Data Table Commentaries

9 Long-term strategies

Contents

Tables LS3b – LS3i are intentionally left blank

Tables LS4e to LS4i - are intentionally left blank

1. Introduction

These tables collect data on companies' forecast long-term outcomes and enhancement expenditure for 2025-50. Forecast enhancement expenditure is set out using adaptive pathways, consistent with the company's long-term delivery strategy.

They also contain data on the forecast enhancement expenditure required to meet long term Outcomes under a range of scenarios, and how forecast enhancement expenditure will impact on customer bills.

This data underpins the company's long-term delivery strategy at PR24. The long term delivery strategies form a key part of the evidence justifying the scale and timing of need for enhancement expenditure in 2025-30 and provide early sight of future investments.

2. LS1 – Forecast outcomes

Our commentary on LS1 – forecast outcomes, is integrated with our commentary on AMP8 outcomes because they cover the same topics, and can be found at WSH15-Outcomes OUT1-OUT10.pdf

Detailed discussion of our LTDS outcomes and the overlap with common performance commitments can be found in section 1.3 of WSH01-Long Term Delivery Strategy.pdf.

3. LS2 – Forecast outcomes from base expenditure

Our commentary on LS2 – forecast outcomes from base expenditure, is integrated with our commentary on AMP8 outcomes because they cover the same topics, and can be found at WSH15-Outcomes OUT1-OUT10.pdf

Detailed discussion of our LTDS outcomes and the contribution of base expenditure can be found in sections 1.3, 2.2, and 4.1.3 of WSH01-Long Term Delivery Strategy.pdf.

4. LS3and LS3a – Wholesale water totex enhancement expenditure by purpose, core and alternative pathways

Investment forecasts in these tables is described in sections 2.3 and 2.4 of our Long Term Delivery Strategy with the aim of delivering our short term performance targets and long term ambitions under a range of possible futures.

In Table LS3, column E (2020-25) has been populated using two years of Annual Performance Reported data (2020/21 and 2021/22) and three years (2022/23, 2023/24 and 2024/25) from Table CW3.

Columns F to J showing 2025-2030 AMP8 enhancement expenditure are consistent with the Totex expenditure forecast in Table CW3. There are no alternative pathways requiring expenditure in the 2025-30 period.

We note that there is error in the table between lines LS3.5 and LS3.30 for our AMP8 investment.

Investment for table LS3.5 should be represented as follows –

			25/26	26/27	27/28	28/29	29/30
Water enhancement totex (core pathway); Drinking Water Protected Areas	£m	3	4.601	4.535	4.534	4.563	4.617

Investment for table LS3.30 should be represented as follows –

			25/26	26/27	27/28	28/29	29/30
Water enhancement totex (core pathway); Addressing raw water quality deterioration (green solutions)	£m	3	0.746	0.735	0.735	0.739	0.748

This error will be corrected in any resubmission of the table.

Core and Alternative Pathways

Table LS3 is our core pathway. Table LS3a describes an alternative pathway driven by the company specific scenario "Changes to legislation or regulatory policy" as described in our Long Term Delivery Strategy section 2.4.2. Tables LS3b to LS3i have not been used.

Additional Lines

In Table LS3 the additional lines have been used to allocate expenditure for AMP7 2020-25 (in column E) as follows:

- LS3.40 to LS3.42
  - Additional lines 1, 2 and 3 contain data for 2020/21 and 2021/22 from the APR for those years. Additional line 1; Impounding Reservoirs - enhancement water capex (APR 2021 line 4L.74 and APR 2022 line 4L.78), Additional line 2; Visitor Centre - enhancement water capex (APR 2021 line 4L.76 and APR 2022 line 4L.76)., Additional line 3; Cwm Taf Water Supply - enhancement water capex (APR 2021 line 4L.72 and APR 2022 line 4L.80). All definitions are as described in the CW3 commentary for lines CW3.130 to CW3.134 and the data for years 2022/23, 2023/24 and 2024/25 are from Table CW3.
- LS3.43 to LS3.44
  - Additional line 4 includes expenditure for 2021/22 from APR lines: Supply demand balance improvements delivering benefits starting from 2026 (APR 2022 line 4L.34), strategic regional water resources (APR 2022 line 4L.37), improvements to river flow (APR 2022 line 4L.66) and low pressure (APR 2022 line 4L.84). There is no expenditure for years 2020/21, 2022/23, 2023/24 and 2024/25 against this line.
  - Additional line 5 includes expenditure for 2020/21 and 2021/22 from the APR for those years: Water growth scheme (APR 2021 line 4L.70 and APR 2022 line 4L.82). Data for years 2022/23, 2023/24 and 2024/25 are from Table CW3.

