

EA WATER RESOURCES

SECOND ANNUAL REVIEW OF

Water Company Water Resources Plans

December 2001



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Contents

Summary	1
1 Introduction	2
1.1 Background	2
1.2 April 2000 to March 2001 - a year in water resources	2
1.3 Structure of the report	4
2 Analysis of resource zone information	5
2.1 Definition of resource zones	5
2.2 Household water meter penetration	7
2.3 Per capita consumption	10
2.4 Household occupancy rates	14
2.5 Leakage	18
2.6 Summary	18
3 Supply-demand balance issues	19
3.1 Resource availability	19
3.2 Available headroom	19
3.3 Outage	19
3.4 Peak demand	20
4 Recommendations	21
References	22

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Summary

This is the Environment Agency's report on the second annual review of water companies' water resources plans. It covers the period from April 2000 to March 2001.

In March 1999 all the water companies of England and Wales submitted water resources plans to the Environment Agency. The plans provided a picture of how these companies planned to manage public water supply to 2025. Ministers asked the Environment Agency to keep these plans under annual review. In February 2000 the Agency issued a template for the submission of annual review information. We asked companies to submit their second annual review by 14 September 2001.

All companies provided clear and helpful information. We are pleased to report that all companies are actively reviewing their supply-demand balance and that most companies are making good progress on their water resources plans.

In the course of our analysis, we identified some significant issues that need further attention:

- South East Water's progress in achieving an appropriate supply-demand balance appears slow and the company risks a supply deficit should a dry year occur.
- Dŵr Cymru Welsh Water is making little progress on resolving resource balances in zones that were predicted to have a deficit before 2010.
- Essex and Suffolk Water has proposed a change to its resource development plan which will result in inadequate headroom from 2002 to 2008.
- We need to understand some of the values provided by Dŵr Cymru Welsh Water. These include per capita consumption (pcc), leakage, population, property numbers and occupancy rates. We will seek further clarification from the company and report to Ministers by March 2002.

- The high distribution input of Thames Water is of continued concern to both the Agency and Ofwat.
- We need to see credible pcc and occupancy rate values from Yorkshire Water.
- There is still a need to improve the estimation of occupancy rate. We will discuss methods with Ofwat and Water UK.
- Some companies appear to calculate some information at company level and then disaggregate this to resource zone level. These companies should reconsider the way that they collect information.
- Companies that do not collect information on actual outage should establish systems for its acquisition immediately.

We will keep Ministers informed about progress on these matters.

The issues raised in this report have demonstrated once again the value of the annual review of water company plans. Ofwat has indicated that it finds the annual reviews valuable for monitoring companies' performance in delivering funded outputs. DEFRA and NAW have told us that they expect us to continue with these reviews. We will work with DEFRA, NAW, Ofwat and Water UK to define the information that should be provided for the 2001-2002 review.

1 Introduction

This is the Environment Agency's annual review of water companies' water resources plans for the year from April 2000 to March 2001. Its objective is to review progress both against companies' 1999 water resources plans and since the last annual review submissions.

1.1 Background

In England and Wales, public water supply is provided by private water companies. The Environment Agency is the statutory body with a duty for strategic water resources planning. Our role is to protect the long-term future of the water environment while encouraging sustainable development. In guidance in January 1999, central Government set out the legal framework within which water companies operate:

"Each water company has a key duty to develop and maintain an efficient and economical system of water supply. The Environment Agency has the duty to secure the proper use of water resources in England and Wales, within a general framework of policy and directions determined by the Secretaries of State. The Director General of Water Services has the duty to ensure that companies can finance the proper conduct of their functions. The Secretaries of State, the Director General and the Environment Agency each have general environmental duties to take into account when considering proposals relating to the functions of water companies."

(Maintaining Public Water Supplies, Department of the Environment, Transport and the Regions and the Welsh Office, January 1999)

In March 1999 all the water companies of England and Wales submitted water resources plans to the Environment Agency. These plans provided for the first time a clear picture of how the water companies of England and Wales planned to manage public water

supply to 2025. We assessed the plans and reported our findings in June 1999. Ministers asked the Agency to keep these plans under annual review. In September 2000 water companies submitted progress reports to the Agency. We reported on these in our first annual review of water company plans in March 2001. In May 2001 we consulted the water industry about the information that we would seek for the second annual review. The specification for the 2000-2001 information was very similar to that of the previous year, although we took the opportunity to clarify some definitions and to specify the data format more tightly. We asked companies to submit their second annual review by 14 September 2001.

1.2 April 2000 to March 2001: a year in water resources

In November 1999, the Director General of Water Services published his ruling on water company prices for the period from April 2000 to March 2005. This was Ofwat's third periodic review of water company prices. All companies were informed of any specific elements of their Ofwat submissions that had not been funded. For all companies, Ofwat applied an initial estimate of the likely uptake of free household water meters in the future, as a basis for funding in price limits. Some companies felt that this might constrain their progress in metering, although Ofwat clearly identified optional metering as a Notified Item. This means that companies can ask for an interim price determination if initial assumptions are shown to be incorrect and if this has a material effect on the company's costs and revenues.

In September 2000, three companies asked Ofwat for an interim price determination. The Director General decided that Anglian Water had not demonstrated sufficient change to warrant any increase in prices to customers. However, price limits for Dŵr Cymru Welsh Water and Tendring Hundred were increased. For Dŵr Cymru Welsh Water, the increase reflects a greater number of customers opting for meters and changed

obligations in relation to waste water treatment and water quality. For Tendring Hundred the price limits were increased because of higher costs and lower revenues because the uptake of optional meters was faster than that assumed by Ofwat.

In September 2001 three more companies asked Ofwat to review their prices. The companies were South West Water, Bournemouth and West Hampshire Water and Dee Valley Water. A decision is expected in December 2001.

Ofwat's price determinations included allowances for companies' work on the environmental improvements identified in the Agency's National Environment Programme. Where solutions had been identified, the determinations allow for their implementation. In other cases, the price limits make an allowance for investigations. The Agency is working with companies to pursue the new schemes and the investigations. Ministers have said that when completed investigations demonstrate a need for action there is no need to wait for a further round of price determinations before such action is taken.

In August 2000, the threshold for inset appointments in England was reduced from 250 MI/year to 100 MI/year. Until new regulations are put to the National Assembly for Wales, the threshold in Wales remains at 250 MI/year. An inset appointment allows a different supplier to become the statutory water undertaker for a customer that would otherwise be supplied by the incumbent water company. Inset appointments are one way of allowing competition to supply water to develop. However, while this may have increased pressure to introduce new tariffs, few customers have changed supplier in this way.

In March 2001, the Environment Agency published its new water resources strategy for England and Wales. In *Water Resources for the Future* we looked at the present state of water resources before considering the changes that might occur over the next 25 years. To investigate the future demand for water, we developed scenarios

of water demand based on the Department of Trade and Industry's Foresight Programme. This sets out four different future scenarios based on changes to social values and systems of governance. This allowed us to develop a strategy that is flexible and sufficiently robust to ensure that water supplies are secure and the environment is protected, however such changes occur. Much of the divergence between the scenarios becomes apparent ten or more years into the future.

