3.	OUT3	4
4.	OUT4 and OUT5	7
5.	OUT6	13
6.	OUT7	13
7.	OUT8	15
8.	OUT9	16

1. OUT1

We explain in our appendix [A4 – Outcomes](#) (NES05) how we have derived the overall performance forecast for each performance commitment. This allows us to explain this more clearly than we can in this commentary, with tables and charts with comparisons to the sector as well as an explanation of our current performance.

In some tables, we have not provided all the historic data requested and have left these cells blank. This is because these performance metrics were not recorded in this way at the time using the definitions of PR24 performance commitments, and so this data is not available. These are also not included in the historic industry dataset (for any companies) for the same reason. We have indicated with comments on the data tables where this is intentional. We note that the table has some Excel errors (#VALUE or #N/A) where formulae rely on these cells or on OUT10, including in cells defined as percentages, and so Ofwat will need to correct this before loading into Fountain.

2. OUT2

We explain in our appendix [A4 – Outcomes](#) (NES05) how we have derived the overall performance forecast for each performance commitment and the historical trends and baselines. This includes the methodology we followed to understand our performance under base costs, statutory requirements, customer priorities and historical data, and reconciling with appendix [A3 – Costs](#) (NES04), which includes our enhancements. For the purposes of forecasting industry performance, we have used the historic data set that Ofwat sent to companies in July 2023.

Our appendix [A3 – Costs](#) (NES04) explains how we have estimated costs and benefits across our enhancement cases, and so derived the performance from enhancement cases.

We provide any extra information below that is not included in the appendices above.

CRI

OUT2 shows the forecasted performance related to base costs. This is higher than the PCL of 0 and our proposed deadband of 1.5. The difference between our expected performance and the deadband represents a gap that needs to be reduced. However, we do not propose any enhancement expenditure which bridges the full gap between our PCL in OUT 1 and base expenditure OUT2 in relation to CRI.

Biodiversity

We do not propose any performance change related to base costs only – this is therefore set at the base level from 2019/20 throughout the period requested. Please refer to our OUT4 commentary for more information.

Discharge Compliance

For the period 2025-35, the forecasts shown are those set using the base costs only. Therefore, there will be a difference from those reported in OUT4 and OUT5 which are the industry standard of 100% compliance, as no enhancement costs

are allocated for discharge compliance. The period 2025-30 shows an improvement to be at the industry upper quartile position.

Our leakage, PCC and business demand PCLs are split Northumbrian Water (region 1) and Essex & Suffolk Water (region 2). We also provide the company level.

3. OUT3

There are many variances shown in OUT3, as benefits are not always specified in this format in CW15/CWW15 (which is also used for a cost benefit analysis). This is because CW15/CWW15 has to include all benefits, including improvements to risk and resilience (which don't necessarily have an impact on overall performance levels).

Table CW15 and CWW15 also show the benefits annually compared to base performance, as required to calculate the NPV of each enhancement investment, and so OUT3 is calculating the cumulative benefit for a second time (it should just be adding across CW15 and CWW15). These formulae are not correct, and it would not be correct to show sustained benefits in a single year in CW15 or CWW15 because the valuation of this benefit needs to match the NPV and use the valuations in OUT7.

Finally, there are some differences in units. This is the case for percentages, which are not specified in the same way in CW15 and CWW15 (for example, for discharge permit compliance CWW15 requires this as a "number" e.g. 0.19, but OUT1 shows this as a percentage e.g. 0.0019). This is also the case for performance commitments which are expressed as a percentage reduction, but in the CBA these are expressed as units (for example, leakage expressed in MI/d to value the benefits; compared to a percentage reduction for the PC). We have used embedded carbon emissions to value our enhancement cases, but have not proposed a bespoke PC on this because i) the baseline is not yet robustly established and 2) there is no consistent way of measuring the actual embedded carbon.

However, we used these same benefits from our enhancement cases to calculate performance commitments – so although the table does not (and cannot) match, we have made sure the two are consistent.

Our enhancement cases explain the benefits used in CBA, and our appendix [A4 – Outcomes](#) (NES05) shows how we derived the performance commitments.

