

**WSX-D09 –  
Commentary on  
data table changes  
– Long-term  
strategies**

Response to  
Ofwat's PR24 draft  
determination



**Wessex Water**  
YTL GROUP

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# WSX-D09 – Commentary on data table changes – Long-term strategies

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*This document is part of Wessex Water's response to Ofwat's PR24 draft determination.*

*More information can be found at [wessexwater.co.uk](http://wessexwater.co.uk)*

# 1. Introduction

This commentary sets out the changes to our LS data tables that we have made since our original business plan submission in October 2023.

Our original data table commentary accompanying our business plan submission in October 2023 is available here: [WSX54 - Long term strategies tables commentary](#).

Since October 2023, we have updated our Long-Term Delivery Strategy (LTDS). While our strategy has not fundamentally changed, this has resulted in some changes to specific performance commitment profiles and core / alternative pathway expenditure profiles. Our LS tables have therefore been updated accordingly. Further details of these changes are provided in the rest of this commentary.

## 2. LS1 – Forecast outcomes

The performance commitments in Table LS1 have been updated where appropriate primarily to reflect changes to our business plan made since October 2023. In several places we have amended our 2030 targets for performance commitments, for instance to reflect Ofwat's Draft Determination proposal. Some of these changes have knock-on impacts on performance commitment trajectories beyond 2030. We have therefore amended longer-term profiles in table LS1 accordingly, while ensuring our 2050 target remains consistent with our longer-term ambitions as set out in the LTDS.

Line no.	Line description	Change
LS1.2	Compliance Risk Index	Performance commitment profile has been updated to reflect change to table OUT1 (new target of 1 by 2030 rather than 1.5)
LS1.3	Customer contacts about water quality	Performance commitment profile has been updated to reflect change to the definition of this performance commitment, in line with Ofwat query OFW-OBQ-WSX-199
LS1.4	Internal sewer flooding	Performance commitment has been reprofiled to meet our target to halve flooding incidents by 2050, but taking account of a slightly lower starting position in 2030 (given the change to OUT1)
LS1.5	External sewer flooding	Performance commitment has been slightly reprofiled but to still meet our target to halve flooding incidents by 2050
LS1.6	Biodiversity	Performance commitment has been reprofiled to meet our long-term biodiversity target of 2.21 BUs, as explained in the LTDS, but taking account of a slightly higher starting position in 2030 (given the change to OUT1)

Line no.	Line description	Change
LS1.7	Operational greenhouse gas emissions (water)	<p>Performance commitment profile has been updated to reflect change to table OUT1. We are also now forecasting to achieve zero emissions by 2050 (previously we had been forecasting some small residual emissions).</p> <p>There is a large fall in emissions between 2029-30 and 2030-31. This is partly a function of moving from the fixed grid electricity emissions factor to the likely emissions factor for 2030-31 onwards, which is based on DESNZ forecasts.</p>
LS1.8	Operational greenhouse gas emissions (wastewater)	<p>Performance commitment profile has been updated to reflect change to table OUT1. We are also now forecasting some positive (rather than negative) emissions by 2050. This is because we are no longer assuming retention of biomethane certificates, which allows for some netting-off of residual emissions. Without using this netting-off approach, we estimate there would be some residual wastewater process emissions of around 12,348 tonnes by 2050</p> <p>There is a large fall in emissions between 2029-30 and 2030-31. This is partly a function of moving from the fixed grid electricity emissions factor to the likely emissions factor for 2030-31 onwards, which is based on DESNZ forecasts.</p>
LS1.9	Leakage	<p>Performance commitment target for 2030 has been changed (as set out in OUT1). This has led to a reprofiling of the performance commitment through to 2050 to meet our long-term 2050 ambitions as set out in our LTDS.</p> <p>We note that our long-term target for leakage is a 50% reduction whereas LS1 presents a 2050 reduction of 49.6%. This is because the PC is three-year average, the in-year reduction by 2050 will be more than 50%. Furthermore, the performance commitment has a different baseline (2019-20) to the 50% leakage reduction target (2017-18).</p>
LS1.10	Per capita consumption	<p>Performance commitment target for 2030 has been changed (as set out in OUT1). This has led to a reprofiling of the performance commitment through to 2050 to meet our long-term 2050 ambitions as set out in our LTDS.</p>
LS1.11	Business demand	<p>Performance commitment target for 2030 has been changed (as set out in OUT1). This has led to a reprofiling of the performance commitment through to 2050 to meet our long-term 2050 ambitions as set out in our LTDS.</p>
LS1.12	Total pollution incidents	<p>Performance commitment target for 2030 has been changed (as set out in OUT1). This has led to a reprofiling of the performance commitment through to 2050 to meet our long-term ambition as set out in our LTDS of 0 pollution incidents by 2050.</p>

