

# **Interim report on allegations made against Severn Trent Water**

**7 March 2006**



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## Foreword

We have now reached our interim conclusions on the allegations of false reporting by Severn Trent Water made in 2004. This report covers our approach to the investigation to date and sets out, on an interim basis, our findings, conclusions and the actions we require Severn Trent Water to take.

The allegations, made by an employee of the company, centre on the provision of false information by Severn Trent Water to Ofwat in order to secure more favourable outcomes at price setting.

During the course of our investigation into the allegations, we alerted the Serious Fraud Office (SFO) to concerns we had about the reliability of certain information provided by Severn Trent Water. We reported our concerns about data on leakage that came to light during our investigation. The SFO has confirmed that it is investigating this matter.

In view of the SFO's investigation we do not cover leakage in this report. The report covers our interim findings and conclusions, from a regulatory perspective, on the other allegations. It also sets out the actions we consider necessary. Once the SFO's investigation is completed we will of course, where appropriate, consider the findings and regulatory implications stemming from it and information it may reveal in relation to the findings in this interim report or more broadly.

The information that we collect from companies needs to be accurate, reliable and complete if we, and stakeholders, are to have confidence in the industry and the decisions we make. MD209 'Reliability of regulatory information' explains what we expect of companies and reiterates that the ultimate responsibility for the accuracy of the information provided to us rests with the company and its employees.

The provision of false, inaccurate or incomplete data undermines stakeholder confidence in regulation. This affects our ability to challenge companies' projected costs and provide incentives to companies to become more efficient. This could in turn lead to higher price limits and therefore higher bills for customers.

We have taken the allegations made against Severn Trent Water very seriously. Given the nature of the allegations it was important that we pursued this investigation to satisfy ourselves that both our 2002 interim determination for Severn Trent Water and our 2004 review of its price limits for 2005-10 remain soundly based.

Since the company informed us of the allegations our primary objective has been to ensure that Severn Trent Water did not overcharge customers as a result of any false information provided to us. We obtained an undertaking from Severn Trent Water that it would reimburse customers if it were shown that they had been overcharged. We have met Mr Donnelly, the whistleblower, and discussed his allegations directly with him on a number of occasions during our investigation. We have reviewed a large number of documents and requested additional explanations and information where required. This has taken time.

We have seen all the information we needed to reach our conclusions. We believe the information we have seen supports the conclusions we reach and that the remedies we propose are fair and balanced. Our findings relate to the regulated company Severn Trent Water, not its parent company Severn Trent Plc.

Although the information we reviewed did not support the allegations in full we did find that Severn Trent Water:

- provided data to us that had been deliberately miscalculated and which meant customers had been overcharged;
- had poor internal processes and controls, which in the case of estimating and recording income in our view led to price limits for the period 2005-10 being higher than they would otherwise have been; and
- approached the collection and submission of data in a manner that causes us concern.

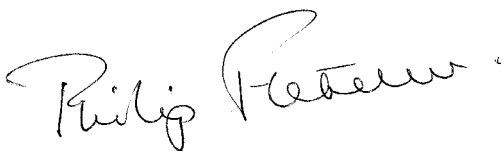
This is unsatisfactory and we will want Severn Trent Water to make full financial recompense over the period to 2010. This should be equivalent to the revenue that customers would have been overcharged by the original price limits.

We also believe that our findings are sufficiently serious that the company should face a penalty element through a further adjustment to its price limits in recognition of the scale and nature of our findings.

We cannot determine the quantum of this adjustment at this point because of its interaction with the SFO investigation. However, once the SFO investigation is complete we will consider with Severn Trent Water the extent of any penalty adjustment to price limits that reflects our serious concerns about what we found during our investigation.

We have identified a number of other actions that we specifically require Severn Trent Water to undertake to ensure that we can have confidence in its data in the future. Since our investigation began, Severn Trent Plc has kept us informed about major changes it has made to organisation structure, to people and to processes and controls of Severn Trent Water. While these changes represent steps in the right direction, it is still early days and we have not yet seen the full benefits of the changes. We will continue to monitor the response of Severn Trent Water in order to obtain the assurance we require.

We have also identified some actions needed to strengthen the regime of data collection across the industry, and have either already implemented (or have set out a timetable for implementing) them.



**Philip Fletcher**

## Summary

In May 2004 Mr Donnelly, an employee of Severn Trent Water Limited, alleged within the company that it had submitted false data to us (the allegations are summarised below and are set out in detail in section 1). Severn Trent plc, Severn Trent Water's parent company (the Parent Company), undertook its own internal investigation into the allegations. It commissioned PricewaterhouseCoopers Forensic Services (PwC Forensic) to investigate and report to it.

Severn Trent Water informed us of Mr Donnelly's allegations and PwC Forensic's investigation in June 2004. We required the company to keep us informed of the progress and findings of its investigation. In September 2004 the Parent Company provided us with a summary of the findings of PwC Forensic's investigation. At that time we were setting price limits for Severn Trent Water (and the rest of the industry) for the period 2005-10. At our request, in November 2004 Severn Trent Water gave us an undertaking that if customers had been overcharged they would be reimbursed.

Mr Donnelly first raised his concerns with us directly in November 2004. Once we had obtained the undertaking from Severn Trent Water and completed the 2004 periodic review we began our formal investigation into Mr Donnelly's allegations in January 2005.

## The allegations

In discussions with us, and previously with PwC Forensic during its investigation, Mr Donnelly explained that in carrying out his job at Severn Trent Water he had made inappropriate adjustments that resulted in the deliberate miscalculation of the bad debt charge and provision and other bad debt data submitted to us. He stated that this was on the instruction of senior management and that this was widely known within Severn Trent Water. He alleged that as a result of this:

- the bad debt charge and provision included in Severn Trent Water's accounts (and consequently the Parent Company's group accounts) were misstated;
- the increase in Severn Trent Water's price limits, resulting from the 2004 periodic review, was based on overstated bad debt data; and
- the increase in Severn Trent Water's price limits, resulting from the 2002 interim determination, was based on overstated bad debt data.

Mr Donnelly also made allegations on issues which were not directly his responsibility within his job function. He said that data reported to us on the proportion of metered customers that receive a bill based on an actual meter reading (DG8 indicator data) and income data (on which price limits for 2005-10 were set) were manipulated.

In addition, Mr Donnelly made allegations relating to leakage, which we do not comment on in this report, but which are the subject of an SFO investigation.

## Our investigation

Section 207 of the Water Industry Act 1991 makes it an offence for any person or company to provide false information to us. The allegations are complex and have taken a substantial amount of time to investigate. Our investigation considered each of Mr Donnelly's allegations in detail. We wished to establish whether Severn Trent Water had provided us with false information and to understand whether this had led to customers being overcharged. We:

- Held discussions with Mr Donnelly. Mr Donnelly provided us with a full copy of the papers he holds and we discussed with him the adjustments that he had undertaken.
- Met with those parties we felt we needed to speak to as part of our investigation.
- Gathered additional documentation, information and data that we felt we needed to review as our investigation progressed.
- Analysed the bad debt charge and provision and reworked the interim determination calculation, using our own judgements on the reasonableness of the data.
- In reaching our conclusions we drew on advice from our own forensic accounting expert advisor whom we appointed to supplement our in-house expertise during the investigation.

During the course of our investigation we did not interview Severn Trent Water staff other than Mr Donnelly. We had access to the documentation we required including transcripts of interviews carried out by PwC Forensic. We did not want to duplicate this work and concluded we could obtain all we needed from written sources.

Ofwat is not a criminal law enforcement agency and our investigation therefore focused on our regulatory concerns.

We focused on whether:

- there was a deliberate attempt by Severn Trent Water or the Parent Company to mislead us; and
- customers were overcharged as a result of any misstatements.

More specifically we sought to answer three key questions:

1. Was our 2004 determination of price limits for Severn Trent Water for 2005-10 based on incorrect data?
2. Was the 2002 interim determination, when Severn Trent Water was allowed to increase its price limits by an additional 2.1% in 2003-04 and 1.2% in 2004-05, based on incorrect data? If it was, had customers been overcharged as a consequence and would the interim determination remain valid if the data were corrected?
3. Regardless of the above, did Severn Trent Water or the Parent Company at any time attempt to mislead us?

## Interim conclusions

Following our investigation and based on the information we have seen, we draw the following interim conclusions:

- **The bad debt charge and provision were deliberately miscalculated by Mr Donnelly for the years 2000-01 to 2003-04 and were accepted by the company and used in its submissions to Ofwat.**
- **The deliberate miscalculation of the bad debt charge and provision element did not lead to customers being overcharged at the 2004 periodic review.**
- **The information reviewed did not suggest that the DG8 indicator (on bills for metered customers) was reported incorrectly in any year covered by the allegations or that Severn Trent Water had any intention to report incorrect figures.**
- **However, weaknesses in Severn Trent Water's internal processes and systems of control for reporting its income, and a failure to follow our detailed guidance for the completion of its final business plan, resulted in an understatement of the company's forecast revenue. As a result, the price limits we set for Severn Trent Water for the period 2005-10 mean that, in our view, customers were disadvantaged at the 2004 periodic review by £40m over the five-year period (roughly equivalent to £2 to £3 on an average domestic customer's bill each year until 2010).**
- **The 2002 interim determination of price limits would still have met the required materiality threshold despite the deliberate miscalculation of the bad debt charge and provision together with manipulation of the manual adjustments required between household and non-household bad debt. However, our analysis suggests that the manipulation led to price limits in 2004-05 being around 0.2% higher than they would otherwise have been and therefore in our view led to customers being overcharged by £2m in that year.**
- **The information we reviewed does not support Mr Donnelly's claim of a company-wide attempt to mislead us on bad debt. However, it appears that a limited number of staff, including at least one senior member of staff (not a Director), became aware of the adjustments to the bad debt charge and provision but did not raise any concerns. It also appears that on one occasion material was withheld from Severn Trent Water's auditors, PricewaterhouseCoopers (PwC Audit) by staff other than Mr Donnelly. There were also failings in the supervision of staff.**
- **We have serious concerns about the culture and systems of planning and control within Severn Trent Water during the period covered by the allegations. In our view it led to data being submitted to us that was not accurate or well supported and that was influenced by a desire to present a particular position or achieve a particular outcome. We consider that Severn Trent Water's approach fell significantly below the standard we expect.**

- **During the course of our investigation into the allegations we alerted the SFO to concerns that we had about the reliability of the leakage data Severn Trent Water submitted to us. The SFO is now investigating these allegations.**

Our findings relate to the regulated company Severn Trent Water, not its parent company – Severn Trent Plc. There is no evidence of involvement of the Parent Company in these issues. Overall, the Parent Company kept us informed of the progress of its investigation and has co-operated with our investigation. We consider that the Parent Company was more cautious and less open in its dealings with us than was appropriate. In the main, this was confined to the early stages of our investigation and was eventually resolved to our satisfaction.

We do not comment further on the leakage issues or their implications in this report. Ofwat does not have the powers of a criminal law enforcement agency to undertake a criminal investigation. But, as in this case, we can refer issues of concern to the appropriate authorities. The report considers our findings and interim conclusions, from a regulatory perspective, in relation to all the other allegations based on the information available to us at this time.

## **Regulatory action**

During our investigation we considered:

- What, if any, action we would wish Severn Trent Water to take to remedy any concerns that we may have with the company.
- Whether there were any industry-wide actions that we would need to implement to strengthen the regulatory framework going forward.
- Whether we needed to change our approach to collecting and analysing data for the areas at the centre of the allegations or more generally.

Having reached our conclusions we thought carefully about what remedies, if any, we should apply. The information we reviewed did not support the allegations in full. Nevertheless, the price limits for customers of Severn Trent Water are higher than they should have been and what we have found at the company is unsatisfactory and disappointing.

We can only assess the full remedies required once the SFO has completed its investigation but certain actions can be taken now. In summary, the interim regulatory actions we require are as follows.

- **We expect the company to reduce price limits throughout the price review period by an amount equivalent to the revenue that we believe customers would be overcharged over the period to 2010 (£42m in total). The company has already reduced its price increase in 2006-07 on a voluntary basis by £7m. Once the SFO investigation is complete we will consider the appropriate scale of the penalty adjustment to price limits to reflect our concern with what we found during our investigation.**

- **We require Severn Trent Water to implement a number of actions to satisfy us that we can in future rely on the data it reports to us. We will monitor the company's performance against these actions. Severn Trent Water will need to demonstrate, to our satisfaction, that it has addressed our concerns. These actions are set out in section 3.**

### **The extent to which customers have been disadvantaged**

Although the information we reviewed did not support the allegations in full it is our view that:

- Customers have been overcharged by £2m in 2004-05 because deliberately miscalculated bad debt data was included in Severn Trent Water's interim determination.
- Due to poor internal processes and controls incorrect data for income was submitted to us when we set price limits for 2005-10 in 2004. Although we do not believe this was intentional, in our view it would lead to customers being disadvantaged by £40m over that period because price limits are higher than they need to be.