Further details are explained below:

Interruptions to supply over three hours

The benefits shown in CW15 and CWW15 reflect the risk of a potential supply interruption occurring, based on the frequency of events and a network assessment of the impact on customers in terms of time and duration. This calculates a future risk of an interruption to supply based on a forecasted event and resultant impact. This allows a cost benefit optimisation across the enhancement cases and potential solutions. The benefits and value have been included in CW15 tables. The alignment

to the tables OUT1-3 does not include the benefit of these schemes as the schemes are about mitigation of future risk associated to change in frequency and impact rather than offsetting deterioration in performance.

CRI

OUT2 shows the forecasted performance related to base costs. This is higher than the PCL of 0 and our proposed deadband of 1.5. The difference between our expected performance and the deadband represents a gap that needs to be reduced. However, we do not propose any enhancement expenditure which bridges the full gap between our PCL in OUT 1 and base expenditure OUT2 in relation to CRI – as such OUT 3 over values the performance attached to enhancement in AMP9.

Customer contacts about water quality

Table CW3 shows these benefits in number of incidents (that is, not normalised), so will not match OUT3.

Internal sewer flooding

As we have shown in our DWMP, our internal sewer flooding performance will deteriorate as a result of urban creep and climate change from 2030 onwards. We are committed to reducing both internal and external flooding in the long term and in our LTS we have committed to reduce risk by 60% by 2050. Our DWMP explains how we might achieve this and also sets out the additional enhancement investment we will require in order to do this.

The tables do not match because the performance commitment is normalised, and CWW15 is not.

Discharge compliance

We recognise that CWW15 includes a benefit of 0.91% in terms of discharge compliance, which is used to bridge the gap from our base level of 99.49% and the maximum compliance required by Ofwat (100%). Therefore, the CWW15 value of benefit and OUT 3 do not match.

Biodiversity

Wastewater – CWW15

The biodiversity units (BUs) are being shown in CWW15 in the year after the associated scheme is due to be completed. Please note that this date reflects the date when the habitats will be created, not the point at which they will reach ecological maturity which for these habitats will take up to 10 years. These have all been added into the table as an “Other” benefit type as they are not going to form part of the PC as are all associated with schemes that are subject to planning permission.

Water – CW15 – WINEP lines

Copperleaf is showing the biodiversity units (BUs) as being delivered evenly across the years in AMP9. This does not reflect what will happen in reality. To that end, we have deviated from the data shown in copperleaf to show the BUs that will be delivered in AMP8. They are as follows:

- 08ES10006 NERC will be delivering 10 BUs in 2028/29 and 14 BUs in 2029/30
- 08ES100115 WRFlow will be delivering 2 BUs in 2029/30
- 08NW104103 WRHMWB will be delivering 2 BUs in 2029/30
- 08NW104012 WRHMWB will be delivering 2 BUs in 2029/30

The rest of the BUs being delivered as a result of AMP8 schemes have been split evenly across AMP9 though some will not reach ecological maturity until AMP10. They include some projects that will form part of the PC and others that won't due to them being subject to planning permission.

Water – CW15 – Supply-demand balance lines

The biodiversity units (BUs) show associated with schemes here have been added into the table as an "Other" benefit type. They have been shown in the year of scheme completion not when they'll be functioning ecologically. They are not included in the PC as the schemes will all require planning permission.

Greenhouse gas emissions

These match except for the cumulative issue explained above.

Leakage, PCC, and business demand

Table CW15 is expressed in MI/d, whereas OUT3 expresses this as a percentage reduction. The benefits of both supply and demand schemes must be valued in MI/d for comparison in WRMP, and so we have expressed this in CW15.

Discharge permit compliance

The table is incorrect because of a) the way percentages are expressed; and b) the cumulative issue explained above.

River water quality

In CWW3, we express phosphorus removed in tonnes (as this is how this is valued in CBA). This is not reflected in table OUT3 as we have used an "other" benefit line to show this. The two tables are consistent.

Bathing Water Quality

We expect that our storm overflows programmes at Berwick and Marske in particular will lead to improvements at these bathing waters, and we are tackling around half of the storm overflows that affect bathing waters in AMP8. This will not

make a very large difference to our bathing waters as these are already rated "Good", but we expect to see some of these improve to "Excellent" from 2029/30 onwards.

