April 2025

PR24 redeterminations

Response to Northumbrian Water's statement of case

Ofwat

PR24 redeterminations – response to Northumbrian Water's statement of case

Contents

1. Navigation assistance

1.1 To assist the Competition and Markets Authority (CMA), the table below shows where we have responded to the points raised in Northumbrian Water Services Limited's (Northumbrian Water) statement of case.

1.2 Many of the points raised by Northumbrian Water are responded to in the following documents:

- PR24 redeterminations – overview of our response to the statements of case;
- PR24 redeterminations – expenditure allowances – common issues;
- PR24 redeterminations – outcomes – common issues; and
- PR24 redeterminations – risk and return – common issues.

1.3 If we consider that a point raised by Northumbrian Water in its statement of case is company-specific, and our response or CMA's considerations are unlikely to have a wider impact on other companies, or the whole sector, we set out our response in the final section of this document. In order to further assist with navigation of our response to company-specific points we provide a list of the points covered in each sub-section.

1.4 Our summary of the PR24 final determination for Northumbrian Water, and the remainder of this document, and the suite of documents comprising our response to the five statements of case, is generally structured around the building blocks of the price review: expenditure allowances; outcomes; and risk and return.

Table 1.1: Navigation assistance

Point in Northumbrian Water's statement of case	Statement of case (SoC) reference	For Ofwat's response see:
Operational resilience: Asset health, civil structures, service reservoirs, mains renewals	SOC 1.5.2, para 19 onwards Section 4 introduction Section 4.4	Expenditure allowances – common issues: Enhancing asset health understanding Section 2
Operational resilience: Climate change resilience and power resilience	SOC 1.5.3 para 33 onwards Section 4 introduction Section 4.5 Appendix 5	Section 4, subsection, Climate Change Adaptation and Power Resilience section of this document
Regulatory costs (licence fees)	Para 42 Section 5 introduction SOC Section 5.4.3	Expenditure allowances – common issues: Unmodelled based costs – licence fees Section 2

Point in Northumbrian Water's statement of case	Statement of case (SoC) reference	For Ofwat's response see:
Network reinforcement	Para 42 Section 5 introduction Section 5.4.4	Expenditure allowances – common issues: Network reinforcement Section 2
PR19 penalty – removing unjustified AMP7 delivery penalties (for meter replacements and increasing capacity at wastewater treatment works)	Section 5 introduction Section 5.4.2	Meter replacement: Expenditure allowances – common issues: 2) Base expenditure allowances > catch-up efficiency challenge > Meter replacement Wastewater treatment works: This document: Growth at sewage treatment works - historical under-delivery adjustment
Return on equity	Para 43 onwards Section 6	Risk and return – common issues - Section 4. Allowed Return on Equity
Frontier shift	Para 41-42 Section 5 introduction Section 5.4.1	Expenditure allowances – common issues: Section 6: Frontier shift efficiency and real price effects
Price control deliverables (PCDs): mains renewals, lead replacement	Para 42 Section 5 introduction Section 5.5	Expenditure allowances – common issues: Section 2: Base expenditure allowances, Cost Adjustment Claims
Outturn Adjustment Mechanism (OAM)	Para 42 Section 5 introduction Section 5.6.1	Risk and return – common issues - Outturn Adjustment Mechanism
Reflecting updated information: Business rates valuation	Para 52 Section 7 SOC Figure 53 SOC Appendix 1 Section 8.1	Expenditure allowances – common issues: Section 2: Base expenditure, unmodelled base costs, Business rates
Updated statutory requirements: IED	SOC Para 52 Section 7 SOC Appendix 1 section 9.2 Appendix 6	Expenditure allowances – common issues: Section 5: Wastewater enhancement expenditure allowances, Industrial Emissions Directive (IED)

Point in Northumbrian Water's statement of case	Statement of case (SoC) reference	For Ofwat's response see:
Updated statutory requirements: P-removal	SOC Para 52 Section 7 Figure 54 SOC Appendix 1 Section 9.1	Expenditure allowances – common issues: Section 5: Wastewater enhancement expenditure, Phosphorus removal
Impact of SoC proposals	Para 54 onwards Appendix 1, Figure 37 (base totex) Appendix 1 Figure 38 (enhancement totex) Appendix 1 Figure 39 (financial model)	Overview Section 4, Affordability of this document
Customer views	Para 97 onwards	Outcomes – common issues Section: Calibration of ODI rates and risk protections
Mains renewals	Chapter 4 introduction	Expenditure allowances – common issues: Section 2: Base expenditure allowances, catch-up efficiency challenge – water mains renewals cost adjustment
Growth at Howdon STW	Section 7 SOC Figure 53 SOC Appendix 1 Section 8.2	Expenditure allowances – common issues: Section 5: Wastewater enhancement expenditure allowances, Industrial Emissions Directive, issues raised by companies
Changes to delivery timelines	Section 7 SOC Figure 54 Appendix 1 Section 9.3 (Suffolk water supplies) Appendix 1 Section 9.3.2 (Bacton desalination bulk supply pipeline)	Section 4 Suffolk water supplies (Suffolk Strategic Network investment) of this document Section 4 Bacton desalination bulk supply pipeline of this document, table 4.5, paragraph 4.17,4.38 onwards

Point in Northumbrian Water's statement of case	Statement of case (SoC) reference	For Ofwat's response see:
Correcting unambiguous errors	Section 7 SOC Figure 55 Appendix 1 section 10.1 (storm overflows) Appendix 1 section 10.2 (enhancement efficiency) Appendix 1 section 10.3 (septic tanks)	Expenditure allowances – common issues: Section 9: Other Issues, Unambiguous errors
Base allowance – smart metering	Section 5.4.2.2	Expenditure allowances – common issues: Section 2: Base expenditure allowances, Meter replacement
Updated data	Appendix 1, section 7.3.1 (cost of debt) Appendix 1, section 7.3.2 (retail margin adjustment)	Risk and return – common issues Section 3: Allowed return on cost of debt

2. Introduction

2.1 Northumbrian Water is both a water undertaker and a sewerage undertaker. It supplies water services to 4.7 million customers, in the north east and south east of England, and wastewater services to 1.9 million customers in the north east of England. Northumbrian Water Services Limited is a wholly owned subsidiary of Northumbrian Water Group Limited, a company registered in Durham, England, which is owned by a consortium of investors comprising CK Hutchinson Holdings Limited (60%), CK Asset Holdings Limited (15%) and KKR and Co. Inc. (25%).

2.2 Price controls are set for the company as a whole and references to 'Northumbrian Water' in our submissions to the CMA therefore refer to the company as a whole, including its Essex & Suffolk Water operating areas, unless otherwise specified.

2.3 Northumbrian Water has performed relatively well with its operational performance over the PR19 price control period. In the latest Water company performance report, we categorised Northumbrian Water as 'average'.[1]

2.4 In our most recent monitoring financial resilience report, we categorised Northumbrian Water as 'elevated concern', which means that we have identified some concerns or potential concerns with the company's long-term financial resilience that may require action to redress.[2] Specifically, its regulatory gearing remained between 68-70% over the 2020-25 period to date, which was above our PR19 gearing target of 60%, and its business plan was underpinned by a requirement for significant equity financing.

2.5 We assessed the business plan it submitted in October 2023 against our quality and ambition assessment.3 We considered Northumbrian Water's plan to be standard, in that it proposed a level of ambition overall that improved our draft determinations and helps the sector move forward in the coming control period. Consequently, the company received a positive financial adjustment equivalent to £7 million alongside a 50:50 cost sharing ratio on base expenditure. The company's plan was not consistently weak or strong across all areas of our ambition assessment and demonstrated reasonable ambition overall.

[1] [OF-OU-017] Ofwat, Water company performance report 2023-24, October 2024, slide 8.
[2] [OF-OAA-003] Ofwat, Monitoring financial resilience report, October 2024, p. 7.
[3] [OF-OA-016] Ofwat, PR24 final determinations: Quality and ambition assessment summary - Ofwat, December 2024, p. 4.

3. Northumbrian Water: A summary of our PR24 final determination

3.1 In this section, we summarise what was included in our final determination in the three main areas of expenditure allowances, outcomes and risk and return, and provide more information on the key issues that arose between us and Northumbrian Water during the PR24 process.

3.2 The following table sets out the key metrics included in Northumbrian Water's February 2024 PR24 business plan submission to Ofwat, our draft determination, the company's representation on our draft determination and our final determination.

3.3 We provide an Appendix to this document that sets out more key data.

Table 3.1: Summary of key metrics

	Revised business plan (Feb 2024)	Draft determination	Company view (August 2024 Representations)	Final determination
Totex, 2025-2030 (£million) (post frontier shift/RPEs)	6,101	5,689	6,365	6,153
PAYG rate (%)	36.8	41.0	35.5	39.2
Allowed return (%)	3.55	3.72	4.35	4.03
RCV run-off rate (%)[4]	3.98	4.06	3.95	4.01
Allowed revenue, 2025- 2030 (£million)	4,959	4,946	5,286	5,205
Average bill per household customer, 2025-2030 (£)	443	442	497	488

[4] We note that Northumbrian Water chose to use our split pre and post 2025 RCV run-off rate options. These rates were the same at business plan, draft determination, August 2024 representation and final determination but the rates in the table fluctuate based on the relative proportion of enhancement expenditure we allowed. In particular, the increase between August representation and our final determination reflects us not allowing all of Northumbrian's proposed post-2025 expenditure, thereby increasing the emphasis on the higher pre-2025 RCV run-off rates.

Expenditure allowances

3.4 Northumbrian Water's totex allowance forms part of an in-the round package that is stretching but achievable and is set at a level that ensures that customers only pay for efficient costs.

3.5 In our final determination we allowed Northumbrian Water total expenditure (totex) of £6.2 billion for the period 2025-30, as shown in figure 3.1 below.[5] This is 3% below the £6.4 billion requested by the company in its August 2024 representation on the draft determination.[6] This overall negative cost gap of £211 million (3%) is relatively small compared to other companies, with 8 companies having a larger negative cost gap in our final determinations.

3.6 The company increased its allowed expenditure request by £264 million at the representation stage compared to its request in its October 2023 business plan. Overall, the cost gap between the company's request and our allowance fell from 7% at draft determination to 3% at final determination, with the company's request being greater than our determination in both cases.

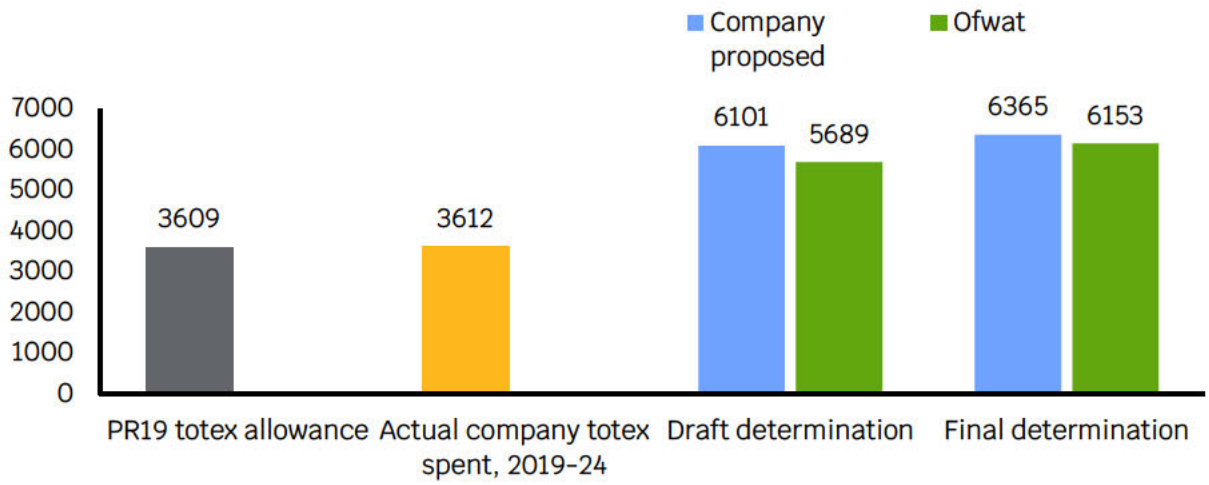
Table 3.2: Final Determination total expenditure allowances and previous stages of PR24 for Northumbrian Water £m (five year period, after frontier shift/RPEs, 2022-23 prices)

Five-year total	BP Oct 23 (£m)	BP Jan 24 (£m)	DD (£m)	Rep (£m)	FD (£m)	FD vs Rep (%)	FD vs Rep (£m)
Overall expenditure	6,027	6,101	5,689	6,365	6,153	-3	-211
Base expenditure	3,630	3,606	3,334	3,721	3,542	-5	-179
Enhancement expenditure	2,667	2,495	2,355	2,644	2611	-1	-32

3.7 In figure 3.3, we show how PR24 expenditure proposals and allowances compare to PR19 expenditure allowances and the most recent actual expenditure levels.

[5] [OF-OA-007] Ofwat, Overview of Northumbrian Water's PR24 final determination, April 2025, p7.
[6] [OF-NES-017] Ofwat, 'Reconciliation between expenditure allowance document and financial model, December 2024, 'Calculation' tab.

Figure 3.3: Overview of totex allowances for Northumbrian Water £m (2022-23 prices)



3.8 Northumbrian Water submitted an updated plan in January 2024. This updated plan reduced the company's proposed totex by £7 million compared to its original business plan.[7] The reasons for this reduction were: a £17 million reduction in the scale of the septic tank programme, following changes to Environment Agency requirements and guidelines; a £4m increase in the costs of a Kielder Reservoir bulk supply following discussions with Ofwat and RAPID; and a small number of cost corrections of £6 million in total. Despite this total expenditure decrease, average annual customer bills included in the company's plan increased marginally due to an increase in the transitional investment proposed for 2023-25 in the updated plan.

3.9 As part of its representation to our draft determination, Northumbrian Water provided updated costs and performance commitment levels.[8] These resulted in an increase to its requested totex allowance of £264 million. By the time of the final determination in December 2024, we had carried out further work to evaluate the robustness of our modelling results. However, even after these changes, its request remained 3% above what we consider to be its efficient costs.

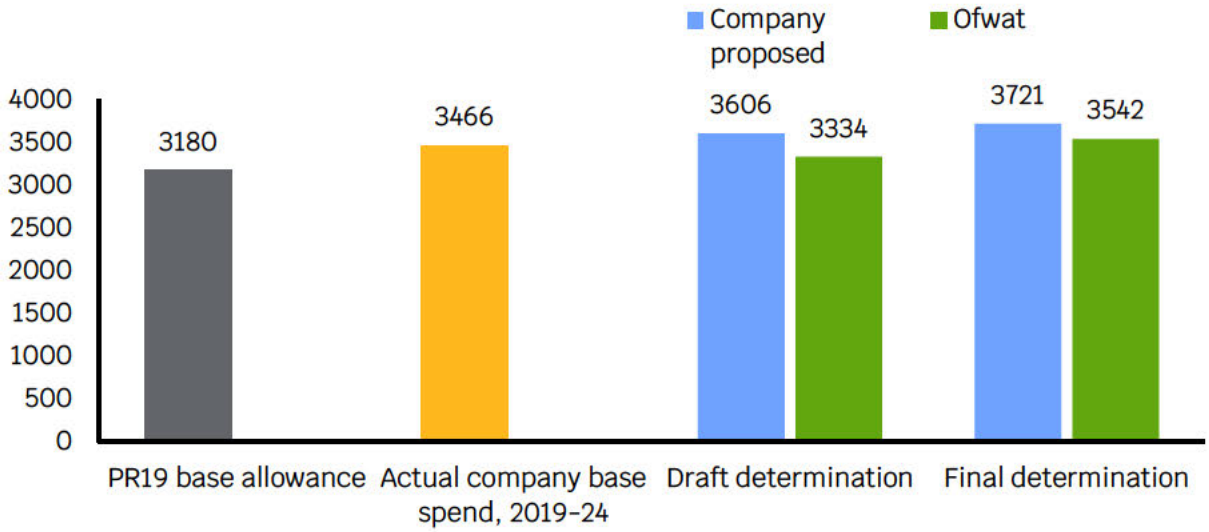
3.10 Northumbrian Water is currently a reasonably efficient company in the sector. It has overspent its PR19 totex allowance by 15%, with 7 companies having overspent their allowances by a greater percentage.[9] The main drivers of this overspend were, in Northumbrian Water's base allowance, higher than expected input price pressures (e.g. energy) and capital maintenance spend.

[7] [OF-NES-006] Northumbrian Water, Northumbrian Water business plan update, January 2024, p.1.
[8] [OF-NES-005] Northumbrian Water, PR24 Northumbrian Water Draft Determination - Representations NES80, August 2024
[9] [OF-OU-017] Ofwat, Water Company Performance Report 2023-24, October 2024, pp. 30-31.

Base expenditure

3.11 We allowed Northumbrian Water £3.6 billion in base expenditure allowance in our final determination.[10] Our PR24 base expenditure allowance for Northumbrian Water is 6% (£208 million) higher than our allowance for the company in our draft determinations and 2% (£76 million) higher than the company's 2019-24 actual base spend, as shown in figure 3.2 below.

Figure 3.2: Overview of base allowances for Northumbrian Water £m (2022-23 prices)[11]



3.12 As part of our draft determination, we provided a sector wide adjustment for climate change resilience.[12] Northumbrian Water did not believe a sector wide adjustment for climate change resilience was a sensible approach, it stated companies have different risks from climate change and require different investments to tackle these risks.[13] In particular, the company said that Ofwat should assess enhancement cases individually, particularly for power resilience. In our final determination, we maintained our sector wide adjustment for climate change resilience and provided £24 million of the company's £77 million request for climate change adaptation and power resilience enhancement case.[14] We discuss this decision in the wastewater enhancement expenditure section, below.

[10] [OF-OA-022] Ofwat, PR24 final determinations expenditure allowances, December 2024, p1.
[11] [OF-OA-022] Ofwat, PR24 final determinations: Expenditure allowances, December 2024, p. 382.
[12] [OF-OA-022] Ofwat, PR24 draft determinations: expenditure allowances, July 2024, pp. 115-116.
[13] [OF-NES-005] Northumbrian Water, PR24 Northumbrian Water Draft Determination - Representations NES80, August 2024, paragraph 382, p. 99.
[14] [OF-OA-022] Ofwat, PR24 final determinations: expenditure allowances, December 2024, pp.229-230.