The additional lines (LS3.40 to LS3.44) have been used to allocate expenditure for AMP8 2025-30 (in columns F to J) as described in the CW3 commentary, there is no expenditure forecast against any of the additional lines after 2030.

Proportional Allocations

Net zero carbon - The expenditure associated with achieving our net zero carbon ambition by 2050 has been proportionally allocated between water and wastewater on the basis of the current level of operational carbon emissions per price control as described in our strategy document "Welsh Water's Journey to Zero". In total between 2030 and 2050, £286.7m has been proportionally allocated 36% to water and 64% to wastewater as described in the table below.

Table and Line (£m)	Split	AMP9	AMP10	AMP11	AMP12
LS3.39 Water enhancement totex (core pathway); Greenhouse gas reduction (net zero)	36%	52.3	50.8	0.1	0.1
LS4.58 Wastewater enhancement totex (core pathway); Greenhouse gas reduction (net zero)	64%	92.9	90.3	0.2	0.1
Total		145.1	141.1	0.2	0.2

5. LS4-LS4d – Wholesale wastewater totex enhancement expenditure by purpose, core and alternative pathways

Investment forecasts in these tables is described in our Long Term Delivery Strategy sections 2.3 and 2.4 with the aim of delivering our short term performance targets and long term ambitions under a range of possible futures.

In Table LS4, column E (2020-25) has been populated using two years of Annual Performance Reported data (2020/21 and 2021/22) and three years (2022/23, 2023/24 and 2024/25) from Table CWW3.

Columns F to J showing 2025-2030 AMP8 enhancement expenditure are consistent with the Totex expenditure forecast in Table CWW3. There are no alternative pathways requiring expenditure in the 2025-30 period.

Core and Alternative Pathways

Table LS4 is our core pathway. Table LS4a to LS4d describe alternative pathways as described in our Long Term Delivery Strategy (Section 2.4):

- Table LS4a describes an alternative pathway driven by the company specific scenario "Changes to legislation or regulatory policy". See Long Term Delivery Strategy (Section 2.4.2).
- Table LS4b describes an alternative pathway driven by the "Climate change common reference scenario - high". See Long Term Delivery Strategy (Section 2.4.2).
- Table LS4c describes an alternative pathway driven by the company specific scenario "Full adoption of "Team Wales" collaborative approach including creation of opportunities for markets". This pathway shows a reduction in expenditure compared to the core pathway. This deviates from the guidance for the Long Term Delivery Strategy but is considered appropriate as the outcome of this scenario is not wholly within our control and is useful to stakeholders to quantify to encourage the best outcome possible for Welsh Water customers. See Long Term Delivery Strategy (Section 2.4.2).
- Table LS4d describes an alternative pathway driven by the "Demand common reference scenario – high". See Long Term Delivery Strategy (Section 2.4.2).

Additional Lines

In Table LS4 the additional lines have been used to allocated expenditure as follows:

- LS4.62 Additional line 1; DWMPs - enhancement wastewater capex – expenditure for AMP7 only (Column E). Data for 2020/21 and 2021/22 are from the APR for those years (line 4M.68). Data for years 2022/23, 2023/24 and 2024/25 are from Table CWW3.
- LS4.63 Additional line 2; Additional line 2; Loughor - enhancement wastewater capex – expenditure for AMP7 only (Column E). Data for 2020/21 and 2021/22 are from the APR for those years (line 4M.70). Data for years 2022/23, 2023/24 and 2024/25 are from Table CWW3.
- LS4.64 Additional line 3; Gowerton /Llanelli UWWTD - enhancement wastewater capex – expenditure for AMP7 only (Column E). Data for 2020/21 and 2021/22 are from the APR for those years (line 4M.72). Data for years 2022/23, 2023/24 and 2024/25 are from Table CWW3.
- LS4.65 Additional line 4; Enhancement programme to address increased risks of serious pollution incidents capex. The definition for this line is described in the CWW3 commentary, expenditure on this line is AMP8 only (columns F to J) consistent with Table CWW3.
- LS4.66 Additional line 5; Other NEP related enhancement that does not match the definitions in lines above and is explained in the commentary – capex. The definition for this line is described in the CWW3 commentary, expenditure on this line is AMP8 only (columns F to J) consistent with Table CWW3.