We do not expect our strategy to change water companies' short-term plans or operations; its main influence will be on the way that companies plan for the long term and how they approach the next periodic review of water company prices. We believe that our scenario approach will increase the attention paid to risk and uncertainty, and that our strategy will help water companies to choose options that maintain security of supply throughout a range of conditions. We are working on the actions identified in the strategy, and will report progress annually. Over time we expect our strategy to influence attitudes to water use and the environment, and hence to contribute to security of water supply. To achieve this we will need to work with many groups and organisations, including DEFRA, NAW, Ofwat, water companies and others.

Much of the information that we collect from water companies relates to their operation during the year. Weather conditions have an important influence on these operations. In water resources terms, the summer of 2000 was unremarkable, with only short periods of hot, dry weather. As a result, water supply systems were not stretched. Winter weather is also important: periods of freezing weather followed by rapid thaw lead to increased levels of leakage. Temperatures in the winter of 2000-2001 were relatively normal, although colder than the winter of 1999-2000. Thus there were more bursts as a result of freeze-thaw cycles than in the previous year.

The winter of 2000-2001 was remarkably wet. While floods hit the headlines, the high rainfall led to some water supply problems. Some treatment works and abstraction points were polluted by floodwater. The

unusually rapid subsurface flow led to high levels of nitrate in some aquifers. This left some sources temporarily unusable, while the water from other groundwater sources had to be blended to produce water of an appropriate quality. Flooding and high water tables also made it difficult to manage leakage in some areas. Members of the public make a significant contribution to leakage control by reporting leaks to water companies. With so many new springs and puddles, leaks were not always noticed and in some places may have run for much longer than normal.

Late in the winter of 2000-2001, foot and mouth disease struck the farming industry. The ensuing restrictions on movement in the countryside may have had an effect on the operations of companies working in the worst affected areas. Falling so late in the year, we would not expect to see any impact of the disease in the 2000-2001 period, but it may well be important in some areas for 2001-2002.

1.3 Structure of the report

This is the Agency's second annual review of water company plans. It follows closely the structure of the first annual review. In Section 2, we look at some of the resource zone information that has been provided in the plans. We examine this to identify the important characteristics of the data and to look at progress on some important aspects of water resources management. In Section 3, we look at areas of concern to companies, and identify issues that we intend to pursue over the next year. Finally, in Section 4, we draw our conclusions and look at the prospects for the next annual review.

2 Analysis of resource zone information

All companies provided us with useful information supported by helpful reports. We are pleased to report this high level of co-operation to Ministers. It allows us all to be confident that we understand the actions that companies are taking and the issues that they are facing. Most companies have shown that they are making good progress on their water company plans. The excellent co-operation helps to demonstrate that water resources planning has shifted from an occasional flurry of activity to a continual process. This in turn means that companies are identifying and acting on changes before they become problems. We are confident that companies will make further progress over the coming years.

Each water company has divided its supply area into one or more resource zones. A resource zone is defined as the largest possible zone in which all resources, including external transfers, can be shared and hence the zone in which all customers experience the same risk of supply failure from a resource shortfall. Every resource zone has its own characteristics, determined not only by the types of resource available but also by the customer base. Resource zones vary in size depending on the way that the supply network functions and to some extent on the way that the company has defined its zones. The smallest zone is operated by Dŵr Cymru Welsh Water and has a population of just under 2000, while the largest zone covers much of the north-west of England with a population of over 6.5 million. For their annual review submissions, we ask companies to provide information on each resource zone (*figure 1*). In this section we examine some of this information.

2.1 Definition of resource zones

The Agency believes that water supply planning is best carried out at a resource zone level. An understanding of resource zone characteristics and operations allows solutions to reflect the real geographical and social

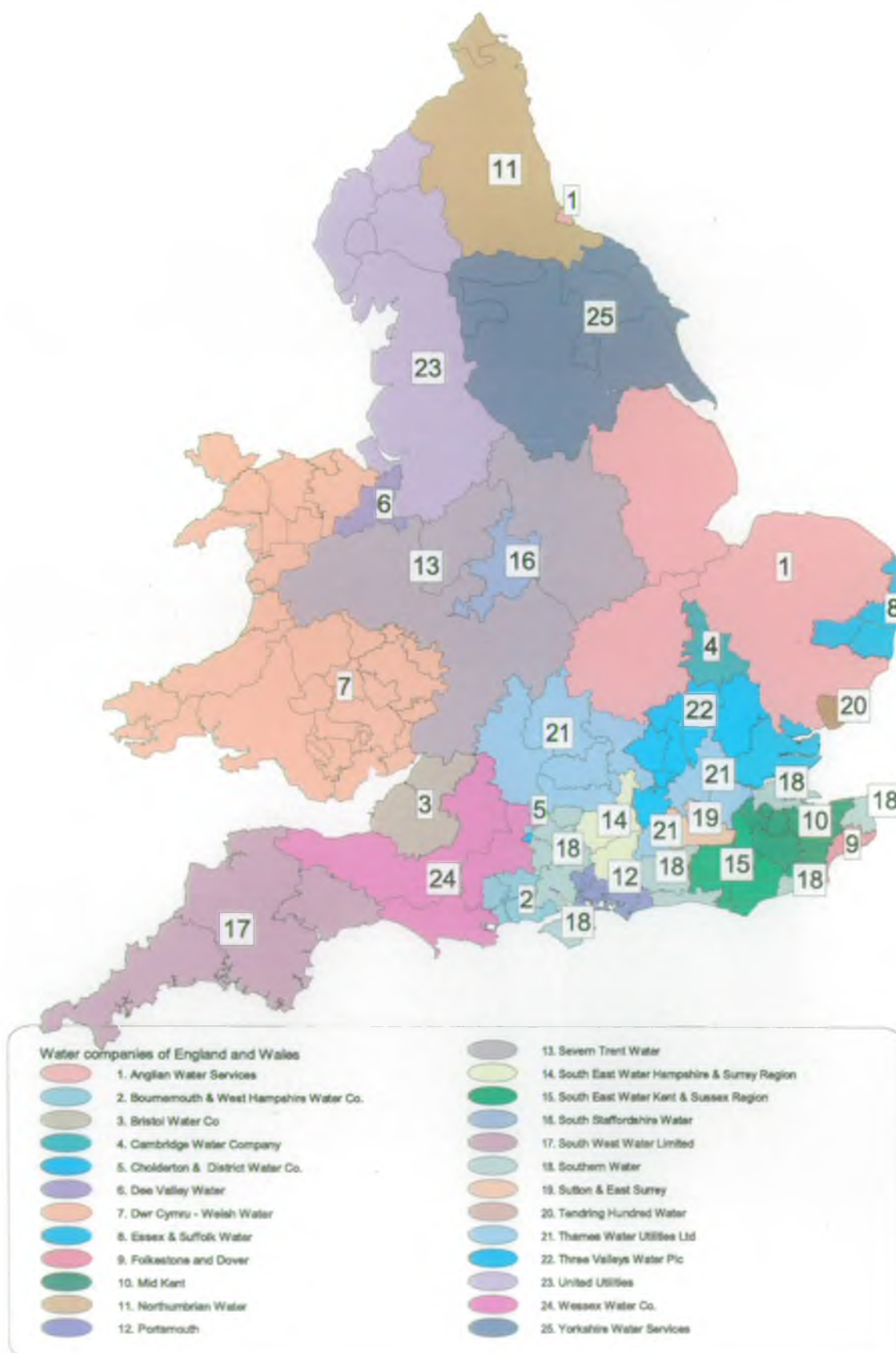
differences that exist. Looking only at a company-wide level can hide issues and opportunities at a more local level. For example, a company may have sufficient water for its needs at the company level, but this could be disguising a shortfall in one or more resource zones. When looking for solutions to such deficits, it is of course important that companies look at opportunities in adjacent resource zones, even if these zones belong to another company. This is particularly important for small zones, which often rely on only a few sources of water, and therefore can be especially vulnerable to drought or pollution incidents.