3.13 Although Northumbrian Water presented an enhancement case for investment in management of the asset health of civil structures at treatment works and service reservoirs, we assessed it as a cost adjustment claim to the company's modelled base allowance because the request concerned activities we would typically consider as base expenditure.[15] We rejected this claim in full. The company did not present any company specific issues to underpin its claim or point to any other factors outside of company control that mean future capital maintenance requirements will be higher than in the past. Additionally, the outputs from the requested uplift were unclear, meaning the company could not be held to account through a price control deliverable (PCD). Furthermore, allowing the cost adjustment could disincentivise Northumbrian Water and other companies from undertaking renewals from base allowances, as they are expected to, in the future.

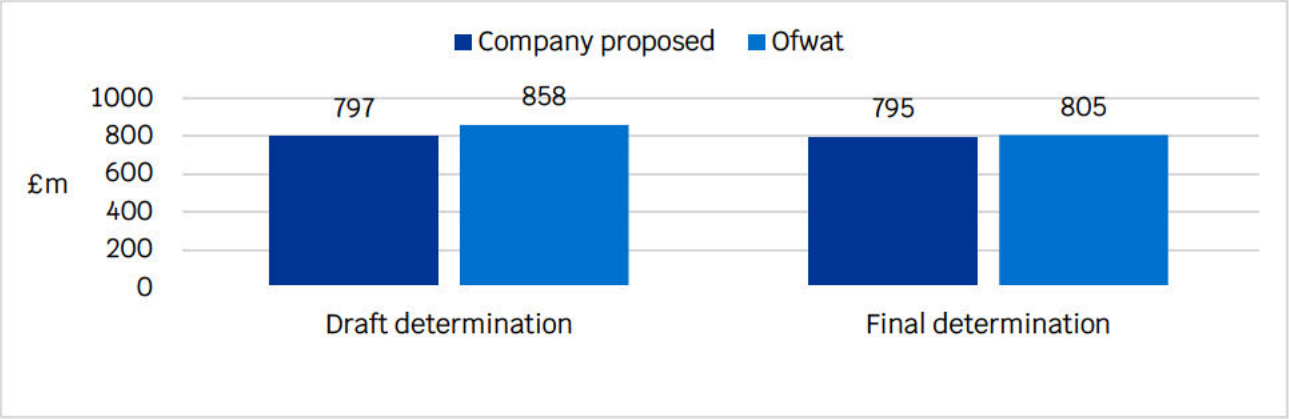
3.14 For unmodelled costs, in its business plan Northumbrian Water set out an increase in abstraction charges due to forecast increases in the costs for water from the Kielder Transfer Scheme. We allowed Northumbrian Water its request for forecast abstraction charges in full.[16] Additionally, at final determination we allowed favourable cost sharing rates for these charges: 75% of any costs in excess of its PR24 cost allowance will be recovered from its customers, or customers will receive 75% of the amount by which its costs are lower than PR24 allowances. This was in recognition that most of these abstraction charges are outside of Northumbrian Water's control, such as the Environment Agency's recovery of its own costs, which are recovered through the abstraction charge. We also provide unmodelled base expenditure allowances for companies in general for areas including: business rates; developer services and diversions; and wastewater Industrial Emissions Directive operating costs.

Enhancement expenditure

Water

[15] [OF-OA-022] Ofwat, PR24 final determinations: expenditure allowances, December 2024, pp.81-91.
[16] [OF-OA-022] Ofwat, PR24 final determinations: expenditure allowances, December 2024, pp.67-68.

Figure 3.3: Water enhancement requests and allowances, draft and final determination (after frontier shift/RPEs)[17]

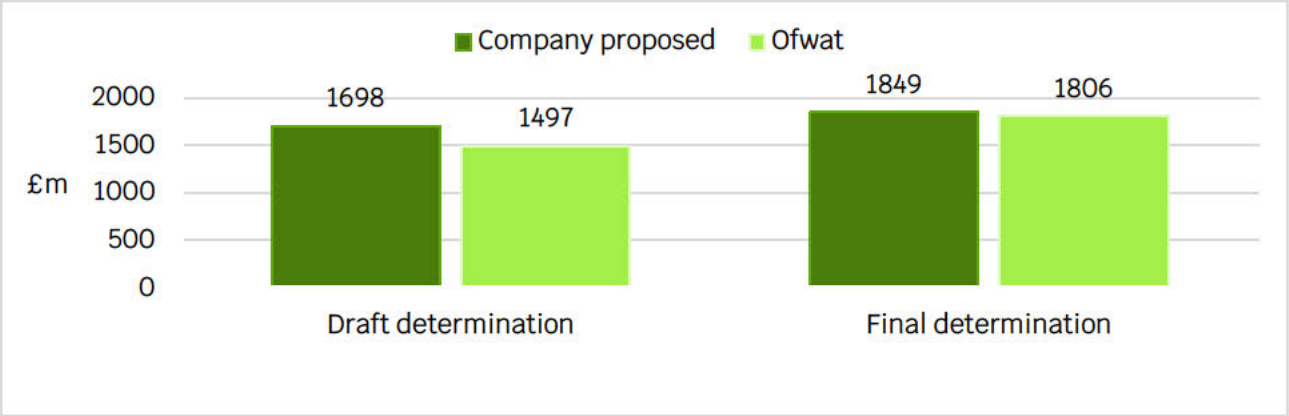


3.15 Our allowance for Northumbrian Water's water enhancement expenditure decreased from £858 million in our draft determination to £805 million in our final determination, as shown in figure 3.3. This was primarily because at final determination we considered that the company's North Suffolk Reservoir proposal now met the criteria for a strategic resource option and so is no longer funded through water enhancement. Additionally, at final determination we funded the company's Lowestoft reuse scheme through development funding and contingent allowance. This is different to our draft determination where it was funded through water enhancement. Despite the final determination allowance being greater than the company's representation request, negative cost gaps exist for some lines, most notably in relation to water resilience and supply. For the water resilience programme we allow £72 million of the £93 million requested. We made our downward adjustment for water resilience because we concluded that some of the company's requested costs overlapped with allowed base costs.

Wastewater

[17] [OF-OA-022] Ofwat, PR24 final determinations: expenditure allowances, December 2024, p. 49.

Figure 3.4: Wastewater enhancement requests and allowances, draft and final determination (after frontier shift/RPEs)[18]



3.16 As shown in figure 3.4 above, the cost gap between the company's request and our allowance has reduced considerably since draft determination, from 12% at draft determination to 2% at final determination. The primary reason for the reduction in the gap is a fall in the request from Northumbrian Water for its monitoring emissions to air, land and water certification scheme (MCERTS) request for its pumping stations, to align with Environment Agency guidance. The largest components of the remaining costs gap in relation to wastewater enhancement expenditure relate to wastewater resilience and growth at sewage treatment works. Our enhancement allowance in the final determination covers most of these requested costs including £24 million of the £77 million requested for the wastewater resilience programme. The remaining gap for wastewater resilience relates to a request for power resilience and flood resilience funding significantly above the climate resilience allowance. Northumbrian Water claimed that climate change will impact it more than neighbouring/other companies. We found no evidence that the company is in a different position to other nearby companies, who did not request similar expenditure. Additionally, in our final determination we increased Northumbrian Water's allowance, compared with our draft determination, for wastewater flooding resilience and static standby generators for high-risk sites which have been subject to repeated power interruptions. We also noted that Ofgem has provided dedicated funding to Northern Powergrid to address the same outage risks identified by Northumbrian Water, so allowing additional customer funding would risk duplication.

[18] [OF-OU-081] Ofwat, , PR24 final determinations: Enhancement costs aggregator model, December 2024, tab 'Waste – post adj and FS.

3.17 **Price control deliverables** – We introduced price control deliverables to hold companies to account for the outputs and outcomes that they propose to deliver and to return money to customers if companies do not deliver these in full.

Delivering outcomes for customers and the environment

3.18 We consider that Northumbrian Water proposed a moderately ambitious set of performance commitment levels (PCLs) when compared to other companies.[19] In particular, we consider the company proposed upper quartile ambition on storm overflows and total pollution incidents in its representation to our draft determination compared to other companies.

3.19 In our final determination, we provide an overall favourable determination for the company in terms of performance commitment levels and we expect the company to achieve net positive £10 million in outperformance payments. This is illustrated by its PCLs for leakage, per capita consumption, repairs to burst mains, storm overflow and sewer collapses all being set at the same levels Northumbrian Water proposed in its representations on our draft determination. Additionally, its PCL for water supply interruptions, 00:05:00, is over 10% less stretching than the level the company proposed, 00:04:03, meaning the company is likely to outperform the PCL in this area and achieve outperformance payments for doing so. The PCL for total pollution incidents, 18.6 incidents per 10,000 kilometers of sewer, is also significantly less stretching than the level proposed by the company, 13.3 incidents per 10,000 kilometers of sewer.

Aligning risk and return

Risk and Return

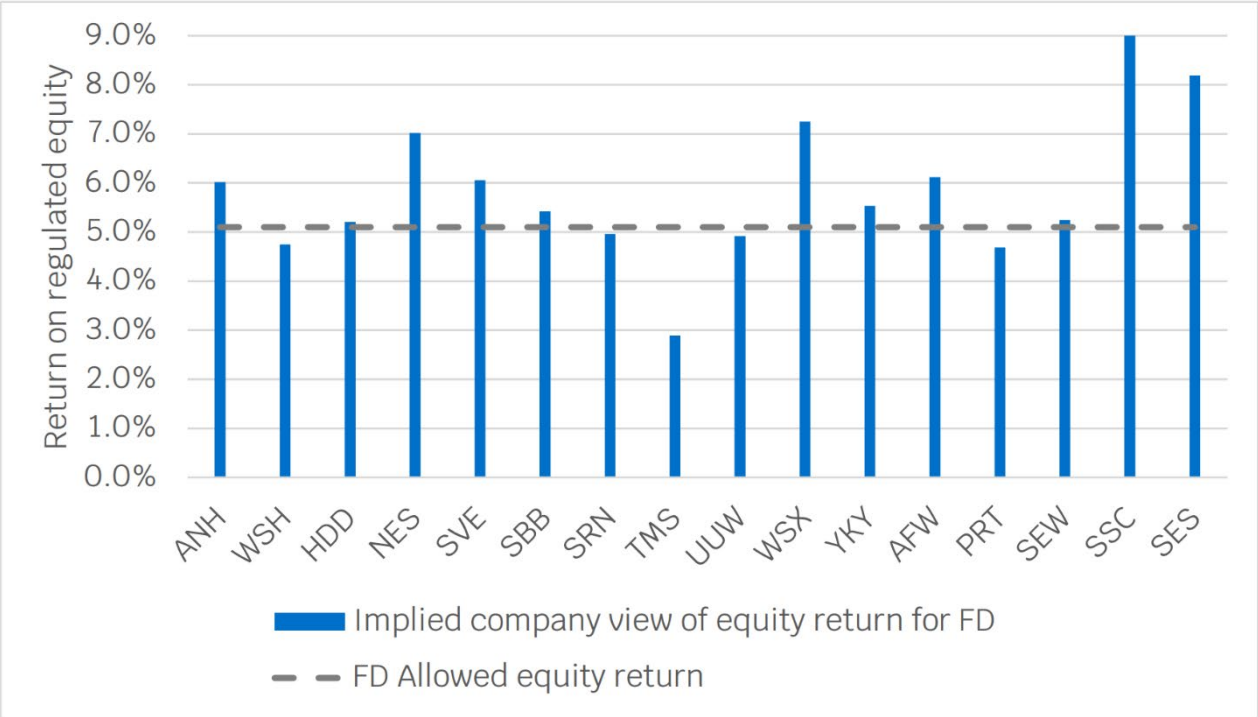
3.20 We consider that our final determination for Northumbrian Water provided a reasonable balance of risk and return.

3.21 To illustrate the balance of risk and return our final determination provides, we have adjusted Northumbrian Water's central view of outturn equity returns set out in its representation to reflect changes in our final determination. These include changes to expenditure allowances, the outcomes package and the allowed return. Presenting

[19] [OF-OA-017] Ofwat, PR24 final determinations: Delivering outcomes for customers and the environment, December 2024, p69.

these results against the allowed base equity return of 5.1% in our final determination, we come to an indicative central view of 7% equity return for Northumbrian Water, as shown in figure 3.5 below. This is well in excess of the base equity return and only three other companies have a higher figure in our analysis. This analysis excludes the further risk protections for companies added since our draft determination, including changes to how we apply Price Control Deliverables (PCDs), the introduction of new notified items, and a new bespoke interim determination process, all of which we would expect to reduce downside risk for companies.

Figure 3.5: Indicative company view of regulated equity returns under the final determinations.[20]



3.22 Northumbrian Water's October 2023 business plan was based on an allowed return of 3.55% (real, CPIH), which broadly represented a data roll-forward of our published 3.29% December 2022 'early view' of the allowed return.[21] We set a higher allowed return at draft determinations (3.72% in CPIH terms), reflecting movements in market rates and some refinements to our assessment of the market evidence on the allowed return.[22] Our draft determination signalled that trends in market data since the March

[20] [OF-OA-019] Ofwat, PR24 final determinations: Aligning risk and return – appendix, December 2024, Executive summary, p. 7.
[21] [OF-NES-007] Northumbrian Water, Business Plan 2025-30, October 2023, p. 7.
[22] [OF-NES-008] Ofwat, PR24 draft determinations: Aligning risk and return, July 2024, section 2.4.

2024 data cut-off date used for the draft determination supported a higher allowed return in our final determination.

3.23 In its representation, Northumbrian Water said that the allowed return set at draft determination was too low. In particular, the company said that the cost of equity failed to match the market return for the risks that investors face, and proposed an allowed return of 4.35% (real, CPIH).

3.24 We set an allowed return of 4.03% (real, CPIH) in our final determination. This allowed return reflected some changes to our approach from draft determination to address issues raised by companies in representations and used market data up to the end of September 2024.[23] Increases in the share prices of the listed water companies and positive comments from credit rating agencies following publication of the final determination suggest the allowed return is not too low. We explain these issues further in the risk and return appendix that accompanies this submission.

3.25 We considered the evidence raised by the company on the overall balance of risk and return in our final determination, having regard to revisions made in the final determination (including to allowed costs, outcome delivery incentives and revenues), which changed the overall balance of risk and return in the company's favour.

Financeability

3.26 In its representation to our draft determination, Northumbrian Water considered that the notional company was financeable but that this relied on being able to raise substantial sums of new equity over the price control period and equity investors being satisfied with a 2% dividend yield.[24] However, the company did not consider that the 2% dividend yield would be acceptable to investors.

3.27 We assessed that Northumbrian Water's final determination was financeable on the basis of the notional company, such that it would be able to raise the necessary levels of debt and equity to deliver the required investment. To support financeability, our final determination included an equity injection for Northumbrian Water of £871 million, with £22 million allowance for issuance costs, and allowed for dividends for the notional company of £689 million (4% yield). The financial ratios assessed in our final

[23] [OF-OA-021] Ofwat, PR24 final determinations: Aligning risk and return – allowed return appendix, December 2024, section 2.
[24] [OF-CA-191] Northumbrian Water, PR24 Draft determination – Representations, NES80, August 2024, section 4.3.2, pp. 76-78.

determinations support credit ratings consistent with the target credit rating for the notional company of Baa1/BBB+.

Actual company structure

3.28 Northumbrian Water reported gearing of 70.2% as of 31 March 2024.[25] Northumbrian Water's business plan stated a target credit rating of Baa2/BBB for the actual capital structure which is below the notional target set in our determination.[26] The business plan included a proposed equity injection of £400 million, an average dividend yield of 2.1% and gearing of 73.7% in 2030. The company set out these plans were subject to the terms of the final determination.

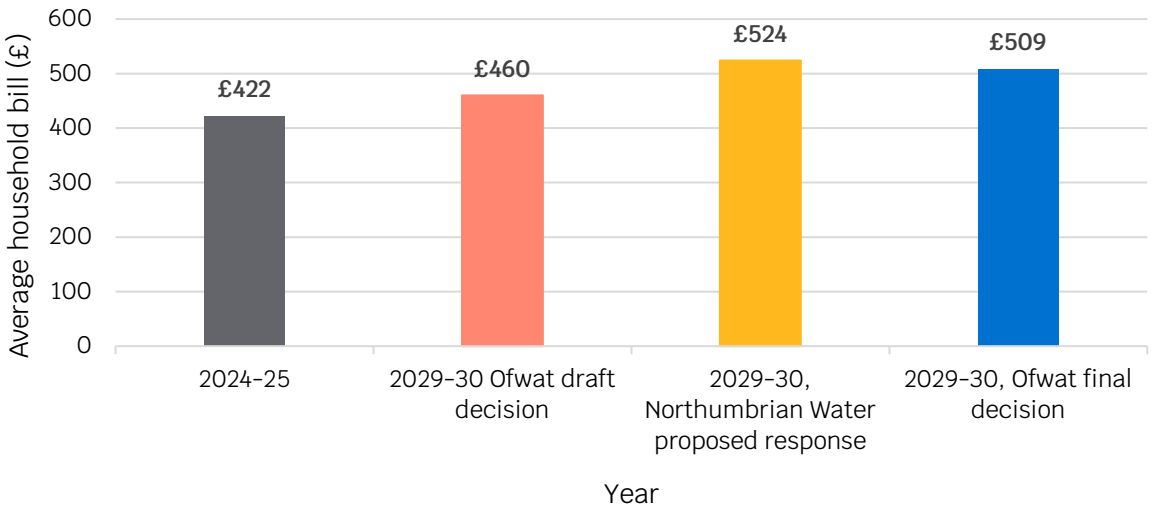
3.29 In its presentation to the CMA, Northumbrian Water set out that the allowed return on equity was insufficient to support equity investment in the next period.[27] However, we note that Northumbrian Water's RCV (£5.44 billion as at 31 March 2024) is larger than the combined RCV of the water companies in the Pennon Group (£5.15 billion as at 31 March 2024). However, Pennon successfully raised a greater amount of equity (£490 million) in January 2025 than proposed by Northumbrian Water. We note that South West Water's operational performance (as measured by return on regulated equity) was lower than Northumbrian Water's in the period 2020-24. This evidence suggests not that the equity return is insufficient to support the provision of new equity, rather that Northumbrian Water is seeking to enhance its ability to generate returns through the redetermination process.

