

August 2026

Notification of the PR24 cost change process draft determination for Northumbrian Water

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Dear Heidi,

Cost change draft determination 2026

13 August 2026

I enclose in Appendix 1, the cost change draft determination by the Water Services Regulation Authority (Ofwat).

This draft determination is published on our website. We also publish the following documents, which support our cost change draft determination for Northumbrian Water:

- Cost change draft determinations 2026 – Sector Overview;
- Cost change draft determinations 2026 – Asset health cross cutting issues appendix;
- Cost change draft determinations 2026 – Price control deliverables (PCD) appendix;
- Cost change draft determinations 2026 – Asset health PCDs; and the
- Cost change draft determinations 2026 model and asset health model

I enclose the following additional information relevant to our decisions within the appendices of this document:

Appendix 1: Cost change draft determination

Appendix 2: Our draft determination on how Northumbrian Water's expenditure allowances are funded

Appendix 3: Our detailed assessment of, and decision on, Northumbrian Water's submitted claims.

Northumbrian Water should ensure that it reads all the information referred to above before responding to this consultation. The closing date for responding to this draft determination consultation is 24 September 2026. Northumbrian Water has published

its cost change submission on its website. We include a link to this publication on our website.

Yours sincerely,

Helen Campbell

Executive Director, Delivery

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Appendix 1: Cost change draft determination

In Northumbrian Water's 2026 cost change submission, we received seven claims across the following cost areas:

- Asset Health- boreholes
- Asset Health- water network storage assets
- Asset Health – gravity sewers inspections
- Asset Health – gravity sewers rehabilitation
- Asset Health – trickle filters
- Asset Health – settlement tanks
- Large Gated Schemes- Bran Sands Long Sea Outfall

Table 1 below provides a summary of our draft determination total cost change expenditure allowance compared to the cost change expenditure you requested in your submission. We explain our decisions in Appendix 3 of this document.

Table 1: Breakdown of the difference between Northumbrian Water's view and Ofwat view of costs (£million, 2022-23 FYA CPIH prices)

	2025-30 period	2030-35 period
Company total cost change claim	497.3	109.8
Ofwat 'insufficient evidence of need' or 'out of scope of cost change process' assessment ¹	-53.4	0.0
Company total 'in scope' cost change claim ²	444.0	109.8
Ofwat 'best option' challenge ³	0.0	0.0
Ofwat efficiency challenge ⁴	0.0	0.0
Ofwat draft determination cost change allowance	444.0	109.8

Our draft determinations include price control deliverables (PCDs) to hold Northumbrian Water to account for delivery. Our approach to PCDs is set out in the Cost Change Draft Determinations 2026 – Price control deliverables appendix.

The impact of our draft determination for revenue and RCV adjustments by price control are set out in tables 2 and 3 below.

¹ Details of costs excluded are set out in Appendix 3.

² The company's total eligible cost claim that demonstrates the need for the required step change in investment and is within the scope of the cost areas.

³ Our review of the company's evidence of optioneering and associated cost benefit analysis and that the options put forward are the best option for customers.

⁴ Our review of the company's evidence of efficient unit costs and associated methodology.

Table 2: Northumbrian Water's draft determination revenue adjustments by price control and when they apply (£million, 2022-23 FYA CPIH prices)

	Water resources	Water network plus	Waste-water network plus	Bio-resources	Total
Total in-period revenue adjustment for 2027-28	0.000	0.000	0.000	0.000	0.000
Total in-period revenue adjustment for 2028-29	0.000	0.000	0.000	0.000	0.000
Total in-period revenue adjustment for 2029-30	0.000	0.000	0.000	0.000	0.000
Total end of period revenue adjustment at PR29	2.538	8.168	31.301	0.000	42.007

Table 3: Northumbrian Water's draft determination RCV adjustments by price control (£million, 2022-23 FYA CPIH prices)

	Water resources	Water network plus	Waste-water network plus	Bio-resources	Total
Total end of period RCV adjustment at PR29	17.731	45.036	369.034	0.000	431.801

Since our draft determination does not include any in-period revenue adjustments resulting from the cost change process, there are no changes to the company's last determined price controls or customer bills⁵.

⁵ For Northumbrian Water, the last determined priced controls are those redetermined by the Competition and Market Authority.

Appendix 2: Our decisions on how we fund Northumbrian Water's expenditure allowances

Northumbrian Water originally included a request for in-period funding in its submission. However, the company wrote to us on 21 July 2026 to confirm that it wished to withdraw its request for in-period funding. It noted its profile of delivery was behind where it might have been and recognised the cost of living pressures on its customers. Noting the relatively early stage in the control period and the uncertainty in forecasts, it said it would keep the matter open and revisit the issue both when it said it would keep the matter open and revisit the issue in future.

We welcome Northumbrian Water's decision to withdraw its request having reviewed its circumstances. On this basis, the draft determination doesn't provide in-period funding, instead it means funding of the additional expenditure allowances over the period to 31 March 2030 will be funded through an adjustment to RCV at 31 March 2030 and an adjustment to revenues over the 2030-35 period.

As part of the cost change process, we assess progress by companies in delivering their existing investment programme. We set out our assessment of delivery for Northumbrian Water.

A2.1 Delivery assessment

2025-30 delivery

We reviewed the company's May 2026 delivery plan update. On balance, although we have some concerns about the company's output forecasts, overall, we consider that the company provides sufficient and convincing evidence to demonstrate that it remains on track to deliver its PR24 commitments by the end of 2025-30 period. We provide a summary of our assessment below for water and wastewater.

Water

In its May delivery plan update the company showed the following positive indicators in relation to 2025-30 delivery progress for water:

- The company showed good progress in relation to water price control deliverables (PCD) outputs, delivering above baseline target in 2025-26 (see section below on delivery in 2025-26)
- The company is expecting to release a significant proportion (82%) of its capital projects to the supply chain by the end of 2026-27.

- The company is forecasting to have 90% of its capital projects in construction or delivered by the end of 2027-28. This should provide the company with headroom to respond to unforeseen events and manage any delivery risks.
- The company remains confident that it will deliver all of its PCD outputs by the end of 2025-30 period.

However, there are still some indicators that raise concerns in relation to the company's delivery forecasts for the 2025-30 period:

- The company reported meeting only 44% of its interim milestones in 2025-26.
- The company underspent its water PCD allowances in 2025-26 by 66%, suggesting there may be some slippage in its delivery plan. The company is forecasting to underspend allowances by 3% by the end of 2025-30 period.
- The company reported it will not deliver its PCD target for water supply by the end of 2025-30 period. However, it later explained that this reflects Suffolk Strategic Network scheme which the CMA moved into Ofwat's large gated scheme process as part of its PR24 final determinations, and therefore, will no longer be included in its PCD target going forwards.

Wastewater

In its May delivery plan update, the company showed the following positive indicators in relation to 2025-30 delivery progress for wastewater:

- The company reported meeting most of its interim milestones (66%) in 2025-26.
- The company is forecasting to have 92% of its capital projects in construction or delivered by the end of 2027-28. This should provide company with headroom to respond to unforeseen events and manage any delivery risks.
- The company remains confident that it will deliver 100% of its PCD outputs by the end of 2025-30 period.

However, there are still some indicators that raise some concerns in relation to the company's delivery forecasts for the 2025-30 period:

- The company reported delivering less than PCD baseline target in 2025-26 (see section below on delivery in 2025-26).
- The company underspent its wastewater PCD allowances in 2025-26 by 63%, suggesting there may be some slippage in its delivery plan. The company is forecasting to catch-up with allowances by 2028-29 and overspend PCD allowances by the end of 2025-30 period.
- The company is only expecting to have released around 40% of its capital schemes to the supply chain by the end of 2026-27. This is significantly below

the sector average. Therefore, we have concerns that this could lead to slippage later in the 2025-30 period.

Delivery in 2025-26

Based on its May 2026 delivery plan update, the company has failed to demonstrate that it is not behind delivery in 2025-26:

- On water, the company reported delivering 9% more PCD outputs (in value terms) in 2025-26 compared to baseline target.
- On wastewater, the company reported delivering 38% less PCD outputs (in value terms) in 2025-26 compared to baseline target.

A2.2 Financeability assessment

Northumbrian Water withdrew its request for in-period funding due to the level of expenditure to date on its investment programme. Consequently, we have not assessed financeability for the company as the impact on financial ratios as a result of additional expenditure allowed through the cost change process may be offset by shortfalls in expenditure for its existing investment programme.

If the company requests in-period funding as part of a future cost change process, we will assess its financeability at that stage along with the other factors relevant to in-period funding set out in the cost change draft determinations sector overview.

Appendix 3: Our assessment of and decision on Northumbrian Water's submitted claims

This appendix sets out our detailed assessment of, and decision on each of the company's 2026 cost change claims. It should be read alongside the documents specified in the first page of this draft determination.

In its response to the draft determination, the company should confirm, to the extent that it has not already done so, which proposed schemes could impact sites of special scientific interest (SSSIs) or land in National Parks, the Norfolk and Suffolk Broads, or areas of outstanding natural beauty.

A3.1 Asset health

3.1.1 Water Network Storage Assets

Assessment criteria	Assessment	Decision	
		Criteria	Adjustment (applied and/ or conditional)
Summary of request	Northumbrian Water requests £95.5 million to; replace four service reservoirs (£83.3 million) over the course of six years; as well as; the refurbishment of two water towers (£1.7 million) over the course of three years. The company also includes an uplift of £11 million to its base allowances from PR24. The company states the programme for service reservoirs will start in April 2027 and complete by March 2033. The claim requests funding for the first three years of this programme in-period (£47.5 million), and then provisionally confirmed funding for the last three years. For the water towers, the programme is due to start April 2027 and complete by March 2030. ⁶		
Need for a step change in investment	Decision summary – Pass. The company provides sufficient and convincing evidence to demonstrate that the proposed investment meets the 'Need for step change in investment' criteria.	Pass	

⁶ Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', Section 6.5, p.70

	The estimate for 'what base buys' is low for this work.⁷ In order to protect customers from paying twice, our general approach is to recover cost change allowances where existing base allowances turn out to be sufficient. If we were to amend this approach, we would look to implement a targeted customer protection for this allowance given the concern regarding 'what base buys'. Company evidence – On service reservoirs, the company outlines a number of factors driving the need for the step change in investment, including; (i) trends in maintenance (and inspection) activity and cost; (ii) the increasing need for replacements in managing current and future risk.⁸ ⁹The company demonstrates its use of condition grade data in informing deterioration models, deriving from observation, a relationship with age for the different components of the service reservoir structures and creating survival curves to identify when a component may reach condition grade 4 and above.¹⁰ The company uses these modelling outputs, coupled with intervention costs, to predict the likely investment needs over time in this asset class. The most conservative view in the company's analysis, indicated a need to invest in eight replacement compartments during the 2025-2030 period.¹¹ Site specific information is provided, as to why the four selected assets were chosen above others.¹² This was supplemented by information in the response to a cross-company query regarding out of service assets.¹³ The company states that a combination of factors to prioritise assets for intervention were used, including condition, age, water quality risk, construction method and criticality/zonal resilience.¹⁴ The company also describe how the investment, is part of a case for increased		
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⁷ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

