Competition & Markets Authority

Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations

Summary of provisional findings report

29 September 2020

Contents

Page

Summary

Overview

1. This report contains the Competition and Markets Authority (CMA)'s provisional price control determinations for four companies: Anglian Water Services Limited (Anglian); Bristol Water plc (Bristol); Northumbrian Water Limited (Northumbrian); and Yorkshire Water Services Limited (Yorkshire) (together defined here as the Disputing Companies) that rejected the Ofwat PR19 price control determinations.

2. For the reasons set out in the report, we have provisionally:

   (a) agreed with Ofwat that the four companies should be subject to a challenging set of performance targets, reinforced by financial incentives;

   (b) provided limited additional funding to allow for more resilient networks as well as enabling the companies to achieve substantial reductions in leakage;

   (c) made adjustments to Ofwat's allowed rate of return to reflect market evidence and best regulatory practice and with a view to ensuring continued investment in the sector;

   (d) reduced to some extent the companies' exposure to financial risk to achieve what we consider to be the right balance between incentivising out-performance and ensuring that the companies can finance themselves.

3. The allowed rate of return in our provisional determination is significantly lower than the rates applied by Ofwat and the CMA in the previous price control period. This largely reflects market movements in the period and means that customers will receive lower bills than in the previous control period, although they will be higher than those under Ofwat's proposed price control. This reflects the judgements the CMA has made about financing investments that are needed in the sector both now and in the future.

4. The indicative impact of our provisional findings on average annual customer bills are indicated in Table 1.[1]

[1] As discussed in paragraph 99, we have not yet implemented all the technical steps required to convert our determination to changes to the price control licence conditions. In addition, the price control sets revenue allowances for the individual companies. This determines the average bill that the company can charge its

Table 1: Indicative impact of our provisional determination on annual customer bills

	Company historical bills (2019/20)	*Company average bill in April business plan**	*Company average bill under Ofwat's Final Determination (FD)*	*Company average bill under CMA provisional decision*
Anglian (water and sewerage)	£422	£418	£386	£400
Bristol (water only)	£182	£174	£160	£166
Northumbrian (water and sewerage)	£429	£343	£323	£335
Yorkshire (water and sewerage)	£383	£379	£364	£379

*The April business plan figure here is taken from Ofwat's published documents, and may not align with all of the implications of the company's submissions in its Statement of Case.
Source: CMA analysis

5. The Disputing Companies requested us to look at a great many issues where we have provisionally found no reason to change the proposed price controls. These include, for example:

   (a) Rejecting some proposed revisions to the various models used to estimate expenditure.

   (b) Rejecting the argument that driving improved service will generally require greater expenditure.

   (c) Rejecting some planned enhancement projects where the need for additional funding had not been demonstrated.

6. On some matters, we have imposed tighter controls than Ofwat, including reducing allowances where forecast demand growth is less than industry average, and greater efficiency challenges on certain large enhancement projects.

7. We have considered our provisional determinations in the round and concluded that they are consistent with our statutory duties. Among other considerations, we are satisfied that each of the provisional determinations protects the financial and service quality interests of the current and future customers who pay for water services. At the same time, they secure resilient services particularly in the face of increased challenges from climate change. We are also satisfied that the provisional determinations ensure that the companies are able to finance the proper carrying out of their functions by providing a sufficient but not over-generous return to investors.

8. We are issuing these provisional determinations for consultation. We intend to publish our final determinations in December 2020.

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customers. Individual bills will vary depending on the charging scheme adopted by the company, see information on charging schemes.

Background

9. Ofwat is the economic regulator for the monopoly water suppliers in England and Wales. Every five years, it carries out reviews of the price controls applying to these suppliers. These set the maximum revenues the companies can raise from customers. Ofwat's most recent PR19 price review, which governs the period 2020 to 2025, is the subject of these redeterminations.

10. Ofwat's themes for PR19 included long-term resilience in the round, affordable bills, innovation and responding to customer's needs. Ofwat said that from the initial development of the PR19 methodology it had been clear with companies that the price review was not going to preserve the status quo as the sector faced profound challenges, such as climate change, population growth and shifting customer expectations and so the sector needed to strengthen its operational performance. It said it was important to set a stretching but achievable level of overall challenge. It said that its view reflected concerns including little productivity growth or leakage reduction, even though some companies had managed to achieve high performance on service measures and high cost efficiency. It noted though that companies, on average, have tended to outperform the cost allowances in past periods.

11. In its 'Putting the sector in balance' position statement in 2018,[2] Ofwat raised concerns about high dividend payments; levels of executive pay; and complicated and potentially risky financial structures which call financial resilience into question. At PR19 it introduced the Gearing Outperformance Sharing Mechanism (GOSM) with the aim of ensuring highly-geared companies shared any associated benefits with customers.

12. On 17 December 2019, Ofwat published its Final Determination of the PR19 price controls applying to all the water and wastewater service suppliers in England & Wales for the asset management period 2020 – 2025 (also referred to as AMP7).

13. The four Disputing Companies asked that Ofwat refer their price controls to the CMA for redetermination and Ofwat did so on 19 March 2019.

14. The main reasons for rejecting the PR19 determinations identified by the Disputing Companies included that Ofwat had:

    (a) provided insufficient funding to deliver business plans including enhancement expenditure to improve resilience;

[2] Ofwat (2018), *Putting the sector in balance: position statement*, Section 6

(b) failed to recognise the link between costs incurred and delivering higher levels of service (the 'cost-service disconnect');

(c) inappropriately set too low a cost of capital;

(d) given insufficient weight to evidence on customer views; and

(e) increased levels of risk for companies (notably from asymmetric outcome delivery incentives (ODIs)) and, together with the other elements of the determination, this had undermined their financeability.

15. The Disputing Companies operate in different areas of the country and face, to some extent, different topographies, populations and climates which, in turn, impact the nature of the cost and service challenges they face. There are also differences in their activities: Anglian, Northumbrian and Yorkshire all supply both water and wastewater (sewerage) services, while Bristol supplies only water.