In our protected areas and bathing waters enhancement case, we also identify one bathing water to improve from "good" to "excellent", and this is reflected in 2029/30 too. We are carrying out investigations to understand how more bathing waters can be improved from "good" to "excellent" during AMP8, and any improvement work identified from these would be planned for AMP9. This supports our ambition to have excellent bathing waters across the North East by 2035.

4. OUT4 AND OUT5

Total number of properties supplied at year end

Property growth forecasting is a highly specialized fundamental of the demand forecast and we commissioned specialist consultants Edge Analytics to prepare the population and property growth forecasts for each Water Resource Zone (WRZ) in line with best practice methodology following the requirements of the Water Resource Planning Guidance (WRPG) and PR24 Business Plan (PR24).

In the last few years, the country has exited from the European Union (EU) quickly followed by the unprecedented impact of the Coronavirus pandemic, alongside the UK government has clearly stated its determination to accelerate the rate of house building. Therefore, predicting the demographic future of the UK presents a real challenge.

Edge Analytics has a particular expertise in demographic modelling and forecasting and has developed a suite of products to meet the regulatory requirements for evidence-based planning in the water industry. They use demographic datasets from Office for National Statistics (ONS), Local Authorities (LAs) and the latest Census from 2021 in producing the forecasts. Robust and timely data inputs are key to the forecasting process, including precise water company geographies; Local Plan evidence from all local authorities; plus, historical and base-year demographic statistics. Edge Analytics' VICUS model combines all data inputs within best practice forecasting methodologies, enabling macro- and micro-level population and property growth scenarios to be derived under a wide range of assumptions, for a suite of scenarios with horizons that stretch to 2100.

Our property growth forecasts are different between the WRMP and the PR24 Business Plan. This is to follow the separate guideline requirements for the WRMP and the Business Plan with regards to population and property forecasting.

For the PR24 Business Plan an ONS trend population scenario has been selected in line with PR24 guidance (this is the same as Ofwat's "low" scenario for growth). We have selected a ONS 2018 scenario with medium growth. This is an ONS 2018-based Principal sub-national projection (SNPP) using updated mid-year estimates from 2021 Census data, with a five-year history (2013–2018) to derive local fertility and mortality assumptions and a medium long-term UK net international migration assumption of +150k p.a. for the UK in total.

The property forecasts include new properties (growth) from the Edge Analytics scenario detailed above which is adjusted for projected annual disconnections and demolitions. These are based on the average disconnections and demolitions that have occurred over the last five years and remain consistent over the forecast.

Edge Analytics provide an annual average property forecast. Therefore, to estimate a year end forecast we have used the average of the two year's annual averages. For example, 2023/24 is an average of the annual average figures of 23/24 and 24/25.

Please note this is a different scenario to the WRMP property growth. The development of growth forecasts following WRMP24 guidance require plans to be underpinned by evidence on Local Plan housing growth for those Local Planning Authorities (LPA) that overlap the WRZ geography. For WRMP a central scenario of Housing Plan has been applied to the baseline forecast in line with WRMP guidelines. The Housing Plan scenario is a housing-led scenario, with growth underpinned by each local authority's Local Plan housing growth trajectory. Following the final year of local authority data, projected housing growth in non-London areas returns to the ONS-14 & ONS-16 long-term annual growth average by 2050. For London Boroughs, housing growth returns to the GLA Central scenario long-term annual average by 2050. This is equivalent to Ofwat's "high" growth. We have used this for capacity planning in WRMP and DWMP; but have used the "low" growth estimates everywhere else in our business plan.

Leakage

Our leakage PCLs are split Northumbrian Water (region 1) and Essex & Suffolk Water (region 2). We also provide the company level.

Our performance trend and supporting calculation data for leakage is the same as in our WRMP24.