⁸ Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, pp. 6-7

⁹ Northumbrian Water, 'NES35A Enhancement Case Supplementary – A3-21A Service Reservoirs Replacements', August 2024, pp. 6-7

¹⁰ Northumbrian Water, 'NES35A Enhancement Case Supplementary – A3-21A Service Reservoirs Replacements', August 2024, Figure 3, p. 13 and Figure 4, p. 14

¹¹ Northumbrian Water, 'NES35A Enhancement Case Supplementary – A3-21A Service Reservoirs Replacements', August 2024, pp. 14-16

¹² Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, paragraphs 19-21; Northumbrian Water, 'NES35A Enhancement Case Supplementary – A3-21A Service Reservoirs Replacements', August 2024, Table 3, p. 20

¹³ Northumbrian Water, 'OFW-NES-CCP-012 – response', June 2026

¹⁴ Northumbrian Water, 'NES35A Enhancement Case Supplementary – A3-21A Service Reservoirs Replacements', August 2024, p. 20

	investment in its water and wastewater assets across a number of price control periods, aligned to its long-term plan, i.e. that a further step up in future price control periods, will be required to achieve a long-term sustainable replacement rate.¹⁵ For the two water towers, the company provides site specific detail of these assets in the submission and supporting documents¹⁶. Both are assigned poor condition and the company outline that their inclusion in the submission represents a "no regrets approach". Whilst initially excluded from the company's PR24 submission, the company highlight lower forecast bills than business plan (at Draft) in the North East and state that this was <i>"a further opportunity to bring forward this 'no regrets' and critical investment from AMP9 to reduce risks to customers and smooth bill increases over the longer term"</i>.¹⁷ Furthermore, the company also considers that delaying, may result in higher cost, as failure may lead to a replacement cost which is higher than the extension to life cost through refurbishment outlined in the business case.¹⁸ The submission includes a request for an uplift of £11 million, to offset the difference between forecasted base spend, and what the company has evaluated it's implicit allowance to be. The £27.52 million it has forecast in this calculation, represents £9.6 million at named sites, and £18 million for reactive repair at as yet unknown sites.¹⁹ The company includes a letter of support from the Drinking Water Inspectorate. Our assessment - The company provides sufficient and convincing evidence to demonstrate that there is a need for a step change in investment to address asset health issues at the asset class level. The company quotes increasing numbers of inspections and an increasing number of		
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¹⁵ Northumbrian Water, 'NES35A Enhancement Case Supplementary - A3-21A Service Reservoirs Replacements', August 2024, p. 22

¹⁶ Northumbrian Water, 'NES35 Enhancement Case - A3-21A Service Reservoirs Replacements', August 2024, Case study Beddingfield WTW Water Tower, p. 125; Annex 4 LIST OF CIVIL STRUCTURES IN CONDITION GRADE 4 OR 5, pp. 135-136; Northumbrian Water, 'OFW-NES-CCP-012 - response', June 2026

¹⁷ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, paragraph 11

¹⁸ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, paragraph 22

¹⁹ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, Section 2.2.5 pp. 24-26

	repairs required per inspection, alongside increasing costs per repair as an indicator of increasing need on its service reservoirs. It also identifies an increasing need for repeat repairs (of reducing effectiveness) and concerns over the long term effectiveness of liners on assets reaching end of life, such that liners are no longer considered viable (in line with best practice) in extending the life of these ageing assets. While a (maximum) ten year inspection frequency has long been baseline advice (see for eg UKWIR Good Practice Guidance²⁰), in 2022, the Drinking Water Inspectorate (DWI) shifted to enforce, where the time between asset inspections exceeded 10 years. We consider, this may be a factor, in the company's observation of increasing inspection number requirements. The company is encouraged to outline in its draft determination response, if there are other drivers to increased inspection frequency. We do not challenge the associated base uplift in this section, noting there are details given of individual named schemes amounting to £9.098 million (c.83%), with clear asset health drivers, outlined in the submission²¹. However, we do propose customer protection / outline the need for further evidence provision of the efficiency of costs (see later subsections). Asset condition, age and material have been considered to determine which service reservoirs require intervention and to predict the likely investment needs for replacement over time in this asset class, with the more conservative view indicating a need to invest in eight replacement compartments in the 2025-2030 period. The decision to invest in 4 sites (5 compartments), takes into account deliverability constraints. The reasons that these sites are appropriate for intervention, are clearly set out, and the company evidence that it has considered which assets to intervene on, on a priority basis (for example assets of material masonry, forming the greatest risk and prioritised first). One reservoir (with 2 compartments) was listed as out of service in this submission; Blakelaw. In other submissions under this asset health reopener, where an asset has been out of service since		
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²⁰ UKWIR, 'Treated Water Storage Assets: Good Practice For Operation & Management. Version 2. Report Ref No 19/RG/05/50', 2017, Table 15: Good Practice for Standardisation of Internal Inspection', p. 73

²¹ Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, Section 2.2.5 pp. 24-26

	before October 2023, Ofwat have considered these to be out of scope of the asset health claim.²² Here, as Northumbrian Water had included Blakelaw in its submission for further funding at PR24, under a cost adjustment claim, we consider the site by exception, as still within scope of this assessment. The site has been out of service since September 2022.²³ At Stoneygate, it is unclear whether the asset it is out of service, with the company stating "an older structure collapsed in 2006 and now the refurbishment needs for Stone(y)gate No2 cannot be met without a new structure on site". However, the query response indicated the asset was still in operation, indicating that the new reservoir was a replacement for Stoneygate No2 (as opposed to Stoneygate No2 being refurbished, and the replacement being for Stoneygate (No1)). The assurance report on deliverability states that the Stoneygate SR option represents a 'New 22 Ml service reservoir to be constructed at Stoneygate SR to restore Stoneygate No.1 which was abandoned'.²⁴ These apparent contradictions do not change our draft decision, but we require the company to provide clarification in its response to the draft determination, over which activities are planned at which asset at this site, now and in future. Looking across the need case for service reservoirs, the company shows some conservatism in the assessment of the number of replacements needed / scheduled for the 2025-30 period, taking account of the impacts of repair in extending asset life, alongside consideration of the practicalities of delivering a programme of replacement of these assets. The company provides sufficient and convincing evidence to demonstrate that the proposed investment meets the 'Need for step change in investment' criteria for investment funding 2025-30, and associated 2030-35 funding, for the replacement programme of listed service reservoirs and water towers. We have not assessed if the need for the step change would need to be sustained (of paragraph 114 of the submission 'step-change in investment will be sustained in order to prevent further deterioration').		
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²² Further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix', section 4

²³ Northumbrian Water, 'OFW-NES-CCP-012 – response', June 2026

²⁴ [REDACTED] '2845 NWL PR24 Deliverability Review – Service Reservoir Investment Version 2', Undated, included under Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, Appendix 7

	The need case outlined on water towers is more limited. However, as water towers represent a small percentage of the requested allowance, this is not considered a material omission. Our current analysis indicates that there is a sector-wide health issue for network storage assets. We consider that the company provides sufficient and convincing evidence to demonstrate that a step change in investment is needed.²⁵		
Best option for customers	Decision summary - Pass. The company provides sufficient and convincing evidence to demonstrate that optioneering and cost benefit analysis has been undertaken for service reservoirs. Company evidence - Northumbrian Water describe its optioneering process of developing options for service reservoirs. The company presents an unconstrained list of options for its priority sites, going through each option explaining why it has been either rejected or carried forward. Information on why 'fabricate' (replace) solutions are the only options available for service reservoirs, and therefore are the only options being carried forward, is provided²⁶. For each of the options, the company has carried out a cost benefit appraisal to select a preferred option. The company states that the preferred options have the most favourable Net Present Value (NPV). All the NPVs are shown as negative, through a query response²⁷, the company states that the submission is about maintaining good service rather than improving it, hence why there are minimal monetised benefits.	Pass	0%

²⁵ Further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

²⁶ Northumbrian Water, 'Appendix 3 – Sites options and selection process – NES35a Table 4 Expansion.xlsx', May 2026

²⁷ Northumbrian Water, Query response 'OFW-NES-CCP-007', June 2026

	For water towers, the company states that refurbishment is the only viable option. The submission refers to the PR24 asset health case and states that no alternative solutions are viable. Our assessment – The company provides sufficient and convincing evidence to demonstrate that optioneering has been undertaken for service reservoirs, as a credible high-level optioneering framework is presented. The narrative justifying why the company do not systematically present options of refurbishment (such that replace is the only intervention type proposed) is well explained and in keeping with the premise of the need outlined; ie the strategic requirement is for more replacements; these specific assets were no longer viable for short term extensions to life; and; abandonments would not meet service needs. While the company has done a cost benefit analysis (CBA), all Net Present Value (NPV) values are negative and all benefit–cost ratios are below one, indicating that no options are cost beneficial. The company provided an explanation in its query response (referenced in the company evidence), . that due to their being limited alternatives on which to compare, contrast and reject different options, we consider the CBA methodology to be of low consequence to option selection. On this basis, we consider the company provides sufficient and convincing evidence to demonstrate that the proposed investment meets the 'Best option for customers' criteria.		
Robust and efficient costs	Decision summary – Conditional pass – some concerns The company provides evidence of a general methodology that is robust and efficient. The submission is supported by a structured costing methodology, competitive procurement, external benchmarking and detailed cost breakdown, providing confidence that costs are aligned with efficient delivery. However, there are some evidential gaps at a more granular level of cost estimation and the company should provide sufficient and convincing evidence to demonstrate that the proposed costs are robust and efficient. However, there are some concerns at a solution level, that costs may be overly generic and not take into account the most up to date, site specific factors and knowledge and we identify some gaps in the supporting information in relation to the sensitivity of unit cost models. For these reasons, we apply a conditional pass.	Conditional Pass – Some concerns	10% Conditions met: £95.5 million Conditions missed:

	Company evidence - The company applies a structured costing methodology using its internal database for service reservoir cost estimates, and contractor pricing obtained through a competitive framework process for water towers²⁸. The submission includes copies of the quotations received from the framework contractor for the water tower programme. Cost estimates include direct costs, contractor overheads, projects overheads, risk and estimating uncertainty supported by detailed programme and scheme-level cost breakdowns²⁹. The submission also includes external benchmarking of costs from a third party, and benchmarking was undertaken across both service reservoirs and water towers. Our assessment - For service reservoirs, the use of internal cost models calibrated against historical delivery data demonstrates that costs are informed by actual delivery of comparable interventions, consistent with Ofwat's expectations that cost estimates are supported by historical evidence where available³⁰. The submission also includes cost breakdowns at programme level providing transparency over how estimates have been developed, and key cost drivers for the programme. For water towers, costs are derived from supplier quotations obtained through a competitively procured framework process. The company provides copies of these quotations³¹, providing transparency over the source of the cost estimates and demonstrating that costs have been tested against market rates. This provides additional confidence that the proposed costs reflect efficient delivery assumptions and supports the robustness of the estimates. Results of the external benchmarking undertaken by the third party demonstrate that costs are aligned with comparator levels. Benchmarking results are presented at the cost component level,	£85.95 million
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²⁸ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, Section 4, p. 51, figure 31