16. The price paid by each customer is not set directly by the price control. Rather, the companies' tariffs must be consistent with the revenue limits, which are derived from costs and levels of profit which the regulator identifies as allowable on the basis of its statutory duties. Ofwat also sets service quality targets, reinforced by a package of financial and reputational incentives. When reaching its determination, Ofwat is bound by a number of statutory duties, both primary and secondary, and, with respect to English water companies, it has to act in accordance with objectives set out in a Strategic Policy Statement (SPS) issued by the Department of Environment, Food and Rural Affairs (DEFRA).

17. In carrying out a redetermination, the CMA is not bound simply to accept or reject the position adopted by Ofwat; rather it evaluates the evidence and adopts what it considers to be the best approach or outcome. In doing so we must take account of the same statutory duties as Ofwat (including the SPS).

18. The scope of our determinations extends to all aspects of the price control and not just the issues raised by the water companies. However, we have prioritised our consideration of what we regarded as the key elements of the price controls in light of the time and resources available and so have not carried out an in-depth consideration of all aspects of the price controls.

19. Water and wastewater services are essential to customers. We have been mindful of the issue of vulnerable customers, both those who are financially vulnerable and so face difficulties meeting their water bills and those who are vulnerable for other reasons. There are a variety of measures in use by the water companies to address these concerns, for example, in running a priority

services register and offering social tariffs. While we consider these extremely important, most of these measures lie outside the scope of the PR19 price control. Where relevant to the price control, we have given these careful consideration.

20. We are using the same regulatory building blocks as Ofwat used in its determinations. In particular, we have maintained Ofwat's approach of:

(a) setting four wholesale price controls and a retail price control; and

(b) separating our assessment into its major component parts around costs, service and financial returns.

21. While we did not consider it would be sensible or practicable to adopt a wholly different regulatory framework within the context of our re-determination, we have noted in our report where consideration should be given to changes to aspects of the regime in the future.

22. This report sets out our provisional decisions in relation to each of the major building blocks of the price control. In reaching our decisions we have taken account of the same statutory duties as applied to Ofwat, and we have had regard to the principles of best regulatory practice and the need to act in accordance with the SPS, but have exercised our own regulatory discretion in appropriately balancing these statutory duties.

23. In reaching our provisional conclusions we have taken into account evidence that was not available to Ofwat at the time of its determination. In general, we have considered updated market data, submissions of the main parties and third parties, reviews of business plans and specific projects, and the advice of engineering consultants, to reach these provisional conclusions.

24. In order to finally determine the price controls for each company for each activity, we will need to translate our decisions on each of the building blocks into a revenue allowance for each company. We will be consulting Ofwat and the Disputing Companies about the modelling we intend to undertake to reach these figures.

25. We have considered the extent to which we should take account of the impact of COVID-19 on water companies' costs and performance in our provisional determinations. However, there are significant difficulties in assessing these impacts within the framework of the redetermination at this stage. There is significant uncertainty regarding the full impact of COVID-19 on the water sector as well as the timing, duration and scale of such impacts. This uncertainty is likely to remain at the time of our Final Determination. For these reasons, we provisionally consider that the best mechanism for taking direct

account of impacts of COVID-19 is for Ofwat to consider these as part of an industry-wide process; Ofwat has proposed it will consider the needs for any ex-post adjustments at a time aligned to its normal PR19 reconciliation process.

Totex (total expenditure)

26. We have primarily set a funding allowance (totex) to cover forecast necessary costs, covering both base expenditure, which covers routine costs that companies incur, and enhancement expenditure, which covers the costs of enhancing the capacity or quality of the service. Base costs account for approximately 70% of totex.

27. Totex covers both operating expenditure (opex) and capital expenditure (capex); this approach was introduced by Ofwat at the previous PR14 price control to incentivise overall efficiency and address concerns that previous approaches assessing capex and opex separately had led to a focus on capital solutions.

28. In order to mitigate the risk that we set a totex allowance that turns out to be either too low or too high, we have, in line with Ofwat's approach, included an overall totex cost sharing mechanism which applies to the majority of totex. Under the cost sharing mechanism, if a company underspends its allowance, customers share in the saving made. Conversely, if the company needs to overspend to deliver the necessary services, it can recover part of the costs from customers. Cost sharing enables us to rely less on other mechanisms in the price control that provide some protection from uncertainty.

29. The proportions in which any cost difference is shared between customers and investors is known as the sharing rate. Ofwat applied a formula to determine the sharing rate for each company which was designed both to provide incentives for information revelation and to provide incentives to be more efficient.

30. While we agree with Ofwat there is merit in providing incentives on companies to provide accurate business plan information during the price control process, we were concerned, in particular, that the rates resulting from its formula could create unintended consequences, including in relation to schemes that require investment over multiple periods. We have therefore provisionally decided to depart from Ofwat's cost sharing rates and apply the same asymmetric rate to all of the Disputing Companies. Our approach results in the company bearing 55% of the cost of any overspend and 45% of the benefit of any underspend.

Modelled base costs

31. Water companies conduct many routine activities in order to run their businesses and provide a base level of service to customers. As noted above, these activities account for more than two-thirds of the totex for all the Disputing Companies.

32. We have adopted an econometric modelling approach to assess most of the costs of this base level of service relying on data from across the sector. Comparative benchmarking of this nature allows us better to estimate the efficient costs for these day to day operations than simply relying on individual company data or forecasts. Our modelling approach is similar to Ofwat's, although we select a slightly different set of model specifications. This results in some modest adjustments to the base costs allowances.

33. Our cost models estimate how much it would cost the average water company to cover base operations. However, we wanted to set cost allowances for an efficient water company, and so we have applied a catchup efficiency challenge based on our assessment of the upper quartile performers. Our provisional conclusion is to apply an upper quartile benchmark which we consider sets a challenging benchmark whilst acknowledging the limitations of our econometric modelling (and the consequent risk that the company will have insufficient allowed revenue to ensure a base level of service). Our benchmark is set at a similar, although slightly less demanding, level to Ofwat's.