We have applied a glidepath to hit the target percentage reductions in 2050 from the 2017/18 base position. A glidepath profile was selected based on the affordability and deliverability of our plan. It would be more expensive to reduce leakage quicker and then maintain it at a lower level over the remaining planning period. The target reduction in the current AMP is very challenging to meet and further reductions will only get harder and more expensive to deliver in future. There is some uncertainty around how the long-term targets can be achieved, as we try to drive beyond the unavoidable annual real losses (UARL), so an iterative approach is most appropriate to learn and improve our assumptions as we progress.

ESW has been a frontier company in leakage performance over several years, so this makes a 50% reduction much more difficult to achieve, and more expensive per unit, compared to the industry average. Our preferred plan is to aim for a 40% reduction by 2050 in ESW, which when combined with a 55% reduction in NW gives a companywide reduction of 50%, meeting the national target. We believe this is a fair approach based on the current leakage performance in each region and the ability to deliver future targets.

The annual values have been averaged over a three-year period and then presented as a percentage of the 2019/20 base position (the average between 2017/18 and 2019/20) in line with the PR24 methodology.

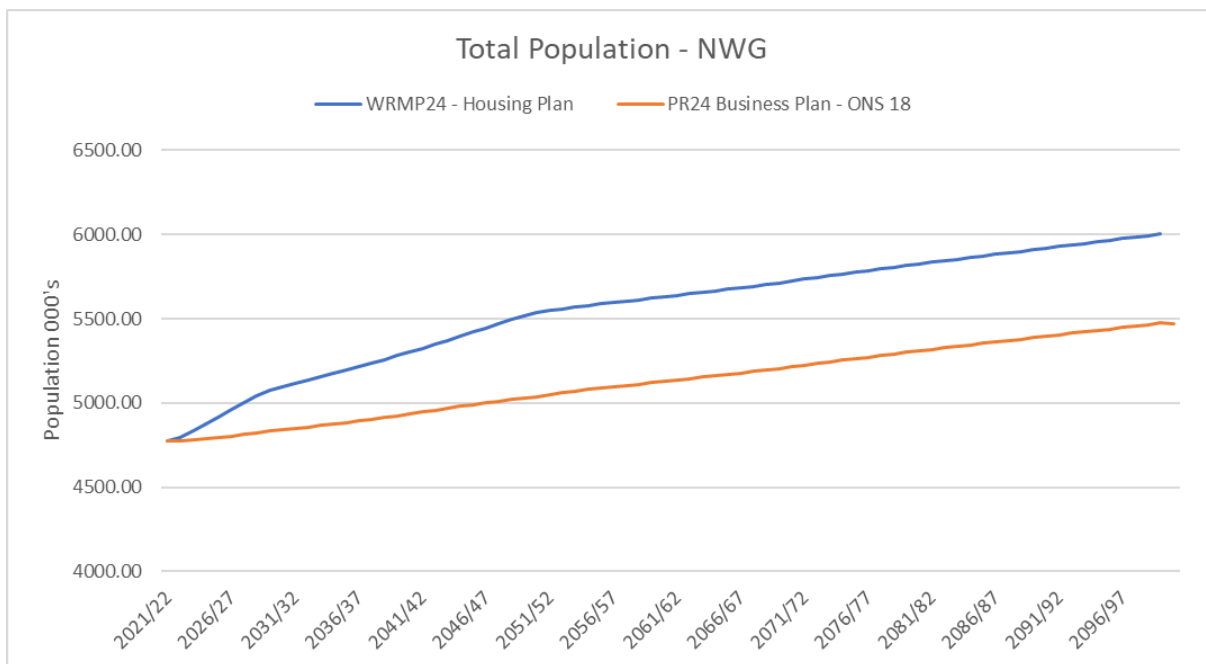
PCC

Our demand management options activity is the same in PR24 as it is in WRMP24. The trend in PCC and supporting calculation data is different between PR24 and WRMP due to the underlying population and property forecasts being different.

For the PR24 Business Plan an ONS trend population and property growth scenario has been selected in line with PR24 guidance. For the WRMP24 a Local Authority Housing Plan population and property growth scenario has been selected in line with WRMP guidance.

The difference between these two population scenarios is shown in the graph below:

Figure 1: Total Populations – WRMP24 v ONS18



Source: NWL

The difference in population directly impacts the resulting PCC therefore the PCCs in the Business Plan will not match those reported in the WRMP.