²⁹ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, Section 4.4, p. 59 and 60

³⁰ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, Section 2, pp. 56-61

³¹ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, Appendix 6 – SR and WT costing information, Document 1: 21791-Bedingford water tower budget, Document 2: 21793 – Eye water tower budget, Document 3: WT costs-2022/23 Price base and PO and EU elements.

	not just the total cost level, enabling assessment of key cost drivers and increasing confidence that cost efficiency has been tested appropriately. Service reservoir costs are reported to be in line with benchmark ranges with a variance of 2.8% on total cost and have been benchmarked across the full cost base (100%)³². Water tower costs are reported to be below benchmark levels with a variance of 23.9%, with 62% of costs externally benchmarked. The company states that the remaining 38% could not be benchmarked due to an absence in relevant benchmarking data, however the rates provided are "supported by professional judgement". While the company provides limited detail on the basis of this professional judgement, the rates used to calculate the water tower cost estimates are derived from competitively procured supplier quotes. The supplier quotes demonstrate that the cost estimates reflect the market rate, and in combination with the external benchmarking of the majority of the cost, provides sufficient and convincing evidence that costs are robust and efficient. In addition, water tower costs represent only a small proportion of the total programme cost. We have set out above that we consider the general methodology to be robust. However, in view of the limited optioneering for this business case, we have applied more scrutiny to considering costs at the solution level. While we applied a pass on best option, where only limited optioneering had been performed, we note that the preferred alternative of abandonment at Blakelaw, had a lower benefit to cost ratio than the alternative, and for other sites the benefit to cost ratio were equal amongst options (eg at Stoneygate for an option of replacement on the same land, which appeared more expensive in the assessed outcome). For costing, we have some concerns regarding the sensitivity of the models to parameter change; and whether costings are fully site and option specific.		
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³² Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026; Turner and Townsend 'Water Sector Benchmarking Club, Asset Health Benchmarking Report', May 2026.

	In costing the solutions, it appears a general yardstick approach has been taken, and it may be that more solution specific information is available than may have been taken into account. An example would be where in third party deliverability reports, solution information at a site (Stoneygate) outlines "assume existing access, security and electrical supply are all sufficient onsite" (which we interpret to mean £0 cost expectation), whereas the costed solution presented in the iMOD report, includes land purchase, security costs, new access roads and hardstandings.³³ Further to this, in a query response, the company state that all of the land is company owned, yet most of the models appear to contain land acquisition and associated survey costs.³⁴ Other queries include if the models (and benchmarking) are bespoke to replacement or represent the assumption of replacement being equivalent to new. We expect lower costs on replacements at a site than the costs of new, storage assets, and so would want confidence that benchmarking is on comparable metrics. On sensitivity, we note the change in costs from the decision by the Competition and Markets Authority, was attributed in some part by parameter change in models (e.g. change from precast to insitu concrete design in modelling assumptions).³⁵ However, without visibility of the data underpinning the different models and the confidence assigned to the costing curves, this creates some uncertainty about the confidence of the cost estimates. Taken together, these raise concerns that there are some evidential gaps. To achieve pass at final determination, the company should provide sufficient and convincing evidence to demonstrate robust and efficient costs in its response to the draft determination . This additional evidence could include:		
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³³ Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, Appendix 7, Table 2

³⁴ Northumbrian Water, Query response 'OFW-NES-009', June 2026, p. 4; iMOD reports by site

³⁵ Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, Section 4.2

	• Confirmation that all site specific information has been taken into account in the costings (such as where land purchase is and isn't required) • Confirmation of if the models (and benchmarking) are bespoke to replacement or represent the assumption of replacement being equivalent to new and if benchmarking is on comparable metrics. • Further information on changes in parameters in the unit cost models, that have driven cost increases since CMA representation, providing the associated data, and confidence ranges. If supporting evidence is not provided, we may apply a 10% cost efficiency challenge at final determination to the requested costs.		
Customer protection	Decision summary – Adequate. The company provides sufficient and convincing evidence to demonstrate that customers will be protected if the company under-delivers against the investment. Company evidence – The company proposes Price Control Deliverables (PCDs) that cover both the investment that will be delivered by existing PR24 base expenditure allowances, and the investment delivered through the requested additional allowance. Both the investment that will be delivered by PR24 base allowances and the investment through additional allowances is defined at the scheme level.³⁶ The company proposes two PCDs, one for Service Reservoirs and the other for Water Towers. Separate unit rates for different schemes are provided, aligned to the cost of scheme delivery. No time incentive has been proposed for early delivery. Our assessment – The company's proposed non-delivery PCDs are in line with our expectations set out in the Asset Health assessment guidance and aligns to the approach set out in the PR24 Final Determinations. If the company under-delivers, the funding will be returned to customers.	Adequate	

³⁶ Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, p. 64

	We have applied time incentives to the proposed investment as it has met our criteria to do so. Further information on our approach to applying time incentives can be found in the Cost Change Draft Determinations 2026 – Price control deliverables appendix.		
Investment delivery plan	Decision summary – Adequate. The company provides sufficient and convincing evidence to demonstrate that the programme is deliverable. Company evidence - The company provides evidence that the design and delivery risks are being considered through the inclusion of an example water tower risk register³⁷ and service reservoir risk register³⁸. The company provides a detailed delivery programme³⁹. For the service reservoirs this programme shows a start date of May 2027 and a completion date of April 2033. For the water towers this programme shows a start date of April 2027 and a completion date of March 2030. The assurance report on deliverability conducted in 2025, determined that the replacement of the service reservoirs was highly deliverable in four years in AMP8⁴⁰. Given the later start date, the company has since added 2 years contingency, to create a six year programme rather than four. There is limited evidence provided of engagement with local planning authorities or other local stakeholders. The company's query response⁴¹ states engagement with landowners was not considered relevant to the purposes of the submission as the company already own the land on which the assets will be built. The response also states that engagement with the Environment Agency was not considered relevant as the replacements do not require abstraction licence changes or discharge permits. Our assessment - The company provides sufficient and convincing evidence to demonstrate that the programme is deliverable within the timeframes stated within the submission. The company has produced a credible delivery plan and risk registers.	Adequate	

³⁷ Northumbrian Water, 'Appendix 4b - WN026_0065-000-DOC-PCD-A08-001 Risk Register - WT refurbishment sub-programme', May 2026

³⁸ Northumbrian Water, 'Appendix 4a - Early example of risk register - WN106_755-000-DOC-PCD-A00-000 Auton Stile SR Replacement', May 2026

³⁹ Northumbrian Water, 'Appendix 5 - Delivery Programme - Service Reservoirs and Water Towers', May 2026

⁴⁰ Northumbrian Water, 'Asset Health Investment Case 2026 - Service Reservoirs and Water Towers', April 2026, Section 6, p. 67

⁴¹ Northumbrian Water, Query response 'OFW-NES-009', June 2026, p. 4

	Whilst there is a lack of engagement with stakeholders, the company's query response appears to give sufficient detail on why current stakeholder engagement is not required. This appears contradictory to information in the main submission, which reference risks of planning permission and land availability as well as site ecology and archaeology; and; the detailed cost breakdowns, which include land purchase costs ⁴² . However, overall , the company provides sufficient and convincing evidence to demonstrate that the programme is deliverable.		
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3.1.2 Boreholes

Assessment criteria	Assessment	Decision	
		Criteria	Adjustment (applied and/ or conditional)
Summary of request	Northumbrian Water request £53.98 million of funding for a borehole investment programme over six years (2027 to 3033). £47.1 million of this request, is proposed for targeted redrill and refurbishment activities at 19 high risk, condition grade 4 and 5 borehole assets, across Suffolk and the Northeast. A further £6.9 million is requested in additional allowance for activities currently allocated to the base spend programme for the 2025-2030 period. The company identify no operational expenditure (OPEX) savings through repairs saved in their investment plan. Our conclusions on the scope of the assessment / requested allowance; the assessment and associated decision applies to the full forecasted cost presented for delivery of the scheme (i.e. £53.978 million). Bill impacts, are assessed on the proportion		

⁴² Northumbrian Water, 'Asset Health Investment Case 2026 – Service Reservoirs and Water Towers', April 2026, paragraphs 238 and 239

	of expenditure allocated to the 2025-2030 period (AMP8), pre deductions for out of scope elements and challenge (£28.008m). Source data for deductions are documented, alongside any assumptions in how these are profiled. The level of precision is matched to the level of precision of source data provided by the company in their submissions. This may be rounded for reporting purposes.		
Need for a step change in investment	Decision summary – Pass. Following exclusion of investment items that are out of scope of the asset health cost change process⁴³ (£10.543 million), the company provides sufficient and convincing evidence to demonstrate that the remainder of the proposed investment (£43.434 million), meets the 'Need for step change in investment' criteria. £19.010 million is assessed as the contribution in the 2025-2030 period (AMP8). It should be noted that values used in considering bill impacts, use a value of £18.798 million; a result of using a different assumption of profiling between investment periods. Subject to representation, values will be amended to this amount at final determination. The estimate for 'what base buys' is low for this work. ⁴⁴ In order to protect customers from paying twice, our general approach is to recover cost change allowances where existing base allowances turn out to be sufficient. If we were to amend this approach, we would look to implement a targeted customer protection for this allowance in light of the concern regarding 'what base buys'. Company evidence – The company presents evidence of dedicated boreholes investment at an average of £333,000 per year over the past 10 years, showing a relative increase between investment periods 2015-2020 (AMP6) and 2020-2025 (AMP7). The company note that costs are most often reactive, and often more costly as a consequence. The company do not consider the implicit allowance to be adequate for proactive maintenance, identifying a required level of base expenditure over the current investment period of £8.7 million, compared with an implicit allowance of £1.8 million.	Pass	£10.543 million Excluded as out of scope 0% challenge on £43.434 million in scope request

⁴³ See 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix', section 4, for further detail of the general rationale that applies to out of scope elements, and assessment section below for details of the assets removed.