There is no expenditure forecast against any of the additional lines after 2030 in either the core pathway (LS4) or the alternative pathways (LS4a to LS4d).

Proportional Allocations

Net zero carbon - The expenditure associated with achieving our net zero carbon ambition by 2050 has been proportionally allocated between water and wastewater on the basis of the current level of operational carbon emissions per price control as described in our strategy document "Welsh Water's Journey to Zero". In total between 2030 and 2050, £286.7m has been proportionally allocated 36% to water and 64% to wastewater as described in the table below.

Table and Line (£m)	Split	AMP9	AMP10	AMP11	AMP12
LS3.39 Water enhancement totex (core pathway); Greenhouse gas reduction (net zero)	36%	52.3	50.8	0.1	0.1
LS4.58 Wastewater enhancement totex (core pathway); Greenhouse gas reduction (net zero)	64%	92.9	90.3	0.2	0.1
Total		145.1	141.1	0.2	0.2

Storm overflows – Our AMP8 programme for Storm Overflows has been costed based on optioneered, best value solutions. The solutions required to achieve our storm overflows ambition for the period 2030 to 2050 has not been subject to detailed design and therefore total cost estimates have been proportionally allocated between two lines:

- LS4.8 Wastewater enhancement totex (core pathway); Storage schemes to reduce spill frequency at Storm Overflows etc - grey solution; and
- LS4.9 Wastewater enhancement totex (core pathway); Storage to reduce spill frequency at Storm Overflows etc - green solution

The DWMP is an evolving strategic plan and the specific solutions beyond AMP8 are as yet uncertain. A total cost between 2030 and 2050 has been estimated on the basis of hydraulic models (to establish volumetric storage requirements to achieve the performance target per storm overflow) and cost per volume based on the lowest unit cost generic solution. This results in a total spend between 2030 and 2050 of £3,657m.

We have proportionally allocated this between the two lines LS4.8 (grey solutions) and LS4.9 (green solutions) on the basis that the expenditure split in AMP9 is the same as that planned for AMP8 (96.2% grey, 3.8% green) but that our ambition to deliver increasingly more 'green solutions' will be successful and the proportion of green solution expenditure will double in each successive planning period, i.e in AMP10 7.6%, in AMP11 15.1% and in AMP12 30.3%. This results in an expenditure profile as set out in the table below (note that rounding to the required number of significant figures means the percentage allocations may not exactly follow through):

Table and Line (£m)	AMP 8	AMP 9	AMP1 0	AMP1 1	AMP1 2
LS4.8 Wastewater enhancement totex (core pathway); Storage schemes to reduce spill frequency at CSOs etc - grey solution	335	1254	1100	510	390
LS4.9 Wastewater enhancement totex (core pathway); Storage to reduce spill frequency at CSOs etc - green solution	12	49	93	91	170
Total	347	1303	1193	601	560

The same principle has been applied to the alternative pathways with expenditure against both these two lines, specifically Table LS4b and Table LS4d.

NEP and WINEP – The programme for AMP8 has been costed based on optioneered, best value solutions. The programme of work for AMPs 9 and 10 has not been designed to the same level of detail and so we have used high level cost estimates at a programme level based on information of expected requirements from Natural Resources Wales and the Environment Agency. Therefore to fit into the line descriptions we have had to use some proportional allocations as details on solutions for the post-2030 programme are not yet available.

For **investigations**, we have allocated the following programme costs:

NEP/WINEP Programme description	AMP9 indicative totex (£m)	AMP10 indicative totex (£m)
NEP - Shellfish Water Investigations/Monitoring – Totex	0.113	0.113
NEP - WFD Surface Waters Investigations of actions to improve water quality – Totex	0.564	0.564
NEP - WFD Flow Investigations – Totex	22.782	5.696
NEP - Storm overflows Investigations assessment- Totex	10.883	1.128
NEP - Bathing Water Investigations Statutory – Totex	0.304	0.304
NEP - Bathing Water Investigations Statutory (Welsh Gov programme)- Totex	0.760	0.760
NEP - Bathing Water Investigations Non Statutory- Totex	5.638	5.638
WINEP - Bathing Water Investigations Non Statutory- Totex	0.316	0.316
Total	**41.361**	**14.519**

These have been allocated to three lines in table LS4 on the basis of the proportion of spend planned for AMP8 on these lines.