We conclude therefore, if existing price limits remain unchanged, that by 2010 in aggregate customers would be overcharged by around £42m. We believe that Severn Trent Water's price limits should be adjusted so that this does not occur.

Our investigation also gave us cause for concern over the approach by staff to the collection and submission of data. In our view, the poor practices at Severn Trent Water that our investigation highlights cannot be offset simply by repayment of the £42m. There should also be a penalty element over and above the adjustment set out above to return the amount overcharged to customers.

We will consider this element in more detail once the SFO investigation is complete.

It should be noted that, although powers introduced in the Water Act 2003 provide for financial penalties to be imposed on water and sewerage companies, in this instance, the financial penalty regime does not apply. This is because the allegations relate to actions before our powers to fine came into force in April 2005. We do however, expect the company to accept this penalty element.

### **Robustness of data**

Customers have the right to expect companies to maintain the highest governance standards at all times. With this in mind we thought carefully about what we would require Severn Trent Water to do to assure us of the robustness of its data and its approach to dealing with us in the future.

The measures we propose will place additional regulatory requirements on Severn Trent Water compared to those on other companies. But we believe that this is necessary in this case. Severn Trent Water will need to satisfy us that the data it provides to us in its regulatory submissions is robust. We will be working closely with the company's auditor and reporter<sup>1</sup> to monitor its progress.

Since our investigation began the Parent Company had asked its new auditor, Deloitte & Touche, to review Severn Trent Water's internal processes and controls. We have reviewed Deloitte & Touche's reports. The weaknesses that this review revealed concerned us. Deloitte & Touche is now satisfied that the processes and controls in those areas reviewed are now of the required standards and are operating correctly. Although the company has made significant progress in implementing the recommendations from the review, we are concerned that it did not ensure that certain key areas were addressed in accordance with the agreed timetable. Severn Trent Water has explained that it views the deadlines it set as challenging and that it had made significant progress towards making the changes by the agreed dates. It has now taken steps to address these issues in full.

We recognise the significant changes to structures, people, processes and controls that Severn Trent Water has put in place since the middle of 2005. We will look to the company to demonstrate to us that the new controls and processes will remain effective in the longer term. We will look closely at its 2006 June return submission and work closely with Severn Trent Water's auditor and reporter.

Our job is to regulate, not to manage the water companies. We limit the data we collect to what we need to make decisions with confidence. However, in light of our investigation we believe that it will be necessary to collect additional information from all companies on bad debt. We plan to work with the industry to address this. We will also consider how to get the best out of the work that the financial auditors do.

In light of the SFO's decision to investigate leakage we will provide it with all the information and assistance it may request.

### **Licence condition F and P – parent company behaviour, corporate governance and financial ring fencing**

Severn Trent Water does not have the full suite of ring fencing conditions now standard in the sector and we will now look to make amendments to Condition F of Severn Trent Water's Licence and introducing a new Condition P to strengthen its corporate governance, financial ring fencing and parent company behaviour. To date, we have introduced these conditions into companies' licences when a company has been acquired, or a new ownership or financing structure has been put in place (which has not been the case for Severn Trent Water).

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<sup>1</sup> Reporters are usually consulting engineers. They examine the non-financial elements of the information that companies submit to us. As well as scrutinising individual companies' data, reporters help us to ensure that information from different companies is comparable.

The omission of the full suite of Condition F and P did not in our view lead to the problems identified but if Severn Trent Water's parent company had been less co-operative the progress of our investigation could have been significantly hampered. The new Condition P would have improved our powers to gather information from the Parent Company.

Following this investigation we believe that it is appropriate for us to bring Severn Trent Water's Licence up to date and in line with others. We believe that most of the Condition F and P licence modifications are relevant to all companies, regardless of their structure. In this case we also believe that the specific modifications will provide additional protection and comfort to customers.

Updating its Licence in this way will help to crystallise the requirements on the company including the role of its Parent Company and provide the necessary regulatory safeguards. It will also demonstrate Severn Trent Water's (and its Parent Company's) commitment to achieving compliance, openness, corporate governance best practice, and the safeguarding of customer interests. We have discussed this requirement with Severn Trent Water, it has agreed in principle to these modifications.

Section 3 provides further details on the actions we require for both Severn Trent Water and the industry as a whole.

## **Section 1 Introduction**

### **Purpose of our investigation**

In November 2004 Mr Donnelly, an employee of Severn Trent Water, made allegations to us about the reliability of data submitted by the company to Ofwat.

The provision of accurate, reliable, and complete information is at the heart of the regulatory framework. We use such data to set price limits, monitor company performance and, through comparative competition, to provide incentives to companies to improve. This ultimately benefits customers through better service and lower prices.

All companies are required by their licences to make an annual return covering their activities in the previous financial year. This return, sent to us each June and known as the June return, is our primary source of information and provides us with a range of information.

When we set price limits (every five years) we also require companies to provide us with additional, more detailed, information about their likely future costs and investment requirements.

The information that companies provide to us also gives customers the opportunity to see how the company that supplies them is performing. It is important that customers and other stakeholders can have confidence in this information if they are to retain confidence in the industry more generally.

For these reasons we look closely at the information that companies provide and the assumptions they make to ensure that the information represents a fair and reasonable attempt to report their position on what can be complex issues. Companies' submissions are scrutinised by independent professionals – reporters and financial auditors – who examine and test the reliability of the information and report their opinions to us.

We look to balance our requirements against the need to regulate at arm's length and leave the management of the business to the companies. We can only regulate at arm's length if we have confidence in the data supplied to us. In light of Mr Donnelly's allegations we began an investigation into the issues raised to determine whether there was an attempt by Severn Trent Water and/or its Parent Company to mislead us and whether customers had been disadvantaged as a result.

## **Mr Donnelly's allegations**

Mr Donnelly has worked in the financial services department of Severn Trent Water since 1992, although he began work for Severn Trent Water in 1975. During the period covered by the allegations his principal responsibilities related to the production of information on unrecoverable revenue for Severn Trent Water's budgeting and financial planning systems, its accounts and the June return submission to us. He is not a qualified accountant. Mr Donnelly's allegations cover a number of areas of data submitted to us by Severn Trent Water. These are set out below.

Mr Donnelly alleges that:

### **Customer bad debt**

- Severn Trent Water's bad debt charge and provision was deliberately overstated in the years 2000-01 to 2003-04.
- Both Severn Trent Water's and the Parent Company's published accounts were therefore misstated in the years 2000-01 to 2003-04.
- The misstatement was conducted:
  - (i) in 2000-01 and 2001-02 to secure an interim determination of price limits in 2002;
  - (ii) after 2001-02 to demonstrate that the interim determination was necessary; and
  - (iii) in 2003-04 to secure higher price limits for the period 2005-10 at the 2004 periodic review.
- Severn Trent Water had a policy of matching the level of bad debt written off to the bad debt charge in any given year. The overstatement of the bad debt charge therefore led to an overstatement of bad debt written off and hence an invalid interim determination.
- Directors and senior managers at Severn Trent Water directed or were aware of the misstatement.
- The misstatement was concealed from the company's auditors.

### **Income and the DG8 indicator**

- Severn Trent Water deliberately understated the number of customers billed on the basis of estimated meter readings reported to Ofwat (DG8 indicator data). As a result it provided misleading and incorrect explanations on movements in income from year to year.
- Severn Trent Water manipulated income through various mechanisms to fit with the wider position desired by the company for the profit and loss account for the 2004 periodic review.

## **Leakage**

Mr Donnelly also made allegations relating to leakage, which we do not comment on in this report, but are the subject of an SFO investigation.

Clearly these allegations could have serious implications for the regulatory decisions we had made for Severn Trent Water and for our ability to rely on future regulatory submissions from the company. Section 207 of the Water Industry Act 1991 makes it an offence to provide false information to us although we cannot instigate a criminal investigation. The investigation we conducted focused on the regulatory implications of the allegations. We wished to:

- Understand the impact on our previous determinations for Severn Trent Water.
- Understand the impact on the regulatory framework as a whole.
- Consider what remedies and actions we require from Severn Trent Water to satisfy ourselves that future submissions are robust.
- Identify any learning points and actions that would strengthen the regulatory framework for the whole industry.

## **The Parent Company's investigation**

Mr Donnelly initially raised his allegations with the Directors of Severn Trent Water itself. The Parent Company undertook its own investigation, carried out by PwC Forensic. The audit arm of PwC were also Severn Trent Water's auditors at that time.

PwC Forensic's initial work focused on the allegations relating to bad debt and their impact, if any, on the 2003-04 accounts. The Parent Company wished to satisfy itself that its accounts for 2003-04 were accurate and could be signed off by its auditors in June 2004.

When PwC Forensic were first appointed, the Parent Company assured us that robust measures (principally 'Chinese walls') would be in place during the investigation and that this would ensure PwC Forensic worked completely independently of the audit team. Since then we have become aware that two members of the PwC audit team were involved in this initial phase of PwC Forensic's investigation. This was not in line with the assurance that we had originally been given. Although we note that the Parent Company's approach was a pragmatic one aimed at a more rapid investigation we consider best practice to be the appointment of completely independent investigators. This avoids the perception of a conflict of interest even if there was nothing improper in their actions. In fact, if Chinese walls were properly in place there would not be any real benefit from using the same firm.

For the next stage of its work, PwC Forensic went on to consider all of the allegations in greater detail. In carrying out its investigation, PwC Forensic formally interviewed a wide range of staff at Severn Trent Water. It also had more informal discussions with members of staff to assist it in its investigation. A surprising omission in this phase of PwC Forensic's work is that some staff who reported to Mr Donnelly were not formally interviewed.

The Parent Company considered the findings of PwC Forensic's investigation and reached its conclusions in November 2004. The Parent Company concluded that:

- there had been no effect upon the integrity of its accounts;
- Severn Trent Water's water customers were not overcharged; but
- the investigation did reveal prima facie evidence of behaviour by some staff that it believed fell short of the standards it expected. It therefore instigated a disciplinary investigation and took action against a number of staff.

The Parent Company kept us informed of the progress of its investigation. Because the allegations raised issues for Severn Trent Water itself, we believe that it was appropriate that, at the outset, the Parent Company investigated the allegations and reached its conclusions.

The Parent Company initially provided us with a summary report of PwC Forensic's findings. Our view was that the summary report did not cover the issues in sufficient depth and we asked the Parent Company for access to PwC Forensic. It transpired that there was a separate, longer report by PwC Forensic which we had not been given. This was not made clear to us at the outset. This was unsatisfactory and we were extremely disappointed by the Parent Company's lack of openness with us about this. In our view, the summary report did not provide a fully representative picture of PwC Forensic's findings.

At the start of our investigation we believe that the Parent Company was more cautious in its dealings with us than was appropriate, particularly on access to certain key documents. This caused an unnecessary delay to our investigation and raised concerns about the Parent Company's commitment to co-operate fully with our investigation. This was eventually resolved to our satisfaction.

It was for the Parent Company to decide how best to investigate the allegations of Mr Donnelly in the context of its statutory financial reporting and staff disciplinary procedures. While we considered the work and approaches of PwC Forensic as part of our investigation we were not restricted to or constrained by this.

However, we believe it was appropriate for us to initiate our investigation and undertake our own analysis. As noted earlier, Ofwat is not a criminal law enforcement agency. But we have taken these issues, and their implications, into account when we considered our findings and conclusions.

## **Our investigation**

Our investigation focused on whether:

- there was a deliberate attempt by Severn Trent Water or the Parent Company to mislead us; and
- customers were overcharged as a result of any misstatements.

During our investigation we also considered whether we had seen anything that suggested that aspects of Severn Trent Water's behaviour were so serious that we would need to refer our findings to the appropriate criminal authorities to consider. This resulted in us referring matters relating to leakage to the SFO, which has now instigated its own investigation.

The areas we have investigated are complex and have required detailed technical analysis. Mr Donnelly's allegations covered a range of disciplines touching on a variety of regulatory mechanisms. Because of this, our investigation and our assessment of the potential impact of our findings were different in each area although we did apply common principles where possible.

The key questions we considered were:

1. Was our 2004 determination of price limits for Severn Trent Water for 2005-2010 based on incorrect data?
2. Was the 2002 interim determination, when Severn Trent Water was allowed to increase its price limits by an additional 2.1% in 2003-04 and 1.2% in 2004-05, based on incorrect data? If it was, had customers been overcharged as a consequence and would the interim determination remain valid if the data were corrected?
3. Regardless of the above did Severn Trent Water or the Parent Company at any time attempt to mislead us?