3.30 In our most recent monitoring financial resilience report, we categorised Northumbrian Water as 'elevated concern'.[28] In our final determinations, we set out that further investor support may be required for the company to maintain its financial resilience in 2025-30 and beyond.[29]

[25] [OF-NES-009] Northumbrian Water, Northumbrian Water Limited annual performance report, July 2024, p129.
[26] [OF-NES-018], Northumbrian Water, Annual performance report tables 2023-24, February 2025, table 4H.
[redacted]
[28] [OF-OAA-003] Ofwat, 'Monitoring Financial Resilience report 2023-24', November 2024, p. 10.
[29] [OF-OA-020] Ofwat, 'PR24-final-determinations-Aligning-risk-and-return-appendix', December 2024, section 7.

Affordability

Figure 3.6: Northumbrian Water's Average household bills, 2024-30, final determination vs company representation (all bill figures in real prices, before inflation



3.31 Under our final determination, Northumbrian Water's average customer bills increased by 21% between 2024-25 and 2029-30, as shown in figure 3.6 above. This compares to a 24% increase proposed in the company's representation. Average customer bills are higher than in our draft determination, as we increased expenditure allowances and adopted a higher allowed return.

3.32 Northumbrian Water has committed to providing funding from shareholders for affordability support, forecast to represent 0.23% of the company's Return on Regulated Equity. This is the fifth highest contribution as a proportion of Return on Regulated Equity of all the water companies.

4. Northumbrian Water: Our response to its statement of case

Introduction

4.1 If we consider that a point raised by Northumbrian Water in its statement of case is company-specific, and our response or CMA's considerations are unlikely to have a wider impact on other companies, or the whole sector, we set out our response in the following section of this document. In order to further assist with navigation of our response to company-specific points we provide a list of the points covered in each sub-section.

4.2 We organise this section around the building blocks of the price review: expenditure allowances; outcomes; and risk and return.

Expenditure allowances

4.3 Table 4.1 shows the changes to Northumbrian Water's proposed expenditure amounts, and our allowances between its original PR24 business plan, our draft determination, its response to our draft determination, our final determination and its statement of case.

4.4 Overall, Northumbrian Water's statement of case requests an expenditure allowance that is £462 million more than our final determination, and £250 million more than its representation on our draft determination (its most recent submission to Ofwat).[30] Some elements of the increased expenditure allowances included in its Statement of case could not have been included in our PR24 final determinations, as related expenditure proposals were not presented to us as part of the price review process, or were not known by Northumbrian Water ahead of December 2024. For example, the company's request for network reinforcement.

[30] The CMA may want to consider requesting updating business plan tables from the company.

Table 4.1: Cost gap at final determination by area (five-year period, after frontier shift/RPEs, 2022-23 prices)

	Company view (February 2024) (£m)	Company view (August 2024) (£m)	Final determination (£m)	Statement of case (£m)	Cost gap FD vs SoC (£m)
Total expenditure	6,101	6,365	6,153**Error! Bookmark not defined.**	6,615	-462
Base expenditure	3,606	3,721	3,542	3,895	-353
Enhancement expenditure	2,495	2,644	2,611**Error! Bookmark not defined.**	2,721	-110

Setting our base allowances

4.5 At final determination our base expenditure allowances were 2% more than the company has spent over the last five years and 11% more than its PR19 allowance.

4.6 In its statement of case, Northumbrian Water raises seven issues in relation to our base cost assessment, many of these reflect new evidence or new claims:

4.7 **Asset health** – Northumbrian Water asks the CMA to allow its proposed enhancement claim to improve the health of its water and wastewater non-infra assets (£179.54 million). This claim was reallocated to the company's base expenditure request at final determination as it consists of activities that should be funded through base allowances. The company has changed the scope of its proposal since final determination. It now focuses its proposal on its service reservoirs (£47.79 million), civil structures at water treatment works (£56.16 million) and civil structures at wastewater treatment works (£75.59 million). The company provides additional evidence to support its updated proposal.

4.8 **Mains renewal cost adjustment** – Northumbrian Water disagrees with our approach to determining what base buys. It asks the CMA to use the last five years only to calculate what base buys, and to reflect this in the adjustment made to its allowance to increase its rate of mains renewals.

4.9 **Meter replacement cost adjustment** - Northumbrian Water disagrees with our approach to holding companies to account for PR19 under-delivery. It states that its

customers have not paid for these undelivered replacements and will therefore not be paying twice. The company asks the CMA to remove this adjustment from its meter replacement sector wide adjustment allowance.

4.10 **Network reinforcement –** Northumbrian Water asks the CMA to increase the adjustment made to its allowance at final determination through our sector wide network reinforcement adjustment. It provides new evidence of updated growth forecasts to support its additional cost request.

4.11 **Ofwat licence fee –** Northumbrian Water asks the CMA to allow a cost pass through to cover the additional costs associated with the increase in Ofwat's license fee announced in January 2025. The company estimates this to be an additional £9.1 million in base cost expenditure.

4.12 **Business rates –**Northumbrian Water asks the CMA to reflect new evidence on rateable values since our final determination.

4.13 **Frontier shift –** Northumbrian Water proposes a frontier shift adjustment of 0.8% per year compared to our adjustment of 1.0% per year.

4.14 While not associated directly with an increase to its allowance, Northumbrian Water also raises broader concerns with our enhancing asset health understanding in the water sector roadmap.

4.15 Each of these issues has potential cross company impacts and so are discussed in detail in the Expenditure allowances – common issues document and Expenditure allowances – cost adjustment claims and Expenditure allowances – addressing asset health appendices.

Table 4.2: Key base cost issues in statement of case

Base expenditure area	Change to FD allowance (£m)	Ofwat response	Document reference
Asset health	180	• We still consider the company has failed to present compelling evidence to demonstrate the need for adjustment or that proposed costs are efficient. • The company has not set out a sensible view of what base buys, historic base allowances have been sufficient, and outputs / outcomes to be delivered from the investment area poorly evidenced. • There are also questions around the investment included given the scope of the investment case has changed multiple times. • The enhancing asset health workstream will consider the need for any further cost adjustments by collecting robust and comparable asset health data across all companies.	Expenditure allowances – cost adjustment claims section 6
Mains renewal	62	• We disagree with the company's approach to determining what base buys. • We do not consider there to be a clear rationale for calculating what base buys on the last five years, and have concerns with the incentives this could create. • We consider it is most appropriate to use the historical period used to set base expenditure allowances as this ensures that customers do not pay twice.	Expenditure allowances – common issues section 2 – Cost adjustment claims
Meter replacements	25	• It is appropriate to hold companies to account for historical under-delivery to ensure that customers do not pay twice. At PR19, there was a 0.4% sector cost gap between allowances and business plan requests. We therefore consider that companies were sufficiently funded to deliver renewals as set out in their business plans, and therefore that customers should not pay twice for companies failing to do so.	Expenditure allowances – common issues section 2 – Cost adjustment claims
Ofwat licence fee	9	• Ofwat licence fees remain a small proportion of total costs. The 2025-26 proposed licence fee represents 0.4% of 2025-26 total allowed costs at an industry level. • So, it would not have reached the materiality threshold needed to demonstrate the need for a cost adjustment. • We consider water companies can pay for licence fees through base allowances given the relative immateriality of the costs.	Expenditure allowances – common issues section 2 – Unmodelled costs

Base expenditure area	Change to FD allowance (£m)	Ofwat response	Document reference
Network reinforcement	40	• Northumbrian Water did not submit a cost adjustment claim as part of its business plan submission or include its forecast network reinforcement costs in its draft determination representations. • If these costs had been submitted earlier, they would have been assessed as part of the network reinforcement sector wide cost adjustment. • If the CMA accepts Northumbrian Water's updated forecast, we recommend a Price Control Delivery (PCD) is introduced to protect customers in case of under delivery.	Expenditure allowances – common issues section 2 – cost adjustment claims
Business rates	37	• Companies have received new information since final determinations from the Valuation Office Agency. We have provided an updated model assessment of business rates liabilities based on this new information. • All companies should have received new information therefore we consider that whatever approach the CMA applies, it should apply to all disputing companies.	Expenditure allowances – common issues section 2 – Unmodelled costs
Total	353		
Other issues			
Frontier shift		• We continue to consider a 1% per year frontier shift adjustment is appropriate. • This is consistent with recent CMA and UK regulatory decisions on frontier shift and is in the middle of CEPA's recommended range of 0.8% to 1.2%. • That considers both pre and post financial crisis productivity growth and other relevant factors such as the most recent OBR productivity growth forecasts; embodied technical shift; and the step-change in investment over the 2025-30 period, which should facilitate a 'learning by doing' productivity effect.	Expenditure allowances – common issues – section Chapter 6
Enhancing asset health understanding		• The company raises its concerns around the assessment of asset health at final determination, and with our enhancing asset health understanding workstream. • Namely relating to assessing what base buys, the availability of funding, and alternative regulatory approaches. • We discuss our response to each of its concerns in our supporting asset health appendix.	Expenditure allowances – Addressing asset health at PR24

Setting our enhancement allowances

4.16 Northumbrian Water requests additional enhancement expenditure allowances in the following areas:

4.17 **Water supply demand balance** – where Northumbrian Water suggest pushing back the delivery of Suffolk water supplies (Suffolk Strategic Network investment) which more than offsets the additional cost request for the Bacton desalination bulk supply pipeline.

4.18 **Phosphorus removal** - where Northumbrian Water makes a new request for additional allowances of £91 million for catchment nutrient balancing (CNB) schemes that could be replaced with more conventional solutions, and retaining aspects of no longer supported CNB schemes given the recent change in policy by the Environment Agency.

4.19 **Other WINEP** - where Northumbrian Water requests the correction for an error it made in completing its business planning tables

4.20 **Resilience** – where Northumbrian Water requests an additional £47.4 million for fixed power generation at 84 wastewater treatment works sites, citing power resilience risks linked to climate change. The company has withdrawn its enhancement request for flooding resilience interventions at sites identified as being at risk from fluvial, pluvial and tidal flooding.

4.21 **Growth at sewage treatment works** – where Northumbrian Water requests the removal of our past under delivery adjustment of £14 million and the inclusion of Howdon sewage treatment works in the large scheme gated process not included in Table 4.3 but estimated to be up to £329 million.

4.22 **Industrial Emissions Directive** – where Northumbrian Water submits a new request for the completion of work at Howdon sewage treatment works funded at PR19.

4.23 **Other enhancement areas** – where Northumbrian Water requests correction of what it considers to be unambiguous errors, including an error on septic tanks that Northumbrian Water made in its completion of business plan data tables and an issue relating to re-calculation of shallow dive efficiencies to account for the impact of other errors.

4.24 Most of these issues could have cross company implications and so are discussed in the expenditure allowances – common issues document. The following issues are company specific and are discussed in the remaining part of this document: Suffolk

Strategic Network investment, Bacton desalination bulk supply pipeline and power resilience scheme.

Table 4.3: Enhancement cost gaps (before the application of frontier shift and real price effects)

Enhancement expenditure area	Company view (February 2024) (£m)	Company view (August 2024) (£m)	Final determination allowance (£m)	Cost gap at FD (£m)	Statement of case request (£m)	Cost gap to SoC (£m)
Water WINEP	49	54	46	-8	46	0
Supply/Demand balance and metering	522	543	556	13	483	73
Resilience and security (w)	208	190	162	-28	162	0
Water quality improvements	55	55	57	2	57	0
Other water enhancement areas	0	0	1	1	1	0
Total water enhancement allowance	835	841	821	-20	748	73
Storm overflows	1,033	1,128	1,075[31]	-53	1,075[32]	0
Nutrients	177	390	387	-3	478	-91
Other WINEP (ww)	413	282	287	4	289	-2
Resilience and security (ww)	103	90	37	-53	84	-47
Growth at sewage treatment works	53	53	38	-15	52	-14
Industrial emissions directive	0	0	0	0	25	-25

[31] [OF-NES-020] Ofwat, Enhancement costs aggregator model, December 2024.
[32] [OF-NES-020] Ofwat, Enhancement costs aggregator model, December 2024.

Enhancement expenditure area	Company view (February 2024) (£m)	Company view (August 2024) (£m)	Final determination allowance (£m)	Cost gap at FD (£m)	Statement of case request (£m)	Cost gap to SoC (£m)
Other enhancement areas (ww)	17	17	15	-1	19	-4[33]
Total wastewater enhancement allowance	1,797	1,960	1,839	-121	2,022	-183
Total enhancement allowance	2,631	2,801	2,660	-141	2,770	-110

4.25 The following table provides additional navigation assistance for the CMA. It sets out each of the key enhancement issues raised in Northumbrian Water's statement of case, a summary of our response and the location of our more detailed response.

Table 4.5: Key enhancement issues in statement of case

Enhancement expenditure area	Change to FD allowance (£m)	Ofwat response	Document reference
Suffolk Strategic Network investment	-77	This is a new issue. We expect the company to use the WRMP annual review process to notify the Secretary of State of changes to its WRMP and discuss and agree the proposed change to scheme delivery with the Secretary of State, Environment Agency and Ofwat. We agree that if there is an approved delay to the scheme that costs would require reprofiling and result in lower enhancement allowances in the 2025-30 period.	See Suffolk Strategic Network investment section below
Bacton desalination bulk supply pipeline	4	This is an existing issue. The company has not provided evidence on alignment with either preferred or adaptive pathways presented in its final WRMP, or with the dependent Bacton desalination option. We continue to consider that the scheme should be progressed through	See Bacton desalination bulk supply pipeline section below

[33] [OF-NES-020] Ofwat, Enhancement costs aggregator model. Dec24

Enhancement expenditure area	Change to FD allowance (£m)	Ofwat response	Document reference
		PR29 or alternative funding mechanisms closer to the required lead-in time.	
Phosphorus removal	91	This is a new issue. We consider this to be appropriate given that the Environment Agency has now confirmed it will no longer support catchment nutrient balancing schemes, but suggest that the CMA considers potential overlaps between the cost request and existing allowances.	Expenditure allowances – common issues section 5
Unambiguous errors – septic tanks	2	This is a new issue. We reject the request under our unambiguous errors approach, as it does not meet the criteria for an unambiguous error as it was not Ofwat's error is not straight-forward to correct.	Expenditure allowances – common issues section 9
Climate Change Adaption and Power resilience	47	This is an existing issue. Northumbrian Water has not demonstrated that its proposed solution of fixed power generation is efficient, necessary, or appropriately targeted, particularly given the sector-wide climate change resilience uplift already provided and the power resilience improvements being delivered by its Distribution Network Operator.	See Climate Change Adaptation and Power Resilience section below
Growth at sewage treatment works	14	This is a new issue. We retain the past under delivery adjustment to prevent customers from paying twice for upgrades to sewage treatment works. We do not include the Howdon STW scheme as part of the large scheme gated process as we consider this was implicitly funded at PR19.	See Growth at sewage treatment works section below
Industrial Emissions Directive	25	This is raised as a new issue. Northumbrian Water requests additional funding for elements of the Howdon improvements. We disagree, as this is not new information, Northumbrian Water was aware of the conditions relating to	Expenditure allowances – common issues section 5

Enhancement expenditure area	Change to FD allowance (£m)	Ofwat response	Document reference
		the PR19 determination, and the company appeared to know the scope and cost of the additional requirements prior to our final determination.	
Unambiguous errors – shallow dive efficiency challenge	4	This is a new issue. Given the importance of regulatory certainty for both companies and customers, there is a high bar for making post-determination adjustments. We rejected the request in line with our unambiguous errors approach, due to it not being straight-forward to correct as would require amending multiple models. We have not corrected second order errors where not material.	Expenditure allowances – common issues - section 9
Total	110		
Frontier shift		This is an existing issue. We continue to consider a 1% per year frontier shift adjustment is appropriate. This is consistent with recent CMA and UK regulatory decisions on frontier shift and is in the middle of CEPA's recommended range of 0.8% to 1.2%. That considers both pre and post financial crisis productivity growth and other relevant factors such as the most recent OBR productivity growth forecasts; embodied technical shift; and the step-change in investment over the 2025-30 period, which should facilitate a 'learning by doing' productivity effect.	Expenditure allowances – common issues, Section 6

Suffolk Strategic Network investment

Final determinations

4.26 Supply interconnectors are schemes which transfer water between companies' water resource zones and which provide a measurable zonal water available for use (WAFU) benefit to a company's supply demand balance. Interconnectors and their benefits are set out and justified in the company water resources management plans (WRMPs).

4.27 For the final determinations we benchmarked the cost of these schemes consistently across the industry and used scheme level econometric modelling to set allowances using WAFU benefit and length as model variables.34

4.28 Northumbrian Water's final determination allowance for supply interconnectors was £131.971 million against a request of £132.806 million.35 This included a £20.813 million uplift to account for the number of crossings (e.g. roads and rivers). Northumbrian Water's interconnector programme included the 'Barsham to Saxmundham Trunk Main and Holton to Eye Trunk Main' (also referred to as Suffolk Strategic Network) and 'Bungay to Barsham Pipeline' schemes.

Issues raised by Northumbrian Water

4.29 In its statement of case, Northumbrian Water raises that a change in planning strategy means that the Suffolk Strategic Network investment will be delayed.[36] The company says this will be reflected in its revised WRMP. The company asks for the 2025-2030 totex allowance to be reduced from £118.030 million to £41.270 million, with the remaining allowance assumed for 2030-2035, and for the Price Control Deliverable (PCD) to be adjusted to reflect the changes to the anticipated delivery date.

Our assessment

4.30 The final determination allowance for the company's 'Barsham to Saxmundham Trunk Main and Holton to Eye Trunk Main' (also referred to as Suffolk Strategic Network) was £126.224 million (this included an uplift on this scheme of £20.813 million to account for the number of crossings). 37 The company does not challenge its overall final determination totex allowance for supply interconnectors.

4.31 We supported the acceleration of the Suffolk Strategic Network scheme through the Accelerated Infrastructure Delivery (AID) project in 2023. This allowed Northumbrian Water to use transition expenditure to fund work on the detailed design for the scheme.

[34] [OF-OA-022] Ofwat, PR24 final determinations: Expenditure allowances, February 2025, p.177 (s.3.6.2)
[35] [OF-OA-022] Ofwat, PR24 final determinations: Expenditure allowances, February 2025, pp.184-185 (Table 24)
[36] [OF-OA-002] Northumbrian Water Limited, Statement of Case PR24 CMA redetermination, March 2025, pp. 158 (s.7)
[37] [OF-CA-083] Ofwat, PR24 final determinations: Water supply interconnectors enhancement expenditure model v2, February 2025

We allowed up to £12.490 million for this purpose.[38] The company told us at the time that this would allow it to bring forward delivery of the scheme by two years to 2028.

