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11 December 2003

14.2 INTERIM DETERMINATION

You applied on 10 September 2003 for an interim determination of your company's price limits under Part IV of Condition B of your licence. Your reporter, David Arnell of Black & Veatch Ltd, submitted his report on your application on 16 September 2003. Your application covered the additional costs resulting from the following three items:

- Changes to the requirements for treatment and monitoring for cryptosporidium.
- Increased operating costs, additional capital expenditure and uncollected revenue resulting from the ban on disconnection of domestic customers.
- Measures to address deteriorating raw water quality.

Your original application also included a claim for changes to the National Environment Programme. You have since agreed to pursue this item through the logging up process at the periodic review. Your application also takes into account one change that has reduced your costs:

- Changes to the requirements for plumbosolvency control and lead communication pipe replacement.

We sent you our provisional decision on 5 November. You sent us your representations on 18 November and we discussed these at our formal meeting on 28 November. We have considered your representations and those from others, including WaterVoice Northumbria, WaterVoice Eastern and members of the public.

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In your representations, you highlighted a number of policy points that you believed we needed to reconsider. We have considered the points you raised and set out our views in the company confidential explanatory notes that accompany this letter.

WaterVoice Northumbria and WaterVoice Eastern also commented on our provisional decision. Some concerns were raised about increasing customer debt and associated costs relating to the ban on the disconnection of domestic properties.

We have reviewed the initiatives that you have undertaken to tackle the increases in domestic debt. We note that you have extended your efforts to manage this issue. It is clear that, despite this, the level of debt attributable to domestic customers has increased materially. This is in contrast to the level of debt attributable to non-domestic customers, which has not increased following the introduction of these initiatives. We accept that this difference is due to the implementation of the ban on disconnection of domestic customers.

My statutory duties require me to make sure that a well managed company can finance the services it provides to its customers. No specific allowance had been made at the 1999 periodic review for the additional costs that relate to the ban on disconnection but a notified item was specified to take account of such costs.

However it is important that companies manage the problem of rising debt in an effective and efficient manner. We will continue to apply and refine comparative analysis tools so that I can be satisfied that companies are making every reasonable effort to manage debt.

Taking into account all representations, our assessment of the total impact of the relevant items on your costs is that they are sufficient to exceed the materiality threshold set out in Condition B of your licence.

Annex A summarises your estimates of the effect of all the changes on your costs in your application and also our final assessment of your application. Our approach and our findings, judgements and conclusions are summarised in Annex B. We have provided you separately with some confidential explanatory notes expanding on Annex B.

In calculating our revised price limits we have used the calculation set out in Licence Condition B. This has resulted in a revised K of 6.8 in 2004-05 due to the items in your Licence Condition B14.2 application. However, this needs to be read in conjunction with our determination of your Licence Condition B 14.3 application, which has resulted in an additional K of 3.2. Overall, the effect of both applications will result in a revised K of 10 in 2004-05. The revised price limits set out will apply from 1 April 2004.

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Overall taking account of both your Licence Condition B14.2 and B14.3 applications, in September 2003 prices, the average water and sewerage bill for a Northumbrian Water customer will increase by around £21 from £212 in 2003-04 to £233 in 2004-05. The average water bill for an Essex and Suffolk Water customer will increase by around £11 from £117 in 2003-04 to £128 in 2004-05. We calculate that for Northumbrian Water customers £14 of this additional amount is due to the Licence Condition B 14.2 application (£7 for Essex and Suffolk customers) and £7 is due to the Licence Condition B 14.3 application (£4 for Essex and Suffolk customers).

This means that customers' bills will still have reduced by around £36 for Northumbrian Water customers and around £13 for Essex and Suffolk customers in real terms for the whole of the period 2000-05.

We are placing this determination in our library and announcing it to the London Stock Exchange.

This letter and its enclosures have been copied to Richard Bird (DEFRA), Jeni Colbourne (DWI), Graham Tate and David Gallagher (Environment Agency), Andrea Cook (Chairman of WaterVoice Northumbria), Catherine Harvey (Chairman of WaterVoice Eastern), your local Members of Parliament and Members of the European Parliament.