⁴⁴ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix', section 3

	The company states that this level of funding covers only limited refurbishment activities, leaving a residual risk gap, and adds this offset in available funding to its funding request. The remaining proposed investment is to address additional refurbishment, redrilling, deep clean and headworks refurbishments. The company states that investment is needed because recent inspections and the Asset Health Roadmap have identified 19 boreholes in condition grades 4 or 5, indicating poor or critical condition. It states that these assets face risks including corroded linings and casings, turbidity, reduced yields, structural failure, collapse and contamination ingress, with potential consequences for water supply, treatment works output and water quality. The company states that modelling indicates around 50% of boreholes reach CG4 or worse by age 66⁴⁵, with around 21 of 64 boreholes already expected to be CG4/5 and around three more per AMP forecast to deteriorate without intervention.⁴⁶ Based on these factors, the company states the need for 19 priority borehole interventions.⁴⁷ In its proposals, the company provides a breakdown of costs and activities, which allow for the assessment of works in scope of the asset health reopener⁴⁸. Our assessment – There are two components to the company's request; (i) targeted redrill and refurbishment; and; (ii) an uplift representing higher spend requirements on base in PR24, than the company's assessment of implicit allowance.		
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⁴⁵ Northumbrian Water, 'PR24 Cost Change Submission – Asset Health – Boreholes', May 2026, paragraph 82, Section 2.4.1, p. 27

⁴⁶ Northumbrian Water, 'PR24 Cost Change Submission – Asset Health – Boreholes', May 2026, paragraph 84–86, Section 2.4.2, p. 28

⁴⁷ Northumbrian Water, 'PR24 Cost Change Submission – Asset Health – Boreholes', May 2026, paragraph 13, Section 2, p. 7

⁴⁸ Northumbrian Water, 'PR24 Cost Change Submission – Asset Health – Boreholes', May 2026, Figure 9, 10, and 30; Query Response ref, 'OFW-NES-CCP-006 – response'; and Northumbrian Water, 'iMOD Reports', submitted as supplementary information to the companies PR24 Cost Change Submission.

Prior to assessing the need request, we first exclude costs, which are considered out of scope from these two elements. We propose to exclude:

£5.7 million of investment from the base spend cost proposal; three schemes which are at the tail end of their delivery from work started in last investment period, Wells and Bores Minor Works programmes (considered to be part of standard reactive maintenance⁴⁹) and North Dalton pumping control asset (stand alone and not related to works at an associated borehole). This means that the expenditure request from one site from the base investment plan programme remains to be considered within the cost change process ([REDACTED] replacement – at a cost of £ 1.2 million);

£4.8 million for assets that were out of service prior to October 2023⁵⁰

The sites, costs and associated exclusions by investment period, from the request are as set out below

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

⁴⁹ See 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix', section 4 for further detail.

Source Data: Query Response ref, OFW-NES-CCP-006 – response (for date out of service); Mar 26 iMOD Reports (cost & price base information); Appendix 5 – Delivery Programme – Asset Health Investment Case – Boreholes (for scheme delivery dates), 'PR24 Cost Change Submission – Asset Health – Boreholes', May 2026, Figures 9 and 10, Data Table Submission NES-CCP-011 – Query – V05. In our guidance,⁵¹ we said that investment proposals may be required to: address a step-change in direct risks to assets from external factors; address a step change in risk because of higher than expected rates of deterioration; and/or address high consequence risks for assets that require infrequent but major investment. In our assessment, we do not consider that the Wells and Bores Minor Works programmes, nor the completion of works started during the last investment period, meet these criteria. We also consider that activities associated with sites that are out of recent service are unlikely to pose a (loss of service) risk that would need addressing outside of standard price review submission windows.⁵²							

⁵¹ Ofwat, '[Asset-Health-Assessment-Guidance.pdf](#)', December 2025, p. 6

⁵² See 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix', section 4 for further detail

	The need for investment is supported by our assessment that there is a sector-wide health issue for boreholes. This indicates that poor health of boreholes reflects a broader, systemic challenge which may require additional allowances.⁵³ The company provides sufficient and convincing evidence to demonstrate a 'Need for a step change in investment' criteria for the remaining proposed investment (£43.434 million, of which £19.010 million is associated with investment period 2025-30). The company provides evidence of deterioration modelling showing that on average 3 assets per five-year investment period, are expected to progress to condition grade 4 or 5, and show that there are currently 19 assets with a condition grade of 4 and 5 that require immediate investment. Asset related risk and future pressures are well described, and the company clearly aligns the need for borehole investment with long-term planning frameworks, including Water Resource Management Planning Guidelines 2024 (WRMP24), climate change adaptation strategy, and asset health roadmap processes. It demonstrates that groundwater assets remain critical to long-term supply resilience, particularly in water-stressed regions, and explicitly links increasing demand, licence reductions, and climate pressures to a requirement for improved borehole reliability and proactive renewal. It is evidenced that future conditions differ materially from the past due to population growth, abstraction licence reductions, climate change impacts (e.g. drought, saline intrusion), and reduced operational headroom, which together constrain the ability to maintain assets reactively and necessitate earlier intervention. The company demonstrates the need at each site, based on the specific asset condition and deterioration.		
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⁵³ See 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix', section 4 for further detail

	The company's view of 'what base buys' (implicit allowance) across its asset proposals is lower than a view of what base buys based on historical sector expenditure rates. ⁵⁴		
Best option for customers	Decision summary – Conditional Pass. The company provides sufficient and convincing evidence that optioneering has been undertaken, but does not demonstrate the proposed investment represents the best option for customers. In its response to the draft determination, the company is required to provide additional evidence that the proposed investment is the best option for customers. Company evidence – The company identifies a broad range of intervention options including refurbishment, relining, and replacement. The company outlines a structured optioneering process and states the alignment to the Green Book principles.⁵⁵ The company sets out a range of additional operational and service benefits, including improved supply resilience, reduced risk of asset failure, improved water quality, and avoidance of reactive and inefficient interventions such as tankering. The company states that the proposed interventions will enable duty/standby configurations, allowing maintenance to be undertaken without interrupting supply, which is currently not possible at many sites due to limited headroom and single-source dependencies. The evidence provided also demonstrates broader system benefits, including supporting compliance with WRMP24 supply-demand balance requirements and maintaining deployable output under growth and licensing constraints, improving long-term network resilience. Our assessment –The company outlines a structured optioneering process and range of options, including site specific options. However, the company does not provide quantified or monetised estimates of these benefits and therefore does not clearly demonstrate that the selected options present the best value option for customers.	Conditional Pass	10% Conditions met: £43.434 million Conditions missed: £39.091 million

⁵⁴ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix', section 4

⁵⁵ Northumbrian Water, 'PR24 Cost Change Submission – Asset Health – Boreholes', May 2026, paragraph 116, Section 3.1 (p. 36) referring to "The Green Book: Central Government Guidance on Appraisal and Evaluation, HM Treasury, 2022".

	While a cost-benefit appraisal is referenced, the underlying assumptions, inputs, and outputs of the benefits appraisal are not transparently presented, limiting the ability to assess whether the proposed solution represents best value. To achieve a Pass at Final Determination, the company must provide sufficient and convincing evidence of: Borehole cost benefit analysis (CBA) outputs, including evidence of the specific benefits applied in the CBA process (e.g. environmental, compliance, service etc.) to demonstrate why the preferred solutions are best value for customers. Borehole cost benefit analysis for wider intervention solutions considered, e.g. refurbishment If this sufficient and convincing evidence is not provided, we will apply a 10% cost challenge to reflect that evidence presented does not demonstrate that the proposed solutions represent the best option for customers.		
Robust and efficient costs	Decision summary – Pass. The company provides sufficient and convincing evidence to demonstrate the proposed costs are robust and efficient. Benchmarking indicates that costs are materially below competitor levels and the methodology presented provides confidence that the overall cost estimates represent efficient delivery. Company evidence – The company applies a structured cost estimation methodology using their bespoke internal costing tool, drawing on large datasets of historical projects⁵⁶. The methodology provided includes direct costs, contractor overheads, project overheads, risk and estimating uncertainty, supported by detailed scheme-level cost breakdowns and individual iMOD reports for each project showing all aspects of the	Pass	0%

⁵⁶ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, pp. 51-54

	cost build up⁵⁷. The company has undertaken external benchmarking through a third-party, incorporating comparisons across both direct and indirect cost components⁵⁸. Our assessment - The company provides sufficient and convincing evidence to demonstrate that its costing approach is robust. The methodology is based on historical delivery data, detailed cost breakdowns have been provided giving visibility of both direct and indirect costs. 100% of costs have been externally benchmarked with results showing that costs are materially below comparator levels. Results of the benchmarking are also presented at the individual project level providing further transparency on the efficiency of cost estimates. This provides strong evidence that costs are not overstated and are broadly efficient. The company has therefore provided sufficient and convincing evidence that costs are robust and efficient.		
Customer protection	Decision summary – Adequate The company provides sufficient and convincing evidence to demonstrate that customers will be protected if the company under delivers against the investment. Company evidence - The company proposes Price Control Deliverables (PCDs) that covers both the investment that will be delivered by existing PR24 base expenditure allowances, and the investment delivered through the requested additional allowance.⁵⁹ Both the investment that will be delivered by PR24 base allowances and the investment through additional allowances are defined at the scheme level. The company proposes a PCD which will ensure delivery of nineteen new, surveyed or refurbished boreholes.⁶⁰ Separate non-delivery unit rates for different schemes are provided, aligned to the allowance assigned to each borehole. The proposed PCD is an end-of-period adjustment.	Adequate	

⁵⁷ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, supporting documents- IMOD report R1

⁵⁸ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, p. 53, Figure 31

⁵⁹ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, p. 55

⁶⁰ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, pp. 56 - 57

	The company proposes to apply time incentives for projects due for completion in the 2030-35 period only. ⁶¹ Our assessment - The company's proposed non-delivery PCDs are in line with our expectations set out in the Asset Health guidance document. If the company under-delivers, the funding will be returned to customers. We have applied time incentives to the proposed investment as it has met our criteria to do so. Further information on our approach to applying time incentives can be found in Cost Change Draft Determinations 2026 – Price control deliverables appendix.		
Investment delivery plan	Decision summary – Some gaps. The company provides sufficient and convincing evidence that the proposed investment is deliverable at a programme level, however in its response to the draft determination the company should provide evidence that scheme specific delivery risks have been considered. Company evidence - The company provides a six year borehole replacement programme delivery plan, showing the delivery activities and timeline for all proposed schemes up to 2033. ⁶² The company also provides a detailed delivery risk assessment at a programme level with the effect and mitigations for all the risks. ⁶³ The company states that the borehole replacement programme will be delivered by the Living Water Enterprise (LWE), an existing partnership between the company and their strategic delivery partners. ⁶⁴ It states that they have engaged with the Drinking Water inspectorate (DWI), but engagement with local authorities will take place in the first stages of project delivery. ⁶⁵ Our assessment - The company provides a detailed delivery plan and evidence of supply chain engagement, demonstrating at a programme level the proposed schemes are	Some gaps	

⁶¹ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, p. 59

⁶² Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026 – Appendix 5 - Delivery Programme

⁶³ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026 – Appendix 3 - Boreholes Risk Assessment

⁶⁴ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, p. 61

⁶⁵ Northumbrian, 'Asset Health Investment Case- Boreholes', May 2026, p. 62

	deliverable. However, no evidence of asset specific delivery risks is provided and some schemes proposed are not yet in planning therefore the need for land purchase or lease is not yet known or finalised (creating a delivery risk). In its response to the draft determination the company should provide evidence that scheme specific delivery risks have been considered.		
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3.1.3 Gravity sewers inspections