However, for both the WRMP and the Business Plan we meet both the 110 l/hd/d by 2049/50 target and the 122 l/hd/d by 2037/38 target for PCC in a dry year and normal year scenario.

Water Supply Interruptions

We calculated the forecast upper quartile performance for WASCs and WOCs separately (using data up to and including 2021/22) so that we could apply the relevant target to each of our regions. When combined this results in a 2029/30 target of 4 minutes and 3 seconds. An annual glidepath reduction has then been applied to this, to get from the 2024/25 target to the 2029/30 target.

To calculate the total minutes lost we multiplied the PCL (in minutes per property) by the total number of properties.

Mains repairs

Enhancement funding is expected to offset the deterioration in performance from our base allowance, so the PCL has been set to maintain our 2024/25 target position.

The number of repairs has been calculated by multiplying the PCL by the total length of mains in the company. This has been split between reactive and proactive repairs based on the 2022/23 APR data set.

Water supply area (OUT 4.22) and Sewage services area (OUT 5.25)

All data to 2022/23 has been extracted from previous APR submissions to Ofwat. Given the small change over the previous periods, we have maintained a flat level of area from our 2022/23 reporting to the end of the period 2034/35.

Water Quality Contacts - Resident population (water) (calendar year) (OUT4.7)

Actual DWI population data (calendar year) has been applied to the data table to 2022. We have extrapolated this data, calculating an average increase over the period 2011 to 2022 and applied this forward to 2034. We have also undertaken a sense check against our financial year population data supplied in our WRMP.

Biodiversity data has come from assessments carried out in 2019/20. These assessments were put through the biodiversity metric v3.1 in 2022. Most sites <0.2ha were excluded from the assessment, but this makes up less than 2% of the total landholding. Similarly some areas of land that are tenanted to 3rd parties and fully under their management control were excluded. Office sites have been included with the water figures only to avoid double counting. Hedgerow data was limited and the figures represent the best available information. River units have not been assessed against the MORPH criteria so will not be comparable to future assessments.

Data has been input into years four and five of AMP8, and years three and four of AMP9 to reflect when it is anticipated biodiversity units will be created (and reached target condition). These biodiversity units are based on assessments carried out for the WINEP. All of the baseline PC biodiversity units fall within Water, as the relevant Wastewater projects will need planning permission so will be subject to providing the legally required biodiversity net gain.

Performance in OUT 2, 4 and 5 are all cumulative from the baseline undertaken in 2019-20, meaning that any yearly improvements are added to the prior year. Data for area surveyed is annual values surveyed – these are not cumulative. All improvements are currently linked to our water resources and networks at present however this may change in forthcoming AMPs.

Internal Sewer Flooding

We only have the total number of internal sewer flooding incidents recorded against the latest AMP7 reporting methodology available from 2016/2017. Incidents prior to this period are recorded against older reporting methodology and are therefore not comparable with how we record incidents now. We have therefore left the period 2011/2012 to 2014/2015 blank.

We have actual incidents recorded for customer proactively reported and company reactively identified for the period 2020/2021 – 2022/2023. For all other years we have calculated the split using this historical three year average.

The total number of incidents shown up-to 2022/23 are actual reported incidents as we submitted in our APR. Performance shown for 2023/2024 and 2024/2025 is our forecasted end of AMP7 performance from our tactical plans.

For the period 2025 – 2030 we have set our PCL to maintain our UQ performance for internal sewer flooding incidents.

For the period 2030 – 2035 we have shown a further improving level of internal sewer flooding incidents as a result of planned investment in our Long Term Delivery Strategy to reduce internal sewer flooding incidents by 60% by 2050 and as we reported in our DWMP.

External Sewer Flooding

We only have the total number of external sewer flooding incidents recorded against the latest AMP7 reporting methodology available from 2016/2017. Incidents prior to this period are recorded against older reporting methodology and are therefore not comparable with how we record incidents now. We have therefore left the period 2011/2012 to 2014/2015 blank.

We have actual incidents recorded for customer proactively reported and company reactively identified for the period 2020/2021 – 2022/2023. For all other years we have calculated the split using this historical three year average.