The significance of the resource zone in water supply planning led us to ask companies to confirm that their resource zones comply with the agreed Agency/UKWIR definition of equal risk to customers. Not all companies confirmed explicitly that their zones complied with the definition. We will pursue this issue with companies that have not given this assurance, and we will discuss individually with companies those zones that appear to us not to meet this definition. We are concerned that in some of the larger zones resources cannot be shared effectively.

Yorkshire Water has made some changes to resource zone boundaries. These seem to be minor extensions to the company's grid zone, but the company has not provided details of the new boundaries to the Agency. Disturbingly, the company does not seem to know how many properties have changed zones as a result of these changes. We will expect the company to provide further information about this development.

Given the importance of the resource zone, we are disappointed that Portsmouth Water decided only to present company-wide information, despite planning on the basis of seven resource zones. When the company first signalled its intention we said that this was not acceptable. The company believes that reporting at a zonal level is inappropriate for an annual review of a small company and tells us that it does not collect all of the requested data by zone. However, the company has agreed to provide a detailed zonal

Figure 1: The water companies of England and Wales and their resource zones



analysis in the next few months. We will work with Portsmouth Water to evaluate the work needed to collect zonal data in future.

While most companies have provided resource zone information, in some cases it appears that the information has been disaggregated from company-wide information. We will follow this up with the companies involved. We expect companies to put in place appropriate data collection programmes to allow resource zone information to be collected. In some cases it seems that companies have struggled to resolve resource zone information with the company-wide figures supplied to Ofwat in the June returns. We are surprised to find that some companies do not build up all of their June returns from resource zone information, and we will consider the implications of this with Ofwat.

We have received no submission this year from Cholderton and District Water Company. We understand that preparing a submission is a significant burden for such a small company (the population served is about 1700). However, as we approach the next periodic review of water company prices, it will be important that the company demonstrates that it understands its needs, and we will expect a full submission next year. Routine liaison with the company leads us to believe that there are no significant issues at present.

2.2 Household water meter penetration

The Water Industry Act 1999 clarified the position on metering, making free meters available to all households on demand but stopping companies from imposing metering except in specific circumstances. Companies are allowed to insist on meters for potentially high discretionary uses, such as swimming pools or garden sprinklers. They may also choose to install a meter in any property on change of occupancy; the right to an unmetered tariff was conferred only for customers in their present property. Since last year, household metering has increased over

the whole of England and Wales, with some 19% of households having a metered supply (*figure 2*). Meter penetration is still very variable, with low levels in Wales, parts of the Midlands and the North West. We commented last year on the low levels of metering in parts of the south-east of England, finding this surprising given the difficulty in finding new resources in this area. The position this year is similar, although all companies in the south-east have increased the number of meters.

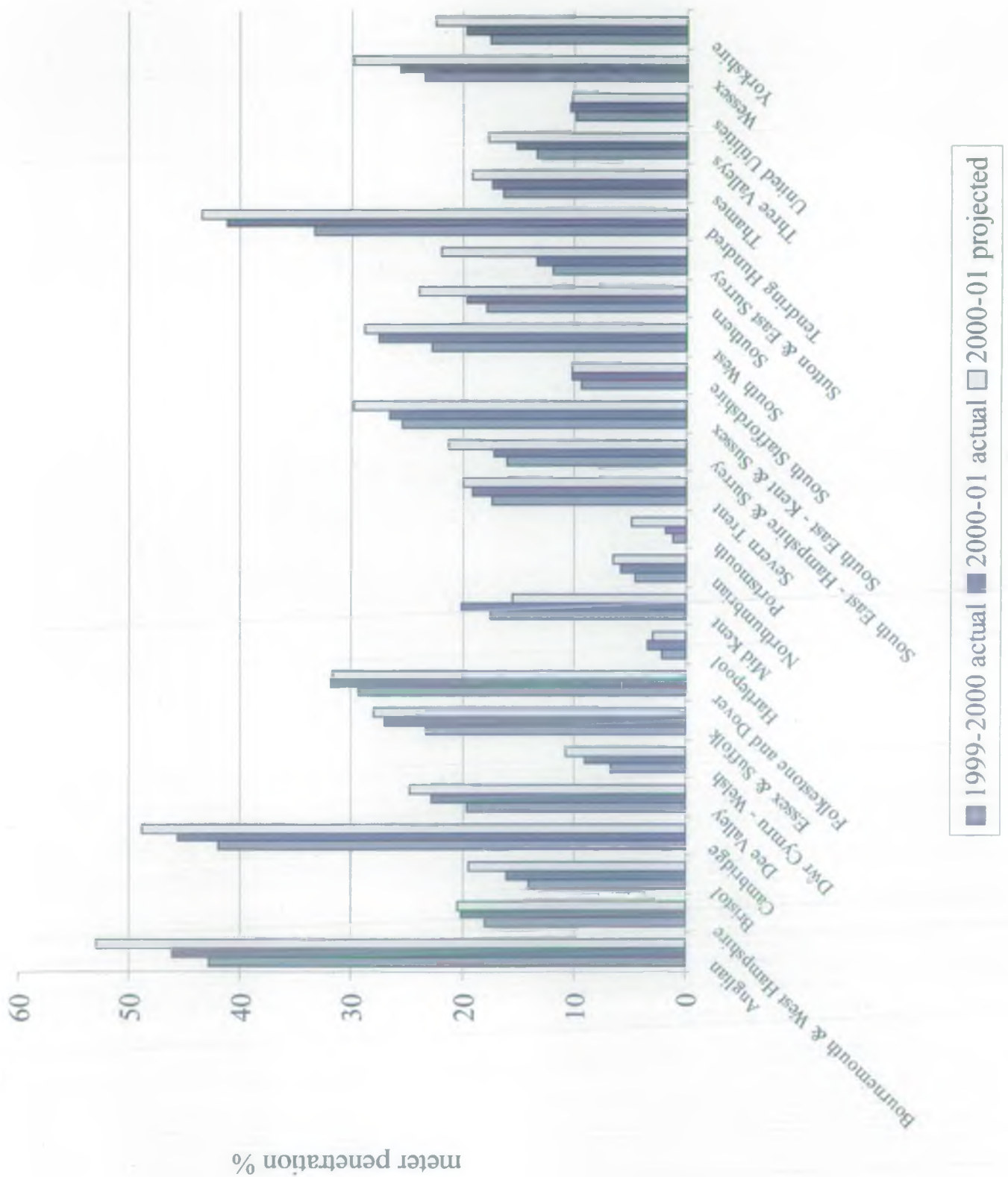
Some companies have high levels of metering. Anglian Water and Cambridge Water both meter over 45% of their households. In Anglian Water's Eastern resource zone, half of all households are metered, while on the Isle of Wight over 90% of households are metered. A number of companies have more meters than projected in the 1999 plans for 2000-2001 (*figure 3*). These companies include Hartlepool Water, Folkestone and Dover Water, South Staffordshire Water, United Utilities and Mid Kent Water. However, Mid Kent Water tells us that it is unlikely to reach its funded level by 2005. Other companies are falling behind their 1999 plans. Some say that this is the result of Ofwat's price determination, which in many cases allowed for fewer meters than company projections. Many companies feel that they have been discouraged from the vigorous promotion of free meters, although Ofwat has made it clear that household metering is a Notified Item, meaning that a significant change in level can justify an interim price determination. A few companies are falling behind Ofwat's assumptions about meter penetration. These include Portsmouth Water, which has the lowest household meter penetration in England and Wales at under 2%.