PHILIP FLETCHER

ANNEX A

| NORTHUMBRIAN WATER LIMITED | | | |
|---|--|---|--|
| INTERIM DETERMINATION – December 2003 – SUMMARY TABLE | | | |
| Description | | Company's Assessment (September 2003) | Ofwat's Assessment (December 2003) |
| Item 1 – Cryptosporidium – Additional requirements for continuous monitoring and treatment | | | |
| 1.1 | Estimated net change in capital expenditure over the AMP3 period | £2.5m | £2.3m |
| 1.2 | Estimated net change in operating expenditure over the AMP3 period | £6.2m | £2.7m |
| 1.3 | Materiality amount (NPV of total net change in costs) | £18.3m | £9.2m |
| 1.4 | Contribution towards materiality threshold | 4.3% | 2.2% |
| Item 2 – Measures to address deteriorating raw water quality | | | |
| 2.1 | Estimated net change in capital expenditure over the AMP3 period | £18.1m | £15.9m |
| 2.2 | Estimated net change in operating expenditure over the AMP3 period | (£0.02m) | (£0.05m) |
| 2.3 | Materiality amount (NPV of total net change in costs) | £19.3m | £15.4m |
| 2.4 | Contribution towards materiality threshold | 4.6% | 3.7% |
| Item 3 – Lead – changes to compliance programme | | | |
| 3.1 | Estimated net change in capital expenditure on lead communication pipe replacement over the AMP3 period | (£18.1m) | (£20.8m) |
| 3.2 | Estimated net change in operating expenditure over the AMP3 period | (£0.8m) | (£0.0m) |
| 3.3 | Materiality amount (NPV of the net change in costs) | (£20.4m) | (£21.7m) |
| 3.4 | Contribution towards materiality threshold | (4.8%) | (5.2%) |
| 3.5 | Estimated net change in capital expenditure on plumbosolvency control over the AMP period | (£0.0m) | £2.6m |
| 3.6 | Estimated net change in operating expenditure on plumbosolvency control over the AMP3 period | £0.59m | £0.9m |
| 3.7 | Materiality amount (NPV of total net change in costs) | £3.0m | £5.5m |
| 3.8 | Contribution towards materiality threshold | 0.7% | 1.3% |
| Item 4 – Changes to the National Environment Programme | | | |
| 4.1 | Estimated net change in capital expenditure over the AMP3 period | £8.2m | - |
| 4.2 | Materiality amount (NPV of total net change in costs) | £7.5m | - |
| 4.3 | Contribution towards materiality threshold | 1.8% | - |
| Item 5 – Loss of disconnection | | | |
| 5.1 | Estimated net change in capital expenditure over the AMP3 period | £0.4m | £0.4m |
| 5.2 | Estimated net change in operating expenditure over the AMP3 period | £3.8m | £3.4m |
| 5.3 | Estimated net change in revenue write-off over the AMP3 period | £14.8m | £13.9m |
| 5.4 | Estimated net change in financing costs over the AMP3 period | £2.0m | £3.0m |
| 5.5 | Materiality amount (NPV of total net change in costs) | £58.6m | £58.2m |
| 5.6 | Contribution towards materiality threshold | 13.9% | 13.8% |
| OVERALL ASSESSMENT | | | |
| 6 | Materiality amount (NPV of total net change in costs) | £86.3m | £66.6m |
| 7 | Northumbrian Water turnover for 2002-03 used in materiality test | £421.7m | £421.7m |
| 8 | Materiality test | 20.5% | 15.8% |

| PRICE LIMITS | | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 |
|--|---|---------|---------|---------|---------|---------|
| 9 | Current price limits (as set in November 1999) | -18.0 | -1.5 | 0.0 | 0.0 | 0.0 |
| 10 | Revised price limits | -18.0 | -1.5 | 0.0 | 0.0 | 6.8 |
| Notes: 6. Additional costs are shown as positive, savings and revenue gains are shown as negative. 7. The appropriate discount rate used is 4.2% 8. Materiality test – Result must be greater than $\pm 10\%$ to trigger a change in price limits. 9. All monetary values are stated in September 2003 prices. Totals may not add due to rounding. | | | | | | |