The total number of incidents shown up-to 2022/23 are actual reported incidents as we submitted in our APR. Performance shown for 2023/2024 and 2024/2025 is our forecasted end of AMP7 performance from our tactical plans.

For the period 2025 – 2030 we have set our PCL to improve our external sewer flooding incidents to be in line with the forecasted industry average number of incidents for 2034/2035. This is in line with our National Leader Criteria and is supported by our customers.

For the period 2030 – 2035 we have shown a further improving level of external sewer flooding incidents and we have forecasted our performance at the industry upper quartile position by the end of 2035. The improvement shown from 2025-2035 is more stretching than our long-term delivery target to reduce external sewer flooding incidents by 60% by 2050.

Greenhouse Gases

An explanation of our forecast greenhouse emission reductions and activities can be found in the annex to Appendix 4 Outcomes.

Pollutions (all)

The sewer length applied for the normalisation of all pollutions, is the EA length. This length has been fixed since 2021/22. We apply this length forward to 2034/35 in OUT 5.

Bathing Water Compliance

We have populated OUT5 for 2020/21 with “0” for each of the categories, as the EA did not undertake an assessment of bathing waters in the year due to Covid-19.

River Water Quality

The 2020 baseline number for annual phosphorus load in kg for all the wastewater treatment works discharge into inland waters (rivers). This includes 138 sites.

The annual load in kg for the subset of 93 STWs which we anticipate could have a phosphorus permit by 2035. The 2020 baseline and forecast load reductions are input to 2034.

These include growth forecasts in line with PR24 methodology¹. Flow is forecast using 2022 APR as a baseline, population growth is incorporated in line with 3rd party modelling (EDGE analytics) to give increase populations and properties where growth is forecast, PCC forecasts are applied in line with DWMP/WRMPs to reduce future consumption, and current infiltration, trade flows and non-resident domestic populations remain fixed and future infiltration is added for the new population.

Following Ofwat’s methodology these figures are calculated for calendar years, but have been input into financial years with the first year commencing (e.g. 2025 calendar year is reported in 2025-26).

The PR24 data table spreadsheet auto calculates the load reductions based on the input figures, which give our PC levels of 4.93% in 2025, through to 7.52% in 2029.

We do not have any historic data for this new PC so the columns prior to 2020 are left blank.

Sewer Collapses

We only have the total number of sewer collapses recorded against the latest AMP7 reporting methodology available from 2017/2018. Incidents prior to this period are recorded against older reporting methodology and are therefore not comparable with how we record incidents now. We have therefore left the period 2011/2012 to 2016/2017 blank.

The total number of incidents shown up-to 2022/23 are actual reported incidents as we submitted in our APR. Performance shown for 2023/2024 and 2024/2025 is our forecasted end of AMP7 performance from our tactical plans.

¹ Ofwat indicates growth should be included in forecasts – PR24 Query log 19th September page 68-69, Query no 257. “Companies will need to incorporate into the forecasts in their business plans any expected new premises, premises that will close and other changes in demand by businesses”. [PR24-query-log-updated-19-September-2023.pdf \(ofwat.gov.uk\)](#)

For the period 2025/2026 – 2029/2030 we have set our PCL to improve the number of sewer collapse incidents we report to be in line with the forecasted industry average number of incidents for 2034/2035. This is in line with our National Leader Criteria and is supported by our customers. We plan to invest more TOTEX during AMP8 to allow us to meet this level of performance. For the period 2030/2031 – 2034/2035 we have shown that we will maintain the level of sewer collapses we report at a similar level to our forecasted 2029/2030 performance.

5. OUT6

The PR19 price control splits² were applied against each measure to split out rewards and penalties across the water, wastewater, bioresources and retail controls. This allowed the 2023-24 and 2024-25 in-period and end of period ODI price control splits to be calculated.

We note Ofwat has been moving penalties associated with PCC into an accrued tab on the ODI model workbooks rather than accounting for it as an end of AMP penalty until they have reviewed the industry's performance. In our supporting ODI workbooks for 2023/24 and 2024/25 we apply the 2023/24 PCC penalty in the accrued tab only, and we note the 2024/25 value is in the AMP end totals.