Most companies that are falling significantly behind their metering plans are telling us that this makes no difference to their short-term need for new resources. We can accept this as a short-term position, but in some cases we are concerned about the long-term resource implications. All companies assumed a suppression in demand as a result of household metering: if this suppression is not realised, it may

**Figure 2: Percentage of household metering
by resource zone 2000/2001**



Figure 3: Actual and projected household meter penetration



accelerate the need for new resources. This is a matter of concern for us, and we will work with the companies involved to understand their long-term position. We appreciate that there is uncertainty surrounding the degree of suppression in demand associated with voluntary metering, and we will talk to Ofwat and Water UK about improving our understanding in this area. Where companies identified that they had a problem with peak demands we expect them to review their metering position carefully. Many companies tell us that the most significant benefit from metering comes from its impact on peak demand in dry years. Without the assumed reductions in peak demand, some companies may seek new resources or may need to invest in new infrastructure.

2.3 Per capita consumption

Per capita consumption (pcc) is the amount of water used by each individual at home. It is usual to distinguish between the pcc of households with meters and those without meters. It is usually assumed that people in measured households will use less water than those in unmeasured households.

In England and Wales most households are unmeasured. Unmeasured pcc in 2000-2001 varied from 132 litres/head/day in Tendring Hundred to 189 l/h/d in one of the zones of Three Valleys Water (*figure 4*). Last year unmeasured pcc was between 130 and 190 l/h/d. The pattern in unmeasured pcc is very similar to that of last year. In general unmeasured pcc values are lower in the north and west and higher in the south and east. It should be noted that the summer of 2000 was not especially warm, so we would not expect to see extreme peaks. It is quite possible that in a drought year, unmeasured pcc could be even higher. It is therefore of concern that in almost a quarter of the zones, unmeasured pcc in 2000-2001 was higher than the companies' dry year forecasts for the same period.

Measured pcc in 2000-2001 was between 88 l/h/d and 228 l/h/d (*figure 5*). Both extremes are from Dŵr

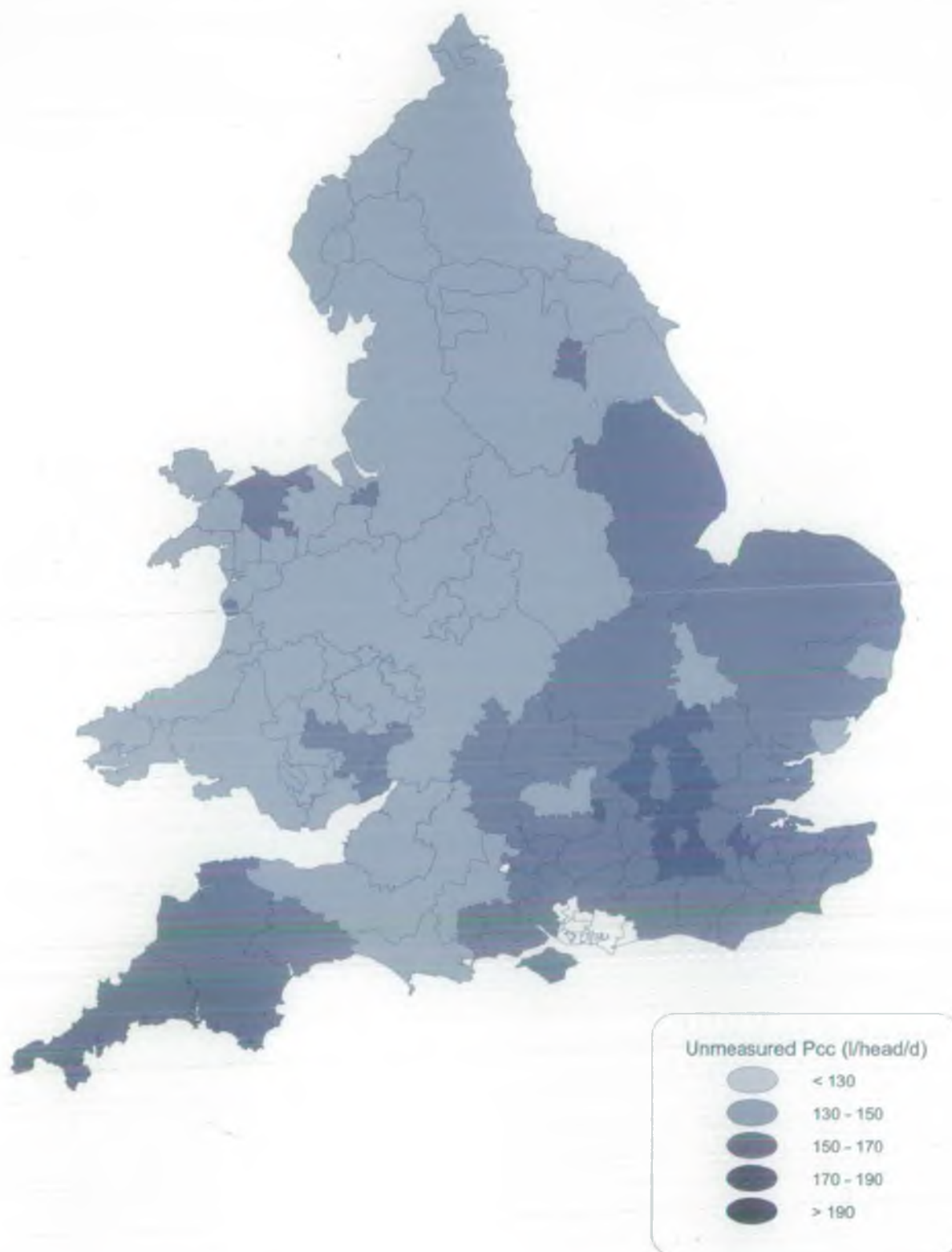
Cymru Welsh Water. The value of 228 l/h/d for South Ceredigion is remarkably high. The next highest value is over 30 l/h/d lower, in one of the zones of South East Water. Five of the nine zones that reported a measured pcc of over 170 l/h/d belong to Dŵr Cymru Welsh Water; all of the others are in the south-east of England. We have asked Dŵr Cymru Welsh Water for an explanation of its high values. The company has told us that it may be related to the way that it defines a household, which appears to be determined by the volume of water used rather than the type of occupancy. The company has stated that full property surveys would be required to address this issue. It perceives these as time-consuming and expensive.