34. Future costs are likely to differ from the historical benchmarks because of changes to productivity levels and costs. We have therefore:

    (a) Applied a 'frontier shift' which reduces the modelled allowance by 1% per year to reflect expected productivity gains from improvements in technology and new ways of working. This is slightly lower than the equivalent adjustment made by Ofwat and reflects our judgement based on the evidence of productivity changes.

    (b) Provided a real price effect adjustment ('RPE') for labour costs, which are a material cost item. We have also included a reconciliation mechanism for these labour costs to protect both customers and the company against forecasting error.

35. Serving new properties involves additional costs for water companies, both from the cost of installing a new connection, and more broadly from an overall increase in demand in an area necessitating reinforced or additional

infrastructure (like the cost of an additional treatment works). Like Ofwat, we have:

(a) allowed for differences in forecast growth for the number of properties served by the different water companies, by reducing or increasing the allowance depending on whether forecast growth is above or below industry average;

(b) included a reconciliation mechanism to protect against inaccuracy in these forecasts, which is calibrated using total growth costs.

36. However, the growth adjustments we have used differ from those applied by Ofwat. In particular we have imposed symmetrical downward and upward adjustments for the impact of growth (whereas Ofwat had applied a more limited downward adjustment in revenues in respect of lower than average expected growth).

37. Ofwat's historical data collection approach contained no distinction between base opex and enhancement opex. Therefore, Ofwat's modelled base costs could double count enhancement opex if an adjustment was not applied. We address this issue by applying an adjustment to cost allowances using the same approach as Ofwat used in its PR19 final determination.

38. Our approach is reliant on econometric models which are based on a limited set of explanatory variables. This means that there could be company specific circumstances which are not reflected in our modelling. We have therefore, like Ofwat, assessed whether any cost adjustments should be made to reflect individual Disputing Companies' specific circumstances.

39. In general, our provisional decision is to apply an adjustment to cost allowances using the same approach as that used by Ofwat. We assessed a small number of cost adjustment claims specifically raised by Anglian. These included claims relating to capital maintenance and sludge transport, which we provisionally decide to reject. Nonetheless, we recognise that capital maintenance is a complex issue, which may become more important in the future. We therefore suggest that Ofwat considers developing indicators to track this issue and triangulate its base modelling with bottom-up capital maintenance modelling.

Unmodelled base costs

40. In designing our base models discussed above, we have excluded certain costs that are unsuitable for modelling where, for example, there is insufficient data for modelling or where exceptional circumstances apply to particular

companies. We refer to these as unmodelled base costs. These include costs associated with abstraction, business rates, and compliance with the Industrial Emissions Directive (IED) and Traffic Management Act (TMA), amongst others.

41. Ofwat made an allowance for the companies' unmodelled costs, and we provisionally decide that these are largely appropriate. We have also generally agreed with Ofwat's approach to applying a cost-sharing mechanism to these costs which took account of the extent to which they lie within management control.

42. We have made some company-specific decisions on certain unmodelled costs as follows:

(a) Bristol: We have allowed a small cost adjustment claim to reflect its costs of abstracting water from the Gloucester and Sharpness Canal (G&S Canal) which are atypically high;

(b) Northumbrian:

(i) Northumbrian has atypical abstraction costs associated with the Kielder Reservoir, that have increased following an Environment Agency consultation which finished after the Ofwat FD was published. We reflect this latest information by provisionally allowing Northumbrian an additional allowance to cover these costs.

(ii) Business rates: Ofwat was not aware of, and did not reflect in its final determination, a revision of Northumbrian's rateable values which took place in 2018. This resulted in an over allowance, which we remove in our provisional determination.

(iii) IED compliance costs: We provisionally decide to make a relatively small allowance to cover some costs to ensure compliance with the IED due to changing interpretation of this legislation.

43. Consistent with our provisional decision on base costs above, we have applied a frontier shift on these unmodelled costs of 1% together with a labour RPE (with a true-up mechanism where labour costs differ from forecasts). We do not consider our approach gives rise to any double counting necessitating an adjustment.

44. We have also concluded that the cost-sharing rates for business rate costs should differ to some extent from those applied more generally to unmodelled costs, reflecting the limited degree of management control over these costs.

45. Our provisional conclusions with respect to the base cost allowance for each Disputing Company are set out in Table 2:

Table 2: Base cost allowances for each Disputing Company

				£m (over 5 years)
	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
Raw base models	3,518	357	2,099	3,070
Catch-up	-74	-14	-56	-72
Frontier shift + RPEs	-78	-8	-46	-67
Growth	36	4	-42	-50
Enhancement opex	-14	-2	-11	-14
Cost adjustment claims	26	6	5	16
Total modelled base costs	**3,414**	**343**	**1,949**	**2,883**
Abstraction charges	49	17	193	26
Traffic management	6	4	6	21
Business rates (Local authority and cumulo rates)	304	23	181	273
IED compliance costs	0	0	12	0
Total unmodelled base costs	**359**	**44**	**391**	**320**
Total base costs	**3,773**	**388**	**2,340**	**3,204**

Source: CMA analysis

Enhancement costs

46. Within Ofwat's framework, the enhancement allowance is intended to cover the costs for the water companies of undertaking investment to enhance the resilience, capacity or quality of service beyond a base level, such as building a new reservoir or treatment works, building strategic interconnectors to connect up parts of the network, and introducing new measures to protect wildlife.

47. Enhancement expenditure may be driven by a number of factors, including new statutory obligations and strategic priorities. The largest of these are generally:

(a) **Environmental improvements**: Water companies have proposed numerous environmental projects, whilst also facing increasing obligations to improve their environmental outcomes including from the increased scope of the water industry national environment programme (WINEP) which is a set of statutory requirements overseen by the Environment Agency. In particular, Anglian, Northumbrian and Yorkshire face significant additional costs to remove phosphorus (which can cause excessive algal growth if discharged into rivers) from wastewater.