Our findings and conclusions in each area are set out in section 2 of this report. For each of the allegations we considered and reviewed the work of, and information collected by, PwC Forensic for the Parent Company. This included a review of all interview transcripts produced by PwC Forensic. We reviewed as wide a range of written information, including e-mail, as we considered we needed, going beyond the work of PwC Forensic. During the course of the investigation we:

- Held discussions with Mr Donnelly. Mr Donnelly provided us with a full copy of the papers he holds and we discussed with him the adjustments that he had undertaken.
- Met with those parties we felt we needed to speak to.
- Gathered additional documentation, information and data that we felt we needed to review as our investigation progressed.
- Analysed the bad debt charge and provision and reworked the interim determination calculation, using our own judgements on the reasonableness of the data.
- In reaching our conclusions we drew on advice from our own forensic accounting expert advisor whom we appointed to supplement our in-house expertise during the investigation.

During the course of our investigation we did not interview Severn Trent Water staff other than Mr Donnelly. We had access to the documentation we required including transcripts of interviews carried out by PwC Forensic. We did not want to duplicate this work and concluded we could obtain all we needed from written sources.

Ofwat is not a criminal law enforcement agency and our investigation therefore focused on our regulatory concerns.

The scope of the Parent Company's and PwC Forensic's work was primarily focused on the allegations and their impact on Severn Trent Water's accounts. It also considered the interim determination submission. Our own investigation focused on regulatory issues and whether decisions we had made were affected by manipulated data submitted to us.

## **Section 2 Investigation and conclusions**

### **Background**

This section is divided into five parts and covers the alleged:

1. misstatement of the bad debt charge and provision included in Severn Trent Water's accounts;
2. award of the 2002 interim determination to Severn Trent Water based on inflated bad debt data;
3. manipulation of the DG8 indicator (the proportion of metered customers that receive a bill based on a meter reading);
4. manipulation of income data on which price limits for 2005-10 were set; and
5. overall company behaviour in the areas that we have investigated.

In each case we set out our findings and our conclusions based on the information we reviewed. We refer to the PwC Forensic investigation and its findings where relevant. We discuss the actions that we require Severn Trent Water to take as a result of our conclusions in section 3.

In light of the SFO's investigation, this section of the report does not include details of the work we did on leakage data as part of our investigation.

### **Section 2.1 Misstatement of the bad debt provision and charge in the period 2000-01 to 2003-04 and its impact on price limits**

#### **Background**

Water and sewerage companies, like any other company, make a provision in their accounts for amounts billed to customers that they do not believe will be paid. This is known as the bad debt provision and is recognised in a company's balance sheet as a reduction to total outstanding customer debt.

The bad debt charge to the profit and loss account is part of a company's operating costs. It is commonly calculated as the movement in the bad debt provision year on year. When a company ceases to pursue a debt (for example if a customer is bankrupt, or where a customer moves out of the undertaker's area and cannot be traced) it writes off the debt and removes it from its accounting system.

In the longer term the bad debt charge would be expected to be broadly in line with the level of write offs.

We set price limits every five years, basing our decisions on the forecasts of current and future costs both for capital maintenance and operating costs. When setting price limits for 2005-10 audited data for 2003-04 was the latest available to us. The bad debt charge for 2003-04 is reflected in our forecasts of each company's overall operating costs, and therefore in the price limits that we set for 2005-10 and the bills that customers pay.

A company can ask us to redetermine its price limits between price reviews if it faces higher costs or lower income in certain specified circumstances than assumed when we last set price limits. We can initiate a redetermination if we feel that a company has benefited from lower costs or higher revenue than we assumed in certain specified circumstances.

The Water Industry Act 1999 prohibits the disconnection of domestic premises for non-payment of bills. When we set price limits, in December 1999, for the period 2000-05 we considered that this might lead to an increase in bad debt from household customers and an associated increase in the costs of collecting customer debt. However, it was not possible at that time to estimate the likely impact of this. We did not make an allowance for an increase in these costs in price limits, but we did identify this as one of the specific items which could be considered at an interim determination. Since the 1999 determination, five companies, including Severn Trent Water have triggered an interim determination that incorporated additional costs relating to bad debt.

This section considers the allegations relating to misreporting of the bad debt charge only and the consequences for price limits in 2005-10. The impact of any alleged misreporting of the inputs to the 2002 interim determination for Severn Trent Water is considered separately in section 2.2.

## **Our investigation**

Severn Trent Water derived its bad debt charge and provision from two elements:

- main charges (water and sewerage service income); and
- accounts receivable (mainly trade effluent and rechargeable works).

The main charges element, which accounts for most of the charge and provision, is derived from spreadsheet calculations which estimate the amount of customer debt that will not be recovered (bad debt models). Mr Donnelly has told us that he annually updated the bad debt models. Data for these models is taken from Severn Trent Water's customer accounting systems. The original model used for financial year-ends 2001 to 2003 (the old model), was replaced by an updated and simplified version for financial year-end 2004 (the new model).

The value of trade debtors reported in the company's accounts is taken from the company's general ledger system. The debtors figure used in the bad debt models should reconcile to the trade debtor position in the company's general accounting system. In order to do so the bad debt model included a number of legitimate manual adjustments (principally to adjust for timing differences) made at the end of the

financial year to reconcile the debt outstanding data on the customer accounting systems to that on the company's general accounting system.

Mr Donnelly has said that he manipulated data within the bad debt models. He explained what he did to PwC Forensic at the beginning of its investigation. However, Mr Donnelly later withdrew his co-operation from PwC Forensic's investigation because of concerns he had with its approach. He has explained that both the accounts receivable and the main charges elements (through both the old and new bad debt models) of the bad debt charge were manipulated.

Mr Donnelly alleged that the cost of debt was overstated in a number of ways. One way was by manipulating of the ageing of adjustments not posted to the company's billing system at the year-end, which had to be dealt with manually. This distorted the growth of older debt, which attracts a higher provision since it is less likely to be recovered.

As part of our investigation we reviewed PwC Forensic's reports, and the evidence it gathered in the course of its investigation together with its findings on these particular allegations. We note that it was not within PwC Forensic's remit to consider whether the bad debt models themselves were appropriate, it only considered whether they had been manipulated. During our investigation we also discussed with Mr Donnelly how he had manipulated the data.

We sought to establish whether, and by how much, the bad debt charge and provision reported by the company were incorrect. We considered Severn Trent Water's and PwC Forensic's views as well as Mr Donnelly's and reached our own view of the likely level of the bad debt charge and provision after correcting for the adjustments made by Mr Donnelly. Tables 1 and 2 below set out different views of both the bad debt provision and charge respectively. These are:

- The bad debt charge and provision set out in Severn Trent Water's published accounts.
- Mr Donnelly's view of the bad debt provision.
- The initial bad debt charge and provision calculated by PwC Forensic following its investigation.
- The bad debt charge and provision set out in PwC Forensic's final report findings that incorporated some amendments proposed by Severn Trent Water.
- Ofwat's views – we have calculated a range of outcomes. The central scenario considered the conclusions reached by PwC Forensic and Severn Trent Water. We disregarded adjustments that we did not feel to be appropriate, substituting our own assumptions. This therefore represents our view of the most appropriate set of figures on the basis of the available evidence that we have reviewed. However, there are uncertainties involved in recreating the bad debt charge and provision. PwC Forensic did not attempt to fully age the adjustments. We therefore developed two further views to provide an upper and lower boundary for the provision to understand the possible impact at the two extremes. These extremes would encompass the maximum charge that could be derived from the manipulations.

As tables 1 and 2 show, the final report of PwC Forensic included higher figures than its initial view. This is because of amendments proposed by Severn Trent Water after considering the initial conclusions. These amendments reflected Severn Trent Water's current, rather than historic, judgements on bad debt. In our view these adjustments would not have been considered when the charge and provision were originally determined. As a result our analysis excludes these adjustments.

**Table 1: Bad debt provisions 2000-01 to 2003-04**

<b>Closing bad debt provision</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
	£m	£m	£m	£m
Severn Trent Water published	50.0	51.9	50.6	50.6
Mr Donnelly's view <sup>1</sup>	48.6	48.6	42.1	43.7
PwC Forensic initial view	47.6	48.6	43.7	48.4
PwC Forensic view incorporating Severn Trent Water proposed adjustments	48.7	49.6	48.4	48.9
Ofwat's view	47.4	48.5	43.7	48.4
Ofwat's lower estimate	41.4	40.2	39.3	43.6
Ofwat's higher estimate	49.2	51.6	47.0	50.1

**Table 2: Bad debt charge 2000-01 to 2003-04**

<b>Bad debt charge<sup>2</sup></b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>Total</b>
	£m	£m	£m	£m	£m
Severn Trent Water published	21.5	19.4	19.0	19.8	79.7
PwC Forensic initial view	19.1	18.5	14.4	25.2	77.2
PwC Forensic view incorporating Severn Trent Water proposed adjustments	20.2	18.4	18.1	21.0	77.7
Ofwat view	18.9	18.6	14.5	25.2	77.2
Ofwat lower estimate	12.9	16.3	18.4	24.8	72.4
Ofwat higher estimate	20.7	19.9	14.7 <sup>3</sup>	23.6	78.9

**Notes:**

- 1 As far as we are aware, Mr Donnelly did not follow through the implications of his manipulations on the bad debt provision to the bad debt charge. Consequently, there are no corresponding entries in table 2 for this view.
- 2 From 2002-03 Severn Trent Water changed the accounting treatment of its trust fund donations. These numbers are presented on a consistent basis, as if this change had not been made. This means that figures will not agree to the reported accounts.
- 3 The bad debt charge is calculated as the movement in the provision. This means that, dependent on the opening and closing provisions, the calculated bad debt charge in the lower estimate could be higher in a given year than in the higher estimate.

Overall, our view of the bad debt provision and charge for each year is similar to PwC Forensic's initial view prior to Severn Trent Water's adjustments. Most of the variance between scenarios is in the closing 2000-01 bad debt provision. This variance in the level of provision is carried forward to each of the three subsequent years. Over the four-year period in question the calculated total bad debt charge remains broadly constant between our view, PwC Forensic's initial view and its revised view.

Mr Donnelly's view of the correct provision is within the bounds of our upper and lower levels of provision.

As a cross-check on our calculations we compared estimated amounts of uncollectable revenue reflected in the bad debt provision against cash collections and actual write offs for 2000-01 to 2003-04 again using a range of 'higher' and 'lower' estimates (see tables 3 and 4 below). This was calculated from data extracted directly from the customer accounting system. In carrying out this cross-check we had to make an assumption about the level of provision applied to debt greater than three years old in Severn Trent Water's bad debt model. The higher and lower estimates reflect a range for the amount of provision for that debt.

**Table 3: Bad debt provision 2000-01 to 2003-04 estimated from data for cash collections and write-offs**

<b>Closing bad debt provision</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
	£m	£m	£m	£m
PwC Forensic and Severn Trent Water view <sup>1</sup>	48.7	49.6	48.4	48.9
Ofwat's estimate – higher	52.0	52.1	50.0	52.4
Ofwat's estimate – lower	47.1	47.2	45.2	47.6

1 PwC Forensic and Severn Trent Water's view of the provision is the same as the one set out in table 1 and is provided here for comparative purposes only.

**Table 4: Bad debt charges 2000-01 to 2003-04 estimated from data for cash collections and write-offs**

<b>Bad debt charge</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>Total</b>
	£m	£m	£m	£m	£m
PwC Forensic and Severn Trent Water's view <sup>1</sup>	20.2	18.4	18.1	21.0	77.7
Ofwat's estimate – higher	23.5	17.6	17.2	22.9	81.2
Ofwat's estimate – lower	18.6	17.7	17.2	22.9	76.4

1 PwC Forensic and Severn Trent Water's view of the charge is the same as the one set out in table 2 and is provided here for comparative purposes only.

In total, the bad debt charge over the four years estimated in this way is fairly similar to the PwC Forensic and Severn Trent Water view although it does have a slightly more volatile profile. The dip in 2002-03 seems to relate to an improvement in cash collection (likely to relate to new initiatives the company implemented in that year which we discuss in the following paragraph) that reduced the provision required.

## **Our conclusions**

In calculating the bad debt provision and charge each company must take a view on the proportion of currently outstanding debt that it will not be able to collect. This will be partly based on evidence of actual collections and from the bad debt models but will always include an element of judgement about what will happen in the future. Senior management within a company must exercise this judgement. It is likely that senior management in Severn Trent Water would seek to report a bad debt charge and provision they saw as prudent in the context of the operating environment that the company was facing. This would be no different in other companies and industries. Transcripts of interviews carried out by PwC Forensic confirm that senior management at Severn Trent Water had a clear idea in their minds of what they expected the bad debt charge to be at any given time.

Our impression was that Mr Donnelly believed that the answer he was required to deliver from the bad debt models was the absolute answer and that there was no room for informed judgement outside of this.