Assessment criteria	Assessment	Decision
Approach and Robust and Efficient Costs	Decision summary The company has provided sufficient and convincing evidence that its sampling approach is appropriate and that its costs are efficient. We provide the full allowance.	Pass
Customer Protection	Decision summary – Adequate. The company provides sufficient and convincing evidence that customers will be protected if the company under-delivers against the investment. Company Evidence – The company proposes a price control deliverable (PCD) that cover the investment that will be delivered through the requested additional allowance. The additional allowance will fund a programme of random and representative inspections covering 0.5% of the company's gravity sewer network. This PCD consists of a single element to ensure delivery of gravity sewer length inspections. The company provides a single non-delivery PCD rate for inspections. Our assessment – The company's proposed non-delivery PCD is in line with our expectations, as set out in the asset health guidance document, and aligns to the approach set out in the PR24 Final Determination. If the company under delivers, the funding will be returned to customers.	Adequate

3.1.4 Gravity sewers rehabilitation

Assessment criteria	Assessment	Decision	
		Criteria	Adjustment (applied and/ or conditional)
Summary of request	Northumbrian Water is requesting an additional £146.3 million of funding across the 2025-30 period (AMP8) to deliver a programme of 233km gravity sewer rehabilitation and replacement. This includes 125.9km of sewer relining and 46.1km of pitch fibre sewer replacement, alongside an uplift to deliver 61km of AMP8 base-funded rehabilitation activity, resulting in a total programme of 300km of sewer rehabilitation across AMP8. The proposal aims to increase the rehabilitation rate from 0.19% to approximately 0.25% per annum, aligned with deterioration modelling, indicating that around 71.9k meters per year is required to mitigate the forecast emergence of condition grade 4 and 5 sewers to maintain asset health in the long-term and to prevent further deterioration.		
Need for a step change in investment	Decision: Partial Pass. The company provides sufficient and convincing evidence that the majority of the proposed investment meets the 'Need for a step change in investment' criteria for additional asset health investment for its gravity sewer assets. The company's estimate of 'what base buys' is low for this work. ⁶⁶ We propose to exclude £39.655 million of costs that are potentially overlapping with base allowance expenditure. The company based its estimate of what base buys on kilometres of gravity sewer rehabilitation activity, whereas most other companies adopted an expenditure-based approach. We have adjusted Northumbrian Water's estimate using a triangulation of the historical sector mean and sector median expenditure-based benchmarks. ⁶⁷	Partial Pass	£39.65 million or 27.10%

⁶⁶ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

⁶⁷ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

	Company evidence – Historical analysis demonstrates that the company has higher rehabilitation rates (0.19%) when compared to the sector average (0.07%) and links this to improved performance outcomes such as reduced pollution incidents and sewer flooding. The company provides modelling outputs showing future deterioration, with an average of 55.7km of sewers entering condition grade 4 and 5 annually, increasing to 71.9km when scaled and adjusted. To quantify the current condition risks in its analysis, the company states that approximately 20% of its network (4,158km) is in poor condition, with a high proportion of condition grade 4 and 5 sewers. Additionally, the company highlights pitch fibre sewers as high-risk assets that are exceeding their design life by linking the risk of failure and the associated service impact. The proposal also includes approximately £34.8 million associated with AMP8 base plan activity which the company states is due to a structural funding gap to deliver approximately 26km/year in its AMP8 base plan. The company provides detailed analyses supported by its deterioration modelling and asset prioritisation tools to link the rehabilitation of grade 4 and 5 sewers to reductions in pollution and flooding risks. Our assessment- We do not accept the company's view of 'what base buys' (implicit allowance) for gravity sewer rehabilitation.⁶⁸ We instead propose our view of 'what base buys' of £77.315 million, an increase of £39.655 million. This provides reassurance that the requested investment is incremental to base allowances, and that customers are not paying twice for investment. The company provides sufficient and convincing evidence that the proposed additional investment through increased renewals is required to prevent deterioration in asset health over the long-term. It shows that historical investment has been sufficient to maintain stable performance levels for collapses, flooding and pollution, but its data shows that structural defects are increasing. The risk-based prioritisation also strengthens the case for targeting pitch fibre sewers as they are high-risk assets. Forecast models show		
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⁶⁸ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

	deteriorating performance without an increase in renewal rates. This demonstrates a change in asset risk in the future and that a step change in investment is required.		
Best option for customers	Decision – Pass. The company provides sufficient and convincing evidence that the proposed investment meets the requirements for 'Best option for customers' for additional asset health investment. Company evidence: The company outlines a structured optioneering approach at programme level as opposed to location-specific schemes. The company states that they have developed a long list of unconstrained options and identifies five scenarios, from do nothing to accelerated rehabilitation, and quantifies impacts on service risk and asset condition as the five-shortlisted options (Option A to Option E). The company also applies deterioration and prioritisation modelling to assess impacts on flooding, pollution, blockages and collapse risk to identify Option C (0.25% rehabilitation rate) as the preferred option, representing a “no deterioration” scenario over a three-year period to outpace the forecast rate of deterioration and deliver a risk reduction for customers and the environment. In its optioneering, the company also associates the shortlisted options with service performance risk such as flooding and pollution, which is consistent with customer preferences. The preferred solution is described in terms of km and cost of rehabilitation over the next three years, plus a longer term 25-year profile, split by pitch fibre sewer replacement and sewer network relining. The company also provides a table to estimate the likely service improvements that could be achieved through these rehabilitation activities.⁶⁹ Our assessment: The company provides sufficient and convincing evidence that the proposed option is appropriate and proportionate. While the company's submission demonstrates that it considered a relevant range of intervention scenarios and options, and the use of modelling to assess impacts on both asset condition and service outcomes, there is limited evidence of a fully unconstrained longlist and filtering process, leading to reduced	Pass	0%

⁶⁹ Northumbrian, 'Asset Health Investment Case – Gravity Sewers', May 2026

	comparability between options. However, the company provides a clear rationale for selecting a “no deterioration” pathway as their preferred option to align with its long-term strategy. In its query response, the company also explains clearly why it does not provide a quantified cost-benefit ratio for each shortlisted option. Although this limits transparency on relative benefit-cost ratios, the optioneering approach is adapted to reflect asset condition. Taking into account the evidence provided, and acknowledging the limited range of options available for sewer rehabilitation, alongside the outcome of the robust and efficient cost assessment, we consider that overall the company has provided sufficient and convincing evidence that it has arrived at the most appropriate solution for customers, and so we pass the investment against the best option for customers criteria.		
Robust and efficient costs	Decision – Pass. The company provides sufficient and convincing evidence that the proposed costs are robust and efficient. The submission is supported by contractor framework rates, supply chain pricing, independent benchmarking and detailed cost breakdowns demonstrating that costs are efficient. Company evidence -The submission applies a combination of bottom-up and top-down costing methodologies using contractor framework rates, supply chain inputs and external benchmarking undertaken by a third-party. Bottom-up estimates are informed by contractor engagement and include project management and permitting allowances. Top-down estimates are informed by independent third-party cost estimates. The submission includes benchmarking across 100% of gravity sewer costs. Benchmarking results compare company rehabilitation and replacement costs with external comparator data derived from five comparator companies. The submission also includes detailed programme-level cost breakdowns covering supply, installation, risk and uncertainty allowances and sets out the assumed mix of rehabilitation and replacement activities. Our assessment - The submission provides sufficient and convincing evidence that the costing methodology is robust. The use of contractor framework rates and supply chain pricing demonstrates that costs are informed by market-tested rates, while the inclusion of	Pass	N/A

	external benchmarking provides an independent point of comparison. The submission also demonstrates a clear relationship between engineering scope and cost through detailed breakdowns of rehabilitation and replacement activities and the assumptions used to develop programme costs. Benchmarking has been undertaken across the full cost base and demonstrates that the company's blended estimate of approximately £609 per meter is below the external benchmark of approximately £686 per meter. This indicates that costs are broadly aligned with, and in aggregate below, comparator levels. The proposed unit cost of approximately £628 per meter is also below the benchmark value and is considered efficient. The submission provides clear visibility of the principal cost drivers through detailed programme-level cost breakdowns and demonstrates how costs relate to the proposed intervention mix. This improves transparency and enables costs to be traced back to the underlying engineering scope. While the submission does not fully explain why a simple midpoint was adopted between the company estimate and benchmark estimate, the resulting allowance remains below external benchmark levels. As a result, this does not materially undermine confidence in the efficiency of the proposed costs. The submission therefore provides sufficient and convincing evidence that costs are robust and efficient, and no cost challenge is applied at draft determination.		
Customer protection	Decision – Adequate. The company provides a reasonable framework to protect customers in the event of under-delivery of the proposed investment. Company evidence – The company proposes Price Control Deliverables (PCDs) covering both the investment to be delivered through existing PR24 base expenditure allowances and the investment delivered through the requested additional allowance. The investment delivered through both base and additional allowances is defined by km of sewers rehabilitated. The company proposes three interventions: two rehabilitation interventions, one delivered through the base allowance and one through the additional allowance; and pitch fibre replacement, delivered through the additional allowance. It provides separate non-delivery	Adequate	N/A

	PCD unit rates for each intervention, each aligned to the allowance for that activity. Our Assessment - The company's proposed base PCD is in line with our expectations set out in the Asset Health assessment guidance. However, we intend to impose an expenditure-based PCD for base allowances to provide flexibility and ensure consistency across all companies. The company's proposed non-delivery PCD tied to the requested additional investment is also reasonable and provides appropriate protection for customers against under-delivery. Further details relating to the proposed PCD are set out in the Cost Change Draft Determinations 2026 – Price control deliverables appendix.		
Investment delivery plan	Decision summary - Adequate. The company provides sufficient and convincing evidence to demonstrate that the programme is deliverable. Company evidence - The company provides an AMP8 investment delivery statement⁷⁰ supported by relevant PCDs RAG status⁷¹ to demonstrate its AMP8 programme is on track. The company describes its method for assessing each programme to identify the appropriate delivery route⁷². It also provides a detailed delivery profile and risk information for the gravity sewer rehabilitation programme⁷³, demonstrating that risks are considered throughout the planning and delivery phases. It provides a phased delivery programme for the 2025-30 period, including evidence of the current inspection programme to enable the work to proceed. Evidence of early-stage development including current and future supply chain capacity analysis and engagement with Environment Agency is also provided. Our assessment - The company provides sufficient and convincing evidence that its proposed investment is deliverable in the timescales proposed. The company demonstrates clear identification of key delivery risks (e.g. financial, supply chain, ecology); appropriate	Adequate	N/A

⁷⁰ Northumbrian water, 'Cost Change Submission', May 2026

⁷¹ Northumbrian Water, 'NES - Delivery Plan Tables - May 2025 update', May 2026, "Common PCD, DPB1"