In relation to OUT 6 we show the value of the penalty associated with PCC in 2024/25 only- we apply this to the end of AMP / period areas for price control. This enables us to show the value of the penalty related to PCC performance as per Ofwat's ODI performance models for the 2023/24 and 2024/25.

6. OUT7

We have adopted Ofwat's indicative view of the marginal benefit sharing factor and the associated ODIs – this is noted in our Appendix 4: Outcomes. (All rates have been taken from Ofwat's report³ with the exception of water supply interruptions, which is taken from the top-down model provided by Ofwat in September 2023 - £1.27m per minute).

Price Control Allocations

Biodiversity – As per Ofwat's guidance we split the price control for this measure equally over the three controls for water resources, water networks and wastewater networks.

Serious Pollution Incidents – the chance of having a serious pollution related to our water assets is much lower over the period 2011-2023, than our wastewater assets. As such we replicate our total pollutions price control for PR24, allocating 100% to wastewater network.

²<https://www.ofwat.gov.uk/wp-content/uploads/2019/12/PR19-final-determinations-Northumbrian-Water-Outcomes-performance-commitment-appendix.pdf>

³ PR24: Using Collaborative customer research to set outcome delivery incentive rates. [PR24-Using-collaborative-customer-research-to-set-outcome-delivery-incentive-rates-.pdf \(ofwat.gov.uk\)](#)

Discharge compliance – we split the price control using the number of permits for both water and wastewater.

Bespoke PCs – we have not completed the data for these measures, as they do not apply to our business plan.

Marginal Benefit rates and Benefit Sharing factor (%)

We apply the 70% sharing factor as per Ofwat’s methodology. We also complete the marginal benefit rates as defined from Ofwat’s modelling for the industry ODI process. To obtain the marginal benefit figures we divide the Ofwat ODI rate by 70%.

We do not include any ODI rates for biodiversity or greenhouses gases as Ofwat has advised it will provide those rates at a later date. Once these values are published we will undertake a review.

Enhanced Outperformance thresholds

We propose thresholds for enhanced ODIs as per the information within our Appendix 4: Outcomes.

Leakage – The data tables require us to submit our total leakage values and a split between regions, our region 1 is NW and region 2 is ESW.

Within our outcomes appendix, we indicate the best in industry performance for leakage was 65.6 litres per property per day. We have converted this value, applying or property estimates from our business plan to obtain the value in terms of MLD for NW, ESW and NWL. We have then assessed the percentage reduction from the baseline of 2019-20 three-year average.

Figure 2: Conversion from best in industry l/p/d to MLD

	2019-20	2025-26	2026-27	2027-28	2028-29	2029-30
Best in industry (BRL) - in l/p/d		65.6	65.6	65.6	65.6	65.6
Conversion to ESW MLD		55.00	55.30	55.60	55.90	56.20
Conversion to NW MLD		82.30	82.60	82.90	83.30	83.60
Conversion to NW and ESW MLD combined		137.30	137.90	138.50	139.20	139.80
Conversion to % from baseline						
ESW (2019-20 is MLD) - %	65.2	15.64%	15.18%	14.72%	14.26%	13.80%
NW (2019-20 is MLD) - %	134.8	38.95%	38.72%	38.50%	38.20%	37.98%
NWL (2019-20 is MLD) - %	200.0	31.35%	31.05%	30.75%	30.40%	30.10%

Source: NWL analysis

We acknowledge the percentages reduce over time due to the increasing property forecasts and the stationary nature of the best in industry figure for leakage we have applied.

Per capita consumption – We have noted the best in industry performance has been 126.2 litres in 2017/18 before the impact on levels from Covid-19. Reviewing this best in industry figure against our own base performance figures for 2019-20 provide the following required reductions.

Figure 3: Reduction required to achieve historic best in industry.

	2019-20 base	Best in industry	% reduction between base and best
NWL	150.6	126.2	16.20%
NW	145.9	126.2	13.50%
ESW	156.8	126.2	19.52%

Source: NWL analysis

7. OUT8

We have taken a review of all current performance commitments to the end of this AMP. Our review worked across the business with the relevant people to ensure we understood our position against each measure, whether we were expected to achieve our PCL or where performance might sit if we did not, including the level of expected penalty. We review each against our recent historic performance and our current service strategies, which consider the proposed initiatives and interventions to achieve our targets.