4.32 The Suffolk Strategic Network allows a transfer of water from the company's Northern Central water resource zone (WRZ) to Blyth WRZ and Hartismere WRZ. During the AID project the company told us the strategic pipelines would initially allow surplus in the Northern Central WRZ to be utilised in the Blyth and Hartismere WRZs before new supply schemes are in place. Northumbrian Water currently has a moratorium on new supplies for non-domestic purposes in its Hartismere WRZ.

4.33 In its statement of case supporting information the company states that based on updated legal advice in December 2024, the more robust planning strategy for its Lowestoft Reuse and Suffolk Strategic Network schemes would be through a combined Development Consent Order (DCO) following a Section 35 application for Nationally Significant Infrastructure Project (NSIP) status.[39] This is instead of the Town & Country Planning Act (TCPA) that it had assumed in its WRMP24 and business plan. This has an impact on the delivery dates for both its Lowestoft Reuse project (WRMP date 2030-31; revised date 2033-34) and Suffolk Strategic Network scheme (WRMP data 2028-29; revised date 2032-33). This is new information post final determinations.

4.34 In the company's supporting information it states that using the DCO route would be the "most robust planning strategy".40 The company states that this is dependent on an application being made under section 35 for Nationally Significant Infrastructure Project (NSIP) status. This is the provision that is used when a project does not have to go through a DCO but the applicant wants it to. The DCO route for these projects is optional. The company has the option to use the TCPA route instead. We are not clear why there is a 3-4 years delay to delivery based on the DCO consenting route compared to TCPA. This would be on top of the assumed planning application timetable it included in its WRMP and business plan dates. There is also always a possibility that an application under section 35 will be refused, meaning that the company has to use the TCPA route. There is an element of uncertainty in making a section 35 application.

4.35 The company submitted an inbound query (OFW-FD-NES-012[41]) to us, post final determinations in January 2025, to raise an error with the delivery date for this scheme in the Supply Demand Balance PCD model; we had the benefit starting under 2027-28

[38] [OF-NES-001] Ofwat, Accelerated infrastructure delivery project: Appendix 1: final detailed assessment of company submissions, June 2023, pp. 15-16 (s.A1.2)
[39] [OF-CA-055] Northumbrian Water Limited, Appendix 1: Supporting information PR24 CMA redetermination, March 2025, pp. 97 (s.9.3.1.2)
[40] [OF-CA-055] Northumbrian Water Limited, Appendix 1: Supporting information PR24 CMA redetermination, March 2025, pp. 97 (s.9.3.1.2)
[41] [OF-NES-004] Query response OFW-FD-NES-012

when it should have been 2028-29, consistent with the company's business plan. The company did not mention a delay to the delivery date in January 2025.

4.36 The proposed delay by the company has important implications for the company's final WRMP which was only published in October 2024.42 There is currently a moratorium on new non-domestic supplies in the company's Hartismere WRZ, which the company has consistently said cannot be fully lifted until 2032.43 The revised planning strategy will delay the lifting of this moratorium by one year. The company also sets out in its WRMP that it will supply water to Sizewell C nuclear power station in 2032. The revised delivery for the Suffolk Strategic Network scheme would mean it would not be able to do so until March 2033.

4.37 The company faces significant supply and demand challenges across its Essex and Suffolk regions. It must supply a growing demand for water, whilst reducing the impact of its abstractions on the environment. Given the current moratorium in Hartismere WRZ and the importance of future water supply to deliver growth, any delay to deliver supply schemes has important implications. We would still like to see the moratorium on new non-domestic supplies in the company's Hartismere WRZ lifted as soon as possible, and ensure the planning route now chosen by the company has considered the urgency of the situation.

4.38 The company states that the implications of the changes to delivery timescales may mean that its WRMP needs to be updated. We would expect Northumbrian Water to use the WRMP annual review process to notify the Secretary of State of changes to its WRMP and discuss and agree the proposed change to scheme delivery with the Secretary of State, the Environment Agency and Ofwat. We agree that if there is an approved delay to the scheme that costs would require reprofiling and result in lower enhancement allowances in the 2025-30 period.

Bacton desalination bulk supply pipeline

Final determinations

4.39 In its representation on the draft determination, Northumbrian Water included £4.150 million for detailed investigation and design for a new pipeline from Norwich (associated with Anglian Water's proposed Bacton desalination plant) to its Barsham water treatment works.

[42] [OF-NES-002] Essex & Suffolk Water, Water Resources Management Plan, October 2024
[43] [OF-NES-002] " Essex & Suffolk, Water Resources Management Plan, October 2024, pp. 188

4.40 For the final determination, we assessed company expenditure proposals so that enhancement expenditure is properly justified and reflects the needs cases in the WRMPs.[44] Northumbrian Water did not provide sufficient and convincing evidence to demonstrate the need to start preparatory work on the bulk import supported by Bacton desalination plant during 2025-2030.

Issues raised by Northumbrian Water

4.41 In its statement of case, Northumbrian Water asks that our decision to disallow £4.150 million to begin work on its bulk import scheme connecting to Bacton desalination plant is looked at again, as Anglian Water's Bacton desalination is now confirmed as a RAPID Strategic Resource Option (SRO) [in PR24 final determinations] and will likely need to be delivered earlier than anticipated.[45]

Our assessment

4.42 For final determination we assessed the company's adaptive pathway options to ensure there was compelling evidence for the need for investment against uncertainties presented in adaptive pathways, so as to avoid significantly uncertain investment that risks higher customer bills than necessary.[46] The need for investment is assessed against the principles set out for adaptive pathways in the PR24 methodology.[47] We would have expected to see evidence on alignment with the dependent Bacton desalination option and company's final WRMP, as set out below.

4.43 In its representation on the draft determination, Northumbrian Water requested £4.150 million for the 'Bulk import supported by Anglian Water's Bacton Desalination Plant' scheme. The company stated that it had included the cost for detailed investigation and design for a new pipeline from Norwich (associated with Anglian Water's Bacton desalination plant option) to its Barsham water treatment works. The company stated that the option could address some its Suffolk supply deficits driven by Habitats Regulations sustainability reductions (the company has a Habitats Regulations adaptive plan review point in 2027). The bulk import option supported by Bacton desalination plant is not presented as an option on either a preferred or adaptive pathway in the company's WRMP. Its final WRMP was published in October 2024.

4.44 Anglian Water's draft determination representation stated that the need date for Bacton desalination is not yet known and is dependent on the outcome of habitats

[44] [OF-OA-022] Ofwat, PR24 final determinations: Expenditure allowances, February 2025, pp. 177 (s.3.6.1).
[45] [OF-OA-002] Northumbrian Water Limited, Northumbrian Water statement of case, March 2025, pp. 159 (s.7).
[46] [OF-OA-022] Ofwat, PR24 final determinations: Expenditure allowances, February 2025, pp. 170 (s.3.6.1).
[47] [OF-CA-001] Ofwat, Creating tomorrow, together: Our final methodology for PR24, Appendix 9: Setting expenditure allowances, December 2022, pp. 112-113.

investigations, but the current programme assumes a start-on-site date at the start of the 2030-2035 period to enable water into supply 2034. Northumbrian Water's proposed scheme is dependent upon the Bacton desalination plant supplying water, for which this option is at an early stage of development. Bacton desalination has been brought into the RAPID programme at PR24 final determinations to support its early development. In addition to the dependent option being in early development, the earliest it would be in operation is also 2034.

4.45 Other transfer schemes in Northumbrian Water's WRMP data tables have a lead-in time (minimum time to realise benefits from the option) of about three years. The company did not provide sufficient and convincing evidence in its representation on the draft determination to demonstrate the need to start preparatory work on the bulk import supported by Bacton desalination plant during 2025-2030. Therefore, for the final determination we disallowed the requested £4.150 million made through the supply enhancement cost line.[48]

4.46 During the price review process, RAPID suggested to Northumbrian Water for the transfer scheme connecting to Bacton to be incorporated into the Bacton Strategic Resource Option (SRO). Northumbrian Water would have taken a share of the development allowance for Bacton SRO proportionate to its share of water from the SRO. The company had the opportunity to submit on this basis as part of its representation on the draft determination but chose not to. This approach would have provided alignment between the dependent water supply option and transfer.

4.47 The company has not provided further evidence to demonstrate the need to start preparatory work on the bulk import supported by Bacton desalination plant during 2025-2030. We took into account that Anglian Water's Bacton desalination plant option was to become an SRO when making our final determination assessment.

4.48 The lead in time for other transfer schemes in Northumbrian Water's WRMP data tables is about three years.[49] We expect companies to develop WRMPs and the options within them to the level of detail set out in the Water resources planning guidelines. This activity is part of base allowances, and any option development on adaptive pathway to this level would also be considered base expenditure. Where investigation scope sits within base expenditure expectations, the company may commence this as it requires ahead of its Habitats Regulations adaptive plan review point in 2027. If the scheme is not required until 2034 then given the uncertainty due to the early stage of development on Bacton desalination we continue to consider that the scheme should

[48] [OF-CA-138] Ofwat, PR24 final determinations: Water supply enhancement expenditure model redacted v2, February 2025
[49] [OF-NES-003] Essex & Suffolk Water, Main WRMP24 data tables v16 redacted, November 2024, Options Appraisal Summary sheet

be progressed through PR29. If work is required to start earlier then there are likely to be alternative funding mechanisms available closer to the required lead-in time.

4.49 RAPID may consider proposals for new strategic resource options that meet the conditions of SROs in the RAPID process, or amendments to scopes of SROs already within the process. There is a mechanism outside of the price review to allow this.

Climate Change Adaptation and Power Resilience

Final Determinations

4.50 We consider that the impacts of climate change are real, long standing and sector wide. During the price review companies were generally not able to provide robust justification for additional expenditure to address flooding and power resilience issues. Nevertheless, given the potential risks to customers, to address these impacts, we provided a sector-wide approach to resilience funding, ensuring that all companies received a proportionate uplift based on 0.714% of modelled base allowances. This uplift was provided to both water and wastewater expenditure and was based on the median efficient cost request by companies. Where companies requested expenditure materially in addition to this allowance we undertook a deep dive of the expenditure against our enhancement assessment criteria. This approach was designed to provide targeted funding for climate-related risks while maintaining consistency across the industry[50].

4.51 We assessed Northumbrian Water's climate change adaptation and power resilience enhancement case, which included a total request of £76.660 million for wastewater resilience investment. This comprised £59.040 million for fixed backup generation at 84 wastewater sites and £17.620 million for flood resilience interventions. Following a deep dive assessment, we allowed £4.596 million for power resilience funding for six sites that had a clear and repeated history of pollution incidents linked to power outages[51]. Northumbrian Water did not provide sufficient and convincing evidence to justify widespread fixed generator deployment. As part of the sector-wide resilience allowance, Ofwat's application of a 0.714% uplift to base allowances for climate change adaptation resulted in an additional £7.050 million in wastewater resilience funding for Northumbrian Water[50]. We consider that this sector wide uplift would allow Northumbrian Water to provide mobile generation to cover potential power resilience issues at its other sites.

[50] [OF-OA-022] Ofwat, PR24 Final Determinations: Expenditure Allowances, December 2024, Section 3.8.2.
[51] [OF-CA-191] Northumbrian Water, Northumbrian Water Draft Determination Representation, NES80, August 2024, Table 2

4.52 We also provided £12.100 million to address flooding resilience issues at high and medium risk sites. Northumbrian Water does not challenge the allowance for flooding resilience.

Issues Raised by Northumbrian Water

4.53 The company raises five key issues in its statement of case:

4.54 The sector wide adjustment fails to recognise that resilience risks vary significantly across companies.

4.55 Northumbrian Water disputes Ofwat's sector-wide uplift approach, stating that resilience risks vary significantly between companies and that a uniform methodology fails to recognise its specific regional exposure to climate hazards such as storms and flooding. It claims that companies in the North East face materially different and greater risks, pointing to the deteriorated asset health of the local Distribution Network Operator (DNO) and a higher likelihood of high-wind events compared to other regions[52].

4.56 Northumbrian Water has heightened power resilience risks due to a high frequency of power outages, storm-related disruptions, and reliance on a historically unreliable electricity distribution network operator.

4.57 Northumbrian Water states that it faces heightened power resilience risks due to a high frequency of power outages, storm-related disruptions, and reliance on a historically unreliable Distribution Network Operator. The company states that it cannot rely on planned improvements by Northern Powergrid due to a lack of transparency around asset health and future failure rates and that it cannot access the data needed to quantify these risks and has therefore assumed a static failure rate over the 2025–30 period. The company states that customers should not bear the risk of cascading failures caused by infrastructure outside its control. Northumbrian Water states that despite engaging with Northern Powergrid to understand its approach, the Distribution Network Operator has not committed to resilience interventions beyond 2028. The company states that this uncertainty should not be used to justify withholding funding for power resilience measures.[53,54]

[52] [OF-OA-002] Northumbrian Water, Northumbrian Water Statement of Case, Section 4.5.3, Line 373, Page 103.
[53] [OF-OA-002] Northumbrian Water, Northumbrian Water Statement of Case, Section 4.5.3, Lines 375 - 378, Page 103 - 105.
[54] [OF-CA-177] Northumbrian Water, Northumbrian Water Statement of Case Appendix 5, Section 2.2.1, Lines 34 – 36, page 12

4.58 Ofwat's allowance for generation at only six sites underrepresents the scale of risk.

4.59 The company seeks an additional £47.4 million to install fixed generators across vulnerable wastewater sites. It states that Ofwat's allowance for generation at only six sites underrepresents the scale of risk and that its proposed investment is both targeted and deliverable. The company argues that this funding is essential to ensure operational continuity and environmental compliance in the face of increasingly frequent power disruptions.[55]

4.60 4. Customers are willing to pay for greater protection from service interruptions caused by climate change, and support power resilience measures.

4.61 The company cites customer support as a key justification for investment in resilience. It refers to its acceptability testing, which found that customers were willing to pay for greater protection from service interruptions caused by climate change, and specifically supported its 'medium' option for climate adaptation, which included power resilience measures.[56]

4.62 5. Regulatory misalignment exposes companies to penalties for events outside of their control.

4.63 Northumbrian Water states that its financial exposure to power-related service failures has increased due to a regulatory misalignment. It states that Ofgem's standards for Distribution Network Operators (DNOs) allows for short-duration and extreme weather related power outages, while water companies face penalties for the resulting service failures under Ofwat's regulatory framework. The company cites events such as Storm Arwen and Storm Eowyn as evidence of intensifying climate risks and contends that without additional funding for fixed backup generation, it cannot effectively mitigate these cascading risks. [57,58,]

Our assessment

4.64 For clarity, we have responded to each issue in turn.

[55] [OF-OA-002] Northumbrian Water, Northumbrian Water Statement of Case, Section 4.5.3, Lines 378–389, Pages 104-107.
[56] [OF-OA-002] Northumbrian Water, Northumbrian Water Statement of Case, Section 2.6.4, Lines 118–123, Page 38-39.
[57] [OF-OA-002] Northumbrian Water, Northumbrian Water Statement of Case, Section 4.5.3, Line 377, p.104
[58] [OF-CA-177] Northumbrian Water, Northumbrian Statement of Case - Appendix 5, Section 2.3, Line 52, p.16

4.65 Response to Key issue 1 – the sector-wide uplift fails to recognise that resilience risks vary significantly across companies

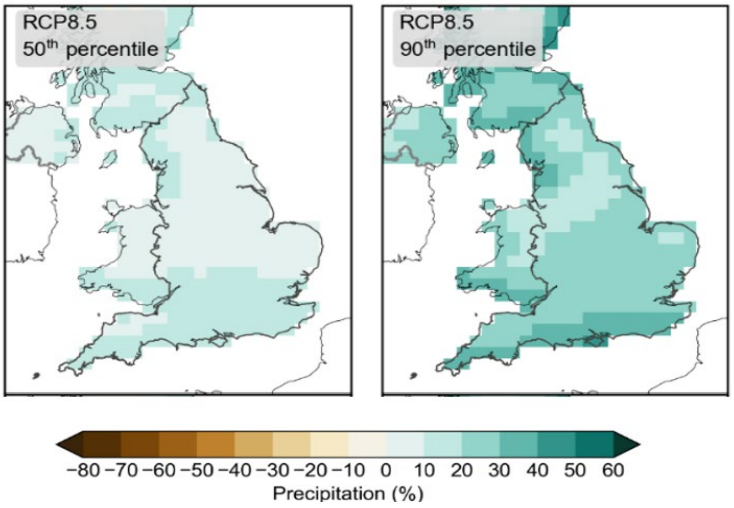
4.66 The company is not unique in its exposure to climate risks; companies experience a variety of climate-related risks and a sector-wide uplift approach is proportionate and ensures fair and consistent resilience funding.

4.67 Northumbrian Water has provided some evidence on regional climate risk, however, it has not demonstrated that its climate-related risks are materially greater than those faced by other water companies. The Met Office UK Climate Projections 2018 (UKCP18) projections show that all companies will face unique climate impacts due to regional variation. When considering the range of climate risks, the company is not projected to face significantly higher risk than other companies. Across climate trends relevant to flooding and power outages, UKCP18 shows:

4.68 **Rainfall**: The most significant increases (shown in dark green within figure 4.1) in winter, summer and annual rainfall are projected in the South and West of the United Kingdom. [59]

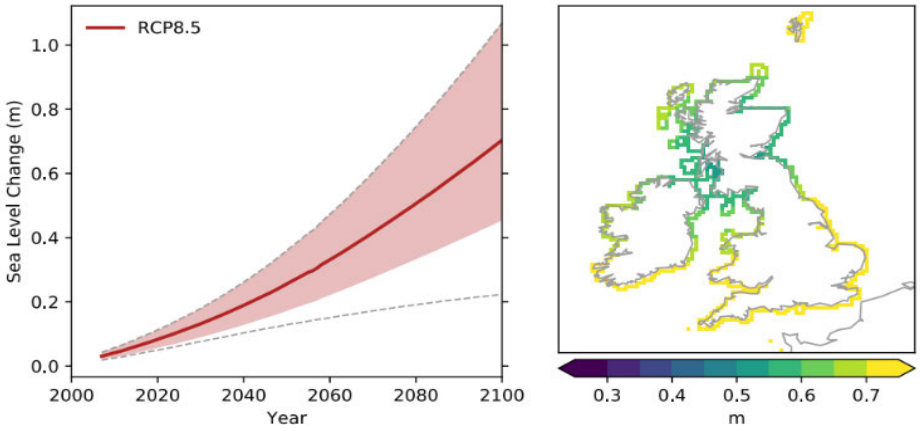
[59] [OF-CA-175] Met Office (2019) UK Climate Projections: Headline Findings – Climate change projections over land.