⁷² Northumbrian water, 'Cost Change Submission', May 2026, p. 14, section 5.3

⁷³ Northumbrian water, 'Appendix 2 - Gravity Sewers Delivery Risk Register', May 2026

	mitigation strategies for any delivery risks; and alignment between programme scope and delivery capacity and/or materials availability. It also provides sufficient and convincing evidence that the delivery timescale of its gravity sewer rehabilitation is realistic, when considering the risks of supply chain constraints, and the inclusion of appropriate risk mitigation to avoid delays.		
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3.1.5 Trickle filters

Assessment criteria	Assessment	Decision	
		Criteria	Adjustment (applied and/ or conditional)
Summary of request	Northumbrian Water requests £53.66 million additional funding for trickle filter asset health investment over the 2025–2030 period (AMP8). The programme comprises 55 interventions across multiple wastewater treatment works. The programme comprises refurbishment, structural remediation and replacement of deteriorated filter beds, walls, structures and associated civil assets where condition deterioration is creating increasing operational, environmental and resilience risks. Barkers Haugh Wastewater treatment works (WwTW) trickle filter repair and replacement represents the largest scheme valued at £10.621 million in total.		
Need for a step change in investment	Decision – Pass. The company provides sufficient and convincing evidence that the proposed investment meets the 'Need for step change in investment' criteria. The company's estimate of 'what base buys' is low for this work. ⁷⁴ In order to protect customers from paying twice, our general approach is to recover cost change allowances	Pass	0%

⁷⁴ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

	where existing base allowances turn out to be sufficient. If we were to amend this approach, we would look to implement a targeted customer protection for this allowance in light of the concern regarding 'what base buys'. Company evidence - The company provides condition assessment evidence identifying a list of trickle filter assets in poor structural condition, supported by inspection records and deterioration modelling. It determined that 75 of 437 trickle filter assets are condition grade 4, with deterioration modelling showing an additional 16 trickle filter assets becoming grade 4 by the end of the 2025-30 period⁷⁵⁷⁶. Site-specific examples include filter walls exhibiting cracking and movement, media retention defects, concrete degradation and recurring leakage requiring repeated repairs. The company explains that intervention is required now to avoid increasing deterioration, which is associated with greater risk of asset failure, environmental and compliance risk. The company states that intervention requirements and cost will increase in the future if not actioned now. The company also explains that base expenditure is focused on reactive maintenance rather than major works. Our assessment - The need for investment is supported by our assessment that there is a sector-wide health issue for trickle filters. This indicates that poor health of trickle filters reflects a broader, systemic challenge which may require additional allowances.⁷⁷ The company provides sufficient and convincing evidence of the requirement for a step change in investment. The need case is supported by multiple sources of information including condition data and deterioration profiles. The evidence indicates that asset risks are increasing and that routine maintenance is unlikely to provide a sustainable long-term solution. The company provides sufficient and convincing evidence to demonstrate a clear need for additional investment above base allowances. While some overlap may exist with the description of interventions with base activities, this does not materially undermine the need case. Overall, the evidence demonstrates that risks		
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⁷⁵ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, p.8

⁷⁶ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, p.25

⁷⁷ Further detail can be found in the 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

	are both current and increasing and require intervention. The company supports the need for investment by explaining the risks associated with asset condition, though the risk analysis appendix appears incomplete⁷⁸. However little evidence is provided for other risks beyond asset condition (for example climate change). For future cost change submissions, we would expect the company to provide better evidence to demonstrate wider risks on its asset base, as required in the asset health guidance. The company's view of 'what base buys' (implicit allowance) across its asset proposals is lower than a view of what base buys based on historical sector expenditure rates.⁷⁹		
Best option for customers	Decision – Conditional Pass. The company does not provide sufficient and convincing evidence that the proposed programme of interventions represents the best option for customers. Company evidence– The company describes a high-level optioneering framework and states that a “suite of unconstrained intervention options” have been developed and that “interventions will be selected to provide the most long-term, cost-efficient extension of asset life”⁸⁰. The company provides evidence that intervention scope has been based on a worst-case, likely and best-case approach. The company provides detailed intervention scope and breakdown of cost. The company also provides scope and costs for enabling works as part of intervention cost buildup, such as overpumping or hire tanks, and the associated duration these enabling works are required for. Our assessment – There is limited evidence of scheme-level optioneering or cost-benefit analysis. The company does not provide sufficient and convincing evidence that it considered an unconstrained set of potential credible options over a range of intervention types to meet the identified need. It is therefore unclear to what extent optioneering has been undertaken beyond a best case, worse case and most likely case set of options. While	Conditional Pass	0%

⁷⁸ Northumbrian Water, 'Appendix 13 – NWL Civil Assets Risk Analysis', May 2026

⁷⁹ Our assessment and further detail can be found in the 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

⁸⁰ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, p.30

	optioneering is referenced, and a methodology explained in the submission, this appears to be based on PR24 and with few updates made for this Cost Change Process. The company also provides a conflicting account of enabling works requirements for some interventions. The cost for enabling works has been included in its submission; however, for some interventions, supporting documents state that these works were not required. The company later clarified via a query response that all enabling works were required and the supporting documents were incorrect⁸¹. The company does not provide sufficient and convincing evidence that sufficient options were considered, and that the best option was selected, and this is demonstrated by Barkers Haugh WwTW. The company proposes the full replacement of two trickle filters, and the repair of another⁸². This is despite the asset condition assessment provided by the company stating these structures are only 23 years old⁸³. This would represent an early replacement for a civil asset. The company attributes this poor condition to a leaking construction joint, but does not provide sufficient evidence or optioneering demonstrating why repair of these leaks is not viable / has been discounted. Decision—We have some concerns whether the investment is the best option for customers, due to limited evidence of optioneering. However, we recognise the need for investment. To achieve a pass at final determination, the company should provide sufficient and convincing evidence of optioneering, including justification for discounting repair options, and enabling works scope selection. If the company is unable to provide this in response to the draft determination, we may require additional assurances associated with the Price Control Deliverable (PCD). This could require enhanced engagement with the company during delivery to provide assurances that the interventions delivered comprise of the appropriate scope and that enabling works are proportionate.		
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⁸¹ Northumbrian Water, 'OFW-NES-CCP-014 Asset Health – Civil assets at wastewater treatment works cost change submission', June 2026

⁸² Northumbrian Water, 'Appendix 5 – NWL Full List of Civil Investments', May 2026

⁸³ Northumbrian Water, 'OFW-NES-CCP-014 – Barker's Haugh– Atkins Survey Report', January 2024, p. 35

Robust and efficient costs	Decision: Pass. The company provides sufficient and convincing evidence that the proposed costs are robust and efficient. The submission is supported by a detailed bottom-up methodology, linked to defined engineering scope and independent benchmarking demonstrating that costs are below comparator levels. Company evidence- The submission applies a bottom-up costing methodology using detailed design and scope information to develop bespoke cost estimates for individual refurbishment intervention. Costs are built from first principles and include civils, enabling works, indirect costs and allowances for overheads, risk and uncertainty. Detailed intervention-level cost breakdowns are provided within the technical appendices, demonstrating clear linkage between scope and cost. The submission includes external benchmarking undertaken by a third party, covering 100% of the programme cost. Benchmarking was undertaken at component level using like-for-like comparisons and supported by internal review. Benchmarking results indicate that trickle filter costs are approximately 3.5% below comparator benchmark levels. Our assessment-The submission provides sufficient and convincing evidence that costs are robust and efficient. Costs are developed using detailed intervention-level estimates closely aligned to engineering scope, providing a clear audit trail from scope to cost, and confidence that estimates reflect the specific activities required. The intervention level-cost breakdowns provide further transparency over how costs have been developed. The company also provides sufficient and convincing evidence to demonstrate that its proposed costs are efficient. Efficiency has been demonstrated through independent benchmarking across the entire programme at component level, enabling like-for-like comparison. Results show costs are below comparator ranges, providing evidence of efficiency, and the benchmarking approach is clearly documented and appropriately detailed. The benchmarking methodology also provides visibility of key cost drivers, allowing consideration of efficiency at more detailed level than programme wide comparisons alone. While some uncertainty remains regarding the exclusion of lower-value interventions and certain benchmarking assumptions, these issues are not material and do not affect overall	Pass	0%
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	confidence in the assessment. The company has therefore provided sufficient and convincing evidence that its costs are robust and efficient, and therefore, no cost challenge is applied at draft determination.		
Customer protection	Decision – Some gaps. The company provides sufficient and convincing evidence that customers will be protected if the company under-delivers against the requested additional investment, however, it does not provide any protection for the PR24 implicit allowance. We have therefore applied a PCD to the ‘what base buys’ estimate. Company evidence The company does not propose a Price Control Deliverable (PCD) for activities delivered by existing PR24 base expenditure allowances. The company proposes a PCD that covers the proposed additional investment. This will ensure the delivery of 100 interventions, with the list of schemes to be delivered recorded in Appendix A of the submission.⁸⁴ Our assessment- The absence of a PCD covering base allowances means that customers are not protected in the event that the company does not deliver its activities associated with base allowances. Decision-There are some gaps in the level of customer protection provided by the proposed PCD. We propose to apply a PCD to cover both what base buys and additional allowances. Further detail on the proposed PCD can be found in the Cost Change Draft Determinations 2026 – Price control deliverables appendix.	Some gaps	
Investment delivery plan	Decision – Adequate. The company provides sufficient and convincing evidence that the proposed investment is deliverable, although there are some minor concerns over stakeholder engagement.		