Line no.	Line description	Change
LS1.15	Bathing water quality	Performance commitment profile has been updated to reflect change to table OUT1 to reflect new bathing water designations, as set out in the LTDS. Performance improves during AMP9 as investments made in AMP8 are expected to improve bathing water quality at these new sites but is thereafter constant.
LS1.16	River water quality	Performance commitment profile has been updated to reflect a change to the sites included within the scope of this performance commitment, which we have made since submitting our PR24 business plan. It also reflects the change to our nutrients programme since business plan submission, whereby a greater proportion of upgrades are completed by the end of AMP8
LS1.17	Storm overflows	Performance commitment target for 2030 has been changed (as set out in OUT1). This has led to a reprofiling of the performance commitment through to 2050.
LS1.18	Mains repairs	Performance commitment target for 2030 has been changed (as set out in OUT1). We continue to forecast an increase in mains repairs from 2030, to achieve further leakage reduction and the reduction in customer contacts about water quality forecast beyond 2030. We forecast this will stabilise at the end of the 25-year period at around 159 per 1,000kms.
LS1.20	Sewer collapses	Performance commitment target for 2030 has been changed (as set out in OUT1). We continue to forecast an increase in sewer collapses 2035, reflecting long-term asset health forecasts.

Our Outcomes table commentary – WSX-D01 – sets out further details on the changes to table Out1 to which table LS1 aligns.

Chapter 2 of our LTDS sets out further details on our updated assumptions for all performance commitments through to 2050. See also tables 2 and 3 of our LTDS document.

In addition, line LS1.34 has also changed for 2026-27 to 2029-2030 to reflect the changes in our storm overflows programme made since submission. These figures continue to align with our latest data in table CWW20.

### 3. LS2 – Forecast outcomes from base expenditure

This data table sets out the impact of performance from base expenditure on performance commitment profiles.

When we originally submitted our LS data tables alongside our October 2023 business plan, we presented performance commitment profiles under the assumption that performance at the end of one AMP (including the impact of enhancement expenditure) becomes base performance for the next AMP. For instance, AMP9 performance from enhancement becomes the AMP10 base performance, as the costs will be assumed to then be reflected in future base costs. Likewise, AMP10 performance from enhancement would then become AMP11 enhancement. This was explained in our data table commentary.

While we consider that this approach is consistent with Ofwat’s data table guidance, we recognise that the performance commitment profiles in table LS2 do not capture the sole impact of base expenditure under this approach i.e. the performance profile if we were only funded for AMP8 levels of base expenditure for the next 25 years. We also understand that other companies have not completed their LS2 tables this way.

As such, following discussions with our technical advisors, we have amended our approach to this data table so as just to present the performance impact of base expenditure. We consider this will help to distinguish between base and enhancement impacts. This means that several performance profiles are different to those presented in our original business plan submission.

Besides that, table LS2 is consistent with table LS1 where appropriate i.e. where we are not forecasting any enhancement expenditure related to a given performance commitment, the performance profiles in table LS1 and LS2 are identical through to 2050. We have not set out a line-by-line explanation of the changes here given the overlap with table LS1, which we have set out above.

We set out our underlying assumptions about performance from base expenditure in Section 5.2 of our updated LTDS document. This section sets out how we have taken account of Ofwat’s approach to forecasting performance improvements from base expenditure.