**NORTHUMBRIAN WATER LIMITED
INTERIM DETERMINATION – DECEMBER 2003
SUMMARY OF OFWAT'S ASSESSMENT**

INTRODUCTION

1. We have followed a four stage assessment of your application in accordance with the terms of Licence Condition B.
2. You included three changes in your application.
 - Changes to the requirements for treatment and monitoring for cryptosporidium.
 - Increased operating costs, additional capital expenditure and uncollected revenue resulting from the ban on disconnection of household customers.
 - Measures to address deteriorating raw water quality.
3. Your original application also included a claim for changes to the National Environment Programme. You have since agreed to pursue this item through the logging up process at the periodic review.
4. We issued a counter notice in respect of changes to the requirements for lead communication pipe replacement, which you reflected in your application.
5. Our assessment of your application and the counter notices is summarised below.

STAGE 1 – CONFIRMATION THAT THE CHANGED REQUIREMENT IS A RELEVANT CHANGE OF CIRCUMSTANCE

Item 1 – Cryptosporidium - additional requirements for continuous monitoring and treatment

6. When we set price limits in 1999 the extent of the requirements to deal with the risk from cryptosporidium was uncertain. Only work that had received technical support from the Drinking Water Inspectorate (DWI) was included in price limits. This did not include any requirement to carry out continuous monitoring.
7. The letters sent from the DWI to Northumbrian Water on 31 July 2000 and to Essex & Suffolk Water on 11 February 2000 set down the programmes of work you were required to carry out to meet the requirements of regulation 23B of the Water Supply (Water Quality) Amendment Regulations 1999. This included programmes of regulatory monitoring, and for Northumbrian Water a programme of treatment improvements. The DWI has since written to you updating the programmes required to meet the cryptosporidium regulations. The most recent letters were sent on 7 August 2002.

8. We have received confirmation from the DWI that the work set out in your application is necessary to meet your obligations under the cryptosporidium regulations.
9. We consider that the monitoring and treatment requirements in your application qualify as a relevant change of circumstance.

Item 2 – Deteriorating raw water quality

10. When we set price limits in 1999 we included schemes to deal with pesticides and dissolved organic carbon. Since then some raw waters have deteriorated in quality, and the DWI has required companies to carry out improvement works.
11. The DWI accepted new undertakings to deal with pesticides at Whittle Dene and Horsley treatment works on 17 May 2002, and at Warkworth on 20 March 2003.
12. The DWI accepted a new undertaking for THM at Ormesby treatment works on 2 March 2000. Although this undertaking refers to the area of supply covered by Lound water supply zone, we believe there is no specific undertaking relating to Lound works for THM. But work at Lound to reduce THM concentrations in supply was included in the programme of work under regulation 41, revision date July 2002.
13. The DWI has confirmed that the requirements for dealing with nitrates at Langford have been revised, and that treatment is no longer required.
14. We consider that the pesticides, dissolved organic carbon and nitrate schemes in your application constitute a relevant change of circumstance.

Item 3 – Plumbosolvency treatment to reduce lead levels in drinking water

15. In 1999 we allowed in price limits a programme to comply with the new lead standards. This assumed both lead communication pipe replacement and plumbosolvency control. During the 1999 periodic review the DWI stated that it would review the most effective means of delivering compliance, and plumbosolvency control is now the preferred initial approach.
16. The DWI has confirmed that the provision made in the 1999 final determination for meeting the new lead standards was only for the purpose of setting prices. The programmes of work set down in the Inspectorate's letters to you dated 28 November 2002 and 31 July 2003 'Water Supply (Water Quality) Regulations 2000: Regulation 41 – Approval of Programmes of Work' replace the letters of support provided for the periodic review process.
17. The DWI has advised that it will not be possible to determine whether a programme of lead communication pipe replacement will be required until the effectiveness of plumbosolvency control has been assessed.