The five lowest reported measured pccs are all from Dŵr Cymru Welsh Water. Taken with extremes of leakage and unusual patterns of occupancy rate, we find the Dŵr Cymru Welsh Water values difficult to reconcile.

In general, measured pcc follows a similar pattern to last year, with most of the high measured pccs in zones in the south and east. We would usually expect measured pcc to be lower than unmeasured pcc. Many metered households are metered by choice, usually because the occupants believe that they will save money because they are low water users or because their properties have a high rateable value. The degree to which the presence of the meter subsequently affects demand is unclear, and needs more work. We believe that once meters are in place they may tend to suppress water use further, as households become more aware of their water use.

Over most of England and Wales, measured pcc in 2000-2001 was lower than unmeasured pcc (*figure 6*). Exceptions include parts of the south-east of England and some zones in Wales. In the zones outside Wales, the difference is very small, and probably reflects different metering policies. For example, in parts of the south-east of England many customers are metered because of their high water use, for example because they own sprinklers or swimming pools. The differences in some zones in Wales are exceptional,

**Figure 4: Unmeasured household per capita consumption (PCC)
by resource zone 2000/2001**



**Figure 5: Measured household per capita consumption (PCC)
by resource zone 2000/2001**

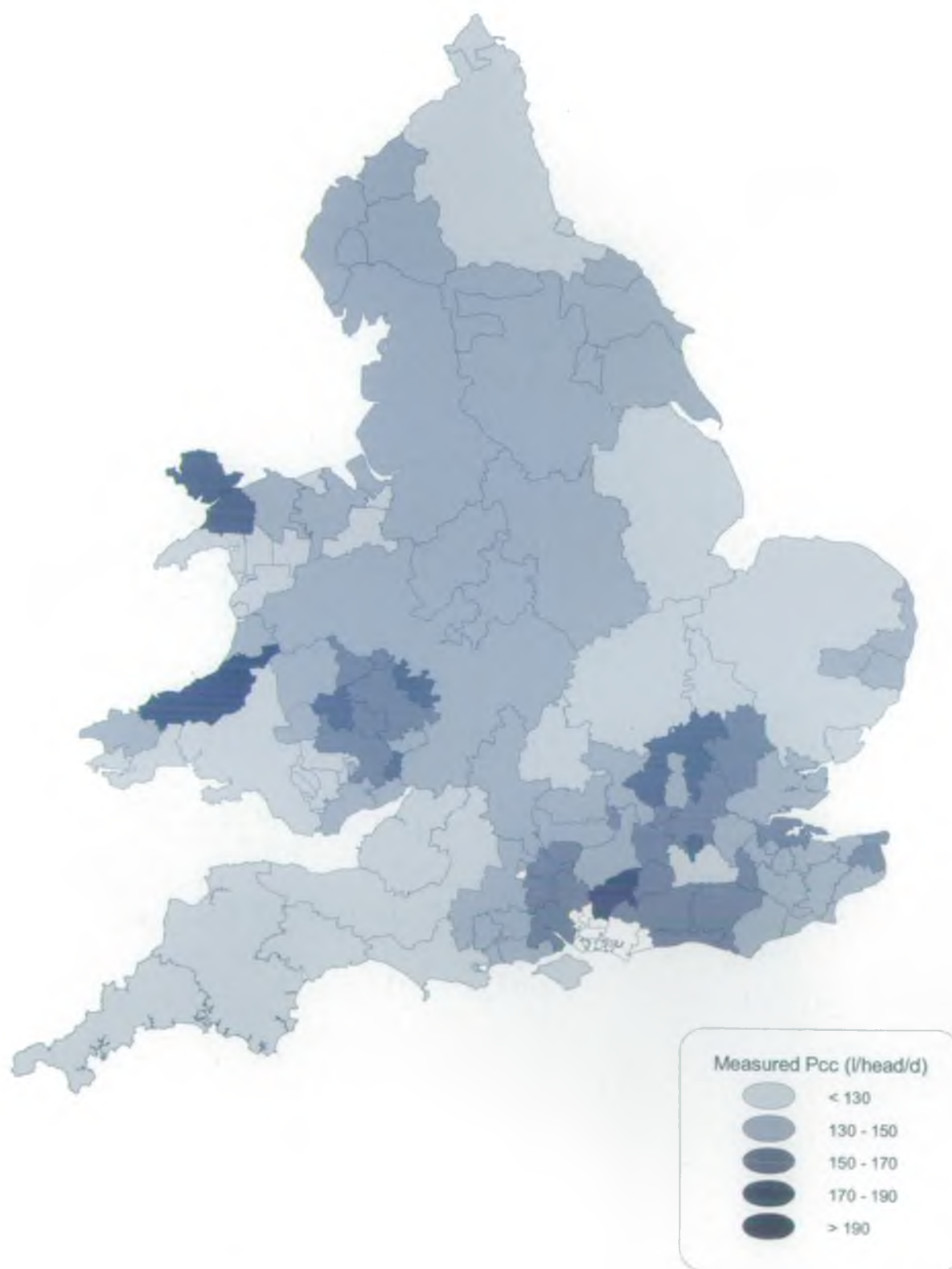
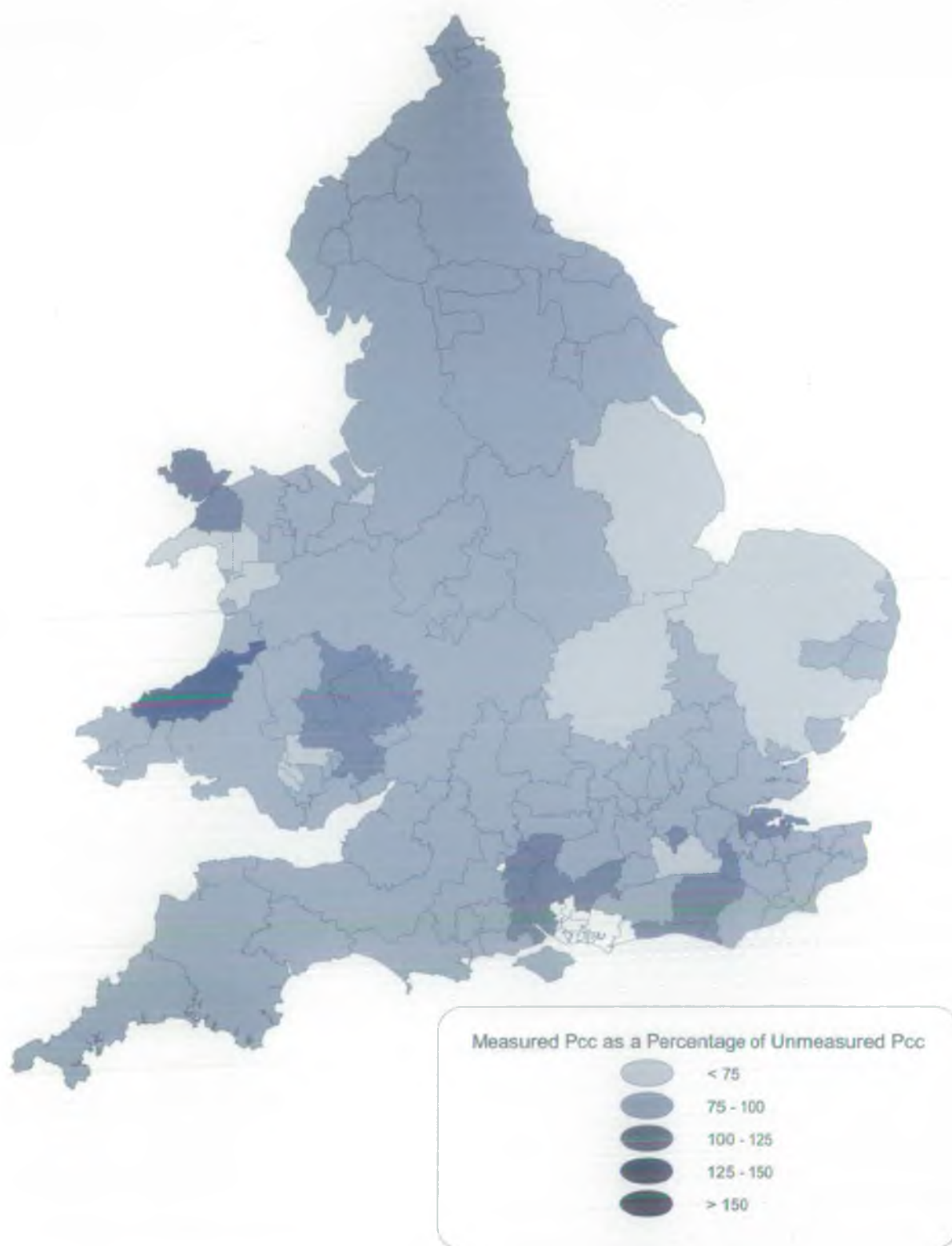