(b) **Supply-demand balance**: One of the responsibilities of a water company is to secure a balance of supply and demand including in light of ongoing trends such as climate change and population growth. Water companies have a statutory requirement to develop a water resource management plan (WRMP) every five years, setting out how they intend to balance supply and demand over at least the next 25 years. Supply-demand balance can be influenced by investment in major new infrastructure (e.g. reservoirs) but also by measures to reduce leakage or reduce consumption.

(c) **Resilience**: Enhancement funding aims to provide improved operational resilience by funding schemes which address the risk of low-probability high-consequence events, such as ensuring properties are not reliant on a single source of supply or adding in additional support / back-up for critical infrastructure.

48. In Ofwat's FD, the four Disputing Companies were awarded enhancement allowances totalling £2.7 billion. This is substantially higher than their expenditure in previous periods, and reflects (amongst other things) substantial new WINEP obligations.

49. Ofwat's preferred method of assessment for enhancement was a benchmarking analysis of forecast costs. For other categories, Ofwat followed a 'risk-based process' of having a lighter touch ('shallow dive') assessment for low materiality costs and a more thorough assessment of the evidence ('deep dive') for high materiality costs, each based on the company's business plans.

50. In our review of enhancement expenditure, we have generally focused on areas where Ofwat and the water companies have provided conflicting views and where we need to resolve these in coming to our determination. These accounted for the majority of enhancement spend. For other enhancement expenditure, including some major schemes which met Ofwat's evidential threshold to receive additional enhancement funding, we provisionally adopt the same approach as Ofwat did in its final determination.

51. We have adopted the same broad overall approach as Ofwat to assess enhancement allowances, including a combination of benchmarking, deep dives and shallow dives. We have applied these approaches to categories of spend for the Disputing Companies, and, like Ofwat, considered any efficiency challenges which should be applied to these allowances. Our approach often involved an assessment of additional evidence or arguments which were not available to Ofwat at the time that it made its final determination.

52. We have made use of comparative data (including econometric modelling, engineering comparisons and cost benchmarking comparisons) where available to develop our best estimate for efficient enhancement costs. Where

a comparative approach was not appropriate, we are more reliant on evidence provided by the company proposing the enhancement. In these cases, we have, with the assistance of our independent engineering advisors, where appropriate, reviewed the evidence provided by the companies about the need for and costs of the more material schemes to assure ourselves that the proposed investment is both appropriate and efficiently delivered.

53. We apply efficiency challenges and reduce allowances where we are concerned about the robustness of the evidence provided for enhancement schemes. In doing so we are seeking to ensure that customers do not overpay for inefficient service whilst also ensuring sufficient allowance is available to achieve the enhanced level/quality of service. Consistent with our provisional decision on base costs above, we apply a frontier shift on all enhancement costs (not just WINEP and metering as Ofwat did) together with a labour RPE. In doing so, we consider that no adjustments are necessary to account for double-counting.

54. The most material enhancement area where both Ofwat and we decided to use benchmarking related to phosphorus-removal and WINEP allowances more generally, which are large and broadly-comparable programmes of work. Our provisional decision is to make adjustments to Ofwat's phosphorus-removal allowances based on alternative model specifications but to adopt the same overall approach. This results in relatively modest increased allowances for Northumbrian and Yorkshire of around £4 million and £9 million respectively.

55. The Disputing Companies raised a number of specific projects which we have assessed in greater detail and make provisional decisions on.

56. For Anglian these projects are:

(a) Strategic Interconnector Programme: Anglian proposed to build a series of interconnectors to transport water around its region in order to provide for an improved supply demand balance and increased resilience. We are, as is Ofwat, supportive of this aim and the benefits it will bring customers. After careful review, we consider that Anglian has demonstrated its plans are prudent and costs are efficient. We have provisionally provided Anglian with its full requested additional allowance for this scheme.

(b) Smart Metering Scheme: Anglian proposed to install smart meters in nearly all properties in its region by 2030, which would particularly assist with reducing leakage and water consumption in an area of the country which has relatively little rainfall. We are supportive of Anglian's proposal

but concerned that certain elements of its requested allowance would result in customers paying twice for the same activities as metering forms an element of base activities. We therefore have provisionally allowed some but not all of Anglian's requested allowance to cover the incremental costs of installing smart meters.

(c) Water Resilience Scheme: Anglian included a request for additional funds for the replacement of certain assets within its water treatment works, and development of a new risk planning tool. Our provisional decision is that these activities represent incremental improvements which the sector has delivered, and continues to deliver, as part of its day-to-day operational functions, and so we have provisionally rejected Anglian's request for additional allowance for this scheme.

(d) Security-related activities: Anglian included a request for additional funds for the delivery of certain water security-related activities. We provide Anglian with its full requested allowance on Security and Emergency Directive (SEMD) [3] activities which arise from new legal obligations, but we apply an efficiency challenge on aspects of non-SEMD where the evidence provided on cost efficiency is insufficiently robust.

(e) Bioresouces Scheme: Anglian proposed to expand one of its sludge treatment centres to accommodate expected increases in the level of sludge being produced in the future. We find that this proposal is reasonable given the limited availability of alternative capacity from other suppliers, and reflects an efficient whole-life approach to the issue identified. We have provisionally provided Anglian with its full requested additional allowance for this scheme.

57. In addition to the above schemes, we have assessed Anglian's concerns around its uncertainty of recovering its costs of treating metaldehyde following the overturning of a ban on the use of this pesticide. Our provisional decision is that the best approach to mitigate this risk is to allow Anglian its full requested allowance but to protect customers by including a claw-back

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[3] The Security and Emergency Measures (Water and Sewerage Undertakers) Direction 1998 directs undertakers to maintain plans to provide a supply of water at all times. The Security and Emergency Measures (Water Undertakers) Direction 2006 places a qualified duty on undertakers to provide a water supply to a licensed water supplier where (i) there is an access agreement in place and (ii) the licensed water supplier requests the water undertaker to provide it with a supply of water in the event that the licensed water supplier is unable to provide a supply to its customers due to an emergency or security event.

mechanism to remove the funding for the remaining years if the ban is reintroduced.[4]