LS4.35	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - desk-based studies only	9.7%
LS4.36	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - survey, monitoring or simple modelling	79.0%
LS4.37	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - multiple surveys, and/or monitoring locations, and/or complex modelling	11.3%

For **septic tank improvements**, we have allocated the following programme costs:

NEP/WINEP Programme description	AMP9 indicative capex (£m)	AMP9 indicative opex (£m)
NEP - Appropriate Treatment Improvements - Totex	94.725	4.697
Total	**94.725**	**4.697**

This has been allocated to two lines in table LS4 with capex split on the basis of the proportion of spend planned for AMP8 on these lines. All of the opex spend has been allocated to line LS4.31 “Wastewater enhancement totex (core pathway); Septic tank replacements - treatment solution”.

LS4.31	Wastewater enhancement totex (core pathway); Septic tank replacements - treatment solution	73.1%
LS4.32	Wastewater enhancement totex (core pathway); Septic tank replacements - flow diversion	26.9%

For **surface water improvements**, we have allocated the following programme costs:

NEP/WINEP Programme description	AMP9 indicative capex (£m)	AMP9 indicative opex (£m)
NEP - WFD Surface Waters Improvement/No Deterioration actions to improve water quality - Totex	112.768	8.005
Total	**112.768**	**8.005**

This has been allocated to four lines in table LS4 with capex split on the basis of the proportion of capex spend planned for AMP8 on these lines and opex split on the basis of the proportion of opex spend planned for AMP8 on these lines.

Line no	Line description	Capex allocation	Opex allocation
LS4.22	Wastewater enhancement totex (core pathway); Treatment for phosphorus removal (chemical)	73.9%	41.2%
LS4.23	Wastewater enhancement totex (core pathway); Treatment for phosphorus removal (biological)	1.7%	0.7%
LS4.24	Wastewater enhancement totex (core pathway); Treatment for nutrients (N or P) and / or sanitary determinands, nature based solution	21.2%	57.1%
LS4.25	Wastewater enhancement totex (core pathway); Treatment for tightening of sanitary parameters	3.2%	1.0%

For **phosphorus removal**, we have allocated the following programme costs:

NEP/WINEP Programme description	AMP9 indicative capex (£m)	AMP9 indicative opex (£m)
NEP - Habitat Regulations Phosphorus removal Improvements - Totex	57.302	3.782
Total	**57.302**	**3.782**

This has been allocated to three lines in table LS4 with capex split on the basis of the proportion of capex spend planned for AMP8 on these lines and opex capex split on the basis of the proportion of opex spend planned for AMP8 on these lines.

Line no	Line description	Capex allocation	Opex allocation
LS4.22	Wastewater enhancement totex (core pathway); Treatment for phosphorus removal (chemical)	76.4%	41.6%
LS4.23	Wastewater enhancement totex (core pathway); Treatment for phosphorus removal (biological)	1.7%	0.7%
LS4.24	Wastewater enhancement totex (core pathway); Treatment for nutrients (N or P) and / or sanitary determinands, nature based solution	21.9%	57.7%

For **biodiversity and habitat restoration**, we have allocated the following programme costs:

NEP/WINEP Programme description	AMP9 indicative totex (£m)	AMP10 indicative totex (£m)
NEP - Biodiversity Investigations/Improvements/No Deterioration - Totex	46.466	18.638
NEP - SSSIs Investigations/Improvements/No Deterioration/Monitoring - Totex	0.530	0.530
NEP - Invasive and non-native species Investigations/ Improvements/No Deterioration/Monitoring - Totex	1.060	1.060
WINEP - Biodiversity and SSSIs Investigations/Improvements/No Deterioration - Totex	0.988	0.988
WINEP - Invasive and non-native species Investigations/ Improvements/No Deterioration/Monitoring - Totex	0.728	0.728
WINEP - Environmental Destination Investigations/Improvements - Totex	0.878	0.220
Total	**50.650**	**22.164**

These have been allocated to four lines in table LS4. The split is based on the proportion of spend planned for AMP8 on these lines but the intervention line (LS4.29 Wastewater enhancement totex (core pathway); Catchment management - habitat restoration) was doubled to account for an assumption that a greater proportion of the expenditure will be on solutions rather than investigations by AMP9/10.