Interview transcripts show that some staff within the company had expressed concerns that the old model, developed before the ban on disconnection of domestic customers came into effect, no longer provided a representative picture. It was based on collection practices used when it was first developed and did not pick up the impact of newer more effective practices which the company had implemented.

Given this, it might have been expected that Severn Trent Water would develop a new bad debt model earlier than it did. The reasons why this did not happen earlier are not clear but there were two conflicting perspectives. On the one hand, there was a general industry view that bad debt was rising. On the other, Severn Trent Water's actual collection performance in the period, although consistent with the bad debt charge did not support a view of rising bad debt. The impact of the most recent initiatives suggested that, although there had been a rise in bad debt since the ability to disconnect domestic premises was removed, the company might begin to see a decreasing trend in future bad debt. Such a trend was not certain as the initiatives were still at an early stage. In fact, figures subsequently reported for 2004-05 show an increase in bad debt compared to previous years rather than a continuation of a downward trend. Severn Trent Water's senior management may not have had confidence in this apparent trend and did not report the impact of these new initiatives to us. We expect the company to be more open with us.

Whilst we do not believe that Severn Trent Water's bad debt charge for 2003-04 would have been different from the reported figure it is clear from our investigation that it was not well supported by the bad debt model which had been used since 1998-99.

However, our analysis supports a charge around the level of that which the senior management envisaged and which was reported by Severn Trent Water in its accounts and final business plan. Our calculated 2003-04 charge is significantly higher than that made by Severn Trent Water in its published accounts.

Mr Donnelly suggested that Severn Trent Water sought to use the pretence that a new bad debt model was under development but not yet ready for use, to allow the company to force through a bad debt charge for 2003-04 of a similar size to that in 2002-03. The information we reviewed did not support this view.

However, it appears that information was withheld from PwC Audit. PwC Audit was told that the old model had not been run for 2003-04 when it had. As a consequence, regardless of the robustness of the old model, PwC Audit did not have an opportunity to consider the outputs of the model as part of its review (in fact the model produced a lower bad debt figure than that reported by Severn Trent Water). The dealings of Severn Trent Water with its auditors are primarily a matter for the company. It appears that a member of staff other than Mr Donnelly knew that these facts were withheld from PwC Audit during the audit of the 2003-04 accounts.

The issue of misstatement of their accounts is a matter for the Parent Company and Severn Trent Water. They have, together with their statutory auditors, concluded that their accounts are materially correct. To the extent that we rely on any information reported in the accounts of Severn Trent Water we have satisfied ourselves that our conclusions and decisions have not been affected by the deliberate miscalculation of the bad debt charge.

Our review of all the available information did not support Mr Donnelly's allegation that Directors of Severn Trent Water directed the deliberate miscalculation or that knowledge of it was widespread.

Our review of the information, does, however suggest that some individuals at Severn Trent Water became aware of some of the adjustments to bad debt that Mr Donnelly was making. It also appears that some individuals were influenced by a desire to achieve a particular outcome in their own areas of responsibility, rather than ensuring data was a reasonable best estimate supported by robust judgements.

We do have concerns that staff did not appear to have been subject to sufficient day-to-day supervision. We believe that this was a failing within the company, which led directly to Mr Donnelly's actions going unchecked and unchallenged.

The information we have reviewed in light of Mr Donnelly's allegations highlights the importance of strong governance controls. Severn Trent Water must nurture a working environment that ensures that members of staff do not feel under undue pressure to deliver a particular number.

Severn Trent Water must also ensure that staff who are required to make judgements, receive appropriate supervision and guidance. This is discussed further in section 2.5.

Overall:

- **Based on our analysis of the data and our review of the available information we conclude that the calculations supporting the bad debt charge for the years 2000-01 to 2003-04 reported by Severn Trent Water were manipulated.**
- **However, we conclude that the level of the bad debt charge reported by the company in 2003-04 is broadly appropriate. Because 2003-04 formed the base year for the forecasts at the 2004 determination, we conclude that any deliberate miscalculation of bad debt did not affect the 2004 determination.**
- **Our review of all the available information does not support Mr Donnelly's allegations that Directors of Severn Trent Water directed the deliberate miscalculation and that knowledge of it was widespread. The information we reviewed does, however, suggest that some individuals within the finance and customer services departments, including a member of senior management below board level, were aware, or became aware of the manipulations carried out by Mr Donnelly.**

## **Section 2.2 Severn Trent Water's 2002 interim determination**

### **Background**

When we receive an application for an interim determination we must reach a view on the legitimacy of the costs included in the claim and the appropriate level of these costs.

Where companies included changes in costs in respect of household bad debt in their claim for an interim determination during 2000-05 we required them to demonstrate:

- that their costs had materially changed; and
- this was because of the ban on household disconnection.

Where we were satisfied that companies had demonstrated their case, we allowed an increase in price limits for increases experienced in:

- the cost of financing higher amounts of outstanding household revenue;
- the level of unrecoverable household debt written off by the undertaker (ie the amount of debt that the undertaker is no longer pursuing); and
- the additional operating and capital costs for debt recovery incurred that were directly related to the ban on disconnection.

We ask companies as part of an interim determination application to complete a pro-forma to provide relevant information on bad debt across a number of years.

We also review relevant information from the June return (table 6a 'Information for the bad debt notified item') that companies submit to us annually. This includes data on the amount of household revenue outstanding (set out in specified age bands), the amount of household revenue written-off, and operating costs associated with the collection of outstanding household revenue.

Severn Trent Water formally applied for an interim determination in 2002 (having discussed a draft application with us in 2001). Its application included claims for eight items, one of which was for increased costs relating to bad debt. Severn Trent Water first submitted its interim determination claim in September 2002. It resubmitted its claim in October 2002 following a number of changes. In the October resubmission Severn Trent Water reported its bad debt data using an alternative methodology, which it considered to be more suitable. We calculated the legitimate value of Severn Trent Water's total claim across all items to be equivalent to 10.4% of the company's turnover<sup>2</sup>. The threshold for redetermination of price limits is 10% of the company's turnover. Severn Trent Water's claim, at 10.4%, was therefore above but close to the threshold.

Following consultation we reset Severn Trent Water's price limits in December 2002. As a result, Severn Trent Water's price limits increased by an additional 2.1% in 2003-04 and 1.2% in 2004-05 (see Table 5).

**Table 5: Severn Trent Water's interim determination submissions and Ofwat's final decision**

Price limits	2000-01	2001-02	2002-03	2003-04	2004-05	Calculated materiality <sup>1</sup>	Materiality of bad debt claim
Determined in 1999	-14.1	-1.0	-1.0	0.0	1.0	N/A	N/A
Original Severn Trent Water submission	-14.1	-1.0	-1.0	3.8	1.0	19.7%	9.5%
Revised Severn Trent Water submission	-14.1	-1.0	-1.0	3.5	1.0	18.7%	8.3%
Ofwat final decision	-14.1	-1.0	-1.0	2.1	2.2	10.4%	6.9%

<sup>1</sup> To qualify for an interim determination the total impact on the company must amount, in net present value terms, to 10% of company turnover.

For the bad debt element of its interim determination submissions Severn Trent Water chose not to follow our methodology for calculating increases in bad debt costs and did not submit the pro-forma that we required companies to complete. Severn Trent Water instead based its application firstly on its estimate of the increase in unrecoverable household revenue outstanding up to 48 months (original

<sup>2</sup> We set out our conclusions on Severn Trent Water's 2002 interim determination claim in 'Interim determination: decision – Severn Trent Water Ltd', available on our website.

submission) and subsequently on the older (36-48 months) debt only (revised submission). Unrecoverable revenue in each age band was calculated based on the provisioning percentage used in the bad debt model. Severn Trent Water set out its explanation of why it felt that its approach was the most appropriate way to cover the additional costs of bad debt.

Severn Trent Water's approach differed markedly from the methodology we apply for interim determinations. We have applied our methodology to four other interim determinations that included a bad debt element.

Severn Trent Water argued that our approach relied too heavily on debt written-off. Whilst our approach does use debt written off for a significant part of the calculation, we believe that it has fewer weaknesses than alternative approaches and gives greater confidence because write off is a definitive actual number which is less influenced by management judgement.

In setting price limits we need to ensure we follow best practice. It would not have been appropriate for us to reject the bad debt element of Severn Trent Water's claim simply because it did not replicate our own methodology. Instead we assessed Severn Trent Water's claim against our methodology. Although our approach was very different to Severn Trent Water's proposed approach it still showed that Severn Trent Water's bad debt claim could legitimately be included in an interim determination and that overall, the materiality threshold had been reached. We calculated the additional bad debt costs associated with the ban on disconnection to be equivalent to 6.9% of Severn Trent Water's turnover.

### **Our investigation**

Mr Donnelly alleged that the costs of bad debt were overstated through the manipulation of the debt ageing of adjustments for items not posted to the company's billing system at year end, which had to be dealt with manually. This distorted the growth of older debt. In addition, he alleged that these manual adjustments were attributed wholly or mainly to non-household debt rather than being allocated correctly between household and non-household debt. This would have the effect of artificially boosting the volume of household debt that the company reported in table 6a of its June return to us and which was subsequently used in the interim determination submission in 2002. He also alleged that it was company policy for bad debt write offs to broadly match the bad debt charge in order to present a consistent picture across all indicators of trends in bad debt. Such manipulations might, to differing degrees, have impacted on the interim determination.

During the course of our discussions with Mr Donnelly he explained in broad terms that he did not provide the reporter (who considers data in table 6a as part of his work on the June return) with all the evidence relevant to the manual adjustments.

In considering the impact of the allegations on our interim determination we needed to ensure that the numbers used in our calculation were accurate. We considered whether the bad debt data reported in the company's June return (and subsequently used in the interim determination calculation) accurately reflected the data on the

billing system and the company's general accounting systems. We considered whether this data correctly met our reporting requirements and whether manual adjustments made to reconcile any differences between the numbers were applied appropriately. This work overlapped in places with the work undertaken on the bad debt provision, as detailed in section 2.1.

Mr Donnelly also alleged that Severn Trent Water manipulated its reported levels of write off but he did so after he had made his initial allegations and after PwC Forensic had completed its investigation. He made this allegation once the importance of write off to Ofwat's methodology, and therefore the impact of any manipulation of the write off, was made clear to him.

PwC Forensic did not therefore specifically focus on bad debt written off in its investigation into the bad debt element of Severn Trent Water's interim determination claim. In response to the newer allegation on the write off of bad debt, PwC Forensic undertook a limited review of all the documentation it had originally collected.

While PwC Forensic's review of bad debt written off was limited, our investigation looked particularly closely at Severn Trent Water's approach to writing off bad debt. We reviewed substantial amounts of information relating to its policies and procedures in this area. We reviewed all of the electronic information identified by PwC Forensic on write off. We also requested additional information from Severn Trent Water. We considered:

- The accuracy of the level of household write off the company reported.
- Severn Trent Water's write off policy, its application in practice and the likely opportunity for manipulation of the amount of bad debt written off.
- How the company incentivised staff in relation to bad debt and write off through their personal objectives.
- Trends in write off in relation to bad debt charges and company budgets.

Once we had completed our review of all the information we reworked the bad debt element of the interim determination awarded in 2002 to reflect the impact of any manipulations made by Mr Donnelly to the information reported to us.

We then considered whether the overall interim determination remained valid and whether, if it did, the price limit increase we allowed had been too high.

## **Our conclusions**

Mr Donnelly's allegations in relation to the interim determination are restricted to the bad debt element of Severn Trent Water's submission. The allegations do not cover the other elements included in Severn Trent Water's interim determination and our searches of the electronic database held by PwC Forensic did not identify any documentation to suggest that the other elements needed to be reviewed.

Severn Trent Water's 2002 interim determination was close to the 10% threshold. The bad debt element represented a substantial proportion of it and a relatively small overstatement of the increased costs of bad debt would have been sufficient to call into question the legitimacy of the 2002 interim determination decision.

During our investigation it was clear that the bad debt data available to Severn Trent Water in the years prior to 2001-02 was often limited and of poor quality. We first began to collect detailed data on bad debt after the 1999 periodic review. Prior to 2002 Severn Trent Water told us that it would have to make a number of assumptions before it could present data to us in the format we required. Because some of these assumptions could not be objectively quantified, the data it reported to us was not as robust as we would like.

This in itself did not greatly concern us because it can take companies time to align their reporting procedures with new reporting requirements (other companies also had problems). Also, Severn Trent Water's reporter confirmed that, in the absence of actual data, the resulting figures appeared to broadly reflect Severn Trent Water's bad debt position. However, we were surprised by how long it took for Severn Trent Water to address this issue. Even by the time of Severn Trent Water's interim determination claim the bad debt data was less robust than that presented by other companies. It appears, from our investigation, that Severn Trent Water delayed addressing the data deficiency, although the reasons why it did so are not clear. We did not see any documentation that suggested that this was undertaken as part of a wider attempt to mislead us on bad debt.