Figure 4.1 Winter precipitation trends anomaly for 2040-2059 compared to 1981-2000 for 50th and 90th percentile for RCP8.5 (high climate projection)



4.69 **Sea level change:** The most significant increases in sea level change (shown in yellow) are projected in the South and East of England. [60]

Figure 4.2 The spatial pattern of sea level change at 2100 associated with the central estimate of each RCP scenario. All projections are presented relative to a baseline period of 1981-2000

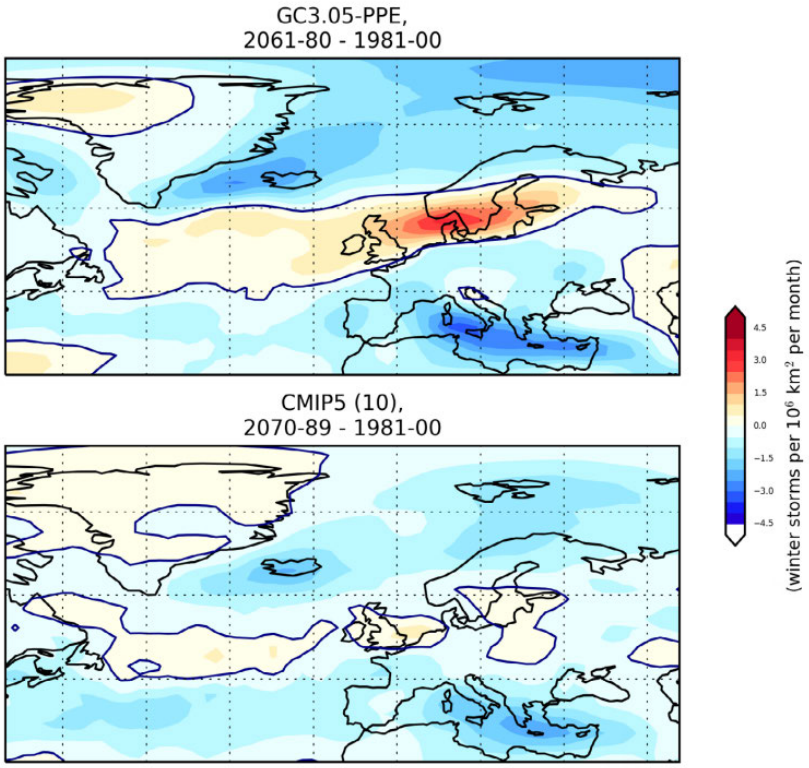


[60] [OF-CA-176] Palmer, M. D., Tinker, J. P., Lowe, J. A., & O'Neill, A. (2018). UKCP18 Marine Report. Met Office Hadley Centre

4.70 **Temperature:** The most significant increases in temperature (shown in dark orange) will be experienced in the South and Midlands of England.

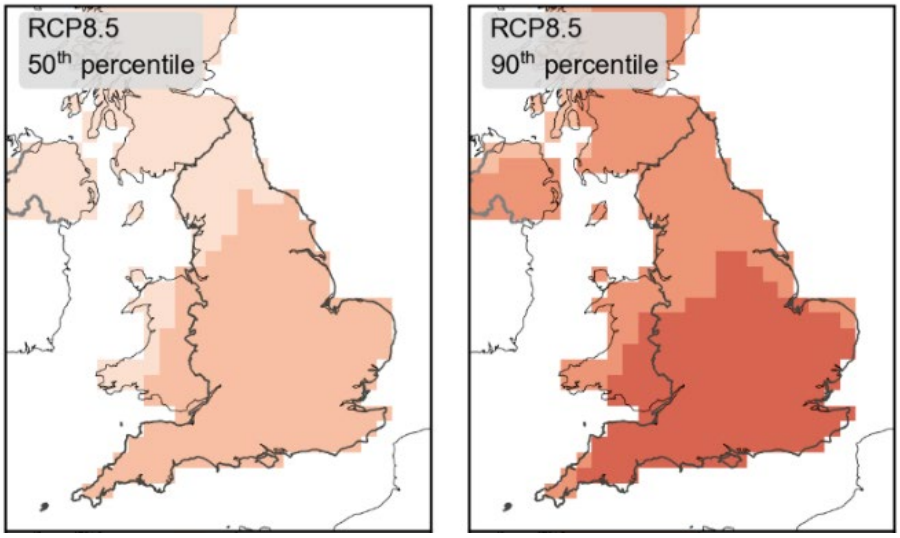
Figure 4.3 Summer maximum temperature anomaly for 2040-2059 compared to 1981-2000 for 50th and 90th percentile for RCP8.5 (high climate projection)

4.71 **Wind storms:** Projections vary across models. Climate model GC3.05 shows a potential increase in winter storms in the North of the United Kingdom. In contrast, CMIP5 projects an increase across most of the United Kingdom. The Met Office notes this is subject to uncertainty, stating: "While the direction of these changes is robust across different climate models, the magnitude is different and compounded by differences between the model and observations in recent climate so is subject to uncertainty. [61]



[61] [OF-CA-178] Met Office, UKCP18 Land Projections: Science Report, 2018

Figure 4.4 Projected changes in the density of winter storms (per 106km2 per month), relative to the 1981-2000 values. Upper panel shows the ensemble-mean change in climate model GC3.05-PPE during 2061-2080, lower panel shows the average change for 10 members of climate model CMIP5-13 for 2070-89.



4.72 This evidence shows that all companies face region-specific climate challenges. Companies in the West could claim higher risk due to rainfall, those in the South due to sea level rise and temperature, and those in the North due to storms. Notably, UKCP18 marine projections show a clear north–south gradient in projected sea level rise, with southern regions facing greater increases.

4.73 The company's appointed academic expert from Newcastle University, Dr. Colin Manning, raised concerns about aspects of the interpretation and methodology used in its climate resilience assessment. Dr. Manning recommended the use of statistical significance testing to support conclusions around projected regional differences, noted the need for clearer explanation of data processing and bias correction methods, and questioned the interpretation of probabilistic projections and their relevance to extreme event risks. Dr. Manning advised that the analysis could be substantially strengthened through greater methodological transparency and engagement with peer-reviewed climate science. Ofwat requires sufficient and convincing evidence to support bespoke funding claims.

4.74 Northumbrian Water has not provided sufficient and convincing evidence to show that its climate-related risks are materially greater than those faced by other water companies across England and Wales. Both the company's own analysis and Ofwat's analysis presented above do not support the conclusion that Northumbrian Water is uniquely or disproportionately exposed to extreme weather and power resilience risks which exceed that of comparable companies. While the company presents data on regional storms and power outages, this evidence is not conclusive or clearly

differentiated from sector-wide climate risks already recognised and addressed through Ofwat's 0.714 per cent resilience uplift. The sector-wide uplift is a proportionate and consistent approach to funding resilience improvements across the sector, based on shared challenges and the need for flexible responses tailored to local contexts.

4.75 While the company states that bespoke resilience funding would allow for a more targeted approach, the 0.714 per cent sector-wide uplift already provides flexible enhancement funding for companies to address their most significant climate-related resilience risks[62]. The company states that its proposed fixed generation programme represents a timely and targeted intervention that would help maintain service during extreme weather, reduce pollution incidents, and deliver against the expectations of regulators and government. However, this position conflates early, proactive spending with efficient and justified investment. The uplift is not subject to a Price Control Deliverable (PCD) and can be deployed at the company's discretion. It provides scope for companies to assess the impact of resilience interventions, evaluate their effectiveness, and refine their approach before committing to more extensive or higher-cost solutions. In addition to this uplift, Ofwat allowed a further £4.596 million for power resilience, which is governed by a PCD requiring delivery of six named wastewater schemes. Providing additional funding without sufficient supporting evidence would set a precedent for allowing bespoke claims without proper scrutiny.

4.76 Response to key issue 2 – Northumbrian Water faces heightened power resilience issues due to storm frequency, cascading failures, and reliance on a historically unreliable Distribution Network Operator

4.77 Existing DNO resilience improvements reduce risk, and customers should not fund overlapping investments. Northern Powergrid has received dedicated funding from Ofgem, including £29.85 million for Storm Arwen projects and embedded resilience in its RIIO-ED2 baseline. We considered the risk of cascading failures, as raised by the company and the National Infrastructure Commission (NIC), and took into account Northern Powergrids's funded programme when making our determination. These investments address the same outage risks identified by the company and are already being delivered. Allowing additional customer funding would risk duplication.

4.78 Northumbrian Water states that it cannot rely on Northern Powergrid to deliver sufficient power resilience and must therefore invest in permanent fixed electricity generation at certain wastewater treatment sites. This claim is not supported by the evidence. Northern Powergrid has received funding and is actively delivering a comprehensive programme of electricity network resilience improvements that address

[62] [OF-OA-002] Northumbrian Water, Northumbrian Water Statement of Case, Section 4.5.2, Line 367, p.101

the cascading risks referenced by the company. These enhancements directly address the same power outage risks identified by Northumbrian Water and are supported by regulatory scrutiny and funding decisions.

4.79 Northern Powergrid is funded to address storm-related risks. It received £29.85 million through the Storm Arwen Re-opener Final Determinations published by Ofgem in February 2025. This funding was awarded to deliver 12 resilience projects across its network, including: overhead line hardening; aerial bundled conductor (ABC) replacement; undergrounding; permanent generator platforms; and mobile generation investments such as SilentPower. These interventions specifically target storm-induced vulnerabilities and aim to improve supply continuity in remote and exposed areas.[63] Ofgem reaffirmed this in its Feb 2025 final determinations, awarding £29.85 million across the 12 projects and stating that these activities go beyond business-as-usual and are essential to improving resilience in Northern PowerGrid's most exposed zones.[64]

4.80 Resilience is embedded in Northern Powergrid's RIIO-ED2 baseline allowances. The RIIO-ED2 Final Determinations for Electricity Distribution (published by Ofgem in November 2022) confirmed that resilience is a core part of Northern Powergrid's baseline funding package. Key elements include:

- Replacement of over 48,000 wooden poles;
- Expansion of rural fault automation; and
- Customer Interruptions (CI) and Customer Minutes Lost (CML) targets under the Interruptions Incentive Scheme (IIS).

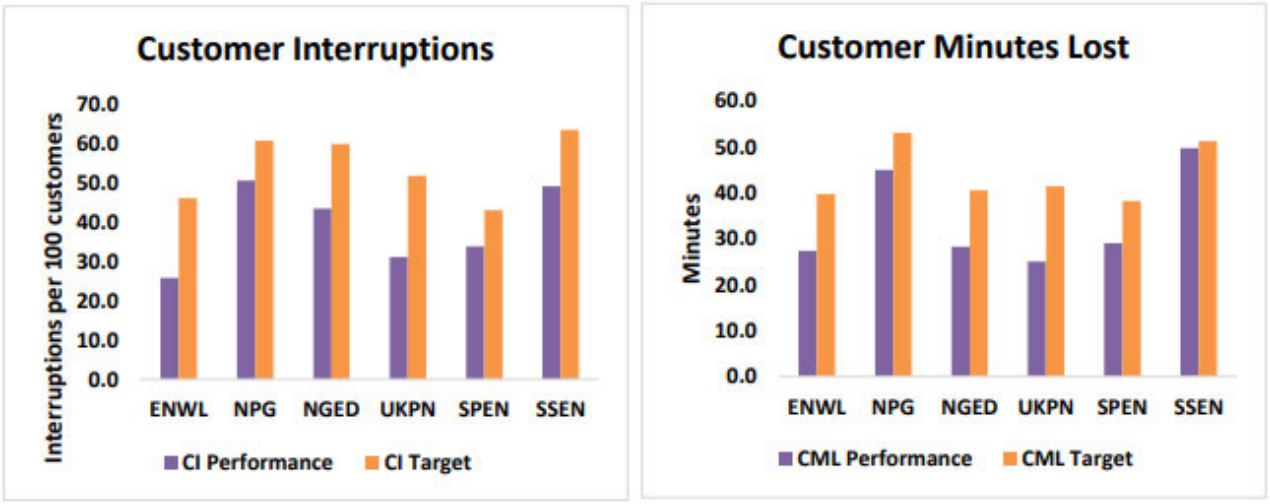
4.81 These investments directly aim to reduce fault frequency and duration during storms – the same rationale the company uses to justify its enhancement claim.[65] Northern Powergrid has already delivered 11% of its RIIO-ED2 outputs, including the automation of 412 HV circuits, launch of MicroResilience to protect isolated customers, and rapid progress on vegetation clearance and pole replacement.[66]

4.82 Northern Powergrid's reliability performance in the previous regulatory period (RIIO-ED1) does not indicate systemic weakness. Across the eight-year period from 2015 to 2023, its Customer Interruptions and Customer Minutes Lost performance metrics were broadly consistent with — and in some cases better than — other electricity distribution network operators. Its customer satisfaction scores were also in line with

[63] [OF-CA-179] NPg Storm Arwen Reopener – Core Document, Jan 2024, pp. 2, 27–31
[64] [OF-CA-180] Ofgem, RIIO-2 Reopener Final Determinations – ED Annex (Feb 2025), pp. 28–33
[65] [OF-CA-181] Ofgem, RIIO-ED2 Final Determinations Annex, p. 13–14, 26, 44–45.
[66] [OF-CA-182] RFPR Commentary 2023-24, p.2, 16, 21.

sector averages, undermining any suggestion of persistent or exceptional underperformance.[67]

Figure 4.5: Customer interruptions and minutes lost: Electricity distribution[67]



4.83 Resilience risks are sector-wide and already being addressed. Northern Powergrid has already received funding and it is actively delivering a comprehensive programme of resilience investment enhancements. Northern Powergrids total RIIO-ED1 spend was £1.061 billion, nearly matching its allowance of £1.158 billion, and was focused on delivering storm resilience improvements, automation, and rural supply continuity.[68]

4.84 Storm Arwen was a sectoral issue, not unique to Northern Powergrid. Storm Arwen affected multiple DNOs across the North and Scotland. As noted by the National Infrastructure Commission, the severity of the storm and its impact – with over 40,000 NPg customers without power for three days – led Ofgem to introduce a new uncertainty mechanism to fund DNO resilience in RIIO-ED2.[69] Impacts were not limited to Northumbrian Water's region. The 2021–22 Water Company Performance Report notes that six water companies — Hafren Dyfrdwy, Northumbrian Water, South East Water, Thames Water, United Utilities, and Yorkshire Water — all cited storm-related power outages as the primary factor contributing to their performance. While some companies, including Yorkshire Water and South East Water, submitted requests for interventions, others reported impacts without seeking additional funding. This reinforces that the challenges arising from Storm Arwen were shared across the sector,

[67] [OF-CA-183] Ofgem, RIIO-ED1 Network Performance Summary, P.6
[68] [OF-CA-183] Ofgem, RIIO-ED1 Network Performance Summary, p. 6, 10–11
[69] [OF-CA-184] National Infrastructure Commission – Electricity Distribution Networks Report (Feb 2025), p. 36

and that Ofwat's sector-wide response — rather than bespoke funding — remains the appropriate regulatory approach[70].

4.85 Electricity distribution network resilience delivers equivalent outcomes. The interventions funded through the Storm Arwen Re-opener and the RIIO-ED2 Final Determinations for Electricity Distribution are designed to deliver the same customer outcomes that Northumbrian Water seeks through site-specific fixed electricity generation. These include:

- Preventing outages, through overhead line upgrades, tree clearance, and conductor replacement;
- Shortening outages, via automated fault detection and sectionalisation; and
- Restoring supply, through enhanced switching and mobile generation deployment.

4.86 These measures benefit all customers connected to the electricity network, including those served by Northumbrian Water, and deliver resilience at network scale rather than duplicating it site-by-site. Funding Northumbrian Water for the same risks would lead to duplicated efforts and overcompensation for vulnerabilities that are already being addressed through electricity network investment.

4.87 Delivery has followed a clear, regulator-approved process. The timeline of Northern Powergrid's resilience investments shows a structured sequence of regulator-approved decisions, beginning with the sectoral response to Storm Arwen and culminating in targeted infrastructure and operational improvements across the 2023–2028 regulatory period. The vulnerabilities Northumbrian Water identifies are not new, exceptional, or unfunded. They are well understood, sector-wide, and already subject to dedicated investment through price control mechanisms.

4.88 In line with the outcomes framework and our duties, we consider that the better regulatory approach is to provide transparency for all stakeholders by clearly placing mitigation and management of exogenous risks with the companies in combination with appropriate risk protections. This encourages companies to focus on delivering outcomes for customers and the environment and reduces the incentive to seek to rely on exclusions through what can be complex, ambiguous and subjective findings of fault, which absorb disproportionate company and regulatory resources.

[70] [OF-CA-192] Ofwat, Water Company Performance Report 2021-22, 2022, p.17

Figure 4.6: Storm Arwen - Resilience Delivery Timeline

Response to Key Issue 3 – Ofwat's allowance for generation at only six sites underrepresents the scale of risk

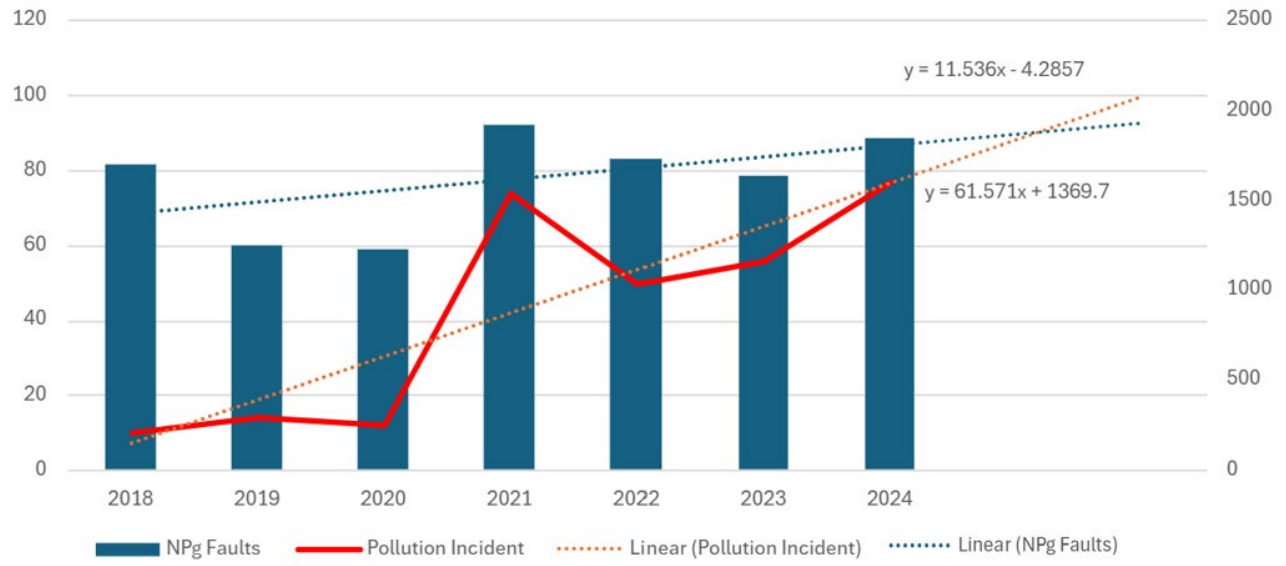
4.89 Northumbrian Water's request for fixed generators at 84 sites is not supported by sufficient and convincing evidence. Approximately 70% per cent of the sites have experienced no power-related events in the past 10 years, and fewer than 25 per cent of pollutions incidents at proposed locations were linked to power outages. A small number of sites experienced repeat incidents. The company has not provided sufficient and convincing evidence to demonstrate the need for fixed generation at the proposed sites, nor has it shown that fixed generations represents the best option compared to lower-cost alternatives, and why lower-cost mobile generation would not provide adequate coverage for these sites.