LS4.29	Wastewater enhancement totex (core pathway); Catchment management - habitat restoration	86.6%
LS4.35	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - desk-based studies only	1.3%
LS4.36	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - survey, monitoring or simple modelling	10.6%
LS4.37	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - multiple surveys, and/or monitoring locations, and/or complex modelling	1.5%

For **marine conservation**, we have allocated the following programme costs:

NEP/WINEP Programme description	AMP9 indicative capex (£m)	AMP9 indicative opex (£m)	AMP10 indicative capex (£m)	AMP10 indicative opex (£m)
NEP - Marine Conservation Zones Investigations/Improvements/No Deterioration - Totex	124.045	9.303	124.045	9.303
Total	**124.045**	**9.303**	**124.045**	**9.303**

This has been allocated to four lines in table LS4. There is no spend on line LS4.40 "Wastewater enhancement totex (core pathway); Restoration management (marine conservation zones etc)" in AMP8 so the same proportional allocation has been applied to the capex spend as for biodiversity and habitat spend as described above. All of the opex has been allocated to line LS4.40.

Line no	Line description	Capex allocation	Opex allocation
LS4.40	Wastewater enhancement totex (core pathway); Restoration management (marine conservation zones etc)	86.6%	100%
LS4.35	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - desk-based studies only	1.3%	0%
LS4.36	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - survey, monitoring or simple modelling	10.6%	0%
LS4.37	Wastewater enhancement totex (core pathway); Investigations, other (WINEP/NEP) - multiple surveys, and/or monitoring locations, and/or complex modelling	1.5%	0%

6. LS5 – Wholesale water totex enhancement expenditure under scenarios

Only alternative pathways with a material level of enhancement expenditure by 2050 have been presented in the data tables. As such any scenarios with no alternative pathways which are material will have the same costs as the core pathway. Additional commentary associated with non-material alternative pathways are captured in the Long Term Delivery Strategy, section 2.4.3.

The only adaptive pathway impacting Table LS5 is from Table LS3a, which is captured on line LS5.9 "Water enhancement totex – company-specific scenario 1; Changes to legislation or regulatory policy".

There are two company-specific scenarios:

- Line LS5.9 - company-specific scenario 1; Changes to legislation or regulatory policy, described in our Long Term Delivery Strategy (Section 3.5). The alternative pathway in Tables LS3a is based on this scenario.
- Line LS5.10 - company-specific scenario 2; Full adoption of "Team Wales" collaborative approach including creation of opportunities for markets, described in our Long Term Delivery Strategy (Section 3.5). Note that whilst it was tested, no material alternative pathways were identified for water so in LS5 this line is the same as the core pathway.

7. LS6 – Wholesale wastewater totex enhancement expenditure under scenarios

Only alternative pathways with a material level of enhancement expenditure by 2050 have been presented in the data tables. As such any scenarios with no alternative pathways which are material will have the same costs as the core pathway. Additional commentary associated with non-material alternative pathways are captured in the Long Term Delivery Strategy section 2.4.3.

The following adaptive pathways impact Table LS6:

- From Table LS4a, captured on line LS6.9 "Wastewater enhancement totex – company-specific scenario 1; Changes to legislation or regulatory policy".
- From Table LS4b, captured on line LS6.4 "Wastewater enhancement totex - Climate change common reference scenario – high"
- From Table LS4c, captured on line LS6.10 "Wastewater enhancement totex – company-specific scenario 2; Full adoption of "Team Wales" collaborative approach including creation of opportunities for markets"
- From Table LS4d, captured on line LS6.6 "Wastewater enhancement totex - Demand common reference scenario – high"

There are two company-specific scenarios:

- Line LS6.9 - company-specific scenario 1; Changes to legislation or regulatory policy, described in our Long Term Delivery Strategy (Section 3.5). The alternative pathway in Tables LS4a is based on this scenario.
- Line LS6.10 - company-specific scenario 2; Full adoption of "Team Wales" collaborative approach including creation of opportunities for markets, described in our Long Term Delivery Strategy (Section 3.5). The alternative pathway in Tables LS4c is based on this scenario.

8. LS7 – Average total water, wastewater and combined bills under core and alternative pathways

LS7 shows the year-on-year change in average bills per year (or average over the AMP for AMPS 10, 11 and 12) as a result of the enhancement expenditure in the LTDS and DPC schemes. The change in bill portion of this table (2025-2050) has been populated using our LTDS bills model. This model has undergone external assurance and will be published alongside our business plan submission.