## 4. LS3 – Wholesale water totex enhancement expenditure

Costs for AMP8 have been adjusted where relevant to align with equivalent costs in table CW3. See our table commentary for Costs – Wholesale Water (WSX-D03) for further details.

We have then adjusted forecast expenditure for AMP9-AMP12 where the changes to our AMP8 plan have had a material impact on forecast expenditure for future AMPs. This has affected a relatively small number of lines – as set out in the table below. This reflects that our AMP9-AMP12 forecasts have not materially changed as a result of changes in our AMP8 business plan, recognising that these are longer-term forecasts to implement our 2050 strategy.

Line no.	Line description	Change
LS3.14	Water enhancement totex (core pathway); Demand-side improvements (excl leakage and metering)	This captures the costs of our water efficiency programme. These have been amended to address a minor error in our original submission. The costs now reflect our latest forecast of our water efficiency programme, as detailed in Section 3.5.2 of our LTDS.
LS3.17-LS3.26	Metering lines	AMP9 metering costs have been adjusted downwards to reflect that we have lowered our assumed unit cost for meters since business plan submission. This would affect the forecast cost of meters in AMP9 as well as AMP8.
LS3.29	Water enhancement totex (core pathway); Addressing raw water quality deterioration (grey solutions)	AMP9 costs have been increased to reflect that we are now proposing further work on PFAS treatment in our AMP8 business plan. If approved, this work would continue into AMP9.

Further details of our underlying cost assumptions for each LS3 line are set out in Section 3.5 of our LTDS document. See in particular Tables 9 and Tables 11, and Section 3.5.7.

Additional lines relate to the same investment areas as set out in our original business plan and described in our data table commentary accompanying that submission.

## 5. LS3a-d – Wholesale water totex enhancement expenditure

LS3 tables a-d set out the incremental costs of alternative pathways, over and above the core pathway in LS3 i.e. the change in enhancement expenditure compared to the core pathway. The majority of these costs are the same as, or very similar to, our original business plan submission, but there have been some changes. A summary of changes is below.

We note that we have also amended LS3a and LS3b so LS3a captures the alternative pathway relating to high abstraction reduction, while LS3b captures the pathway relating to slow technology. These tables were previously the other way round.

Line no.	Line description	Change
LS3a.32 (N.B. this was originally LS3b)	Water enhancement totex (alternative pathway 2); Addressing raw water quality deterioration (grey solutions)	We have included additional costs in this pathway to reflect the greater likelihood of PFAS treatment in this alternative pathway. This has increased the incremental costs in this pathway.  The rationale for the assumptions underpinning these calculations is described in Section 3.5.1 of our LTDS.
LS3c.16 LS3d.16	Water enhancement totex (alternative pathway 3); Supply-side improvements	These costs have been updated slightly to align with our revised WRMP costs for these alternative pathways, which are both based on WRMP pathways.

## 6. LS4 – Wholesale wastewater totex enhancement expenditure

Costs for AMP8 have been adjusted where relevant to align with equivalent costs in table CW3. See our table commentary for Costs – Wholesale Wastewater (WSX-D04) for further details.

We have then adjusted forecast expenditure for AMP9-AMP12 where the changes to our AMP8 plan have had a material impact on forecast expenditure for future AMPs. This has affected a relatively small number of lines - as set out in the table below. This reflects that our AMP9-AMP12 forecasts have not materially changed as a result of changes in our AMP8 business plan, recognising that these are longer-term forecasts to implement our 2050 strategy.