4.90 The link between power loss and pollution is overstated by the company. Northumbrian Water stated that it selected the highest priority sites and that fixed power generation is the most appropriate intervention to manage pollution risks associated with power outages. However, our analysis of pollution incidents between 2020 and 2023 shows that fewer than 25 per cent were caused by power outages, and only 17 per cent of these occurred at the sites included in the company's funding request.

4.91 Ofwat provided 0.714 per cent sector-wide climate change uplift flexible enhancement funding for companies to address their most significant climate-related resilience future risks. Ofwat providing Northumbrian Water with an additional £4.596m to address six of the named sites in NES32 which had experienced multiple historical power related pollutions events. This allowance was intended to restore baseline resilience at the sites with clear historical need. No other Water Companies received allowances for issues of this nature.

4.92 Northumbrian Water stated that power-related pollution events are increasing[71]. Ofwat's analysis of company-supplied pollution and power outage data between 2015 and 2024 confirms that while both metrics show an upward trend, pollution incidents are rising at approximately five times the rate of power outages. In its Statement of Case, the company has not provided an explanation for this divergence. Our analysis suggests that the increase in pollution incidents is more likely driven by improved monitoring coverage, not an increase in power related failures.

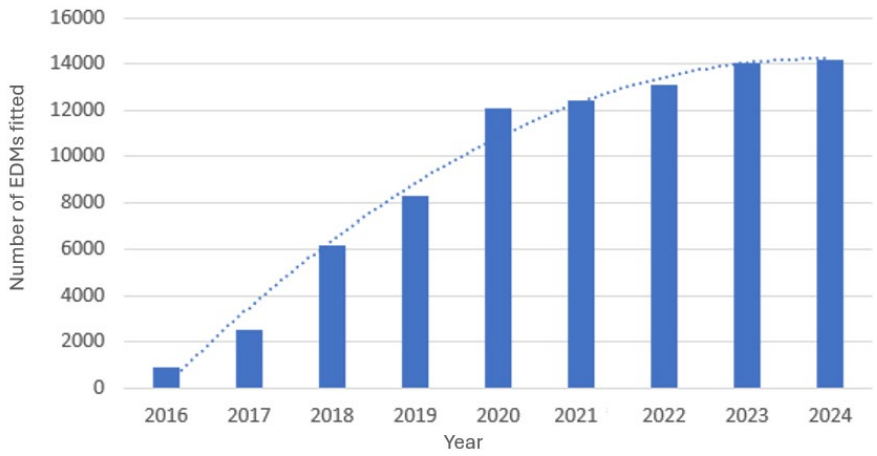
Figure 4.7: Northern Power Grid Faults vs Pollution Incidents



4.93 The observed increase in pollution incidents coincides with the rollout of Event Duration Monitoring (EDM) in response to regulatory requirements which saw EDM coverage increase from around 10 per cent of storm overflows in 2015 to 100 per cent by 2024.[72] This expansion increased significantly improved event detection. Analysis of trends after full EDM rollout shows that while pollution incidents have increased, power outages have declined. This challenges the company's assertion that rising pollutions is primarily driven by power resilience failures.[73]

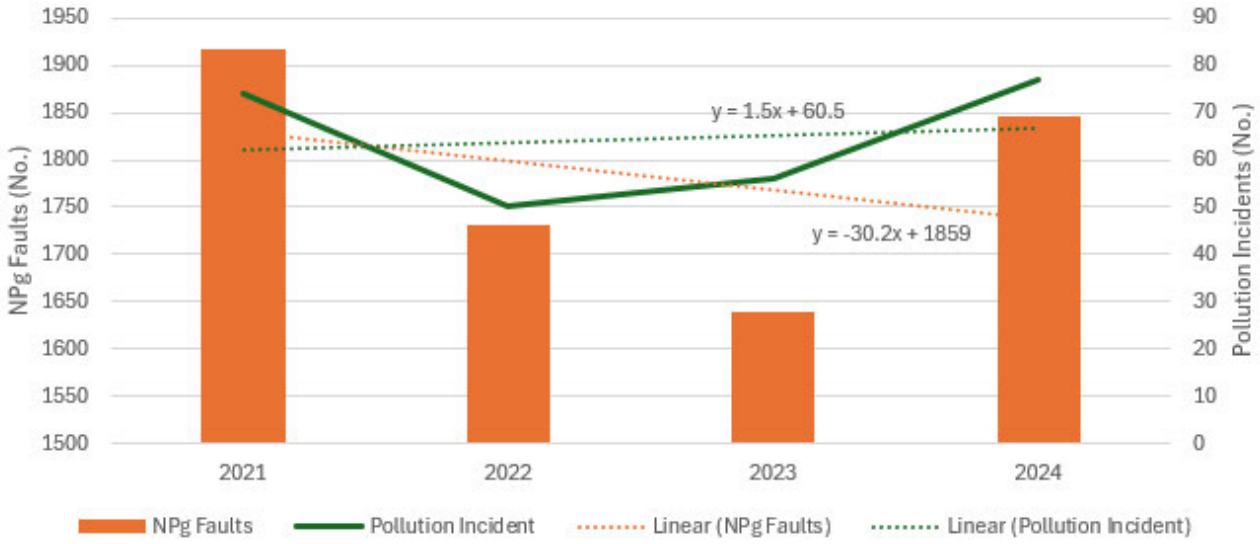
[71] [OF-CA-177] Northumbrian Water, Northumbrian Water statement of case Appendix 5 Overview and Key Evidence - Power Resilience and Climate Change 21.3.2025.pdf Figure 14
[72] [OF-NES-011] Environment Agency, Environment Agency publishes storm overflow spill data for 2023, 2023
[73] [OF-NES-012] Ofwat, EDM_Long-term_Trends_Storm_Overflow_Annual_Return.zip

Figure 4.8: Number of storm overflows fitted with Event Duration Monitors by year



4.94 The timing of reported pollutions events does not consistently support a causal link with power outages. In several cases, pollution occurred long after power had been restored, raising concern about attribution.

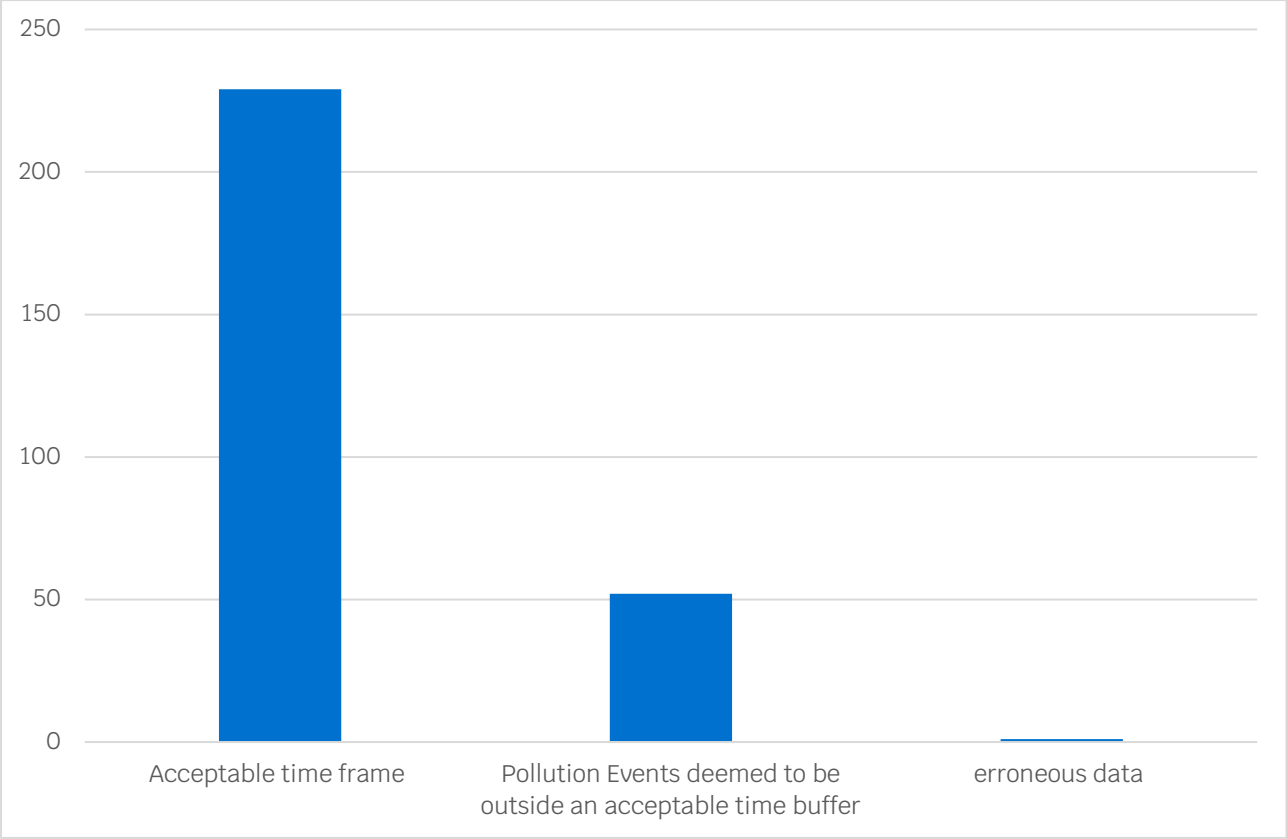
Figure 4.9: Pollution events versus Northern Power Grid Faults (Post Env Act 2021)



4.95 Ofwat defined a reasonable buffer period within which a power loss could plausibly result in a pollution event: 30 minutes before the reported outage to six hours after power restoration. Approximately 20 per cent of the pollutions events in Northumbrian Water attributed to power outages fell outside of this period.

4.96 For example, at Mearske Wastewater Treatment Works, a pollution event on 24 July 2021 occurred more than 15 hours after the nearest reported outage on 23 July 2021. Similarly, at Billingham Wastewater Treatment Works, an incident on 8 December 2022 took place over 48 hours after the closest outage, reported on 5 December 2022. These examples indicate that the relationship between power outages and pollution events is inconsistent, and not robustly supported by the data the company provided.

Figure 4.10: Pollution events which occurred within a reasonable time buffer post power returning



[1] Time Buffer = between 30mins prior to an outage occuring; and 6hrs post power returning

4.97 Northumbrian Water stated that it used a multi-faceted site prioritisation approach to select the 84 sites included within NES32.[74] Ofwat did not challenge the inclusion criteria but applied its own consistent methodology to assess whether the sites were justified for additional allowances. At the Final Determination, Ofwat applied the following test: whether a site had experienced more than one power-related pollution

[74] [OF-CA-177] Northumbrian Water, Northumbrian Water statement of case Appendix 5 Overview and Key Evidence - Power Resilience and Climate Change 21.3.2025. (see pg 106)

incident in the past 10 years. Sites that met this threshold were deemed eligible for allowances, applied pro rata, resulting in £4.596 million for six sites.

4.98 Ofwat used the 84 sites identified by the company as baseline for further review. We analysed the historic pollutions data to test the strength of the company's prioritisation and to assess whether each proposed site warranted additional power resilience funding.

4.99 We identified that 54 of the 84 sites have not experienced any power-related pollution incident in the past 10 years. No further evidence has been provided by the company to explain the inclusion of these sites. In the absence of any other evidence, such as "near miss,"[75] incidents being reported at these sites, there is no justification to provide additional allowances.

4.100 Of the remaining 30 sites to experience a pollution incident, 19 sites had experienced a single pollution event in the past 10 years, these were excluded from our methodology, which applies a minimum threshold of two incidents to focus on sites with demonstrable and recurring risk, ensuring a proportionate and evidence-based response. Of the remaining 11 sites:

- Skinningrove Wastewater Treatment Works (WWTW) has not experienced any power-related pollution incidents within the past five years, including during Storm Arwen, despite recent storm activity. This suggests that local power resilience may have improved, reducing the future risk.
- Bran Sands WWTW and Cambois pumping station both experienced power-related pollution events on the same day, but at separate asset locations. As these were isolated incidents and not repeated at each site, they do not meet the inclusion criteria of more than one qualifying incident, which we applied to ensure that funding was directed only to sites with repeated or sustained evidence of power-related pollution risk.
- The remaining 8 sites met the threshold for inclusion.

4.101 At Final Determination, we allowed funding for six sites. The increase to eight sites reflects updated pollution data provided by the company in its Statement of Case, which extended the reporting period to 2024. This change is based on updated evidence rather than a change to our assessment approach. The following 8 assets meet the criteria of repeated or recent power-related pollution risk:

- Barton WWTW;
- Billingham WWTW;

[75] [OF-OA-002] Northumbrian Water Statement of Case point 379 pg. 105

- East Hartford WWP;
- Howdon WWTW;
- Hurworth Place WWP;
- Leyland Bridge WWP;
- Rothbury WWP; and
- Throstles Nest WWP.

4.102 In conclusion, only 8 of the 84 sites proposed by the company meet the inclusion criteria applied to justify additional allowances. The remaining 76 sites are not supported by sufficient evidence of repeatable events of demonstrable risk, and therefore do not justify additional funding beyond the sector-wide climate change uplift.

4.103 Northumbrian Water's statement of case states that:

4.104 "…the standard Ofwat set has very little impact in reducing pollution incidents"[76]

4.105 We strongly disagree with this statement and the example cited to support it. Of the 51 pollution events referenced on the day of Strom Arwen, only 8 incidents could have been prevented by fixed-power generation at the sites requested within NES32.

4.106 The company's cost-benefit analysis shows a preference for fixed backup generators over mobile alternatives, citing concerns about delays in deployment and limited availability of mobile units. This position contrasts with the approach taken by other water companies, which have successfully adopted mixed strategies combining fixed and mobile generation to manage power resilience.

4.107 Mapping analysis shows that many of the company's proposed sites are clustered in urban areas around Middlesbrough, Sunderland, and Newcastle (Figure 9). Using a 30-minute driving radius, we found that three strategically located mobile generator hubs could effectively cover the majority of sites included in NES32. This suggests that a mobile or hybrid approach could offer sufficient coverage at lower cost (Figure 10).

[76][OF-CA-177] Northumbrian Water, Northumbrian Water statement of case Appendix 5 Overview and Key Evidence - Power Resilience and Climate Change 21.3.2025. (see pg 106)

Figure 11 Hubs required to cover Northumbrian Water proposed sites

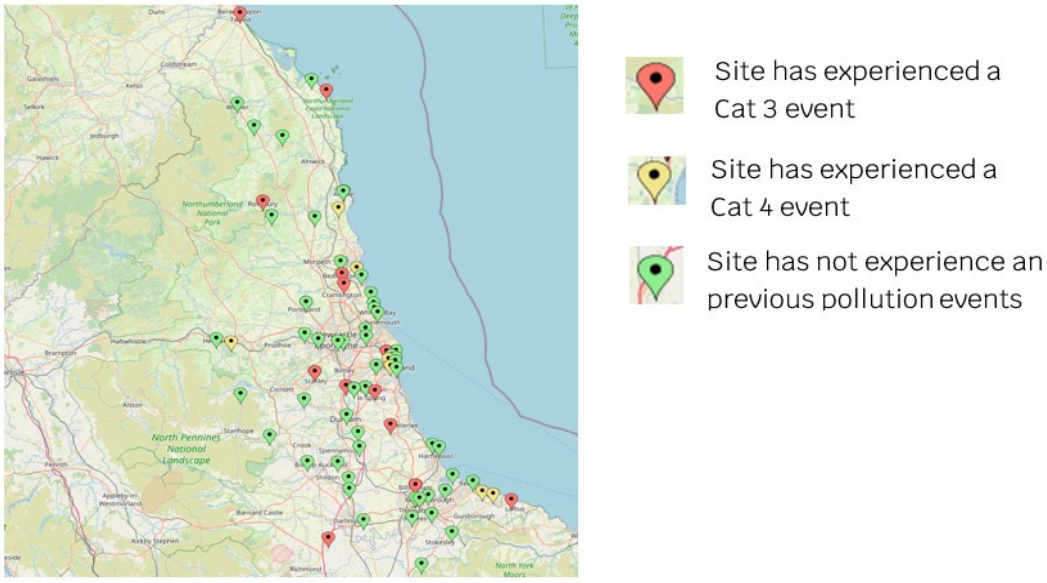
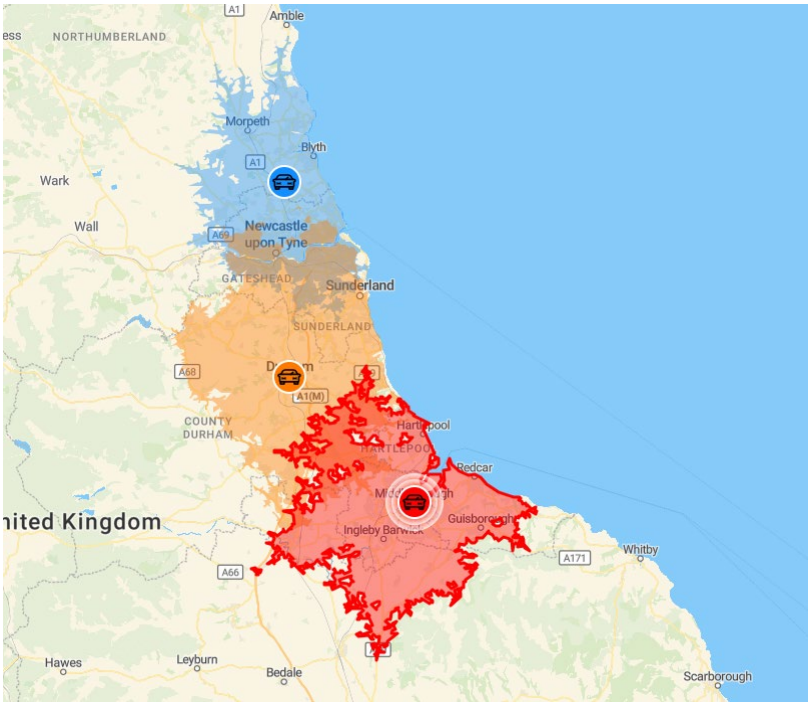


Figure 12 Proposed site map by category



4.108 In Appendix 5 of its Statement of Case, Northumbrian Water states77:

[77] [OF-OA-002] Northumbrian Water, Northumbrian Water statement of case Appendix 5 Overview and Key Evidence - Power Resilience and Climate Change 21.3.2025. (see pg 53)

4.109 "Aqua confirm that they have seen evidence that shows that our option selection approach is sound and allows options such as battery storage and mobile generators to be delivered if viable "

4.110 The optioneering report does not conclude that fixed generators are the most appropriate solution at each site. Nor does it rule out mobile generation as a viable alternative. The company has not provided sufficient and convincing evidence to explain why a mobile or rapid and flexible deployment strategy would be insufficient to manage risks at the proposed sites. Companies may choose to use the climate change uplift allowance to deliver mobile or hybrid generation solutions, where these represent the best option. The selection of fixed generators at all proposed locations appears precautionary rather than evidence-led, and lacks site-specific option assessment.