⁸⁴ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, pp. 63–68

	Company evidence The company provides details of design and delivery risks, along with mitigation controls. Limited evidence is provided of stakeholder engagement. While reference is made to engaging with stakeholders and customers, little of this engagement appears to directly relate to the Cost Change Process or the proposed interventions. It is noted that engagement was sought from the Environment Agency, however no evidence is provided for engagement or agreement with other stakeholders. The company confirmed that it is on track to deliver its AMP8 allowance. The company has engaged the supply chain and capacity has been assessed, including across the duration of delivery, with challenges identified. It found that there was sufficient capacity, after mitigation measures are included, to deliver AMP8 projects, including those associated with this submission. The company has provided a programme for the delivery of the interventions. Our assessment - The company provides a credible investment delivery plan for the proposed interventions. It demonstrates alignment between programmed scope and delivery capacity, as well as design and delivery risks associated with mitigation controls. Nonetheless, there are minor concerns with the investment delivery plan arising from the limited stakeholder engagement, but which do not materially impact the overall decision.		
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3.1.6 Settlement tanks

Assessment criteria	Assessment	Decision	
		Criteria	Adjustment (applied and/ or conditional)

Summary of request	Northumbrian Water requests £30.49 million additional funding for settlement tank asset health investment over the 2025–2030 period (AMP8). The programme comprises 45 interventions across 34 wastewater treatment works, primarily focused on primary settlement tanks and humus tanks. Interventions include structural refurbishment and in some cases full replacement, with the Washington Wastewater Treatment Works (WwTW) Primary Settlement Tanks (PST) replacement representing the largest scheme at £13.079 million.		
Need for a step change in investment	Decision – Partial Pass. The company provides sufficient and convincing evidence to demonstrate that the proposed investment meets the 'Need for a step change in investment' criteria, with the exception of Washington WwTW as the proposed scope includes constructing additional PSTs not funded by this Cost Change Process. The company's estimate of 'what base buys' is low for this work.⁸⁵ In order to protect customers from paying twice, our general approach is to recover cost change allowances where existing base allowances turn out to be sufficient. If we were to amend this approach, we would look to implement a targeted customer protection for this allowance in light of the concern regarding 'what base buys'. Company evidence–The company states that the additional investment is needed to address asset deterioration. The company provides evidence that its historic investment across AMP6 (2015–2020) and AMP7 (2020–2025) were greater than the implicit allowance.⁸⁶ The company has surveyed and assessed the condition of its assets and subsequently given each a condition grade. The company identifies 69 assets in condition grade 4 (poor) and predicts that 16 more settlement tank assets will become grade 4 by 2029–30 without intervention.^{87 88} The company explains that intervention now is required to avoid increasing deterioration, which is associated with greater risk of asset failure, environmental and	Partial Pass	£3.27 million

⁸⁵ Our assessment and further detail can be found in the 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

⁸⁶ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, p. 8

⁸⁷ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, p. 8

⁸⁸ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, p. 25

	compliance risk. The company states intervention requirements and cost will increase in the future if not actioned now. The company also explains that base expenditure is focused on reactive maintenance rather than major works. The company provides evidence to demonstrate that the proposed interventions are in line with long term asset strategies for humus/final settlement tanks. Our assessment – The company has submitted sufficient and convincing evidence to demonstrate that a step change in investment is needed. ⁸⁹ The company provides sufficient and convincing evidence of the requirement for a step change in investment. The need case combines inspection data, modelling and risk analysis to support current and future condition assessments of assets. The evidence indicates that asset risks are increasing and that routine maintenance is unlikely to provide a sustainable long-term solution. The evidence provided by the company demonstrates a clear need for additional investment. While some overlap may exist with the description of interventions with out of scope items, this does not materially undermine the need case. Overall, the evidence demonstrates that risks are both current and increasing and require intervention. The company supports the need for investment by explaining the risks associated with asset condition, though the risk analysis appendix appears incomplete. However little evidence is provided for other risks beyond asset condition (e.g. climate change). For future cost change submissions, we would expect the company to better demonstrate wider risks on its asset base, as required in the asset health guidance. This assessment does not apply to Washington WwTW. At Washington WwTW the replacement of four PSTs is requested by the company. This is despite the site operating on two PSTs.⁹⁰ It is therefore proposed that one of four PSTs is excluded from the Washington		
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⁸⁹ Further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

⁹⁰ Northumbrian Water, 'OFWAT Reopener – Washington STW – Atkins Technical Report', March 2026, p. 2

	WwTW scope representing a reduction in allowance of £3.27 million. Funding additional PSTs beyond operational requirements represents a resilience improvement. This is beyond the scope of this Asset Health Cost Change Process. The company's view of 'what base buys' (implicit allowance) across its asset proposals is lower than a view of what base buys based on historical sector expenditure rates.⁹¹		
Best option for customers	Decision – Conditional Pass. The company does not provide sufficient and convincing evidence to demonstrate that the proposed programme of interventions represents the best option for customers. Company evidence–The company describes a high-level optioneering framework and states that a “suite of unconstrained intervention options” have been developed and that “interventions will be selected to provide the most long-term, cost-efficient extension of asset life”⁹². The company provides evidence that intervention scope has been based on a worst-case, likely and best-case approach. The company provides a detailed intervention scope and a breakdown of cost. The company also provides scope and costs for enabling works as part of the intervention cost buildup, such as overpumping or hire tanks, and the associated duration of the enabling works that these are required for. Our assessment–There is limited evidence of scheme-level optioneering or cost-benefit analysis. The company does not provide evidence that an unconstrained set of potential credible options over a range of intervention types were created to meet the identified need. It is therefore unclear to what extent optioneering has been undertaken beyond a best case, worse case and most likely case set of options. While optioneering is referenced, and a methodology explained in the submission, this appears to be based on PR24 and with few updates made for this Cost Change Process. The company also provides a conflicting account of enabling works requirements for some interventions. The cost for enabling works has been included in the submission; however,	Conditional pass	0%

⁹¹ Our assessment and further detail can be found in 'Cost Change Draft Determinations 2026 – Asset health cross cutting issues appendix'

⁹² Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, p. 30

	for some interventions, supporting documents state this is not required. The company later clarified via a query response that all enabling works were required and the supporting documents were incorrect.⁹³ For some interventions, scope and/or enabling works appear disproportionate. This is demonstrated by interventions at Embleton WwTW. At Embleton WwTW over 9 weeks of overpumping and a hired in tank is proposed to repair minor cracks and one leak.⁹⁴ No evidence is provided demonstrating that external crack repair methods, which would remove the need for enabling works, have been considered. There is also no justification behind why internal crack repairs would require over 9 weeks of enabling works. Decision -We have some concerns whether the investment is the best option for customers, due to limited evidence of optioneering. However, we recognise the need for investment. To achieve a pass at final determination, the company should provide sufficient and convincing evidence of optioneering, including justification for discounting repair options, and enabling works scope selection. If the company is unable to provide this in response to the draft determination, we may require additional assurances associated with the Price Control Deliverable (PCD). This could require enhanced engagement with the company during delivery to provide assurances that the interventions delivered comprise of the appropriate scope and that enabling works are proportionate.		
Robust and efficient costs	Decision Summary – Pass. The company provides sufficient and convincing evidence to demonstrate that the proposed costs are robust and efficient. The submission is supported by a bottom-up costing methodology, detailed intervention-level cost breakdowns and independent benchmarking demonstrating that costs are below comparator levels. Company Evidence- The submission applies a bottom-up costing methodology using detailed design and scope information to develop activity-level cost estimates for settlement	Pass	0%

⁹³ Northumbrian Water, 'OFW-NES-CCP-014 Asset Health – Civil assets at wastewater treatment works cost change submission', June 2026

⁹⁴ Northumbrian Water, 'Appendix 5 – NWL Full List of Civil Investments', May 2026

	tank refurbishment interventions. Costs are developed from civils and enabling works and include indirect costs, project overheads, risk and estimating uncertainty. The submission includes intervention-level cost breakdowns demonstrating how costs have been developed. The submission includes external benchmarking undertaken by a third-party. Benchmarking has been applied across 100% of programme costs and undertaken at component level with adjustments for time and location. Benchmarking results indicate that settlement tank costs are approximately 5% below comparator benchmark levels. Our assessment - The company provides sufficient and convincing evidence to demonstrate that the costing methodology is robust. Costs are developed using a bottom-up approach linked directly to engineering scope, demonstrating a clear relationship between proposed activities and estimated costs. The intervention-level cost breakdowns provide transparency over how costs have been developed and allow costs to be traced back to the defined scope of works. The company also provides sufficient and convincing evidence to demonstrate that costs are efficient. Independent benchmarking has been undertaken across the full programme and at component level, enabling like-for-like comparison against relevant comparator data. Benchmarking results indicate that proposed costs are approximately 5% below benchmark levels, demonstrating that costs are consistent with efficient delivery assumptions. The component-level benchmarking also provides visibility of key cost drivers and improves confidence that differences in scope have been appropriately reflected within the comparison. While some low-value interventions have been excluded from the benchmarking exercise and certain benchmarking assumptions remain, these limitations do not materially affect confidence in the efficiency of the proposed costs. The benchmarked proportion captures the full programme cost base and demonstrates that costs are below comparator levels. The company therefore provides sufficient and convincing evidence to demonstrate that costs are robust and efficient, and no cost challenge is applied at draft determination.		
Customer protection	Decision – Some gaps. The company provides sufficient and convincing evidence to demonstrate that customers will be protected if the company under-delivers against the	Some gaps	

	requested additional investment, but does not provide any protection for the PR24 implicit allowance. We have therefore applied a PCD to the 'what base buys' estimate. Company evidence–The company does not propose a Price Control Deliverable (PCD) for activities delivered by existing PR24 base expenditure allowances. However, it does suggest an 'adjustment mechanism' whereby the base implicit allowance must be spent in full, or the difference in funding will be returned to customers. The company proposes a PCD that covers the proposed additional investment. This is tied to named schemes in Appendix A of its submission.⁹⁵ Our assessment –The absence of a PCD covering base allowances means that customers are not protected in the event that the company does not deliver its activities associated with base allowances. Decision –To safeguard that activities associated with base allowances are delivered, a Base PCD will be applied to the 'what base buys' estimate provided by the company in the 'Need for Investment' gate of the submission. We have applied time incentives to the proposed investment as it has met our criteria to do so. Further detail on the proposed PCD and our approach to applying time incentives can be found in the Cost Change Draft Determinations 2026 – Price control deliverables appendix.		
Investment delivery plan	Decision – Adequate. The company has provided sufficient and convincing evidence to demonstrate that the proposed investment is deliverable, though there are some minor concerns over stakeholder engagement. Company evidence–The company has provided details of design and delivery risks, along with mitigation controls. Limited evidence is provided of stakeholder engagement. While reference is made to engaging with stakeholders and customers, little of this engagement appears to directly relate to the Cost Change Process or the proposed interventions. It is	Adequate	

⁹⁵ Northumbrian Water, 'Asset Health Investment Case – civil assets at wastewater treatment works', May 2026, pp. 63–68

	noted that engagement was sought from the Environment Agency, however no evidence is provided for engagement or agreement with other stakeholders. The company confirmed that it is on track to deliver its AMP8 allowance. The company has engaged the supply chain and capacity has been assessed, including across the duration of delivery, with challenges identified. It found that there was sufficient capacity, after mitigation measures are included, to deliver AMP8 projects, including those associated with this submission. The company has provided a programme for the delivery of the interventions. Our assessment- The company provides a credible investment delivery plan for the proposed interventions. It demonstrates alignment between programmed scope and delivery capacity, as well as design and delivery risks associated with mitigation controls. Nonetheless, there are minor concerns with the investment delivery plan arising from the limited stakeholder engagement, but which do not materially impact the overall decision.		
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A3.2 Large schemes gated process

A3.2.1 Bran Sands Long Sea Outfall

The following table summarises our draft determination regarding Northumbrian Water's Bran Sands Waste – Nitrogen Removal Submission 2.

The company's proposal is to deliver a long sea outfall, 4.5km length and 6,179l/s capacity to address Nutrient Neutrality issues for the Teesmouth and Cleveland Coast Special Protection Area (SPA). Within the submission, Northumbrian Water requests a claim of £226.32 million through the cost change process.