### **Impact of deliberate miscalculation of bad debt on the interim determination**

In section 2.1 we concluded that the bad debt charge and the provision had been manipulated. We found that in some cases the adjustments that had been made to reconcile numbers in the billing system with numbers in the accounting system may not necessarily have been made in the most appropriate way. This meant that, to a small extent, household data in table 6a of Severn Trent Water's June return was potentially overstated.

PwC Forensic used its own revised numbers, correcting for the manipulation, to check whether Severn Trent Water's revised 2002 interim determination submission would still have been valid using Severn Trent Water's methodology. It found that the claim remained valid. However, we note that this was based on the company's approach not the approach we used and it did not consider whether, despite meeting the materiality level, the price limits that we determined were too high.

We recalculated the interim determination based on our lower estimate of what the correct level of bad debt should have been. This took into account more appropriate adjustments between household and non-household elements of debt. It also allowed us to understand what the maximum likely impact of any overstatement of bad debt in table 6a on the interim determination was. We assumed that the other elements of Severn Trent Water's interim determination were unchanged. During our investigation we did see information that showed that Severn Trent Water had potentially under-reported the level of write off in some years due to a combination of poor timing in writing off debt and errors in its interim determination submission.

While we note this, we have not incorporated the impact of these factors into our analysis because, as discussed in section 2.1, we did not include retrospective adjustments.

Based on our lower estimate of what the correct level of bad debt should have been, we calculate that our assessment of the materiality of Severn Trent Water's interim determination claim would have fallen to 10.1% compared to 10.4%. This would still mean that the interim determination claim would have passed the materiality threshold. However, this overstatement, equivalent to 0.3% of materiality, would have meant that the 2004-05 price limit allowed in the 2002 interim determination was around 0.2% (£2m) too high. The relatively small impact of the manipulation principally relates to the fact that the revenue outstanding, which was affected by the manipulation, in Severn Trent Water's case formed only a small element of our calculation of the costs of bad debt. Our methodology, as noted previously, was based mainly on the household debt written off.

Our analysis suggests that even with corrected bad debt data the interim determination would have still stood. However, we also considered what action we might have taken in 2002 if we had discovered then that an element of the bad debt submission had been manipulated.

In such a case we might have considered rejecting the bad debt element of the claim entirely or taken a more conservative view to reflect the lower level of confidence in the bad debt data. Such an approach would have reduced the value of its overall claim, as bad debt was the largest element of it. It is therefore possible that, as a result, Severn Trent Water's overall claim would have failed to pass the 10% materiality threshold and its application for an interim determination in 2002 would have been rejected.

At the extreme this could have meant that the company would not have received any additional increase in K for 2003-05 beyond that determined in the 1999 periodic review.

But there are too many unknowns to say with certainty what might have happened if Severn Trent Water's 2002 application had been rejected. Severn Trent Water could have appealed our decision and asked the Competition Commission to determine whether it should have received an interim determination in 2002.

Severn Trent Water could also legitimately have re-applied for an interim determination, with better quality bad debt data, in the following year. But bad debt was only one of six relevant cost items in Severn Trent Water's 2002 claim that we accepted did qualify as legitimate costs. Provided Severn Trent Water could have satisfied us of the robustness of any revised data for bad debt it too could have been included in any further claim (albeit with a lower value than previously proposed).

If costs were not taken into account as part of an interim determination we would have had to adjust price limits for 2005-06 at the 2004 periodic review to take account of them.

Because such large uncertainties exist, we thought it inappropriate to assume there would have been an outright rejection of the interim determination in reaching a view on the extent to which customers have been overcharged.

### **Intent to mislead**

Regardless of whether the manipulation of bad debt had actually affected the interim determination, we sought to establish whether Severn Trent Water had intended to mislead us. We would have considered that the company had attempted to mislead us if we had found that Severn Trent Water had pushed its own methodology in full knowledge that it was submitting data in table 6a of its June return that it knew to be overstated.

This was an important consideration because the manipulations could potentially have had a higher impact if the company's methodology had been used. However, despite looking for it we saw nothing to support the allegation that Directors or the principal authors of the interim determination submission were aware that numbers had been manipulated and that the information included in table 6a was overstated.

Both the bad debt charge and the level of household debt written off fell in the years following the interim determination in 2002. It is clear staff within Severn Trent Water were concerned about the impression that this could send to us but none of the information we reviewed suggests Severn Trent Water sought to hide this trend.

It is not clear whether Severn Trent Water were ever convinced that we would use bad debt written off as the principal basis for calculating the value of a claim for bad debt at an interim determination. Whilst the company was aware in advance that write offs would be considered in some form when we assessed bad debt, there is nothing to suggest that it knew the exact detail or how big a part it would play. It appears that it believed that Ofwat might use companies' write off policies for comparative benchmarking. Shortly before the submission we did make it clear that changes in the level of write off would be used in the calculation but the company maintained that levels of unrecoverable revenue would be a more suitable basis.

In the years before 2001-02, given the difficulty Severn Trent Water had in extracting data in the form we required, the assumptions used to assess the levels of household debt written off reported in the interim determination claim were reasonable. We reviewed substantial amounts of information relating to Severn Trent Water's approach to writing off debt and found that:

- Trends in write offs and the bad debt charge in the profit and loss account do not support the view that they were predetermined.
- Severn Trent Water did set write off targets or budgets as part of its normal budgetary and forecasting procedures but in many instances these targets were not met.
- Trends, since 1999, in the annual write off target compared to trends in the actual level of write off do not indicate that Severn Trent Water had been overstating write offs for the purpose of obtaining an interim determination.

- A review of key staff's objectives and other sources of information did not suggest that staff performance was linked to achieving specific write off targets or that staff sought to achieve specific write off targets.
- Severn Trent Water's stated write off policy appeared reasonable.
- Severn Trent Water could potentially have actually written off more bad debt than it did if it had strictly followed its write off policy.

As part of the interim determination process for bad debt we consider trends in indicators of bad debt to place the company's claim in a wider context. During our investigation we looked again at trends in Severn Trent Water's write offs and other indicators of bad debt (such as the bad debt charge and provision) for the years relevant to the interim determination. We do not believe that our findings in relation to these measures (see section 2.1) would have altered our view that Severn Trent Water's bad debt costs had materially changed because of the ban on household disconnection.

Overall we conclude:

- **Despite the deliberate miscalculation of the bad debt charge and provision, the 2002 interim determination of price limits remains valid. Manipulation of the manual adjustments required between household and non-household bad debt led to a small overstatement of household revenue outstanding in the bad debt element of Severn Trent Water's interim determination claim. Our analysis suggests that the manipulation led to price limits in 2004-05 being around 0.2% (£2m) higher than they would otherwise have been.**
- **The information we have reviewed does not support Mr Donnelly's allegation that the adjustments he made were undertaken for the purpose of a company-wide attempt to obtain an interim determination or to mislead us in respect of the 2002 interim determination submission.**
- **There was nothing to suggest that the level of bad debt write off was set inappropriately in order to overstate the interim determination claim or to track other indicators of bad debt.**

Notwithstanding these conclusions we did identify some areas of concern:

- A member of staff, senior to Mr Donnelly, knew that information had been withheld from PwC Audit.
- Severn Trent Water did not have documented procedures for some aspects of its debt write off policy, a point that the Parent Company has also recognised as a weakness. Write off criteria should be set down in writing, approved by management and applied consistently. Procedures should be objective and cover each aspect of the process in detail. Severn Trent Water's procedures do not currently meet these criteria but we are aware that the company is refining its write off procedures for 2005-06.
- There was no written methodology for completing the table 6a data that the company submitted to us.

- The speed with which the company aligned its data collection procedures with the reporting requirements was inadequate.
- Thus, we believe that Severn Trent Water's submitted table 6a data was less robust than it should have been and we have taken this into account in reaching our interim conclusions.

## **Section 2.3 DG8 indicator**

### **Background**

The majority of water and sewerage bills for customers in England and Wales are based on rateable values. Bills for these customers, and the revenue that the company collects, are not related to water consumption. For other customers, their bills are based on measured tariffs which depend on the volume of water consumed, plus a standing charge. For Severn Trent Water around 26% of household customers are metered.

We monitor the number of customers who receive bills based on meter readings. Companies submit this information to us in the June return under the service standard known as the 'DG8 indicator'. It shows the percentage of metered customers who receive at least one bill during the year based on a meter reading, either undertaken by the company or provided to the company by the customer. Where we judge that too many customers' meters have not been read we may take regulatory action requiring the company to improve its performance.

Our guidance allows companies to exclude properties from the DG8 indicator if:

- A property has a meter but is charged on a basis other than metered consumption.
- Properties are metered but are occupied for less than six consecutive months during the report year.
- Accounts are complex, for example where one account's bill is dependent on more than one meter.

The DG8 indicator forms part of the annual overall performance assessment (OPA), which provides a comparative overview of company performance across a range of performance indicators. We make an adjustment to price limits every five years, according to a company's OPA score relative to other companies. A high relative OPA score leads to an increase in price limits and therefore higher revenues and a low score may lead to a reduction.

In February 2002 we published our conclusions to a consultation stating that the OPA adjustment to price limits set for 2005-10 would depend on company performance in 2002-03 and 2003-04 only.

## **Our investigation**

As part of our investigation we reviewed the data for the DG8 indicator and considered whether Severn Trent Water misreported the DG8 indicator. Our investigation also considered the impact of any misreporting on the OPA and the price limits set in 2004 for prices in 2005-10.

## **Our conclusions**

Our investigation did not suggest that figures were manipulated. We reviewed the DG8 data that Severn Trent Water submitted to us and considered, in particular, the metered accounts excluded.

- The proportion of metered accounts excluded has been constant for the five years analysed (1999-2000 to 2003-04).
- The level of exclusions is comparable with other companies (although there is a wide range).
- At no point did the reporter suggest that exclusions were incorrect. Our reporting guidance requires reporters to check this.
- Additional detail provided by Severn Trent Water about its 2004-05 DG8 data return supports the view that exclusions are correct.

Given these findings it follows that we do not believe that the OPA score for Severn Trent Water could have been affected. In fact, even if we did have concerns about the DG8 indicator in 2000-02 this would not have affected the price limits set for Severn Trent Water. This is because the OPA score used at the 2004 determination did not include these two years.

During 2000 to 2003 it is clear that Severn Trent Water experienced problems with meter reading due to:

- lack of management co-ordination;
- initial problems with outsourcing of meter reading; and
- the outbreak of Foot and Mouth disease that meant the company's access to meters was restricted – although other companies who had a larger proportion of affected properties managed to keep meter reading on track.

During 2002-03 Severn Trent Water appeared to realise that these factors meant that its 2002-03 DG8 indicator performance was likely to be assessed as 'unacceptable' by us in our annual, Levels of Service, report. Severn Trent Water therefore:

- Made a push to read as many of the meters that had not been read because of Foot and Mouth disease as they could in the last quarter.
- Reassessed its approach to meter reading and employed additional resources to achieve a higher performance rating (looking to achieve 'good' instead of 'acceptable' performance against the criteria we set for the DG8 indicator).

This strategy led to an improved performance against the DG8 indicators towards the end of the 2002-03 reporting year. It is this improvement that appears to have contributed to the 'spike' in income late in the reporting year that made it difficult for Severn Trent Water's staff to understand the level of atypical revenue (a debate that staff responsible for meter reading did not appear to have been involved in). We discuss this issue in section 2.4.

- **Overall, the information we have reviewed does not suggest that the DG8 indicator was reported incorrectly in any year covered by the allegations or that Severn Trent Water had any intention to report incorrect figures.**

## Section 2.4 Income

### Background

When we set the price limits for 2005-10 we assessed for each company its likely level of costs and hence the amount needed to provide sufficient funds to run the company year on year. This is called the revenue requirement. We calculated Severn Trent Water's aggregate revenue requirement for 2005-10 to be close to £5.5 billion.

To set price limits, we also need to know how much revenue (or income) each company would receive without any change in prices limits (known as the 'base' revenue). This takes into account expected trends in factors such as the number of properties, level of metering and growth in demand. We calculated Severn Trent Water's aggregate base revenue for 2005-10 to be close to £4.6 billion.

The price increases (K factors) for 2005-10 can then be derived by calculating how much each company's base revenue forecasts would need to increase in order to match the expected revenue requirement. For Severn Trent Water the aggregate price increase for 2005-10 is around 20%.