Line no.	Line description	Change
LS4.3	Wastewater enhancement totex (core pathway); Continuous river water quality monitoring	AMP9 continuous water quality monitoring costs have been adjusted downwards to reflect that we have lowered our assumed unit cost for meters since business plan submission. This would affect the forecast cost of monitors in AMP9 as well as AMP8
LS4.19	Wastewater enhancement totex (core pathway); Treatment for total nitrogen removal (chemical)	We have brought forward into AMP8 some phosphorous removal upgrades that we were previously proposing to phase into AMP9. The AMP9 costs have been reduced to reflect this reprofiling.
LS4.22	Wastewater enhancement totex (core pathway); Treatment for phosphorus removal (chemical)	We have brought forward into AMP8 some nitrogen removal upgrades that we were previously proposing to phase into AMP9. The AMP9 costs have been reduced to reflect this reprofiling.
LS4.58	Wastewater enhancement totex (core pathway); Greenhouse gas reduction (net zero)	The costs for this line have been amended to reflect that our core pathway for the net zero sub-strategy is now based on a fast technology scenario. Costs therefore reflect what we would expect to incur in this scenario. Further details of the underpinning assumptions are set out in Section 3.5.6 of our LTDS document.

Further details of our underlying cost assumptions for each LS3 line are set out in Section 3.5 of our LTDS document. See in particular Tables 14, 16, 18, 20, and Section 3.5.7.

Additional lines relate to the same investment areas as set out in our original business plan and described in our data table commentary accompanying that submission.

## 7. LS4a-i – Wholesale wastewater totex enhancement expenditure

LS4 tables a-i set out the incremental costs of alternative pathways, over and above the core pathway in LS3 i.e. the change in enhancement expenditure compared to the core pathway. The majority of these costs are the same as, or very similar to, our original business plan submission, but there have been some changes. A summary of changes is below.

Line no.	Line description	Change
LS4a.17	Wastewater enhancement totex (alternative pathway 1); Storm overflow - infiltration management	Some costs have been removed from this line as the trigger point for this alternative pathway is 2035. This account for a reduction of £9 million
LS4b	(Whole table)	This table has been deliberately left blank as this alternative pathway has been removed from our LTDS.



Line no.	Line description	Change
LS4c	(Whole table)	<p>This pathway has been replaced by a new alternative pathway capturing the possibility of needing to do significantly more infiltration treatment. As such, costs for this pathway have changed.</p> <p>Further details on this pathway are set out in Section 3.3.5 of our LTDS document. This pathway is based on a DWMP pathway, so the costs align with the costs set out there.</p>
LS4d.61	Wastewater enhancement totex (alternative pathway 4); Greenhouse gas reduction (net zero)	<p>This pathway has been replaced by a new alternative pathway. This pathway involves deferring some expenditure planned for AMP10 to AMP12, if technology does not develop in time. The expenditure in question is £89.5 million on nitrous oxide emission capture. This is set out and explained in Table 20 of our LTDS document and the accompanying narrative.</p>
LS4f.53 LS4f.57 LS4g.53 LS4g.57	<p>Wastewater enhancement totex (alternative pathway 6); Growth at sewage treatment works (excluding sludge treatment)</p> <p>Wastewater enhancement totex (alternative pathway 6); Odour and other nuisance</p>	<p>The costs for these alternative pathways have been increased by £10 million to correct an omission error in our original submission. This reflects the following assumptions:</p> <ul style="list-style-type: none"> <li>Under these pathways, there would be an increase in the quantity of wastewater that needs treating. We have assumed an increase in expenditure on WRC growth of 2.5% from AMP9 onwards, to account for this.</li> <li>Secondly, increased population growth may increase the likelihood of housing development close to existing treatment works, which would necessitate additional odour removal required. We have increased expenditure on odour control by 2.5% from AMP10 onwards to account for this.</li> </ul>

## 8. LS5 – Wholesale water totex enhancement expenditure under common reference scenarios

Table LS5 presents the total water totex for the combination of alternative pathways that together comprise a common reference scenario.

Consistent with Ofwat's guidance, we have assumed that our core pathway represents the set of investments needed under a benign state of the world. A benign state of the world encompasses the low reference scenarios for climate change, demand and abstraction, and the *faster* (or 'high') reference scenario for technology. The totex expenditure profile is therefore the same for all those four lines.