In our assessment of Submission 2, we focussed on:

- cost evidence to enable us to make decisions on cost allowances for schemes; and
- the quality of the submission in line with our large scheme gated guidance to ensure the sufficient development and maturity of the scheme.⁹⁶

Overall, we have concluded that Bran Sands Long Sea Outfall Submission 2 is "Falls short of meeting expectations in some areas" – our reasons for this score can be found in the Bran Sands LSO quality assessment table below. Bran Sands Long Sea Outfall should progress to delivery phase and we propose an efficient allowance for delivery of this programme as part of our draft determination. Our reasons for this allowance can be found in our deep dive assessment in the Bran Sands LSO deep dive assessment table below:

Bran Sands LSO quality assessment

Overall Decision	Falls short of meeting expectations in some areas
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⁹⁶ Ofwat, '[PR24 Large Schemes Approach Guidance](#)', August 2025

Assessment Area	Summary of quality assessment
Solution Delivery Plan	Northumbrian Water has provided evidence of the developed final design of the Long Sea Outfall, including preferred pumping station location, pumping station design and pipe routing; onshore and offshore. Ecologically sensitive receptors are present on the site of the proposed scheme, including the Teesmouth and Cleveland Coast SSSI, SPA and Ramsar Site, which will impose constraints on construction methods and land disturbance. The company state they have made their formal pre-application submission and expect to carry out local consultations in Autumn 2026 before the final planning application in April 2027. The company has evidenced engagement of local landowners, from whom Northumbrian Water lease the land and who owns the land that the onshore part of the pipeline will pass through. This includes the landowner identifying that for the on-shore section of the pipeline they would prefer a below ground installation around the adjacent landfill, rather than an above ground alternative. Northumbrian Water state that they will continue to consider if an above ground pipeline is possible due to the advantages it would provide e.g. installation simplicity. Wider engagement that is currently ongoing to obtain the relevant legal requirements consists of; Planning permission from Redcar and Cleveland Borough Council, including meetings with the local MP; Habitats Regulation Assessment and Environmental Impact Assessments with various stakeholder groups; SSSI assent from Natural England; Marine Licence from the Marine Management Authority; and Sea bed development permission from the Crown Estates. Northumbrian Water has also demonstrated their recent and continued engagement with a number of different companies that own land nearby or have authority over permissions. The Environment Agency has provided a letter that supports the inclusion of the scheme in the WINEP and recognises the development of the scheme to accommodate future growth in the area. Northumbrian Water has identified their preferred delivery partner. The company has set out a Price Control Deliverable (PCD) that follows the Ofwat PR24 Final Determination methodology. A delivery deadline of 31/03/2030 is forecast, which meets the Environment Agency WINEP obligation deadline. The PCD is for the delivery of a long sea outfall with a total capacity of 6197l/s. The PCD only includes a non-delivery element, with no clawback for reduced design capacity. If capacity is reduced it will be considered as not delivered.

	The company has set out three cost estimates from external consultants, from which Northumbrian Water took a normalised average. The commercial assurance highlighted some concerns with this assessment approach. The company has set out their key milestone dates and the associated Ofwat Interim Milestones and identified the critical path for the scheme, which requires the completion of environmental surveys. Any delay in planning determination beyond September 2027 will result in a full season delay to marine works, and would threaten the March 2030 regulatory deadline. Overall, the submission demonstrates a mature level of scheme development and provides substantial supporting evidence across most assessment areas. There are some concerns surrounding the robust and efficient costs assessment.
Assurance	The company has provided third party commercial and technical assurance reports. The assurance reports indicate some areas of concern and recommended actions; specifically: • Establish a single controlled cost reconciliation; • Strengthen evidence for material cost drivers; and • Strengthen the programme-to-costs-linkage The company has subsequently indicated that they acknowledge these recommendations and are working to resolve them. Due to the deadlines required for the cost change process, the company has stated it will provide an update to Ofwat as part of the response to the draft determination.
Change Log	The company has provided a completed Change Log for Submission 2 which provides a structured record of changes in scope, costs and programme relative to PR24 and Submission 1. The company has evidenced four additional changes between submission 1 and 2 within the change log, identifying areas where costs have changed, along with the change in costs, impacts on programme and reason for change.
Risk Register	The company has provided a project risk register that is thorough and detailed. It sufficiently captures technical, environmental and delivery risks. Risks are clearly defined and include mitigation strategies.

Bran Sands LSO deep dive assessment

Assessment criteria	Assessment	Decision	
		Criteria	Adjustment (applied and/ or conditional)
Summary of request	Northumbrian Water requests £226.32 million through the cost change process for its Bran Sands Long Sea Outfall (LSO) scheme. This is based on a submitted total project cost of £255.95 million, less the £29.63 million development allowance already provided through PR24 and further scheme costs allocated to the 2030-35 period. The request relates to the delivery of a long sea outfall, 4.5km length and 6,179l/s (liters per second) capacity to address Nutrient Neutrality issues for the Teesmouth and Cleveland Coast Special Protection Area and falls within designated Ramsar and SSSI sites.		
Need for a step change in investment	Decision Summary – Pass. The company provides sufficient and convincing evidence that the proposed investment meets the 'Need for step change in investment' criteria Company evidence - The scheme is part of the Northumbrian Water WINEP to address nutrient neutrality for the Teesmouth and Cleveland coast Special Protection Area. The WINEP action completion date is set as 31/03/2030. As the scheme is required to meet a statutory environmental obligation, there is a clear need for investment to deliver the required nutrient load reduction within the Tees catchment. Northumbrian Water has demonstrated that the long sea outfall is required to enable compliance with the WINEP requirement and support nutrient neutrality outcomes affecting the Teesmouth.⁹⁷ Our assessment - Northumbrian Water have provided sufficient and convincing evidence to	Pass	0%

⁹⁷ Northumbrian Water, 'NES – BRAN SANDS LSO OFWAT GATEWAY SUBMISSION 2 REPORT', May 2026, pp. 6-7, section 2

	demonstrate the need for investment at Bran Sands. We validate the need for each investment area against companies' obligations set out in the WINEP. We do not challenge the need for company proposals under WINEP enhancement expenditure where requirements are needed to comply with statutory obligations; are validated against the WINEP.		
Best option for customers	Decision Summary – Pass. Northumbrian Water provides sufficient and convincing evidence that the proposed investment meets the ‘Best option for customers’ criteria. Company Evidence - The company sets out their intended solution type, using a combination of nature-based solutions and improvements to the WwTW treatment during their PR24 business plan submission. However, in June 2025, Northumbrian Water was informed by the Environment Agency and Defra that the required solution is a long sea outfall. The decision was predominantly based upon a lack of confidence that there was sufficient long -term evidence of successful performance of nature based solution components for such a scheme.⁹⁸ Northumbrian Water have sized the solution for the future, designed with a capacity of 6,197l/s and a design horizon of 2100, rather than the minimum capacity requirements of 3500l/s.⁹⁹ This is intended to support additional industrial and municipal growth; as well as potential third-party use. The Environment Agency provided support for this design decision stating that they welcome the accommodation made for future growth and industrial development. We consider the scheme sizing appropriate as it is likely that a single, larger capacity long sea outfall is better value for customers than having to build an additional, or upgrade the outfall to meet future industrial growth in the area.	Pass	0%

⁹⁸ Northumbrian Water, 'NES – BRAN SANDS LSO OFWAT GATEWAY SUBMISSION 2 REPORT', May 2026, p. 7, section 3

⁹⁹ Northumbrian Water, 'NES – BRAN SANDS LSO OFWAT GATEWAY SUBMISSION 2 REPORT', May 2026, p. 12, section 3

	Our Assessment -Due to the requirement imposed by Defra and the Environment Agency that the solution is a long sea outfall, we consider the company's proposal the best option for customers.		
Robust and efficient costs	Decision Summary – Pass. The submission provides some evidence that the proposed costs are robust and efficient, we support the concerns raised in the commercial assurance reports, which the company has stated will be addressed by Final Determination. In the expectation of these concerns being addressed, we pass costs at Draft Determination but will consider further challenge at Final Determination. Company Evidence -Northumbrian Water provided three separate cost estimations from external consultants, from which the company took a normalised average for the construction costs. The company has set out clearly the difficulty of establishing suitable costs for the scheme due to the limited industry benchmarking and expertise to deliver a long sea outfall.¹⁰⁰ The company calculated client costs with a separate commercial consultant to clearly delineate estimated client costs from other cost areas. Northumbrian Water include a scope uplift of 15%, a value that is lower than standard for Northumbrian Water standard procedure and AACE (Association for the Advancement of Cost Engineering) recommendations.¹⁰¹ Northumbrian Water applied a 10% risk factor at PR24, but have increased this value to £35.6 million based on the additional risks they have assessed and provided in the risk register.¹⁰² The revised cost total request, not including development costs, was therefore calculated at £255.9 million. This is a minor increase from submission 1 of approximately 1%.	Pass	0%

¹⁰⁰ Northumbrian Water, 'NES – BRAN SANDS LSO OFWAT GATEWAY SUBMISSION 2 REPORT', May 2026, p. 32, section 5.2.6

¹⁰¹ Northumbrian Water, 'NES – BRAN SANDS LSO OFWAT GATEWAY SUBMISSION 2 REPORT', May 2026, p. 33, section 5.2.8

¹⁰² Northumbrian Water, 'NES – BRAN SANDS LSO OFWAT GATEWAY SUBMISSION 2 REPORT', May 2026, p. 33, section 5.2.9

	Northumbrian Water provided rough estimation for the delivery of the minimum necessary capacity (3500l/s), which estimate at £217 million rather than £255 million for the 6197l/s proposed. This high-level optioneering suggests that reducing the capacity by 44% would only save 15% of the costs. Our Assessment – Third party assurance highlighted some concerns with the Northumbrian Water submission. The assurance recommended that the company should; • Establish a single controlled cost reconciliation • Strengthen evidence for material cost drivers • Strengthen the programme-to-costs-linkage When queried, Northumbrian Water acknowledged the assurance report recommendations and stated they had commissioned the work. We expect Northumbrian Water to provide the evidence to address these recommendations as part of its draft determination response. In expectation of a sufficient and convincing response to the assurance recommendations, we currently provide no additional cost challenge related to cost estimations. However, if the company response does not suitably address the concerns raised we will consider further challenge at Final Determinations.		
Customer protection	Decision Summary – Adequate. The company provides sufficient and convincing evidence to demonstrate that customers will be protected if the company under-delivers against the proposed investment. Company Evidence – Northumbrian water proposes a Price Control Deliverable (PCD) with a stated delivery date of 31/03/2030, which is sufficient to meet the statutory WINEP deadline. Northumbrian Water have set the capacity in the PCD at 6,197l/s with no clawback for reduced design capacity, they consider less capacity as unacceptable. Therefore, if the scheme delivers less than the stated 6,197l/s it will be considered not delivered.¹⁰³	Adequate	

¹⁰³ Northumbrian Water, 'NES – BRAN SANDS LSO OFWAT GATEWAY SUBMISSION 2 REPORT', May 2026, section 7

	Alongside common PCD assurance requirements, a third-party assurance report will be provided to confirm the design capacity and any reasons for scheme delays. Our Assessment - We consider the PCD as sufficient and in line with the standard PCD approach.		
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**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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