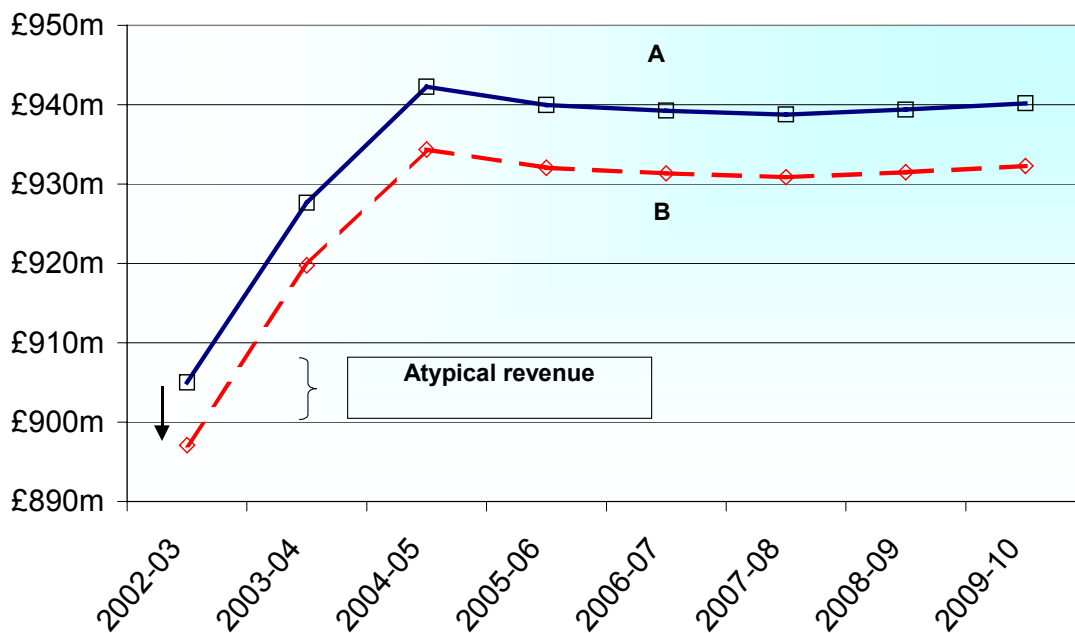
Each company was required to forecast its base revenue for the 2005-10 period, based on its position in 2002-03. 2002-03 was the last complete year for which information was available at the time that companies made their forecasts. Although we gave companies detailed guidance on how they should calculate and present their base revenue forecasts, we acknowledged that companies' forecasts still contained an element of judgement. However, companies had to demonstrate to us that there was sufficient robust evidence to support any judgements they made because discrepancies in revenue forecasts would have directly affected the price limits we set for 2005-10.

We scrutinised companies' forecasts in some depth, checking for consistency with projections of demand and established trends. We challenged forecasts where necessary.

We checked that the revenue position in 2002-03 represented the typical level of revenues. As revenue forecasts for subsequent years are based on 2002-03, unidentified atypical, or one off, revenue in 2002-03 could lead to inaccurate base revenue forecasts in future years. It was therefore important for us to check that any atypical revenue that a company excluded from its base revenue forecasts was reasonable.

When Severn Trent Water calculated its base revenue forecasts it reported some £7.9m of its £905m total revenue for 2002-03 as atypical. This meant that Severn Trent Water excluded this revenue from the revenue forecasts in its business plan. This is demonstrated in figure 1. Line A is the base revenue forecast from the start position of reported revenue, £905m. Line B is the base revenue forecast from an adjusted start position to remove atypical revenue. The lower base revenue forecast represented by line B indicates that a higher price increase would be required to meet the revenue requirement.

**Figure 1: Effect of identifying atypical revenue in 2002-03 on the base revenue forecast for the 2004 review (2002-03 prices)**



Note: The sharp increases in revenue in 2002-03 and 2003-04 reflect the allowed price limits in those years. This must be included in the base revenue forecast.

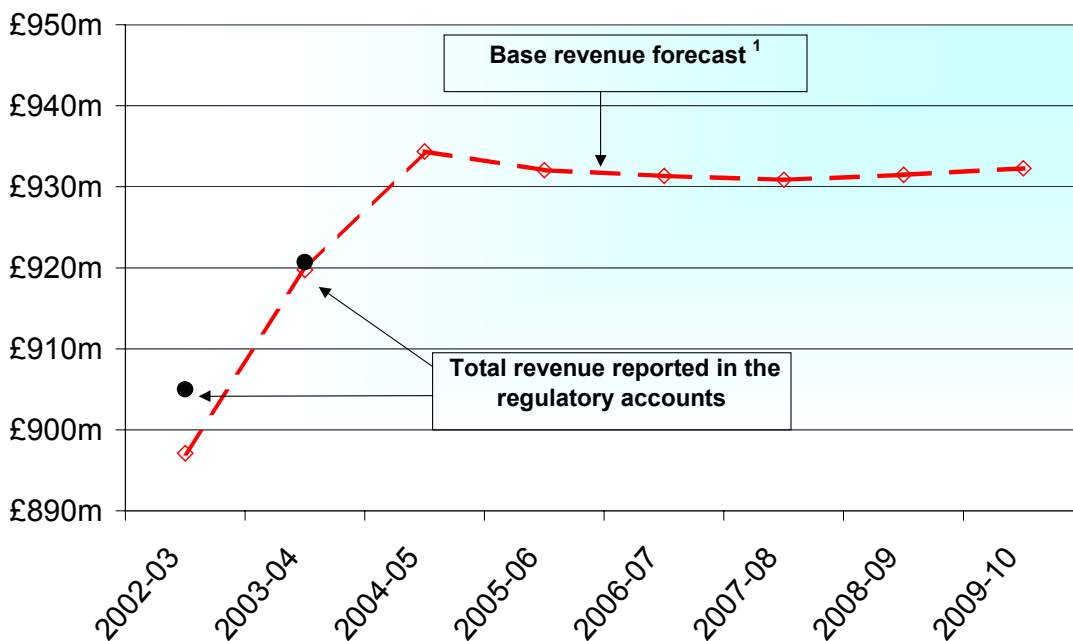
Severn Trent Water told us that £5.5m of this atypical revenue resulted from additional revenue collected following its improved DG8 performance in 2002-03 (see section 2.3). The company said that this had happened because its estimates of consumption for metered customers whose meters had not been read in 2001-02 had been too low. This meant that it collected a large amount of atypical revenue in 2002-03 that actually related to consumption by customers in 2001-02.

Determining what constitutes atypical consumption is difficult and requires an element of judgement even with the best available evidence. In this instance Severn Trent Water's auditor was asked to scrutinise this explanation, but did not raise any concern.

In November 2004, Severn Trent Water wrote to us to highlight potential difficulties with the level of atypical income for 2002-03 it had identified in its business plan. It told us that the original records supporting the reported figure were incomplete. Because of this, Severn Trent Water reconstructed its calculations and could only support a lower figure for atypical revenue (£5.4m against the original £7.9m).

However, by this time Severn Trent Water had reported its total revenue for 2003-04 in its regulatory accounts. The reported total revenue for 2003-04 was close to the company's forecast (Figure 2). This gave us confidence, at that time, that the base revenue forecast remained robust, despite the difficulties highlighted by the company.

**Figure 2: Comparison of the final business plan base revenue forecast and the total revenue reported in the regulatory accounts**



1. After adjusting for atypical revenue in 2002-03.

## **Our investigation**

Our key considerations are as follows:

- Were the revenue forecasts that formed the basis of the price limits for 2005-10 robust? In particular:
  - a) was there any misstatement of total revenue;
  - b) had levels of atypical (one-off or retrospective) income been misstated; and
  - c) had staff undertaken actions that deliberately or unintentionally distorted reported income?
- Were there other approaches that Severn Trent Water could have used that would have produced more accurate income and atypical revenue figures than the forecasts they provided to us?
- How has the company actually performed against our forecasts at the 1999 periodic review?

We also reviewed the reported level of atypical revenue submitted for the 2004 periodic review.

## **Our conclusions**

### **Revenue in 2002-03**

As part of our investigation we wished to consider whether the 2002-03 atypical revenue figure that Severn Trent Water submitted to us in its business plan was robust.

As the 2002-03 reporting year progressed Severn Trent Water became aware that revenue was significantly greater than budget. We have seen from Severn Trent Water internal e-mails that from January 2003 the company attempted to calculate how much of this was due to the underestimation of the water consumption of customers who had not had their meters read in 2001-02. When Severn Trent Water submitted details to us it attributed the majority of the stated atypical revenue to this.

It is not clear who calculated the figure for atypical revenue. It appears that Mr Donnelly may have been the source of the figure that was used, although the figure is similar to analysis undertaken by other staff within Severn Trent Water.

Mr Donnelly alleged that this explanation of the atypical revenue in 2002-03 was not complete and Severn Trent Water had held back information in order to mask the impact on revenue of Severn Trent Water's manipulation of its DG8 indicator performance. However, as set out in section 2.3, we conclude that the information does not show that the DG8 indicator had been manipulated.

In addition to this, information we reviewed suggested genuine attempts were made by staff to understand why revenue was higher than usual in 2002-03. We saw nothing from the evidence we have considered that suggested that staff devised the explanation of underestimation of water consumption by customers to cover manipulation in other areas.

One of the reasons why Severn Trent Water may have found it difficult to understand its revenue was that there appeared to be a presumption that the revenue was atypical. Severn Trent Water thought that there was atypical revenue in 2002-03 because actual revenue was higher than it had budgeted for. However, both 2001-02 and 2003-04 were also above budget, which might indicate that at least part of the variance was not atypical.

The senior management of Severn Trent Water was concerned enough about atypical revenue to propose that PwC Audit review its estimates. But it is not clear whether PwC Audit were actually asked to review this or whether it specifically reported on this. We believe Severn Trent Water should have looked to answer the challenges voiced internally before it referred the matter to its auditors.

Based on the information we reviewed during our investigation we reconstructed the amount of atypical revenue in 2002-03 that we felt Severn Trent Water could have reasonably included in its business plan, based on the evidence that they had. We also completed more detailed analysis to estimate likely levels of 'typical' and atypical revenue for Severn Trent Water taking into account a variety of wider factors such as the interactions within the tariff basket.

Our analysis found that there might legitimately have been atypical revenue in 2002-03. However, when scrutinised in greater detail, we found the explanations Severn Trent Water provided in its business plan to support the 2002-03 atypical revenue to be unsatisfactory.

At the time of the 2004 periodic review we asked PwC Audit to scrutinise the supporting information in the business plan and assess the explanations provided by Severn Trent Water. They did this but they did not raise any concerns. We are unable to establish firmly if and why Severn Trent Water experienced atypical revenue in 2002-03. We are surprised and concerned that Severn Trent Water was unable to monitor and explain in sufficient detail variances in its reported income.

Mr Donnelly also alleged that 2002-03 accounts were incorrect because Severn Trent Water had included a higher than warranted provision to cover a liability that Severn Trent Water faced. The information we reviewed did not suggest that this provision was higher than warranted.

#### **Revenue in 2003-04**

Mr Donnelly alleged that atypical revenue in 2003-04 was also incorrect. Atypical revenue in 2003-04 was not attributed to meter reading. In this instance Severn Trent Water attributed it to high demand and consumption in what was a drier year than the average. The above average consumption led to atypically high revenue.

Severn Trent Water's atypical revenue figure is based on analysis of its domestic consumption monitor (DCM) data. It suggested that the unusually dry weather increased unmeasured customers' demand in 2003-04 by 4% above normal levels (a figure that Severn Trent Water's reporter supported). Severn Trent Water assumed that overall consumption was 3% above normal levels (taking into account the likelihood that the demand from measured customers would have increased less than that from unmeasured customers).

We considered other possible approaches and assumptions that Severn Trent Water could have made when trying to establish the impact of the dry year. These did not suggest that the estimate that Severn Trent Water's approach produced was unreasonable.

### **Manipulation of data and impact on price limits for 2005-10**

There are some documents, in the form of e-mails, which indicate that a senior staff member below board level asked staff in the department concerned to consider ways to manipulate data to achieve particular targets for income. Whether or not inappropriate actions were considered none of the information we saw suggested that such actions were carried out.

Through our investigation we have observed that Severn Trent Water's internal processes and controls around income were of a lower standard than we would expect. We believe that this has contributed to revenue forecasts used in the 2004 periodic review being lower than they otherwise would have been and that this has disadvantaged customers. This contrasts with our findings on the bad debt allegations, which we believe did not affect price limits set for 2005-10.

During the course of our investigation we looked in detail at Severn Trent Water's revenue forecasts for the period 2005-10.

As explained above, at the time of setting price limits we had confidence in the revenue forecast used to determine price limits for 2005-10 because the total forecast revenue in 2003-04 in the business plan was close to the figure reported in the regulatory accounts for 2003-04.