As part of OUT 8 we also submit the ODI performance models for both 2023/24 and 2024/25, which provide performance forecasts and their associated ODI payments.

Within our ODI model 2024/25 we have included two changes:

- the first is an override in relation to the penalty for the delivery of the WINEP programme. We have completed the required EA programme, which as prescribed by the EA was 648 sites. However, the Ofwat FD continues to ask us to undertake the EA programme but lists more sites than in the programme, 657. As the we cannot go beyond the prescribed 648 sites, we have removed the penalty within the company override sheet and set it £0.
- Re water resilience enhancement we anticipate that we will be 99.76% complete. The 0.24% relates to a delay in the completion date for a small cross connection main in Darlington. Under Ofwat’s ODI model / FD we would be allocated a penalty of £0.579m. However, we wrote to Ofwat on the 26th July 2023⁴ and outlined how we thought the penalty would be better calculated. We apply the penalty calculation associated to the £200k of funding to do the cross connection using the formula: Allowed funding for scheme x length of delay x time value of money (WACC + RCV Run off rate). This equates to a £42,239 penalty associated with late delivery of 2.67 years late. We have applied an override amount to this value in the company override tab.

⁴ “Proposed clarification regarding the application of NWL’s “Water Resilience Enhancement Programme” Performance Commitment (BES24) – 26th July 2023.

We further note that, whilst we show underperformance against PCC in 2023/24, we continue to apply data in the format shown by Ofwat for this year. The penalty associated with PCC in 2023/24 is not included in table 3A of the ODI model, but is moved to the accrued tab. To ensure the totals in the ODI models and our Table Out 8 tally, we do not include the penalty in Out 8 for 2023/24. However, we do include it in the end of AMP price control in OUT 6 – this reflects the current process in the Ofwat ODI performance models.

Performance expected to be worse than the PCL between 2023 and 2025

We anticipate our performance for the delivery of our smart meter programme will not achieve our proposed target and thus between the penalty and clawback associated with ODIs, we expect to have an overall penalty of £4.947m.

As per the above note, we also expect our water resilience enhancement to be at 99.76% complete by the end of March 2025 as we require further time to complete the Darlington cross connection main.

CRI as we note in our Appendix 4: Outcomes will require more time to achieve the deadband performance. Whilst unplanned outage though has been ahead of target for the entire AMP is forecasted to not meet the final year PCL.

Visible leaks, ERI, Treatment works compliance and external sewer flooding are also forecast to miss the final year PCL.

Finally, we anticipate a 12-month delay to the completion of our Howdon Treatment Works STW enhancement.

8. OUT9

Biodiversity

Information on protected sites was taken from the natural capital asset register that NWL produced based on 2019 data. This information would originally have been taken from Natural England's designated sites website. The land considered to have "wildlife rich" habitats or "areas of strategic significance" includes the protected sites; county wildlife sites; areas of tenanted land that are being managed in such a way that they've added significant value to the wildlife on those sites and; areas that are being managed by the Conservation and Land Management Team with a specific focus of enhancing them for wildlife. Some areas of woodland have been excluded as they are predominantly conifer and not considered to be wildlife rich.

Information on company land that is standing water, sealed surfaces, tree canopy and woodland cover, open habitat has been taken from the natural capital asset register that which took the data from the site biodiversity assessments carried out in 2019/20. Land that is running water was taken from GIS. NWL has very little estuary or coastal habitat, estimated to be approximately 100m² and therefore not significant.

To quantify the areas of good/moderate/poor condition land in conservation management plans, data has been taken from the 2019 survey and condition assessment work. From this we created a site ranking system ranging from 1-10 with 10 being the highest rank. The management plans and site assessments cover a range of habitats within the sites, all of which

could potentially be of different condition levels. Consequently, there is no fixed condition for each management plan area. As a proxy we have used our site ranking system with sites with a score of 9 or 10 being considered good; 6, 7, 8 considered moderate, and sites under the rank of 6 being considered to be in poor condition.