Figure 6: Measured household per capita consumption (PCC) as a percentage of unmeasured PCC by resource zone 2000/2001



but these are in those zones where the measured pcc is also hard to understand.

Yorkshire Water's pcc figures are worthy of comment. We queried some aspects of the original submission of 14 September 2001. As a result the company revised its figures. For four of its five resource zones, the company has set a single value for measured pcc (130.64 l/h/d) and a single value for unmeasured pcc (139.32 l/h/d). Measured and unmeasured occupancy rates are also constant in these zones, at 1.9 and 2.5, respectively. The company appears to have reconciled its water balance by adjusting zonal populations. If the company has indeed followed this approach, it is not likely to be acceptable. We have told the company that we expect it to produce credible and audited values by 31 December 2001.

Anglian Water has the highest level of metering in the country, with almost half of household customers being charged for the volume of water used. This makes the relationship between measured and unmeasured water use particularly interesting. In all three zones, measured pcc is between 70 and 75% of unmeasured pcc. Across the whole company area, unmeasured pcc at 156 l/h/d is slightly above the England and Wales average pcc for all households (both measured and unmeasured) of 149 l/h/d. Anglian Water's measured pcc is only 114 l/h/d, and the average pcc across the company is well below average at about 138 l/h/d. Population and property information does not suggest that metered customers are exclusively low water users. For example, many customers are metered because they have new homes, while others have moved to homes that are already metered. It will be interesting to see how water use changes as Anglian Water's meter penetration increases in the coming years, but at present it does seem that Anglian Water's overall approach has been successful in suppressing demand in this dry region. The company is also making progress on using tariffs to address social concerns.

2.4 Household occupancy rate

Household occupancy rate is important in water resources planning because it is used to calculate pcc. For example, measured pcc is calculated by dividing the volume of water delivered by the number of people living in the measured properties. Companies have to estimate occupancy rate because they cannot collect it for their entire company area. Some companies have used customer surveys to help them with this estimation procedure.

In the annual review for 1999-2000, we noted that some companies needed to carry out more work on household occupancy rates. For example, we found that some companies had fixed their measured occupancy rates for all or large parts of their company's area. These companies had adjusted their unmeasured occupancy rate to reconcile total resource zone populations.

It seems that some companies are still following this practice. We understand the difficulties associated with the estimation of occupancy rates, but expect these companies to explain to us how they intend to improve their work in this area. We will keep Ministers informed of progress in this matter, and expect to see significant improvements in next year's data.

We would not expect to have seen significant changes in occupancy rate except where companies have improved their estimation methods. Patterns of occupancy rate are similar to those of 1999-2000 (*figures 7 and 8*). Occupancy rates are lower in measured households than unmeasured households. Measured occupancy rates are particularly low across the whole of Dŵr Cymru Welsh Water's supply area. We found this difficult to understand last year. Although the company has revised its estimation method we still have a number of concerns and will seek further clarification from the company.