Nothing we have reviewed suggests that Severn Trent Water deliberately submitted incorrect data that had a material impact on revenue forecasts for 2005-10 and consequently the price limits. However, following our investigation we now know that for the 2003-04 forecast:

- Severn Trent Water did not follow our reporting guidance in full when it produced its forecast for this year.
- Poor internal controls and procedures meant that an adjustment (£1.5m) to the 2003-04 figure was unjustified and should not have been made.

We asked companies to forecast revenue based on expected trends in factors such as the number of properties, level of metering and growth in demand. However, Severn Trent Water internal memos reveal that rather than relying primarily on the detailed approach to forecasting revenue outlined in the guidance, staff fixed revenue forecasts in line with the latest internal projections of revenue.

The forecast revenue for 2003-04 in Severn Trent Water's business plan therefore matched the latest available internal projection of total revenue for 2003-04. The projection turned out to be £0.9m less than the total revenue reported in the regulatory accounts for that year. But we did not adjust the forecasts upwards for each of the years 2005-10 to correct for this variance because we believed that, at around 0.1% of turnover, it would not have a material impact on price limits.

While it is reasonable for companies to test forecasts against their latest internal projections, Severn Trent Water's approach went beyond this and actually based the revenue forecast on an internal projection. This went against our specific guidance for all companies in this area.

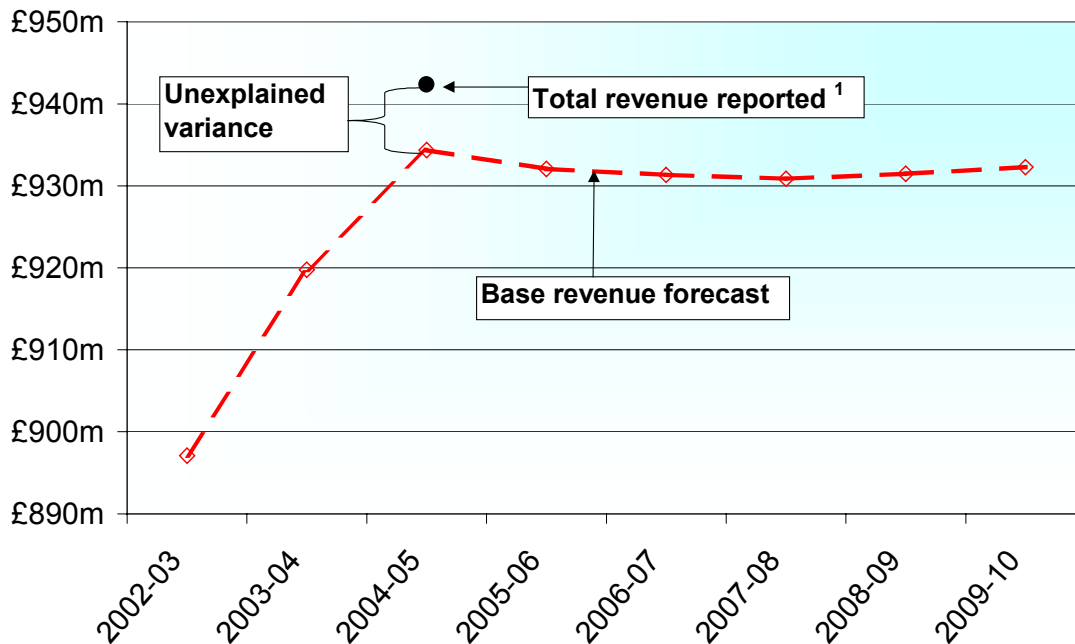
We believe that as a result of Severn Trent Water using this approach, and coupled with Severn Trent Water's lack of understanding of its revenue position, the revenue forecasts for future years included some inaccuracies. Severn Trent Water's approach means that an adjustment of £1.5m, which we now know to be unjustified, was included in the revenue forecasts. This means that 2003-04 forecast revenue should have varied from reported revenue by £2.4m rather than £0.9m. This is material and had we known about this when we set price limits we would have adjusted the revenue forecast upwards for each year by £2.4m.

We also looked closely at the company's 2004-05 financial year data, considering the accuracy of the 2004-05 revenue forecast contained in Severn Trent Water's business plan compared to its reported actual turnover. Severn Trent Water provided, on our request, a reconciliation of the two figures and set out its explanations for the variance between the two. Variance between the two would not necessarily be a cause for concern. For example, legitimate changes to accounting practice and collection of extra income as a result of company initiatives could lead to a variance from forecasts. A number of companies outperform forecast turnover, similarly some companies underperform. But we would expect companies to be able to explain why variances have occurred.

Severn Trent Water cannot explain to our satisfaction, a variance between the revenue forecast and reported actual revenue of £8m in total. On the basis of the evidence we have seen, we believe the unsupported differences result from inaccuracies in the company's approach to its business plan. This includes the impact of the £2.4m difference in 2003-04 which flows through to 2004-05. We expect that this current £8m variance will flow into future years, and so this suggests a possible aggregate variance between forecast and actual revenue of approximately £40m for 2005-10. Because revenue forecasts were lower than they should have been price limits may be slightly higher than they need to be.

Figure 3 illustrates this point, demonstrating that the forecast of revenue used to determine price limits was too low and the corresponding price limits were too high. We believe that the variance has occurred because of Severn Trent Water's poor understanding of its revenue position coupled with its failure to follow our guidance when preparing its revenue forecast. Although the five-year variance of £40m is equivalent to less than 1% per year of Severn Trent Water's five-year aggregate revenue base we believe that it is not appropriate for the company to benefit to the detriment of customers from this error.

**Figure 3: Unexplained variance between base revenue forecast for 2004-05 and total revenue reported in the regulatory accounts**



1. Total revenue reported for the appointed business. Excludes non-appointed revenue.

Overall we conclude:

- Weaknesses in Severn Trent Water's internal processes and systems of control for reporting its income and a failure to follow our detailed guidance for the completion of its final business plan resulted in an understatement of the company's forecast revenue. We based the price limits we set for Severn Trent Water for 2005-10 on this incorrect forecast. This means that, in our view, over the period 2005-10 customers would have been disadvantaged by £40m because price limits were set higher than they need to be. This is equivalent to £2 to £3 each year on an average Severn Trent Water customer's water and sewerage bill.**
- The information we reviewed does not suggest that the atypical revenue figures for 2002-03 and 2003-04 submitted by Severn Trent Water were derived from anything other than legitimate attempts to establish its true position.**

- **A senior manager below Board level at Severn Trent Water asked staff to consider inappropriate ways of managing income. However, the information we reviewed did not suggest that any deliberately improper mechanisms were implemented.**

We also identified the following particular areas of concern:

- Severn Trent Water did not have a thorough understanding of its income position. In particular, it did not properly understand variances between its own internal budgeted position and actual revenue.
- Although when requested Severn Trent Water provided explanations for differences in forecast and actual income for 2004-05, it could not explain a significant proportion of this to our satisfaction.
- Severn Trent Water failed to follow our detailed guidance for compiling the income forecasts in its business plan for the 2004 periodic review, particularly for the year 2003-04. It did not draw this to our attention in the commentary to support its plan.
- Staff struggled to identify both the amount of and reasons for atypical income in 2002-03.
- Severn Trent Water did not have records to support the amount of atypical income for 2002-03 identified in its business plan. Although it eventually raised this with us, it did not do so until November 2004. It submitted its plan in April 2004.
- Poor processes and controls resulted in an adjustment to income of £1.5m being made in error.

## **Section 2.5 Company behaviour**

As well as our specific findings for each of bad debt, the interim determination, the DG8 indicator and income allegations, we have a more general concern about the approach of Severn Trent Water towards the collection, analysis and presentation of regulatory information.

We considered Severn Trent Water's approach to data collection and submission across all of these allegations, building up a picture of the collective behaviour within the company. We wished to understand whether our findings of inappropriate behaviour in individual cases were isolated incidents or represented a wider cultural issue within certain parts of the company or indeed across the whole of Severn Trent Water.

We expect companies to submit accurate, reliable and complete data to us. Where uncertainties exist and judgements have to be made companies must make this clear when they submit data to us and reflect uncertainties in the confidence grades they report for data.

Mr Donnelly has admitted making inappropriate adjustments within the bad debt model used to calculate the bad debt charge and bad debt provision. He has also admitted concealing his actions and withholding information from the auditors (PwC

Audit) and the company's Reporter (from Halcrow Management Sciences). However, Mr Donnelly suggested that his actions were not the only example of such behaviour within Severn Trent Water.

Our investigation does not support Mr Donnelly's allegations of a company-wide attempt to mislead us subject to the outcome of the SFO investigation. But we have evidenced behaviour that we believe is inappropriate. Our findings in respect of leakage are not covered here as this aspect is subject to investigation by the SFO.

- A senior member of staff directed others to consider mechanisms that might achieve a particular level of reported income. Some of these, if applied, would have been inappropriate because they could have affected the starting position for the 2005-10 price limits. However, there is nothing to suggest any such action was carried out.
- During the period that the allegations cover some individuals became aware of the adjustments to the bad debt charge and provisions but did not challenge Mr Donnelly about his actions or raise concerns elsewhere in the company. There is nothing to suggest that such knowledge was widespread.
- In certain instances, in making judgements to calculate data reported to us, staff appear to have been influenced by a desire to achieve a particular outcome, rather than ensuring data is a reasonable best estimate supported by robust judgements and central estimates.
- Staff were selective in the information they released to us, for example the success of the company's charge on income and property initiatives to recover bad debt.
- It appears a senior manager of Severn Trent Water was aware that Mr Donnelly failed to disclose relevant information during a meeting with PwC Audit.
- The company did not implement new reporting systems as quickly as it could and should have done.
- There were instances of poor internal controls and processes for financial data.
- We saw information during the investigation that we are now considering as part of our annual monitoring of Severn Trent Water's trading within the overall group under the Parent Company.

These examples raise concerns at the time of the allegations about the adequacy of the corporate governance of Severn Trent Water and its systems of checks and controls. Specifically, the company's systems of checks and controls in relation to income and bad debt were flawed. As a result there were times when staff were trying to second-guess senior management (and Ofwat) views and requirements rather than focusing on the production of robust data and explanations of that data. Because of this, in some cases the data presented to us was not supported by the analysis that Severn Trent Water had undertaken.

Issues in relation to company culture by their nature go beyond the areas considered specifically in this report and for example also arise in relation to data on leakage. However, we have framed our interim conclusions presented in this report in relation to the issues that are not being considered by the SFO. At the conclusion of the SFO's process we will return to the issue of company culture.

Our findings relate to the regulated company Severn Trent Water, not its Parent Company – Severn Trent Plc. There is no evidence of involvement of the Parent Company in these issues. Overall, the Parent Company kept us informed of the progress of its investigation and has co-operated with our investigation. The lack of initial co-operation from the Parent Company was unsatisfactory. But this generally improved during the course of our investigation and as previously noted the difficulties we encountered were resolved.

During our investigation the Parent Company shared with us the findings of a review of the internal controls of Severn Trent Water that it had asked its new auditors, Deloitte & Touche, to undertake.

The Deloitte & Touche review was completed in two phases. The first phase, reported to the Parent Company in September 2005, sought to document and test the internal data processes and controls of the company and recommended improvements. In the second phase, reported to the Parent Company in November 2005, Deloitte & Touche considered the extent to which Severn Trent Water had successfully implemented the recommendations set out in the first phase.

The review was not comprehensive. It focused on the financial, rather than operational, processes within the company. The weaknesses that Deloitte & Touche identified reinforce the concerns we have with the way the company collected data during the period to which the allegations relate. For example, Deloitte & Touche identified weaknesses in the supervision and monitoring of staff and noted that senior management did not review and challenge data as they should have done. A significant proportion of the identified weaknesses related to income.

We believe that it is these sort of weaknesses that contributed to the £40m overcharging between 2005-10 on income and the inclusion of deliberately miscalculated bad debt data in the June return and interim determination submissions.

Deloitte & Touche is now satisfied that the processes and controls in those areas reviewed are now of the required standards and that staff are following them.

But the Deloitte & Touche report did identify a small number of areas where either controls were not operating as documented or changes had not been fully implemented by the agreed date.

These include areas that are directly linked to the circumstances that allowed Mr Donnelly to manipulate figures or which gave rise to the incorrect forecasting of income. In particular:

- appropriate controls around, and review of, journal entries; and
- controls around, checks of and access to key spreadsheets impacting on the financial reporting cycle.

Deloitte & Touche categorise issues around the operations of controls as issues of evidence and management review not as an absence or complete failure of controls. And delays on implementation of changes as 'minor slippage'. However, we are concerned that Severn Trent Water did not ensure that these key issues were not addressed more quickly and to the original timetable. Severn Trent Water has explained that it views the deadlines it set as challenging and that although not complete, it had made significant progress towards making the changes by the agreed date. It has now completed its actions and taken steps to ensure the issues are fully addressed.