Table 31 of our LTDS then sets out which alternative pathways have been included in the totex expenditure profile for each adverse scenario. In summary, these are as follows:

- High abstraction reduction (line LS5.2) – pathways **LS3a and LS3d**
- High climate change (line LS5.4) – pathway **LS3d**
- High demand (line LS5.6) – pathway **LS3d**
- Slow technology (line LS5.7) - pathway **LS3b**

We note that we have selected the most pessimistic combination of pathways for this table. Alternative pathways LS3c and LS3d both capture an adverse scenario for abstraction reduction, demand and climate change as they both represent a WRMP pathway capturing this combination of assumptions. However, pathway LS3d (WRMP high alternative need pathway) represents a more adverse state of the world than pathway LS3c (WRMP preferred /most likely pathway). As such, we have used LS3d for the totex expenditure for all these three adverse scenarios.

Figures have changed since our original business plan submission due to changes in the core pathway and alternative pathway expenditure, and a change to how we have completed this table (as per the above).

## 9. **LS6 – Wholesale wastewater totex enhancement expenditure under common reference scenarios**

Table LS6 presents the total wastewater totex for the combination of alternative pathways that together comprise a common reference scenario, as well as our company-specific scenario for wastewater (landbank availability).

Consistent with Ofwat's guidance, we have assumed that our core pathway represents the set of investments needed under a benign state of the world. A benign state of the world encompasses the low reference scenarios for climate change, demand and abstraction, and the *faster* (or 'high') reference scenario for technology. The totex expenditure profile is therefore the same for all those four lines.

Table 31 of our LTDS then sets out which alternative pathways have been included in the totex expenditure profile for each adverse scenario. In summary, these are as follows:

- High climate change (line LS6.4) – pathway **LS4a and LS4e**
- High demand (line LS4.6) – pathway **LS4g**
- Slow technology (line LS6.7) - pathways **LS4c and LS4d**
- High landbank availability (line LS6.9) – pathway **LS4i**

Information on the landbank availability scenario is set out in Section 3.3 of our LTDS document.

We note that we have selected the most pessimistic combination of pathways for this table.

- Data tables LS4f and LS4g capture two branches of the same pathway (wastewater treatment – high demand). As such, we have taken the most adverse of these branches which is pathway LS4g (this assumes nature-based solutions cannot be widely deployed).
- Likewise, data tables LS4h and LS4i capture two branches of the same pathway (bioresources – high landbank availability). As such, we have taken the most adverse of these branches which is pathway LS4i (this assumes ATC technology is not widely available).

Abstraction reduction is not relevant to wastewater so lines LS5.1 and LS5.2 have been left blank.

Figures have changed since our original business plan submission due to changes in the core pathway and alternative pathway expenditure, and a change to how we have completed this table (as per the above).

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

This table This table calculates forecast bill profiles associated with each scenario.

We have followed Ofwat's approach to long-term bill impact calculation, as outlined in 'PR24 and beyond: Long-term delivery strategies and common reference scenarios'. The bill impacts model we have used adheres to the guidelines detailed in 'Appendix 1 – Calculation of long-term bill impacts'.

We have used the following key assumptions, consistent where relevant with Ofwat's guidance:

Input	Assumption
WACC	3.66%
Asset life (water)	21 years
Asset life (Wastewater)	36 years
Tax rate	25%
Customer numbers	Taken from SUP1A, updated for 2023/24
Capex / opex	Varies for each line item

The combinations of pathways presented in lines LS7.11 – LS7.20 are consistent with tables LS5 and LS6. In other words, the combination of the totex expenditure presented for the high climate change scenario in table LS5 (line LS5.4) and table LS6 (LS6.4) underpin the bill profile in line LS7.22.

The main reasons for the changes in bill figures compared to our original submission are:

- Various changes in underlying enhancement expenditure profiles (particularly for AMP8 as discussed above in relation to tables LS3 and LS4)
- Changes to our alternative pathways, as detailed above in relation to alternative pathway tables.
- A change in the assumed WACC.
- A minor error correction in the original bill calculation.

We note that the prescribed methodology for calculating bill rises for LS7 does not capture all the nuances of our headline bill profile. The measures we have taken to limit bill rises such as using IRE as slow money are not factored in for instance. As a result, core pathway bill rises do not align exactly with our proposed bill profile for 2025-2030 as set out in our updated business plan.