Figure 7: Unmeasured household occupancy rate (OR)
by resource zone 2000/2001



**Figure 8: Measured household occupancy rate (OR)
by resource zone 2000/2001**

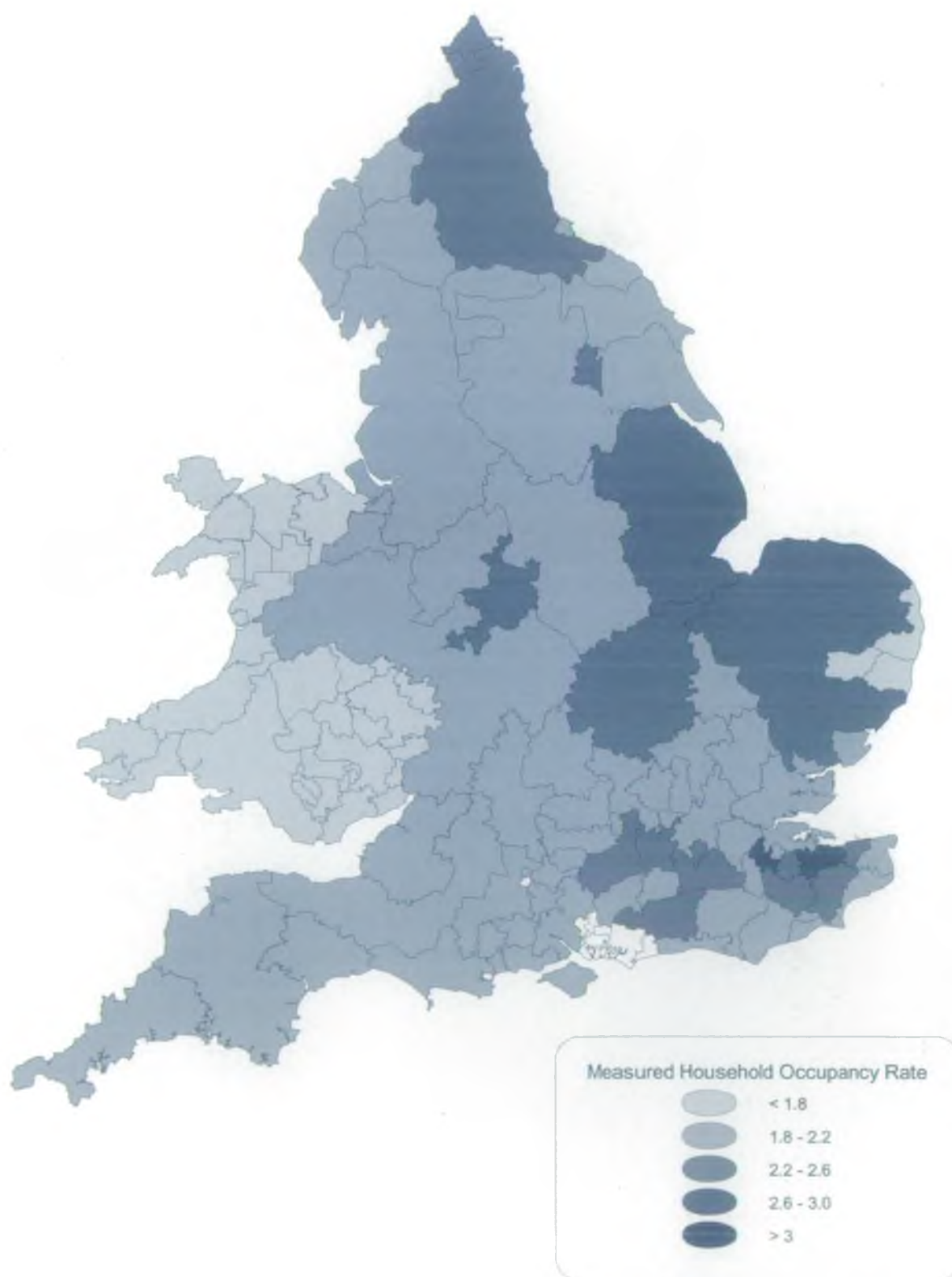
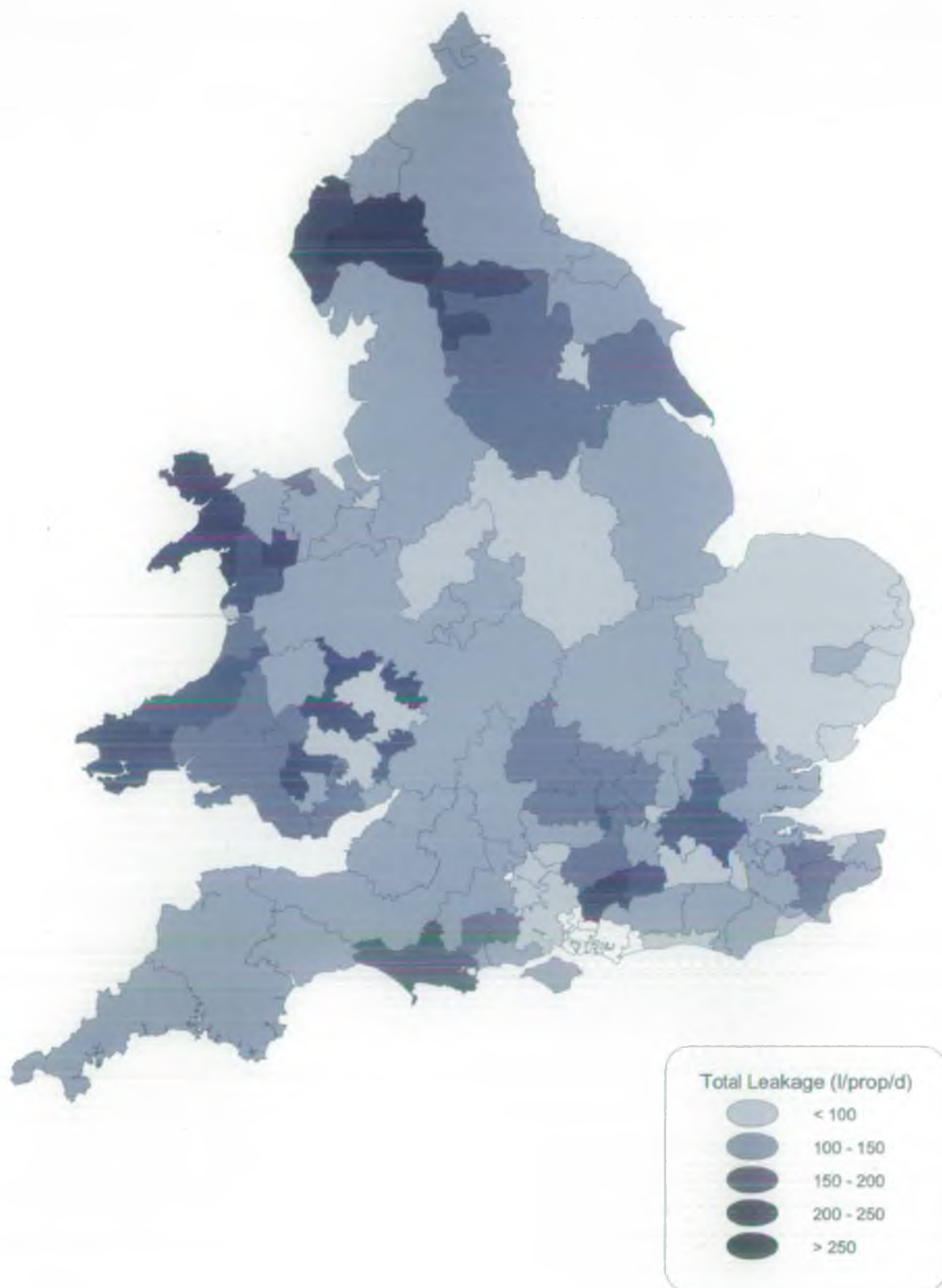