18. We have received confirmation from the DWI that the plumbosolvency control programme set out in your application is necessary to comply with the new lead standards. But the Inspectorate has not confirmed the lead pipe replacement pilot project included in your application. With the exception of the lead pipe pilot project we consider that the change in your lead compliance programme is a relevant change of circumstance.

Item 4 – Loss of disconnection power

19. We set out a notified item in the 1999 price determination to protect you from the consequences of increased levels of bad debt and costs of debt recovery arising from the loss of the power to disconnect domestic customers for non-payment of bills.
20. We confirm that the increases in your bad debt and costs of debt recovery have triggered the notified item.

STAGE 2 – ASSESSING THE APPROPRIATE NET ADDITIONAL COST ATTRIBUTABLE TO EACH CHANGE

Item 1 – Cryptosporidium - additional requirements for continuous monitoring and treatment

21. You have included in your application thirteen sites where you have chosen to deal with the requirements of the cryptosporidium regulations by carrying out continuous monitoring. You have also included one other site where you have installed a barrier treatment process. The reporter has commented that the decisions made by your company are reasonable.
22. We have reviewed your costs for meeting the requirements for cryptosporidium monitoring and treatment, and considered the reporter's report. We have also looked at market prices for this type of work reported by other companies.
23. We compared your additional operating costs for carrying out continuous monitoring for cryptosporidium with a benchmark and found them to be high. We reduced the operating expenditure in your submission to the benchmark.
24. We believe that there will be increases in efficiency for this labour intensive procedure, and consequently we have assumed a future efficiency of 2.5% per annum for operating expenditure.
25. Your additional capital expenditure for continuous monitoring equipment is the same as the benchmark, and consequently we have not reduced the capital expenditure in your application.
26. In assessing the costs in your application for Tosson treatment works we employed the reference assumptions set out in RD 28/03. We reduced your submitted capital expenditure by 8%. This is the capital enhancement catch-up factor for water non-infrastructure.
27. We reduced the operating expenditure for treatment at Tosson in your application by 1.5% pa, the catch-up factor for enhancement opex, and we assumed a continuing efficiency of 0.75% pa.

Item 2 – Deteriorating raw water quality

28. We reduced a portion of your submitted capital expenditure by 8%, which is the capital enhancement catch-up factor for water non-infrastructure in RD 28/03, and the other portion by 12%, the infrastructure catch-up factor. And we assumed a continuing capital enhancement efficiency of 0.75% pa. We reduced the operating expenditure by 1.5% pa, the catch-up factor for enhancement opex, and we assumed a continuing efficiency of 0.75% pa.
29. We deducted the FD99 assumption for the nitrate reduction scheme at Langford that is no longer required.

Item 3 – Plumbosolvency treatment to reduce lead levels in drinking water

30. The DWI stated in Information Letter 13/98 that the provision made for meeting the new lead standards was solely for the purpose of estimating costs for the periodic review. The Information Letter made it clear that financial provision was subject to companies agreeing specific programmes of work with the DWI once the criteria for action had been agreed. After the final determination, the DWI set out in Information Letter 12/2000 the criteria for action, which resulted in more emphasis on treatment to reduce plumbosolvency than was assumed in the final determination.
31. You have included in your application 36 sites where you have installed new treatment. Wearhead and Wear Valley works are included in this number. But Wear Valley will replace Wearhead.
32. In our assessment we compared the total volumetric output of the works in the notional plumbosolvency programme assumed at the 1999 final determination with the total volumetric output of the works in the confirmed programme. We have taken into account only the proportion of the costs assumed at the 1999 final determination associated with the net additional volumetric output of the confirmed programme.
33. The volumetric output of the confirmed programme is about 7% greater than that of the notional programme. Our approach, as generally applied in other interim determinations, has been to include the outputs now required in the same manner as we would have at the 1999 Periodic Review, if we had been aware of the present facts. Therefore we have allowed 7% of the costs assumed at FD99.
34. We have also allowed the expenditure not directly associated with phosphate dosing but still required for plumbosolvency control and which was not included at FD99. We reduced the relevant capital expenditure by 8%, the capital enhancement catch-up factor for water non-infrastructure in RD 28/03. We reduced the relevant operating expenditure by 1.5% pa, the catch-up factor for enhancement opex, and we assumed a continuing efficiency of 0.75% pa.
35. We deducted the FD99 assumption for the lead pipe replacement programme.