58. For Northumbrian, these projects are:

(a) Essex Resilience Scheme: Northumbrian proposed to build a new interconnector to allow the transfer of raw water between its reservoir in Abberton to its reservoir in Hanningfield, to mitigate the risk of substantial supply loss to the local area (in the context of ongoing climate change, population growth, and other risk factors). We consider that, in light of the nature of the risk, the cost of addressing the issue is relatively modest particularly given the number of households affected and the long-life nature of the solution which would provide ongoing benefits for many years to come. We have provisionally allowed Northumbrian its full requested additional allowance for this scheme; and

(b) Sewer Flooding Resilience Scheme: Northumbrian proposed to undertake a 'proactive' scheme to reduce the risk of internal sewer flooding in properties which have not previously been flooded. We have not included any increased allowance for this scheme as we have not seen robust evidence that the scheme proposed by Northumbrian represents incremental benefits for customers which should attract additional enhancement funding, rather than simply reflecting an alternative approach to carrying out its base activities (which are already funded).

59. Yorkshire raised one specific project, which we have assessed in greater detail, and on which we make decisions, specifically its Living with Water Partnership in Hull and Haltemprice. We provide additional enhancement funding to help address the unique circumstances in this area which result in an increased risk of flooding. However, we apply an efficiency challenge to the estimate included in Yorkshire's business plan.

60. When providing companies with specific funding to undertake additional activities, there is a risk that the company does not subsequently choose to proceed with the scheme while customers nonetheless bear the cost. In order to ensure that the higher level of service being funded by these schemes is delivered, we have included a number of scheme-specific mechanisms to protect customers from non- or under-delivery of these schemes.

[4] We note that on 18 September 2020, DEFRA announced a decision to ban metaldehyde and phase it out by 31 March 2022. Given the timing of this announcement, we have not reflected this in our provisional decision. Defra (18.09.2020). Press release Outdoor use of metaldehyde to be banned to protect wildlife

61. Our provisional determination of the Disputing Companies' wholesale totex allowances is shown in Table 3.

Table 3: Implication of provisional determination on Disputing Companies' enhancement allowances, including variations from Ofwat's FD (£ million)

	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
Ofwat FD allowance	**1,425**	**30**	**352**	**906**
Water models	0	0	0	0
Wastewater models (incl WINEP)	0	N/A	+4	+9
Shallow dive challenges	0	0	0	0
Deep dive challenges	0	0	-7	-5
Deep dives	+54	0	+20	+7
Metaldehyde	+63	0	0	0
Frontier shift*	-16	-1	-5	-1
Net change in leakage	-3	-1	0	+93
Total enhancement allowance	**1,522**	**29**	**365**	**1,008**
Change vs Ofwat FD	*+97*	*-1*	*+13*	*+103*

* Figures reported in the table above this line do not include the effects of frontier shift – all of this challenge is included in the specified row; this row includes both changes to scope and scale of frontier shift
Source: CMA analysis
Note: The numbers for net change in leakage for Anglian, Bristol and Yorkshire are indicative and subject to further review prior to our final determination.

Overall Totex

62. Our provisional determination of the Disputing Companies' wholesale totex allowances is shown in Table 4.

Table 4: Totex by type of cost, 2020-25 (£ million, 2017-18 CPIH deflated prices)

	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
Modelled base allowance (including CAC)	3,414	343	1,949	2,883
Unmodelled allowance	359	44	391	320
Enhancement allowance	1,522	29	365	1,008
Other totex allowances*	-85	-6	-54	-67
Total	**5,209**	**410**	**2,651**	**4,146**
Change vs Ofwat FD	*+144*	*+5*	*+22*	*+92*

* Other totex allowances include operating lease adjustments; strategic regional water resources solutions and other cash items; third party costs; non-section 185 diversions; ex-ante cost sharing adjustment; grants and contributions (after adjustment for income offset); and pension deficit recovery costs. Prices are deflated for inflation (based on Consumer Prices Index Including Owner Occupiers' Housing Costs (CPIH) measure).
Source: CMA analysis.

Outcomes

63. Ofwat's price control included a large number of performance targets or commitments for each company, supported by a package of financial and reputational delivery incentives (ODIs).

64. The performance commitments (PCs) and ODIs were derived from proposals made by the companies having conducted research into customer's priorities and willingness to fund incentives. Ofwat intervened in the companies' proposals on PCs and ODI rates or structure where it considered appropriate having conducted a comparative evaluation of company proposals, and taking account of customer views, and performance in previous price control periods.

65. The resulting package included eleven common PCs applying to all water companies and a further four common PCs applying to all WASCs, as well as a number of bespoke PCs for each company. The common PCs covered areas such as:

(a) performance level measures (for example, water supply interruptions and pollution incidents);

(b) asset health measures (such as mains repairs and sewer collapses);

(c) measures to reduce water demand (leakage and per capita consumption); and

(d) measures to help vulnerable consumers (priority service register).

66. Most PCs were accompanied by financial incentives in the form of ODIs, either as designed by the companies based on customer research, or as amended by Ofwat. In some cases, Ofwat set symmetrical ODI rates with the same rates for out and under-performance, while in other cases asymmetrical rates were used. Ofwat also made use of so-called penalty-only ODIs, which carry a penalty for under-performance but no reward for out-performance. Ofwat also made use of so-called 'enhanced ODI rates', which provide a higher rate of reward (or penalty) for performance beyond (or below) a given threshold.

67. The ODIs included caps on the level of outperformance rewards (both at standard and enhanced rates) in some circumstances to limit these and the consequent impact on customer bills. Likewise, the ODIs included penalty collars to limit the company risk of incurring substantial underperformance penalties. In some cases, the ODIs also included 'deadbands', which allow for a degree of under-performance before a penalty is triggered.

68. Ofwat's approach to outcomes and PCs at PR19 included:

(a) Setting three common PCs on the basis of upper quartile forecast performance, with the remainder set with reference to the ranges of anticipated performance included in companies' business plans.

(b) Seeking a minimum reduction of 15% for leakage.