The successful implementation of Deloitte & Touche's recommendations is a step in the right direction. We will look closely at the 2006 June return submission of Severn Trent Water and work closely with Severn Trent Water's auditor and reporter where appropriate as we note that the review did not test controls relating to statutory and regulatory reporting processes. This was because they were due to undergo significant revision ahead of the 2006 reporting cycle.

Severn Trent Water needs to do more to ensure that staff work in an environment where they do not feel under undue pressure to produce a result that is not supported by the analysis they have carried out. Under such pressure, ad hoc comments from senior management may be given more weight than was intended. Managers need to be aware of, and review as necessary, the work of staff.

It is reasonable for staff within a regulated company to seek the view of colleagues with regulatory expertise to understand the regulatory implication of decisions. There are also legitimate situations where best judgements must be applied.

However, this investigation highlights the importance of strong governance controls. Severn Trent Water must ensure that where staff are required to use their best judgement there are robust systems in place to monitor and challenge their work.

## **Section 3 The actions we require Severn Trent Water to take and industry-wide actions**

During our investigation we considered:

- What, if any, action we would wish to take to remedy any concerns that we may have with Severn Trent Water?
- Whether there were any industry-wide actions that we would need to implement to strengthen the regulatory framework going forward?
- Whether we needed to change our approach to collecting and analysing data for the areas at the centre of the allegations or more generally.

In considering the appropriate actions we ensure that Severn Trent Water fully remedies its shortcomings, reimburses its customers and faces an adequate penalty commensurate with our findings without unduly increasing the regulatory burden. Industry-wide actions should improve the regulatory regime as a whole, in a proportionate manner.

The SFO is in the process of its own investigation. We will review the actions we propose including any penalty element in light of its findings. We will discuss these with the company.

### **Actions for Severn Trent Water**

We identified a number of specific measures that we wish to implement for Severn Trent Water only.

#### **Adjustment to price limits**

As set out above, we are unable at this stage to determine the full extent of the adjustment to price limits we require including the penalty element. However, customers should not have to wait to see reductions in price limits in respect of:

- £2m overcharged in 2004-05 as a result of the deliberate miscalculation of bad debt data. This should be returned as soon as practicable; and
- £40m resulting from poor processes and controls around income that mean price limits for 2005-10 are higher than they otherwise would be. This amount arises evenly over the period 2005-10 and would have resulted in an additional £8m revenue per annum for each of the years 2005-06 to 2009-10.

Severn Trent Water has voluntarily abated its price limits for 2006-07 by 0.65% (£7m) because it achieved greater than anticipated revenues in 2003-04 and 2004-05 and considers that part of this should be shared with customers. The company has therefore returned £7m through lower bills sent out in respect of 2006-07.

Of the remaining £35m (£42m in total less £7m returned to customers in 2006-07), Severn Trent Water has agreed to:

- return £14m to customers through a credit to each customer's account. This will be used to reduce customers bills in 2007-08 (and we will adjust price limits accordingly); and
- return £7m in each of the years 2007-08, 2008-09 and 2009-10 through an adjustment to its price limits.

We believe that our findings are so serious that merely returning revenue to customers because price limits have been set higher than they should have been is not sufficient. We consider that the company should also return an additional amount to customers by way of a penalty element in recognition of the shortcomings we have identified.

Once the SFO's investigation is complete we will consider this element in more detail.

In this instance we cannot apply our new powers brought in by the Water Act 2003 to fine the company because the allegations relate to actions before the powers to fine came into force. We do however expect the company to accept this penalty element in recognition of the scale and nature of its failings.

## **Licence condition F and P**

### **Parent Company behaviour**

There are several provisions of the Water Industry Act 1991 and companies' licences regarding the provision of information to Ofwat.

Under Condition M of its Licence Severn Trent Water has a broad obligation to furnish us with such information as we may reasonably require for the purpose of carrying out any of the Director's functions under the Water Industry Act 1991.

Most companies licences also contain Condition P which, among others, requires the Appointee to obtain undertakings from its Parent Company such that the parent company:

- gives to the Appointee all the information it needs so that it can comply with its licence; and
- refrains from action which would put the licensee in breach of its licence or obligations under the 1991 Act.

The lack of initial co-operation from the Parent Company was unsatisfactory. But this generally improved during the course of our investigation and as previously noted the difficulties we encountered were resolved.

Severn Trent Water's licence is unusual in that it does not contain Condition P which provides a safeguard as regards the behaviour of Appointees' parent companies. We consider Condition P is a particularly important safeguard to ensure parent companies' co-operation in the proper provision of information to Ofwat and proper running of the regulated company.

It would have assisted us in the early part of our investigation if it had been in place because it would have improved our powers to gather information from the Parent Company.

### **Corporate governance and financial ring fencing**

Condition F and Condition P require companies to follow standards of corporate governance and financial ring fencing. These, among others, require the Appointee to:

- certify formally that it has adequate systems of planning and internal control;
- conduct the Appointed Business as if it were substantially the Appointee's sole business and the Appointee were a separate public limited company; and
- comply with the code of best practice of the Financial Services Authority.

Condition P also places controls on the Appointee's corporate governance regime. It requires parent companies to ensure minimum requirements for independent non-executive directors on the Appointee's board are met.

We believe that the Condition F and P licence modifications are relevant to all companies, regardless of their structure, and provide additional protection to customers.

Again, Severn Trent Water is unusual in that its Licence does not contain any of the modifications we have made to Condition F to strengthen financial ring fencing and corporate governance processes.

To date we have introduced these Conditions into companies' licences when a company has been acquired by new owners or a new financing structure has been put in place. As a result, only Severn Trent Water and one other company do not have a Condition P and a modified version of Condition F.

We had proposed making these amendments to all company licences in 2001 as part of a wider proposal to improve consistency between company licences. Severn Trent Water was one of the companies that, at that time, did not want these particular amendments made to its licence. It did not feel they were appropriate for the company, it felt the changes were meant to deal with specific changes and events at other companies and that these did not apply to itself. Severn Trent Water did not believe there was a compelling argument for it to agree to the changes. Without the consent of all companies we decided not to implement the changes, which if disputed, would require a reference to the Competition Commission.

The omission of these elements of Condition F and Condition P did not in our view lead to the problems we have identified above but they may have highlighted weaknesses in corporate governance and systems at an earlier stage and shortened the length of time our investigation required.

Following this investigation we believe that it is appropriate for us to bring Severn Trent Water's Licence up to date and in line with others. Updating its Licence in this way will help to crystallise the requirements on the company including the role of its Parent Company and provide the necessary regulatory safeguards. It will also demonstrate Severn Trent Water's (and its Parent Company's) commitment to achieving compliance, openness, corporate governance best practice, and the safeguarding of customer interests. We have discussed this requirement with Severn Trent Water, it has agreed in principle to these modifications.

### **Auditing of regulatory returns**

Companies appoint auditors under the terms and provisions of the Companies Act 1985 for the statutory audit of their financial statements. The same auditors are also required to provide an opinion on the regulatory accounts (financial statements prepared in accordance with our guidelines). In reaching our conclusions we considered whether it would be necessary to appoint an independent auditor for Severn Trent Water to undertake audits solely for us.

Our investigation did not suggest that such a move was necessary. However, we will require additional company-specific reporting from Severn Trent Water's financial auditor so that we can fully satisfy ourselves that the data Severn Trent Water submits is robust. We will, also, reserve the right to engage, at the company's expense, an independent auditor to undertake specific audit work if this approach proves unsatisfactory. This would apply to both the annual information return and any other relevant submissions such as an interim determination.

Severn Trent Water has a new auditor, Deloitte & Touche, working on the 2005-06 accounts onwards. We will work with Deloitte & Touche to ensure the audit process adequately addresses our specific regulatory issues and concerns. Following the 2005-06 June return we will provide Deloitte & Touche with detailed feedback so that it can be clear on our requirements.

We will assess the effectiveness of this approach following the 2006-07 June return.

### **Quality of commentary to support and explain data submissions**

Although we ask for the same data from each company, the manner in which each company provides the data differs. Some provide the minimum required of them. Others provide more thorough and detailed returns. This year we provided feedback to all companies on the quality of their 2004-05 June return submission. Severn Trent Water's June return was poor relative to other companies. We have met the company to discuss the improvements that it needs to make. The company has voluntarily revisited its 2005 June return and asked us to work with it to ensure its future submissions are of sufficient quality. We are currently doing so. In general, we expect

Severn Trent Water to provide significantly more detailed supporting commentary with its submissions with particular focus on the areas this investigation covered.

Severn Trent Water will have a new reporter, from WS Atkins, auditing its submissions starting with the 2005-06 June return. In accordance with our normal practices we will work with the relevant staff of WS Atkins to ensure that the company explains its approach in the appropriate areas in sufficient detail and that the company has robust internal controls and procedures in place. We intend to ask Severn Trent Water's reporter to focus particularly on the quality of data that the company submits to us.

Because of the manipulation of bad debt that has occurred, we intend to review Severn Trent Water's 2004-05 bad debt model in detail as part of our more general review of bad debt (see industry wide actions below).

### **Company behaviour**

Our investigation has focused on specific areas of reporting within Severn Trent Water. Nevertheless, from the information we have reviewed we identified instances of behaviour that we consider were inappropriate, and that any customers, especially those of a monopoly company such as Severn Trent Water, should not expect to see. The Parent Company has publicly stated that there was evidence of some behaviour that it believed fell short of the standards it expects from employees. As noted in section 2.5 implementing the findings of the Deloitte & Touche review is an important first step.

We expect Severn Trent Water to demonstrate to its customers and to us:

- that it is a company that has robust internal checks and controls;
- that there is an appropriate level of supervision of staff;
- how it intends to adopt best practice within the company through training and education; and
- how it will check that any measures it implements continue to be effective in the longer term.

### **Industry-wide actions**

#### **Regulatory returns and the role of the auditor**

We wish to ensure that we derive maximum value from the work that auditors do for us and that they are clear about the issues that we want them to review. We are concerned that auditors' understanding of our particular requirements may not be as thorough as we expected. We acknowledge that our guidance to auditors has sometimes been too general and did not fully take account of company-specific issues. We will provide more detailed guidance to auditors, share best practice and identify areas where we require more from auditors.

For all companies we will ahead of the 2006-07 June return submission:

- Review the role of auditors and our co-ordination of their work to ensure we maximise value added.
- Review our guidance to auditors to ensure this is sufficiently detailed and carefully drafted.
- Consider issuing company specific guidance to auditors in the same way as we do for reporters.
- Request each auditor for each company to identify a named individual who will take responsibility for reporting to us.
- Require an annual meeting with auditors to ensure our requirements are fully understood.
- Hold an induction meeting when a company changes its auditors in the same way as we do for reporters

### **Accounting policies and procedures for customer debt**

As in 1999, the 2004 final determination of price limits did not allow for any increase in bad debt costs but did recognise a notified item that would trigger an interim determination if such costs materially increased in 2005-10 for reasons outside the control of an efficient company. As part of the preparation for any interim determinations we have sent a questionnaire to each company with the objective of gaining a full understanding of the current approach to bad debt and the basis of the policies and procedures for write off and the bad debt charge/provision. We intend to review our June return and interim determination reporting requirements together with the guidance to auditors and reporters in light of this review.

Our findings in this case strengthen our view that this review was necessary. Work on this has now begun; we wrote to all companies on 9 December 2005 as the first step in this process.

### **The data requirement for income**

Prior to this investigation we identified a need to review the data that we required companies to report to us on income in the June return. For example the substantial effect determinations for Northumbrian Water and Bournemouth & West Hampshire Water showed that there was a need for additional information that would allow us to improve our understanding of any variance from our forecasts and its causes.

The investigation supports our view that we need to understand:

- companies' approaches to estimating bills for measured customers and the links to atypical revenue;
- the measured income accruals and the accuracy of these;
- links between changes in income and debt/outstanding revenue; and
- what the legitimate reasons are for differences between reported turnover and turnover calculated using a bottom up approach (multiplying tariffs by numbers of customers).

Some of the changes required to achieve this objective were included in our information requirements for the 2005 June return. We have also made further changes to our information requirements for the 2006 June return.

We will monitor the effectiveness of these changes and keep this area under careful review. If we consider it necessary we will make further modifications. We will provide clear guidance to auditors on these matters.

## **Ofwat actions**

Our investigation has emphasised the importance of the data that we collect and the analysis and monitoring that we undertake. We have already written to all companies (MD209 'Reliability of regulatory information') reminding them of their obligations when they submit data to us. We will:

- continue to subject company data and explanations to rigorous analysis;
- encourage companies to discuss with us any concerns or difficulties that they may have with data robustness;
- look to companies to explain to us the limitations of their data and what they intend to do to improve its quality; and
- discuss the implications of the findings of our investigation with reporters and auditors through workshops and consider how best to increase auditors' understanding of our requirements.