Item 4 – Loss of disconnection power

36. We have carefully assessed the information submitted in your application. Where appropriate we have requested further clarification from yourselves and your reporter.
37. In your application you explained that:
 - the amount of debt which you cannot collect;
 - the cost of financing outstanding revenue; and
 - the costs of collecting debthave all increased since the implementation of the Water Industry Act 1999. We accept your evidence.

38. Your application set out the changes made to your procedures for recovering debt from customers. Prior to the Water Industry Act 1999 you used the threat of your power to disconnect domestic customers widely. You established contact with a significant number of non-paying customers as a result and obtained payment from most of those customers. Having lost this power you have used a number of new debt initiatives including the introduction of an in-house debt recovery agency, specialised debt recovery training for staff, increased use of external parties, and increased numbers of debt collection staff. These do not secure payment in as many cases and, where payment is secured, it is recovered less quickly.
39. We accept that as a result of these changes:
- the amount of debt which you are unable to collect has increased; and
 - where debt is recovered it now takes you longer on average to do so. Financing costs increase because of this.
40. You also stated in your application that the changes in your procedures have caused your operating costs to rise. These costs include the additional staff and associated costs that are exclusively employed in debt recovery activities. We also accept that these costs have increased.
41. You explained that the introduction of a new debt management system to accommodate new methods of debt recovery required additional capital expenditure. We accept that these are costs which would not have arisen during this period if it were not for the ban on household disconnection.
42. You have assessed the change between 1998-99 and 2002-03 in both the level of unrecoverable revenue, and financing costs of outstanding debt following the general approach we set out in RD12/01 'Notified Item for bad debt' (August 2001).
43. However, there are some points of detail where our calculations differ. The most significant of these are as follows.
44. Firstly, we have calculated changes using outturn prices rather than adjusting the numbers in each year to the same price base as set out in your application. This means we have allowed slightly more additional costs than you included in your application.
45. Secondly, your application included forecast cost increases for revenue outstanding, unrecoverable revenue and debt collection costs for 2003-04 and 2004-05. As set out in RD12/01, given the proximity of the next Periodic Review and the level of uncertainty around the subsequent changes in costs and recovery rates, we will assume that in the future these costs continue at 2002-03 levels.
46. You commented on our approach to forecast costs and costs incurred between 1998-99 and 1999-00 in your representation to us. We do not intend to change our approach.
47. These differences in methodology are reflected in the numbers set out in Annex A. Further information is provided in the explanatory notes.

STAGE 3 – MATERIALITY TEST – IN AGGREGATE DOES THE SUM OF ALL THE CHANGES EXCEED THE MATERIALITY THRESHOLD SET OUT IN THE LICENCE?

48. Licence Condition B sets a materiality threshold for consideration of interim determinations. A revision of price limits is triggered if the present value of the net additional costs and revenue losses arising from the changes is greater than 10% of the turnover of the appointed business in the latest financial year for which accounting statements have been delivered to Ofwat. For the purpose of this calculation, capital costs are calculated up to 31 March 2005 and operating costs and revenue losses are calculated over 15 years.
49. The results of our analysis, based on the revised assumptions set out above, are summarised in Annex A. This shows that the net present value of the relevant items is 15.8% and therefore the materiality threshold has been exceeded.

STAGE 4 – IMPLICATIONS FOR PRICE LIMITS IF THE MATERIALITY THRESHOLD IS EXCEEDED

50. Because the materiality threshold is exceeded we are required by Licence Condition B to review and revise your price limits. Our provisional assessment of your company's application is that the price limits for the charging year 2004-05 should be revised as set out in the table in Annex A.
51. However, this needs to be read in conjunction with Ofwat's determination on your Licence Condition B14.3 application which we have also sent to you today.