(c) Having a 3% gross RORE (return on regulatory equity) limit on the overall size of any outperformance rewards earned and a 3% gross limit on the overall size of any underperformance penalties incurred by a Company.

69. Overall, we provisionally decide that the package of PCs and ODIs imposed by Ofwat should largely remain in place. In doing so, we have provisionally concluded that:

(a) Ofwat was right to intervene in company business plans to take account of comparisons between companies and that doing so did not inappropriately ignore differences between topographies or weather conditions;

(b) There is no simple cost-service relationship whereby more demanding PCs should always be accompanied by higher costs. Moreover, for the PCs other than leakage, we have not found that the improvements in performance required by the common PCs are sufficiently large as to justify an increase in cost allowances.

(c) The extensive engagement and research undertaken by companies in PR19 has gone a long way to encourage company business plans and regulatory decisions to reflect the specific priorities and values of customers and the outcomes framework is an area where customers and key stakeholders properly play a role in determining the standards of performance that companies should be held account for. That said, we consider there are limits to the weight that can or should be placed on customer research evidence in this area.

70. We have also provisionally concluded that the use of asymmetric or penalty-only incentives may be appropriate in certain circumstances, for example, where there is evidence that customers would not be willing to pay for outperformance or there are diminishing economic benefits to outperformance. Where this results in residual financial risks for investors, this should be taken into account as part of the assessment of the appropriate cost of capital and whether the company is financeable.

Common PCs

71. We focused our assessment on the common PCs and the related ODIs and have provisionally concluded that:

(a) the PC levels for the three common performance measures set at the forecast upper quartile level are appropriate. These cover water supply interruptions, pollution incidents and internal sewer flooding. It is normal regulatory practice to make assessments using comparative regulation, and upper quartile is a common measure used when promoting improvements in efficiency;

(b) we are proposing some adjustments to the ODI rates, caps and collars for the common PCs relating to unplanned outages and mains repairs. In particular, we propose to introduce deadbands which would mitigate the risk of penalties that might arise in respect of these PCs due to factors outside the companies' control;

(c) we welcome the common PC linked to vulnerable customers that encourages companies to identify those customers most likely to need additional support. A thorough and up-to-date Priority Services Register may also prompt companies to identify further innovations that will allow the sector better to help vulnerable customers; and

(d) we have considered the leakage PC separately due to the interaction of the funding and outcome incentives in relation to leakage and because of the attention it has been given.

Bespoke PCs and ODIs

72. Other than in a very limited number of cases, we generally did not identify a need to intervene on bespoke PCs or their associated ODIs.

Leakage

73. Each of the Disputing Companies has a PC which requires them to achieve a step change in the level of leakage reduction compared to previous periods. We have provisionally decided to retain these PCs at the level set by Ofwat.

74. We have, however, provisionally determined that some of the Disputing Companies may require an additional allowance to achieve the required level of performance. In particular:

(a) We have provisionally concluded that there is a link between maintaining higher performance on leakage and costs such that the base cost model we used will not adequately compensate companies that are maintaining performance above the upper quartile. We have therefore adjusted the base cost allowance for the two Disputing Companies that are higher performers on leakage, Anglian and Bristol, to allow for this.

(b) We provisionally conclude that the Disputing Companies which identified that they required enhancement cost funding for achieving the leakage reductions they committed to should be allowed the efficient cost of doing so. In particular, we provisionally consider that companies should be allowed to recover at least some of the costs of achieving leakage reductions even though they are not an upper quartile performer because there is no evidence that the Disputing Companies have profited in the past by underperforming their leakage targets or by obtaining excessively generous funding for those targets.

(c) We intend to do further work to establish the appropriate level of enhancement funding for Anglian, Bristol and Yorkshire for leakage between our provisional and final determinations. As an indication of the effect of this approach, we have calculated indicative allowances for the three companies based on applying their company-specific efficiency factor, frontier shift and RPE adjustment to their requested allowances. This approach results, in particular, in an increased allowance for Yorkshire. Northumbrian (which is also a below upper quartile performer) has not sought additional adjustments for base or enhancement costs relating to leakage reduction, so we have not included any allowance for this in our provisional determination.

75. We have also considered the ODI rates relating to the leakage PC and in particular have rejected the use of enhanced ODI rates to reward substantial outperformance in this area. As explained above, we have concluded that leakage improvements will require additional funding and so will impose costs on customers. In the circumstances, and in the absence of evidence for the cost-benefit trade off of further leakage reductions, we do not consider it would be appropriate to use enhanced ODIs to shift the frontier in this area. We also made adjustments to increase the companies' penalty rates for underperformance ODIs, as we have provisionally concluded that this would make the calibration of the ODIs more consistent with our determination on enhancement costs.

Overall Changes to PC and ODIs

76. The summary of changes we have made to PCs and ODIs in Ofwat's FD including leakage (excluding scheme-specific PCs) are set out in Table 5:

Table 5: CMA provisional conclusions on the revisions to the PC arrangements set at PR19

Category	*PC*	*Change proposed*
Common performance measures	**Water supply interruptions**	no change
	Pollution incidents	Anglian: increase collar to 41.6
	Internal sewer flooding	Yorkshire: increase collars in years 2,3,4 and 5
Reducing demand	**Leakage**	All four companies: remove enhanced rates, and adjust funding. For Anglian, Bristol and Yorkshire, make changes to penalty rates.
	Per capita consumption	Bristol: reduce ODI rates to £-0.03m and £0.025m
Statutory measures	**Compliance risk index**	no change
	Treatment works compliance	no change
Asset health measures	**Mains repairs**	Deadband of 10 for all four companies
	Unplanned outage	Deadband of 1.2 x PCL for all four companies
	Sewer collapses	no change
Vulnerability measures	**Priority services register**	no change
Bespoke ODIs	**Low pressure**	Yorkshire: remove outperformance incentive
	Water quality contacts	no change
	Bathing water quality	no change
Other	**Overall reward cap**	no change, pending additional evidence

Source: CMA

Cost of Capital

Weighted Average Cost of Capital (WACC)

77. The cost of capital is an input to the calculation of the companies' allowed revenue and is used to calculate the profit that the companies need to earn to repay their investors within the PR19 price control.