4.111 No detailed scope or scheme breakdown was provided by the company for the proposed investments[78]. In the absence of site-specific cost data, Ofwat applied a unit cost approach at Final Determination based on the total claim across all 84 sites. This resulted in an average cost of £761,000 per site. Notably, Ofwat did not apply a cost efficiency challenge to this unit cost – a potentially favorable approach given the limited cost evidence submitted.

4.112 Northumbrian Water's own third-party cost assurance report concluded that the proposed solution falls within the upper quartile of cost relative to industry benchmarks.[79] The report also confirmed that a 30 per cent optimism bias uplift had been applied to power generation costs.[80]

4.113 According to Her Majesty's Treasury's Green Book guidance, optimism bias is intended for complex or early-stage projects with significant cost risk. We did not consider the installation of fixed backup generators at existing operational assets meet this threshold, and therefore question the application of a 30 per cent uplift.

4.114 Following Northumbrian Water's Statement of case, Ofwat carried out additional benchmarking of fixed generation unit costs across other wastewater companies (table 4.6).

[78] [OF-CA-188] Northumbrian Water, NES32- CLIMATE CHANGE RESILIENCE- FLOODING AND POWER; [OF-CA-189] NES32A - POWER AND FLOOD RESILIENCE SUPPLEMENTARY INFORMATION Northumbrian Water,
[79] [OF-CA-190] Northumbrian Water, NES32A1 – NWG Benchmark Report, pg.8 Aug'24
[80] [OF-CA-190] Northumbrian Water, NES32A1 – NWG Benchmark Report. Pg8 Aug'24

Table 4.6: United cost for a fixed generation unit.

Company	Unit Cost of fixed Generator
United Utilities	£333k[81]
Southern Water	£536k[82]
Yorkshire Water	£667k[83]
Northumbrian Water	£761k

4.115 Northumbrian Water's unit costs are approximately 30 per cent higher than the sector average. When considered alongside the lack of cost breakdown, the high optimism bias, and the limited justification for fixed solutions, the company's cost proposals raise significant concern regarding efficiency. We also note that Northumbrian Water do not account for the reduction in effective costs from the ability to sell electricity back to the grid.

4.116 Ofwat has already applied an efficiency challenge of 90 per cent to the allowance request, driven primarily by concerns over site selection. However, the cost evidence provided may justify a further efficiency challenge, based on the proposed unit costs themselves.

4.117 Using the sector average cost of £574k per site, the additional qualifying sites (increasing the total from six to eight) would result in a total cost of £4.594 million – which remains less than the original £4.596 million Final Determination allowance.

4.118 Response to Key issue 4 – Customers are willing to pay for greater protection from service interruptions caused by climate change, and support power resilience measures

4.119 Customer preferences must be based on informed choices – the company did not present lower-cost alternatives. Customer testing did not include mobile generation options or account for DNO improvements already planned in the region. Without testing of alternatives, stated customer willingness to pay does not demonstrate support for the most efficient or proportionate investment.

4.120 Northumbrian Water stated that its customers support additional investment in power resilience and has cited this preference as a justification for its enhancement claim. Ofwat recognises the importance of customer engagement in shaping investment decisions. However, customer preferences must be based on informed choices between

[81] [OF-CA-186] United Utilities, UUW67 Cross Price Control Enhancement Case table 11 pg.23; [OF-CA-185] United Utilities,UUWR_39_Resilience uplift table 9 pg.31
[82] [OF-CA-193] Southern Water, SRN49-Resilience – Power enhancement case, October 2023
[83] [OF-CA-187] Yorkshire Water, YKY-PR24-DDR-38-CE-Resilience-wastewater-appendix

viable options, and must be considered alongside evidence of efficiency, affordability, and risk.

4.121 In this case, customers were not presented with alternative, lower-cost solutions—such as mobile generators or hybrid deployment strategies—during the research informing willingness-to-pay. These options could deliver comparable levels of service and risk reduction at significantly lower cost. Without such comparisons, stated support for the company's preferred solution cannot be interpreted as support for the most efficient option.

4.122 The customer engagement materials used by Northumbrian Water did not reference the planned electricity network resilience improvements being delivered by Northern Powergrid during the 2025–2030 period. These improvements, which include fault automation, mobile generation, and hardening of rural overhead lines, are directly targeted at reducing the frequency and duration of power outages—the same risks Northumbrian Water seeks to address. Without this context, customers may have overestimated the likelihood and impact of prolonged outages.

4.123 Other companies facing similar resilience risks have not sought additional funding and have instead addressed these risks using the 0.714 per cent sector-wide enhancement allowance. These approaches reflect a balance between customer priorities, affordability, and efficient risk mitigation. Northumbrian Water has not provided sufficient and convincing evidence that its proposed level of investment is essential to meet customer needs or that its approach is the most cost-effective solution available.

4.124 While customer support is a key input to investment decisions, it does not override the need for clear evidence of need and best option. In this case, the company has not demonstrated that its engagement tested a full range of credible options or that its preferred approach represents the most efficient use of customer funding.

4.125 Response to Key issue 5 – Regulatory misalignment exposes companies to underperformance payments for events outside of their control.

4.126 Restricting exclusions creates a consistent, incentive-based framework that supports long-term resilience planning.[84]

4.127 Our policy on exclusions should be considered within the context of the whole outcomes framework: our approach to exclusions goes hand in hand with the risk protections that

[84] [OF-OA-002] Northumbrian Water, Northumbrian Water statement of case Section 2 of Statement of Case, Outcomes, Common issues – approach to exclusions.

we have also put in place. We discuss our approach to exclusions in section 3 of the 'Outcomes - common issues' document.[85]

4.128 It is inaccurate to state simply that we have removed exclusions for extreme weather. In fact, at PR24, certain performance commitments continue to contain express exclusions. For example, the internal and external sewer flooding performance commitments make provision to exclude flooding that originates from assets which are not part of the company's sewerage system and in relation to flooding events that are outside the company's statutory functions.

4.129 However, in all other cases, the outcomes we specify relate to companies' functions and so they have significant control over these. External factors may have an effect but companies can mitigate the impact of external factors, such as weather events through how they prepare for and respond to them, including by working with third parties. We consider this is necessary to meet their statutory obligations (for example, sections 37 and 94 of the Water Industry Act 1991) and the expectations and needs of customers and the environment. Therefore, we do not consider that exclusions for such factors are appropriate.

4.130 Our policy on weather exclusions at PR24 does not differ greatly from that which applied at PR19. In summary, the key changes were:

- **Unplanned outage** - changes in raw water quality beyond the normal water quality operating band are no longer excluded, these changes may be due to severe weather. Extreme weather presenting constraints on ability to resolve the unplanned outage is also removed; and

- **Water supply interruptions –** the default position continues to be that there are no exclusions howsoever arising. However, we removed the provision whereby a company could make a representation to us to consider granting an exception on the basis of a civil emergency under the Civil Contingencies Act 2004, where the supply interruption was not the cause of the emergency. This was not an automatic exclusion for civil emergencies (which could include severe weather events), this was an exception which gave Ofwat discretion to consider whether and to what extent it should relieve a company of the impact of underperformance payments based on a civil emergency).[86]

[85] [OF-OA-018] Ofwat, PR24 final determinations: Outcomes approach to risk modelling appendix, Section 5
[86] This was confirmed by the Court of Appeal in *R (Northumbrian Water Ltd) v Water Services Regulation Authority [2024] EWCA Civ 842*. The Court confirmed (amongst other things) that Ofwat has a discretion, rather than a duty, to relieve water companies of financial impacts arising out of water supply interruptions caused by civil emergencies. The Court of Appeal judgment may be found here. The High Court decision is available here.

4.131 Northumbrian Water also states that pollution incidents related to extreme weather were previously excluded from performance assessments.[87] We note that there was no automatic exclusion which removed these events from the EPA assessments (and therefore from company performance against the pollution incidents performance commitment). Rather, companies could include explanatory context for performance reporting purposes and the Environment Agency then used discretion in whether and to what extent to discount such incidents from performance. The Environment Agency changed this policy in 2023. From that point, all pollution incidents have been required to be recorded as pollution incidents in the Environment Agency's National Incident Recording System (and subsequent performance reporting for the purposes of pollution incidents performance commitments) without exception.

4.132 The company has not shown that fixed generation is necessary as a result of our approach to exclusions (which must be considered together with the risk protections that we put in place to mitigate companies' exposure to exogenous factors) nor of the fact that if companies do not bear these risks, they are transferred to customers. Its proposal appears to reflect a preference to de-risk regulatory performance for investors, rather than address a clearly evidenced gap in resilience.

4.133 Removing performance exclusions for weather-related incidents establishes a consistent and transparent regulatory framework across the sector. It ensures that all companies are incentivised to reduce the frequency, duration, and impact of service failures, regardless of cause. The framework encourages companies to invest in resilience and performance improvement, rather than relying on the exclusion of events from outcome delivery assessments.

4.134 The Environment Agency has previously excluded pollution incidents caused during major storms from performance reporting, this includes specific named storms for example Storm Arwen and Storm Eunice. However, since February 2023 these exclusions have been removed. All pollution incidents are now included in the annual Environmental Performance Assessment without exceptions. This change reflects the Environment Agency's expectation that water companies will have planned capability to prevent incidents, mitigate impacts that might occur, and restore the operation of affected assets. [redacted] This is

[87] [OF-CA-177] Northumbrian Water, Northumbrian Water statement of case, paragraph 52 of Appendix 5.
[88] [redacted]

similar to existing exclusions for the internal and external sewer flooding performance commitments.

4.135 Northumbrian Water states that the removal of exclusions for weather-related incidents increases its exposure to outcome delivery underperformance payments and supports its proposed shift to permanent fixed generation.[89] However, this position conflates two distinct issues: the need for efficient resilience investment, and the financial implications of performance incentives. The restriction of exclusions does not prescribe any specific investment or strategy. Instead, it strengthens incentives for companies to manage and mitigate service interruptions through proportionate and cost-effective means.

4.136 The company previously relied on mobile generation, procured through operational arrangements. Its proposal to transition to permanent fixed generation is a business decision, not a regulatory requirement. Other companies continue to manage power resilience risks using mobile or hybrid generation approaches. Northumbrian Water has not demonstrated that fixed generation is necessary or that it delivers better outcomes for customers than lower-cost alternatives.

4.137 The evidence suggests that the proposal may be intended to reduce downside financial exposure for the company, rather than to address a clearly evidenced resilience gap. While reducing risk to investors may align with company strategy, it does not follow that customers should fund a more costly solution in the absence of proven benefit.

4.138 Ofwat's analysis of historical data identified only six wastewater sites with repeated power-related service failures. These were funded at Final Determination. The wider proposal to fund 84 sites was not supported by equivalent evidence of past failures or increased risk.

4.139 Northumbrian Water states that some future risks cannot be precisely quantified and references the Competition and Markets Authority's PR19 redetermination in support of this position. We acknowledge that not all future resilience risks can be modelled with precision — this was recognised by the CMA during PR19. However, this does not remove the requirement for companies to provide forward-looking evidence, supported by professional judgement, data trends, or scenario analysis. Ofwat's PR24 assessment included both backward- and forward-looking elements. The 0.714 per cent resilience

[89] We note that around 70% of the outcome delivery incentive impact of storm Arwen in the 2020-25 control period related to Northumbrian Water's bespoke performance commitments. Please see table 1.1.1 in [OF-NES-023] Ofwat, Final determination of Northumbrian Waters in period outcome delivery incentives for 2021-22, November 2022. These bespoke performance commitments are not part of the PR24 determination. Taken alongside the wider outcomes risk protections in place, this means that if storm Arwen were to happen now the financial impact in relation to supply interruptions would be lower.

uplift is specifically designed to enable companies to address evolving climate-related risks, including power disruption, within a flexible and proportionate framework.

4.140 With regard to the different approach taken by Ofgem in relation to the setting of regulatory standards and exceptions for exceptional weather events, we are cognisant that other regulators operate in different industries, with different legal and regulatory frameworks, and different regulatory challenges. They may need to incentivise different behaviours, in different areas of performance, at different times. A particular element of a price or revenue control regime cannot be separated from the regime as a whole. There are often interlinkages between different elements of a regime. It is not possible simply to point to individual differences in regimes without wider analysis of the regimes being compared. It cannot be assumed that what is appropriate in a revenue control regime for a water company will be appropriate in some other sector, or vice versa. However, in relation to Northumbrian Water's power resilience funding request, we considered that the funding given to Northern Powergrid's RIIO-ED2 baseline allowances was a relevant factor as it concerned investments to address the same outage risks cited by Northumbrian Water.

Growth at sewage treatment works

Final determinations

4.141 Growth at sewage treatment works (STW) expenditure relates to costs for upgrading STWs to accommodate population growth in the catchment area so as to ensure that the STW meets the requirements of Regulation 4 Urban Waste Water Treatment (England and Wales) Regulations 1994 and its Environment Agency permit obligations. Although population growth is the underlying driver of need, companies will also select the best option based on the existing headroom at the STWs, as well as other site-specific factors.

4.142 Companies should be tracking how soon they are likely to start exceeding their environmental permits following increases in population in the STW's catchment area given current infrastructure, conditions in these permits related to Dry Weather Flow, Flow to Full Treatment and various effluent quality permits. Changes in flow or quality permit conditions due to population growth would not usually be included as a permit change within the WINEP / NEP. They are only included where growth results in a site exceeding an Urban Waste Water Treatment (England and Wales) Regulations 1994 (UWWTR) population equivalent threshold, which would be reflected by a WINEP / NEP action.

4.143 In response to our draft determinations companies requested £2.384 billion enhancement investment for AMP8 to upgrade STWs in company representations.[90] This was a significant step up from the £1.528 billion requested at draft determination.[91] Consequently, growth at STW allowances significantly increased from £1.390 billion in our draft determination to £1.787 billion in our final determination.

4.144 We collected scheme level data on cost and cost drivers for all STW sites with anticipated need for investment for future growth. Scheme level benchmarking also allowed us to set an allowance more clearly for each growth at STWs upgrade. We therefore implemented a PCD that will return funding to customers if the company does not deliver the upgrade included in its allowance.

4.145 In our final determination, we triangulated between a levels and log-log model specifications to set efficient allowances. We did not apply an additional efficiency challenge. Our approach is designed to ensure that customers do not pay twice for enhancement and/or maintenance works, by removing expenditure that overlaps with the expectations of base expenditure, such as compliance with existing permits and claws back funding where companies under-spent growth at STW allowances in the 2015-20 and 2020-25 periods.

Issues raised

4.146 Northumbrian Water raised the following issues:

- Historical under-delivery adjustment.
- Requested inclusion of Howdon STW within large gated scheme process.

4.147 We also request that the CMA takes account of the agreed unambiguous errors in the Growth at STWs model as part of the redeterminations process. This is detailed in section 9 of the 'PR24 redeterminations expenditure allowances – common issues' document.

Historical under-delivery adjustment

Our final determinations

[90] [OF-NES-013]-Ofwat, PR24 final determinations: Wastewater Growth at sewage treatment works enhancement expenditure model, December 2024.
[91] [OF-NES-014]-Ofwat, 'PR24 draft determinations: Wastewater Growth at sewage treatment works 2, June 2024

4.148 We applied a post-modelling adjustment to growth at sewage treatment works (STW) enhancement expenditure allowances to account for historical under-delivery.[92, 93] This was implemented to prevent customers paying twice for upgrades to sewage treatment works.

Issues raised by disputing companies

4.149 Northumbrian Water challenges the application of the past under-delivery adjustment to the growth at sewage treatment works enhancement allowance. It states that growth at sewage treatment works was not funded specifically at PR19, so the downward adjustment is unjustified.[94]

Our assessment

4.150 The growth at sewage treatment works under-delivery adjustment is a reasonable and proportionate intervention to protect customers interests. We have a statutory duty to protect the interests of customers, along with our other duties. These adjustments ensure that customers do not pay twice for outputs that companies have already been funded for in previous price controls. We do not need to ringfence allowances for specific activities to allow such adjustments to be made.

4.151 We do not consider the growth at sewage treatment works past under-delivery adjustment represents a retrospective change. We are not seeking to claw back funding in relation to previous regulatory periods. Instead, we are seeking to set a threshold for considering additional expenditure allowances for the 2025-30 period by reference to what customers have already paid for in prior price control periods.

4.152 Northumbrian Water has spent less than its growth at sewage treatment works business plan requested costs over the 2015-25 period.[95] Upgrades to sewage treatment works to account for population growth should not be reactive. Companies should proactively increase capacity at sewage treatment works to facilitate growth even if the increased capacity is not needed in the immediate short term.