Ofwat's guidance, found in Appendix 2 of the "Final guidance of long-term delivery strategies", states that we are expected to build a model to forecast the future bills impacts based on the change in bills from enhancement expenditure. Our model follows the steps below to calculate the bill impact by price control, for every LTDS pathway:

1. Enhancement expenditure is split into capital and operating expenditure.
2. Capital enhancement expenditure is added to a new enhancement Regulatory Capital Value (RCV) – "RCV additions" with an opening 2025/26 value of zero.

3. The return on the new enhancement RCV is calculated using the PR24 WACC.
4. The new enhancement RCV is run-off based on our PR19 run off rates.
5. We do not expect to pay notional corporation tax, however we have included the capability to calculate the allowance and include it in the model, following the approximation in Ofwat's guidance. We have included a "switch" in the model to turn this on or off, and it is currently off.
6. Total wholesale long-term revenue requirement is based on operating enhancement expenditure plus return on new enhancement RCV plus new enhancement RCV run-off, plus corporation tax funding (which is zero in this case).
7. Total long-term revenue requirement is the wholesale long term revenue requirement multiplied by 1.01 to account for retail margin.
8. Total long-term revenue requirement is split into revenue recovered from household and non-household customers, using the revenue allocations reported in the APR23.
9. The bill impact per year is the total long-term revenue requirement recovered from household customers divided by the number of household customers, as supplied by the PR24 Model for customer numbers.
10. The water resources and water network plus bills are added to produce the change in water bill, and similarly wastewater network and bioresources are combined to produce the change in waste bill.
11. Finally the bill impact relating to DPC projects (Cwm Taf) is added to the relevant bills to produce the final output for LS7.*

The model uses enhancement expenditure which aligns to the LS3 and LS4 tables for AMP9 onwards. The AMP8 enhancement expenditure is obtained from tables CW3b and CWW3b in our additional table submission.

*As stated in Ofwat's response to query #1 in the Final Methodology Queries, long term bill impacts associated with DPC schemes have been included. The bill impact of DPC scheme(s) has been calculated separately and comes into the LTDS bills model as an input. This is then added onto the bill that is calculated by the model itself (based on enhancement expenditure) to populate LS7. The DPC bill impact is for our Cwm Taff DPC scheme. The bills are based on the modelling of the single site solution which remains under review whilst alternative options are considered.

Key Assumptions

- Weighted Average Cost of Capital- the LTDS model uses Ofwat's early view of the cost of capital.
- PAYG rates- the model implies a natural PAYG rate, whereby all capital expenditure is added on the RCV and opex is treated as pay as you go.
- RCV Run-off Rates- The RCV run-off rate for the LTDS is in line with our AMP8 business plan and is set at the 'natural rate'. Further information is available in RR1 commentary.

Bill Changes

The bill impact consists of the DPC bill impact and the impact from the enhancement expenditure. We note that the AMP8 bill in this document is not aligned to our overall AMP8 bill as it does not include any impact of changes to base expenditure and the impact of WACC changes and RPI/CPIH transition on the existing RCV. The table below shows the year-on-year change due to the LTDS and DPC in the combined bill for the core pathway, averaged over the AMP.

Average impact by AMP, £, 2022-23 FYA	AMP8	AMP9	AMP10	AMP11	AMP12
Combined bill impact excl. DPC - Core pathway	16.62	16.63	9.06	(0.56)	(1.57)
DPC bill impact	0.00	5.8	(0.7)	(0.61)	(0.54)
Combined bill impact incl. DPC - Core pathway	16.62	22.43	8.36	(1.17)	(2.11)

The combined bill (excluding DPC) increases steeply in AMPs 8 and 9. This is because the RCV balance starts at zero, therefore the enhancement added to the RCV is higher than the run off removed. This bill starts to decrease in AMPs

11 and 12 as the PAYG enhancement decreases and the non-PAYG enhancement that is added to the RCV is closer to the run-off value. This is due to the higher RCV and relatively lower enhancement capex. Therefore, when the forecasted population increase is taken into account, there is a reduction in the average bill per person.

Average over AMP, £m, 2022-23 FYA	AMP8	AMP9	AMP10	AMP11	AMP12
PAYG expenditure	14.80	26.94	19.66	9.62	7.96
Non-PAYG expenditure	373.53	589.78	452.77	246.40	211.90
RCV run off	38.01	120.96	192.77	220.56	221.40

The graph below shows the enhancement expenditure by pathway that is used by the LTDS model and the outputted combined bill.