78. Ofwat and the Disputing Companies had very different views on the right level of the cost of capital. As a result, the assumption on allowed profit was a large source of difference between Ofwat and the Disputing Companies. Ofwat chose a 2.96% appointee level cost of capital allowance, significantly below the cost of capital allowances suggested by the Disputing Companies during this redetermination, which are set out in Table 6:

Table 6: Ofwat PR19 appointee WACC versus Disputing Company positions.

Inflation adjusted CPIH-real point estimate or midpoint of range	Anglian	Bristol (industry level)	Bristol (inc. CSA)	Northumbrian	Yorkshire	Ofwat PR19
Appointee WACC	3.62%	3.32%	4.04%	3.54%	3.78%	2.96%

Source: Anglian SoC, 1221 (based on midpoint of an RPI-real range of 2.5% to 2.9%), Bristol SoC, para 150 (industry estimate based on nominal point estimate of 5.35%, Bristol SoC, para 24 (inc SCA estimate based on a nominal point estimate of 6.08%), Northumbrian estimated figure relates to KPMG expert report for Northumbrian, section 8.1 and an RPI-real range of 2.49% to 2.75%), Yorkshire estimate is based on KPMG's metrics other than Yorkshire's specific requests on cost and proportion of debt. The companies did not use the same WACC submissions to the CMA as were used in the business plans, and in some cases did not provide a single point estimate for the WACC in their submissions to the CMA.
Note: Where no overall point estimate or range was explicitly presented, we have estimated the company's view from either component metrics or other sources such as commissioned expert analysis. This table should be read as indicative only.
Note: The appointee WACC is the term used in Ofwat's determination for the weighted average cost of capital allowance for the relevant water or water and sewerage companies considered within our price control determination.

79. We have performed our own determination of the cost of capital using the Capital Asset Pricing Model (CAPM). The CAPM is an established methodology with well-understood theoretical foundations and which is based on the use of observable market data, together with some judgment on how to balance different sources of data. The CAPM is used by all UK regulators when calculating the cost of capital, and was the framework used by Ofwat in its PR19 final determination. We perform our own assessment of each of the parameters of this model, although our analysis is often built on our interpretation of the analysis and data provided by the Parties. We have included additional and more up-to-date market data in our assessment.

80. The main components of the CAPM which we provisionally decide on are (in inflation adjusted CPIH-real terms):

(d) The total market return (TMR) (6.2% to 7.2%): To calculate the TMR, we have placed the most weight on historical ex post returns (from 1900 to the present day), and placed some weight on both historic ex ante approaches and forward-looking evidence as a cross-check when selecting our range;

(e) The risk free rate (-1.4% to -0.8%): We have calculated a risk free rate by placing weight on both long-tenor index-linked gilts and AAA-rated non-government bonds (the highest quality commercial debt);

(f) The equity beta (0.65 to 0.80): We have calculated an equity beta based on a range of approaches of analysing the observable market data of WASC comparators, including a potential debt beta; and

(g) The industry cost of debt (2.3% to 2.9%): We have calculated a weighted average of new and embedded debt, including issuance and liquidity costs. In doing so, we largely rely on a notional approach using external indices and we did not apply a so-called 'outperformance wedge'

because, unlike Ofwat, we do not consider there is evidence that water companies could systematically outperform our chosen index once tenor and credit rating are adjusted for.

(h) We agree with the use of a true-up mechanism for the cost of new debt in the next price control process and would expect this to be conducted on a like for like basis (with, no performance wedge applied when calculating the true-up).

81. We also form views on related metrics, particularly inflation (CPIH of 2%, with a 0.9% RPI-CPI wedge) and notional gearing (60%).

82. Having established a range for our appointee WACC of 2.82% to 3.99% using the parameters above, we have then selected a point estimate. The selection of this point estimate requires the application of judgement in weighing up various considerations. In particular, we need to take account of the potential for error in our estimates whilst also considering the need to adjust for any risks to customers from underinvestment without being unnecessarily generous to shareholders.

83. We have varied our approach to picking a point estimate based on the associated level of uncertainty involved in the calculation. As a result, for the costs of embedded (historical) debt allowance, we are picking a point estimate at the bottom of the range as we can observe that average historical benchmark costs of debt will fall over the period. For the cost of new debt allowance, we are estimating a current cost that will be subject to a true-up mechanism at PR24 and so consider the midpoint of our range to be the most appropriate estimate. For the cost of equity allowance, we are predicting a future cost with a number of uncertain component variables. Because there is a higher risk of error when estimating the cost of equity, we consider it prudent to pick an estimate between the midpoint and the top of our range. Taken together, these estimates lead us to provisionally estimate a cost of capital allowance that is marginally above the mid-point of the range, at 3.50%.

84. Our cost of capital approach within the provisional determination, in conjunction with our other provisional decisions, implies that customer bills at the four Disputing Companies will fall by an average of 9.3% in this price control. If we had picked the midpoint of our cost of capital range as our estimate, customer bills would have fallen by approximately a further 0.50%. Using Ofwat's PR19 cost of capital allowance would have resulted in customer bills at the four Disputing Companies falling by approximately 12.6% on average. However, we consider our provisional cost of capital allowance

achieves the right balance for customers, who benefit not only from lower bills but also from continued investment in the water and sewerage networks.

85. Ofwat's PR19 decision included a 0.04% reduction in WACC in order to avoid water companies receiving compensation for systematic risks that were already covered by the margin in the retail price control. Our own assessment suggests that the potential for overcompensation is higher than initially calculated by Ofwat, but that this should be incorporated as a reduction in each companies' allowed revenues rather than as an adjustment to the cost of capital. We will apply this adjustment in our Final Determination.

86. Our cost of capital allowance of 3.50% is 0.54% higher than Ofwat's PR19 decision but represents a significant 1.17 percentage point reduction in comparison to the allowance awarded to companies in PR14. This largely reflects market movements.