4.153 We applied a conservative approach to calculating the adjustment, which leads to an adjustment that is only 6% over the pre-adjusted growth at sewage treatment works

[92] [OF-OA-022] Ofwat, PR24 final determinations: Expenditure allowances, February 2025, p41
[93] [OF-OA-023] Ofwat, PR24 final determinations: Expenditure allowances – Enhancement Cost Modelling appendix, December 2024, pp.107-110
[94] [OF-OA-002], Northumbrian Water, Northumbrian Water Statement of Case Non-Confidential March 2025, pp.115-121
[95] [OF-NES-013] Ofwat, PR24-FD-CA83-Wastewater Growth at sewage treatment works enhancement expenditure model, 'Past delivery adjustments'.

enhancement allowance. We firstly applied cost sharing rates to the difference between requested and outturn spend. We then reduced the under-delivery adjustment by a further 50% to account for factors such as:

- difficulty in calculating the implicit allowance for growth enhancement at PR19, as it was assessed as part of base costs;
- uncertainty in actual spend in the current regulatory period as we used 2024-25 forecast costs; and
- uncertainty in company forecasts for growth as the totex regime gives companies some flexibility to use allowances in the most efficient way in light of new information.
- Northumbrian Water did not raise the growth at sewage treatment works under-delivery adjustment in its draft determination response.

Inclusion of Howdon STW within the large gated scheme process

Final determinations

4.154 At PR19 Northumbrian Water requested £110.04 million for wastewater growth. £94.36 million of which was for Growth at STW, and £91 million of that was for Howdon STW. Northumbrian Water had a 3.4% efficiency challenge on total base allowances[96] and our indicative assessment of the implicit allowance that Northumbrian Water received for wastewater growth was £114 million post efficiency (all in 2017/2018 prices), prior to the CMAs redetermination, therefore we consider that Northumbrian Water was implicitly funded for Howdon STW.

4.155 In the final determination we did not include the Howdon STW scheme within the large schemes gated approach as it was not sufficiently developed, and the Howdon STW growth scheme was funded at PR19.

Issues raised by disputing companies

4.156 Northumbrian Water indicates that it is providing new information. Northumbrian Water states the following.

4.157 Northumbrian Water was not funded for the scheme at PR19. Howdon STW was included in its PR19 Business Plan as a £91 million scheme to support capacity expansion.

[96][OF-CA-020] Ofwat, 'PR19 Final determinations securing cost efficiency technical appendix', December 2019, page 167

However, the PR19 final determinations did not make a specific allowance for the scheme as growth at STWs was allowed for through the base expenditure models.

4.158 Northumbrian Water states that the scheme was not delivered in AMP7 as it was not required due to growth slowing from the impact of covid, and the immediate need for intervention was mitigated by surface water removal and flood alleviation projects which reduced inflow to Howdon.

4.159 Northumbrian Water states that the estimated scheme cost has increased substantially to £329 million. Since PR24 the likelihood that investment will be needed in AMP8/9 has increased to mitigate the risk of permit breaches, and while there is no greater certainty around the need for investment than during the PR24 process, and Northumbrian Water cannot provide any greater certainty around the scope or cost, the Howdon STW scheme should be included within the large scheme gated process.

4.160 Northumbrian Water asks the CMA to mitigate the need and uncertainty by including this scheme under the large schemes gated process, or by introducing a separate Notified Item.[97]

Our assessment

4.161 In summary, our assessment of these issues is that:

- We consider that the scheme was funded in PR19, which Northumbrian Water appears to have accepted in its original PR24 business plan submission.
- The need for the scheme appears less rather than more certain compared to PR19 given the reduction in forecast growth.

4.162 Given the lower growth forecast we would expect the scope of the scheme to reduce from that estimated at PR19 and we are therefore unclear why the cost is increasing.

4.163 If there is robust evidence of an increased scope for the Howdon growth scheme that costs close to the £329 million highlighted by Northumbrian Water, we would support inclusion of the additional scope elements within the gated process or via a notified item.

PR19 allowance

[97] The above points are summarised from [OF-OA-002] Northumbrian Water, 'Northumbrian Water Limited Statement of Case', March 2025, Figure 53, p157, and [OF-CA-055] Northumbrian Water, 'Appendix 1: Supporting information', March 2025, pp.78-84 (Section 8.2)

The company states that although it requested £91m for Howdon growth scheme, no specific allowance was made for the scheme at the PR19 final determinations as growth was assessed through the base expenditure models by Ofwat and the CMA, instead a general growth modelled allowance was made with no link with actual scheme costs.[98]

Northumbrian Water previously stated that it did not include the Howdon STW cost in its October 2023 business plan, because "in PR19 allowances for wastewater treatment growth had been included in base expenditure – which would have included Howdon if required. It assumed that the work at Howdon would need to be funded in base expenditure from AMP7, as we had asked for £91m in our PR19 business plan but had received only a base totex allowance for all wastewater growth."[99]

In November 2023, in response to Ofwat query OFW-OBQ-NES-083, Northumbrian Water stated "for AMP7, we spent £28.4m and have deferred £82.5m into AMP8, for a total of £110.9m. To be clear, we are not requesting this £82.5m again in our AMP8 business plan. Our growth enhancement case is for growth at other treatment works."

Howdon STW growth scheme accounted for £91 million of a total £94 million request for growth at STWs expenditure in AMP7[100]. While it is accurate to state that there was no specific allowance for the scheme, the allowance was made via the base expenditure allowances as growth at STWs costs were included in historical base modelled costs. Therefore a proportion of modelled base allowances were for growth at STWs. Our implicit allowance at PR19 final determinations showed that the company received an overall wastewater growth allowance of £114 million[101], We therefore consider the scheme to be implicitly funded, as did Northumbrian Water during its initial October 2023 PR24 submission.

Need for the scheme in AMP7

4.164 Northumbrian Water stated that the scheme was not delivered in AMP7 due to growth slowing as a result of Covid, and the immediate need for intervention being mitigated due to surface water removal and flood alleviation projects which reduced inflow to Howdon.[102] It states that "*if we had delivered this in AMP7, customers would have paid for an investment that is not yet needed*."[103] The dry weather flow level has remained relatively stable since 2023 (Figure 29). It is therefore unclear what has driven the

[98] [OF-OA-002]-Northumbrian Water, 'Northumbrian Water Limited Statement of Case', March 2025, p80, (Paragraph 227)
[99] [OF-CA-055]-Northumbrian Water, 'Appendix 1: Supporting information', March 2025, p79.
[100] All AMP7/PR19 costs are in 2017-2018 prices
[101] [OF-NES-019] Re-run in supporting file Ofwat, 'PR19 FD growth implicit allowance'
[102] [OF-CA-055] Northumbrian Water, 'Appendix 1: Supporting information', March 2025, p.78 (paragraph 220)
[103] [OF-NES-005] Northumbrian Water, 'NES80 Draft Determination – Representations', August 2024, s688-669

change in Northumbrian Water's view over the past few months that a scheme is now required that was not required earlier in the AMP. Northumbrian Water has not provided evidence to support the changing estimate of growth requirements.

Scheme scope and certainty

4.165 Northumbrian Water states that the reason the scheme should be included in the gated process is due to significant cost / scope uncertainty. It sets out an approximate cost of £329 million within representations. Northumbrian Water presented a similar cost in its representation on the draft determination[103] setting out that there was some uncertainty around the scope and cost.

4.166 At PR19, Northumbrian Water forecast the cost of improvement works at Howdon to be £91 million. In its final Drainage and Wastewater Management Plan (2023) it stated that during the 2025-2030 period it would invest £90m due to growth to increase capacity to 271,031m^3/day. It set out that it had completed purchase of adjacent site to enable expansion to occur.[104] This cost estimate was retained throughout PR24 draft determination, and so did not change for six years. We are therefore unclear why Northumbrian Water has changed to a cost of £329 million over recent months, while also stating that Ofwat's cost models could estimate this to be even higher at £331m, without additional evidence or new information.

4.167 Northumbrian Water states that it is highly likely that it will have new quality and flow permit conditions, but these have not yet been agreed by the Environment Agency. Northumbrian Water also states there will be a requirement for an increase to other aspects of the STW such as flow to full treatment capacity, and potentially a significant increase in storm tank size.[105] It does not set out how these requirements differ from what it included within its PR19 request, or why it has begun purchasing the land for building when there is significant uncertainty around what is required.

4.168 Northumbrian Water states that one of the main drivers of the higher cost relates to the PR19 WINEP driver U-IMP6 'storm tank capacity'. Northumbrian Water states that the guidance has changed and that this now requires the storm tank size to be increased from its current permit level to the modern formula of 68l/hd. It estimates that this alone would cost around £122 million, a significant proportion of the overall scope cost.[106]

[104] [OF-NES-015] Northumbrian Water, Northumbrian Water DWMP Technical Report, May 2023, p85
[105] [OF-CA-055]-Northumbrian Water, 'Appendix 1: Supporting information', March 2025, p79 (paragraph 221)
[106] [OF-CA-055]-Northumbrian Water, 'Appendix 1: Supporting information', March 2025, p79 (paragraph 224)

4.169 Initial discussions with the Environment Agency indicate that the 68l/hd requirement for storm tanks was in place prior to PR19. It was unchanged throughout AMP7 and remains unchanged in the current guidance on .GOV.107 It applies universally to all STW's including sites which discharged into a “transitional and coastal” (TraC) waterbody. We are therefore unclear as to the change in requirements that Northumbrian Water is referring to. Any shortfall in storage would normally be addressed as part of growth schemes. The PR19 U_IMP6 driver was an exception. It addressed within WINEP some legacy shortfalls in storage, at higher risk locations. The U_IMP6 guidance excluded discharges with a lower environmental risk where dilution was high including those which discharged into a (TraC) waterbody.

4.170 The current forecast dry weather flow for Howdon STW is significantly less than was forecast at PR19. Therefore, the flow increase to 271,031m3/day forecast at PR19, which was used as the basis for the design of the £91 million scheme, is likely to be more than is required. Based on the dry weather flow forecasts set out in Figure 4.13 and Figure 4.14. there appears to be uncertainty around the need for a scheme.

[107] [OF-NES-022] – Environment Agency, Water companies: environmental permits for storm overflows and emergency overflows - GOV.UK

Figure 4.13: Howdon DWF forecast PR19[108]

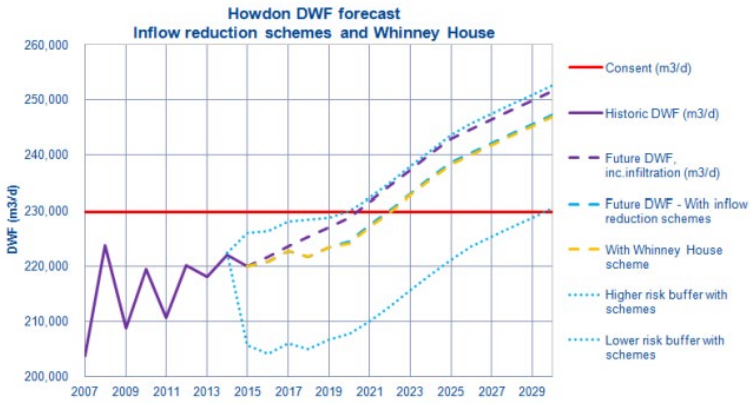
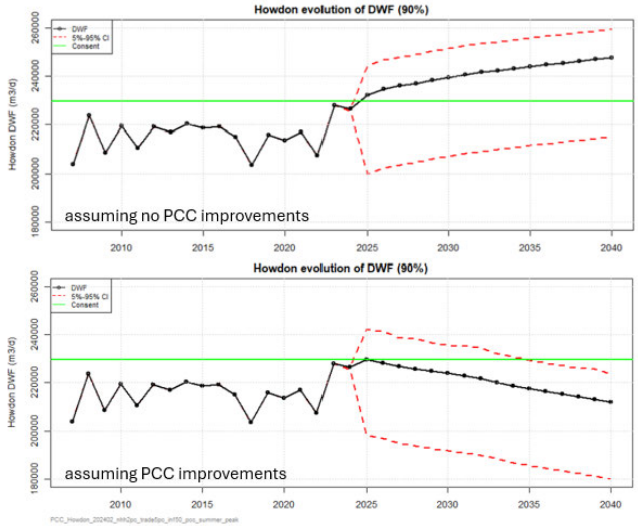


Figure 4.14: Howdon DWF forecast PR24[109]



Decision to exclude from the large scheme gated process

4.171 Northumbrian Water states that excluding the scheme from the large scheme gated process as the scheme was insufficiently developed was counter-intuitive as the stated purpose of the large gated process is to allow companies to address uncertainty for large enhancement schemes. However, the decision on whether to include the scheme

[108] [OF-NES-021] Northumbrian Water, PR19 CMI.A5(1) Additional evidence Howdon STW expansion, p3, Figure 4.14 sourced from [OF-CA-055]-Northumbrian Water, 'Appendix 1: Supporting information', March 2025, pp81-82

[109] [OF-CA-055]-Northumbrian Water, 'Appendix 1: Supporting information', March 2025, pp81-82

in the gated process should be considered alongside the point that the scheme was funded at PR19.

4.172 Given the underspend on Growth from Northumbrian Water in AMP7, even accounting for the £13.5 million PR19 non deliver adjustment applied to the PR24 Growth at STW model, customers have paid for much of the investment through cost sharing. This would usually balance out in future AMPs when Northumbrian Water would incur cost sharing on overspend if the scheme is required in PR24. However, inclusion in the gated process risks funding Northumbrian Water again, and risks customers paying twice.

4.173 If the scope of the scheme has increased and the cost is close to £329 million, we acknowledge that this is significantly above what was funded at PR19, and therefore we are supportive of inclusion of extra scope items in either the gated process or through a notified item, but as there remains significant uncertainty over the need for the scheme and the company does not provide sufficient and convincing evidence to support the revised £329 million estimate, we consider that there is potential for the scheme scope to be less than the PR19 scheme given the reduction in forecast DWF growth. Including the scheme without further evidence may encourage companies to defer timely delivery of future growth schemes which can impact economic development.

Delivering outcomes for customers and the environment

4.174 We identified one company-specific issues related to delivering outcomes for customers and the environment in Northumbrian Water's statement of case (ie performance commitment levels and outcome delivery incentives). This relates to a request from the company for resilience investment to mitigate its exposure to ODI underperformance payments due to weather-related incidents. We discuss this above in the section above in 'Expenditure allowances - response to key issue 5' and in the thematic section of the PR24 redeterminations – overview of our response to the statements of case document.

4.175 Where necessary, we respond to Northumbrian Water's comments on the outcomes framework within our PR24 redeterminations – outcomes – common issues and PR24 redeterminations – risk and return – common issues documents.

Aligning risk and return

4.176 We consider the issues raised by Northumbrian Water related to risk and return should be considered thematically. Therefore, the issues outlined below are all addressed in the PR24 redeterminations – risk and return – common issues

Table 4.7: Key issues in risk and return

Risk and return	SoC location	Where we respond	Document	Page and paragraph
The allowed return on capital	Section 1.5.5 Section 6	Risk and return document – Section 2. Overall approach to the allowed return on capital	Risk and return – common issues	Page 59

Affordability

Table 4.8: Northumbrian Water's bill increases for AMP8 (£)

Northumbrian Water	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	5yr avg.
Final determination	422	463	485	490	494	510	488
Statement of case[110]	422	463	518	523	528	545	515

4.177 Northumbrian Water set out a bill profile for the 2025-30 period, as shown in table 4.8. We note however that the company's profiling assumptions do not take into account Net Present Value neutrality, leading to a small understatement of bills of c. £1.70.

4.178 As shown in table 4.8, if all of Northumbrian's proposals in its statement of case were to be included in the redetermination, this would result in an increase for average bills over the period of £27. The gap between the forecast 2029-30 average bill under the final determination and statement of case is £35.

[110] [OF-NES-016] Northumbrian Water Bill impact financial model SOC560, tab 'Revenue and bill changes'.

4.179 Northumbrian Water also maintains the commitments it made previously to quadruple support for customers struggling to pay and ensure no customer spends more than 5% of their household income on their water bill by 2030.

5. Areas for deprioritisation

5.1 In its statement of case, Northumbrian Water indicates that there are a number of areas of our final determination that it accepts 'in the round' or has not sought to prioritise for this redetermination by CMA: base cost assessment models; enhancement econometric models; our final determination decisions on some enhancement expenditure cases; the results of our enhancement 'deep dives'; performance commitment levels (PCLs); PR19 reconciliation models; taxation.111 It also states that it is not asking the CMA to redetermine the QAA in the context of this redetermination.112

5.2 In response to the CMA's request, we have suggested in our PR24 redeterminations – overview of our response to the statements of case document that the CMA could deprioritise redetermination of a number of the PR24 price review building blocks.[113] Our suggestions include deprioritising review of our base costs assessment models, adjustments from past performance (or the PR19 reconciliation models) and QAA. We would also support the CMA deprioritising the redetermination of PCLs and ODIs for the total pollution incidents PC as we plan to consult in line with our change control process to determine whether there is sufficient reason to reset relevant aspects of this PC in view of reporting changes proposed by the Environment Agency and Natural Resources Wales.

5.3 As such, we do not agree with other suggestions from Northumbrian Water for deprioritisation from the CMA redetermination process. We reflect that both the PR24 price review process itself and the redetermination process undertaken by the CMA feature significant asymmetries, as discussed in the PR24 redeterminations – overview of our response to the statements of case, including a likelihood that companies have not proposed areas for redetermination where the potential outcome could lead to a less 'favourable' outcome.

[111] [OF-CA-055], Northumbrian Water, 'Appendix 1: Supporting information', March 2025, section 1, p3.
[112] [OF-OA-002], Northumbrian Water, 'Northumbrian Water Limited Statement of Case', March 2025, section 2.2.6, p41.
[113] Ofwat, PR24 Redeterminations - overview of our response to the statements of case, April 2025, section 5.

A1 Appendix 1: Key financial metrics

A1.1 The main body of this document sets out the key interventions that we made to Northumbrian Water's business plan. This appendix provides further detail of the calculation of the final determination where we made a number of interventions to Northumbrian Water's business plan and/or draft determination representation position. Further detail on the interventions are set out in our documentation.

Table A1.1: Key financial metrics

	Draft determination	Company view (August 2024 representation)	Final determination
Average bill (2025-30) £	442	497	488
Average bill growth (%)	11	24	21
Allowed return (%)	3.72	4.35	4.03
RCV Growth (%)	30.3	46.7	37.4
Dividend yield (%)	2	4.2	4.1
ACICR simple (ratio)	1.65	1.79	1.68
ACICR weighted (ratio)	1.67	1.78	1.68
FFO/net debt simple (%)	9.7	9.5	9.9
FFO/Net debt weighted (%)	9.7	9.4	9.9
Run off rate (%)	4.06	3.95	4.01
Post financeability revenue adj (£m)	72.1	77.8	80.6

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales.

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