Bristol Company Specific Adjustment

87. Ofwat has made specific adjustments to one or more metrics within some water-only companies' cost of capital to reflect structurally higher costs faced by smaller companies within the industry. Bristol claimed a Company Specific Adjustment (CSA) as part of the CMA's redetermination of the price control, in the form of an uplift to the cost of debt allowance and the cost of equity allowance.

88. Ofwat in the PR19 final determination rejected Bristol's claim for a CSA uplift to the cost of debt allowance on the basis that customers did not benefit sufficiently from being served by Bristol to compensate for the increased costs of financing a small company.

89. We have provisionally decided to award Bristol a small uplift in its embedded debt allowance of 0.10% primarily reflecting the increased transaction costs of a small company. In doing so, we are conscious of the importance of regulatory consistency and the fact that the CMA has previously rejected the application of a customer benefits test in this area. We have not applied a customer benefits test to Bristol's costs of capital allowance and it remains our view that the key consideration in this regard is the return on capital that allows a notional company of the size of the appointee to finance its activities.

90. We have, however, provisionally assessed a smaller difference in Bristol's cost of debt than the CSA Ofwat awarded to other small companies and have rejected Bristol's request for a cost of equity uplift on the basis of new evidence, including the equity premiums paid for small companies in recent market transactions. We have applied an uplift only to the cost of embedded

debt as there is evidence that, due primarily to recent changes in the way debt markets operate, Bristol no longer faces higher costs on its new debt. Given that Bristol's embedded debt was raised towards the start of our 20-year trailing average for measuring embedded debt, we would anticipate significantly less need for Bristol to be awarded a CSA in future price controls.

Gearing Outperformance Sharing Mechanism

91. Ofwat introduced a GOSM for the first time in PR19. Ofwat stated that equity investors benefit from higher equity returns that are associated with their increased risk, but there is no substantive benefit passed to customers. In addition, Ofwat stated where companies adopt high levels of gearing, they may reduce financial resilience and transfer some risk to customers and / or potentially taxpayers in the event that a company fails. To address this, Ofwat introduced a mechanism that it said would share the benefits of higher gearing with customers.

92. We consider that Ofwat has legitimate concerns that customers may face costs where the water companies have gearing well above notional levels, and this increase in gearing could have an adverse effect on financial resilience. However, we have concerns about the GOSM implemented to address these concerns by Ofwat at PR19. These concerns relate to the effectiveness of a GOSM in improving financial resilience and the specifics of its design and, more fundamentally, whether the financial benefits of higher gearing assumed by Ofwat in its design of the GOSM exist. As a result, we have provisionally decided not to include a GOSM in our re-determined price controls.

Financeability

93. We are required to ensure that companies can continue to finance their functions. We have therefore completed a financial ratio analysis similar to that which would be undertaken by the credit rating agencies, in particular regarding the level of cash flow. We found that the Disputing Companies should be able to achieve strong investment-grade credit ratings based on the notional capital structure, and this is consistent with our assumptions in the WACC for the cost of debt. We also find that under a reasonable downside scenario, Disputing Companies ratios are worse than the baseline model but still investment-grade. We have also considered the overall risk/return package and take note that, compared to Ofwat's FD package, our re-determination has resulted in lower risk exposure in a number of areas.

94. We consider that companies facing a financeability constraint, such as to address a downside scenario, may consider a range of mitigating actions to address impact, such as absorbing headroom in credit ratios, the contribution of equity to forego dividends or inject fresh capital. We conclude that this supports the view that our provisional redetermination for each of the Disputing Companies is financeable.

95. The companies earn revenues through the PAYG (pay as you go) share of allowed totex, which is comparable to operating expenditure or current expenses, and RCV run-off (a form of depreciation of regulated assets). The companies proposed PAYG rates and RCV run-off rates for each of the four price controls (water network, wastewater network, bioresources and water resources). The use of these measures is intended to mirror the standard accounting concepts of operating expenditure, recovered from current customers, and capital expenditure, recovered over the life of the assets. The use of the regulatory measures of PAYG and RCV run-off as an alternative to accounting measures should allow the companies and Ofwat to set the recovery of costs over a suitable period and to address any timing issues.

96. We have concluded that our provisional determination would be financeable on the basis of these measures being set at a rate which is consistent with the underlying totex in this period. In particular, we consider that our provisional determination would be financeable without Ofwat's adjustment to bring forward more revenues to this period than implied by the Disputing Companies' business plans. We therefore propose that PAYG rates should be set at the levels proposed by the companies.

Conclusion and Next Steps

97. For the purposes of this provisional determination, we have calculated an indicative revenue allowance for each of the Disputing Companies for AMP7, which is reflected in Table 7:

Table 7: Calculation of indicative wholesale allowed revenue for each water company (£m)

	Anglian	*Bristol*	*Northumbrian*	*Yorkshire*
PAYG	2,587	305	1,453	2,484
RCV Run-off	1,915	127	1,019	1,322
Return on Capital (Appointee)	1,242	81	634	1,066
Retail margin adjustment	-32	-2	-16	-27
Other CMA adjustments	0	0	0	35
Reconciliation	24	-7	-1	51
Tax	0	12	74	13
Grants and contributions	236	15	115	92
Deduct non-Price control income	-64	-10	-50	-18
Innovation competition	21	2	12	18
Revenue reprofiling	0	0	-1	0
Wholesale revenue	**5,929**	**523**	**3,239**	**5,035**

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Source: CMA analysis.

98. We emphasise that while we have looked at individual components in detail, and necessarily made decision on each of these, we have also considered any cross-cutting or interconnected issues when making such decisions. In particular, the inter-relationship between cost and service, as well as risk, return and financeability have influenced our decisions in each of the major areas of the determination (outcomes, totex and WACC). This is a determination of a whole package ‘in the round’, and our provisional decision is that this package secures compliance with all our duties.

99. We will consult with the Main Parties in parallel to our consultation on this Provisional Determination on the technical steps required to convert our determination to changes to the price control licence conditions. Our intention is to publish the calculations and consequences for the licence and the supporting modelling alongside our Final Determination.