Figure 9: Total leakage (l/prop/d)
by resource zone 2000/2001



2.5 Leakage

Leakage has fallen significantly since the Water Summit in 1997 and the ensuing mandatory leakage targets. Figure 9 shows leakage in litres per property per day, a measure that recognises the relationship between leakage and the number of connections. While this is a good measure of leakage, it does not reflect all of the genuine differences in the ease of leakage control in different areas.

In most parts of the country, leakage is still falling in line with Ofwat's targets. However, the rate of fall has decreased as companies approach their calculated economic levels of leakage. At the resource zone level, some companies still have high levels of leakage. Some zones of Dŵr Cymru Welsh Water have very high reported levels, but we do need to treat all of Dŵr Cymru Welsh Water's reported figures with care. However, we are concerned that some of these high levels of leakage fall within zones that are predicted to have a shortfall in resources before 2010. There are also relatively high levels of leakage in parts of the south-east of England. In some of these zones resources are tight, and there must be opportunities for further water savings.

While most companies were successful in meeting their leakage targets, a few companies missed by a small amount in 2000-2001. Ofwat has investigated this and taken steps to ensure that matters improve. However, Thames Water is in a different position with leakage up by over 30 MI/d compared with 1999-2000. This is over 100 MI/d above Ofwat's target. We are working with Ofwat and Thames Water to understand the company's position, with the aim of achieving significant improvements in leakage by 2003-04.

2.6 Summary

By looking at resource zone information, we have found that most companies are making good progress on their water resources plans. The analysis of resource zone information is also an effective way to identify both issues that have already arisen and areas that will need to be tracked in the future. We have identified some areas that require further investigation, and have noted matters that we will keep under active review with companies. We will continue to consider the implications of these for future reviews of water company plan updates and amend our data requirements accordingly.

3 Supply-demand balance issues

This is the second annual review of plans covering 25 years. In our analysis, we have come across some issues that will require further consideration over the coming year.

3.1 Resource availability

In 1999 we reported that some companies had an inadequate supply-demand balance. The companies involved included South East Water and Folkestone and Dover Water. We are concerned that South East Water's progress is slow. We will be taking this up with the company as a matter of urgency. We will report to Ministers on progress.

We are also worried that Dŵr Cymru Welsh Water is making little progress on resolving resource balances in zones that were predicted to have a deficit before 2010. We will keep the company's position under review. We are surprised that Dŵr Cymru Welsh Water and Severn Trent Water are still reporting different yield values for the Elan reservoir system. We identified this issue in our review of 1999-2000 plans. We expect the two companies involved to resolve this issue quickly.

This year, Essex and Suffolk Water has proposed a change to its resource development plan which will result in inadequate headroom from 2002 to 2008. We do not consider this to be acceptable, and we expect the company to address this issue urgently. We will report to Ministers on progress.

Thames Water continues to have a high distribution input. Coupled with slow progress in resolving supply-demand balance issues in London, this is a cause for concern for the Agency and Ofwat. Further information on this issue can be found in Ofwat's 2000-2001 report on leakage and water efficiency. As a result of these concerns, Ofwat and the Agency have set up a tripartite group with the company to help to resolve these issues. We will keep Ministers informed of progress.

Some companies had a higher distribution input in 2000-2001 than their dry year predictions for the same period. In most cases this does not present immediate difficulties, but it is a cause for concern, as 2000-2001 was not particularly dry. We will be seeking further information from the companies involved.

3.2 Available headroom

Many companies expressed concern at the inclusion of a calculation for available headroom in our spreadsheet. Some argued that available headroom is meaningless in a normal year, while others said that it is not reasonable to compare dry year resource availability with actual data.

We understand the concerns of these companies. We agree that any calculation of available headroom must be treated with care. In particular, an apparent surplus of available headroom in a normal year does not mean that there is spare resource. However, we do believe that careful use of available headroom can help to indicate potential issues. For example, a company with available headroom below target headroom in a normal year could have real problems during a dry year.

There are some problems with the definition of available headroom. In particular, there is a problem with allocating target headroom between companies or zones where there are significant water transfers. We will work with Water UK and Ofwat to define available headroom in a consistent and fair way, so that it can be a useful indicator for us all.

3.3 Outage

Outage is defined as the unplanned loss of deployable output, for example as a result of equipment failure. It is prudent for companies to plan for some outage; we expect this planning to be based on an analysis of historical data. In their 2000-2001 submissions, many companies seem to have reported their planned outage

rather than telling us about their actual outage during the year. Some may have misunderstood our requirement, but others have told us that they do not keep records of actual outage. We find this disturbing, and we will expect all companies to produce records of actual outage for 2001-2002. In turn, we will ensure that our guidance makes this clear. We are pleased that some companies have started keeping records of outage as a result of our comments on their 1999 water resources plans.

3.4 Peak demand

All resource zones have demands that peak at some times of the year. In some cases this leads to resource problems and in these zones peak demands are often the main driver for resource planning activities.

We are disappointed that some companies that have a problem with peak demands did not report on peaks in 2000-2001. We know that 2000-2001 was not a particularly hot year, so we would not expect extremes of demand. However, to understand peak demands in dry years it is necessary to understand how these peaks work in normal years. We will expect all companies with peak demand issues to report on their peaks for 2001-2002.

4 Recommendations

In this report we have considered the second annual review of water company plans. We are pleased to note that companies co-operated with this review, providing us with the information that we requested and helpful supporting reports. All companies have adequate resources at present, but there are some that are making insufficient progress against their plans.

During our analysis, we have identified a number of issues that require further detailed investigation. We will take up these issues with the water companies involved, keeping Ofwat fully informed. If these discussions raise significant problems we will report these to Ministers.

Within this report we have identified several important issues that require further attention:

- South East Water's progress in achieving an appropriate supply-demand balance appears slow and the company risks a supply deficit should a dry year occur.
- Dŵr Cymru Welsh Water is making little progress on resolving resource balances in zones that were predicted to have a deficit before 2010.
- Essex and Suffolk Water has proposed a change to its resource development plan which will result in inadequate headroom from 2002 to 2008.
- We need to understand some of the values provided by Dŵr Cymru Welsh Water. These include pcc, leakage, population, property numbers and occupancy rates. We will seek further clarification from the company and report to Ministers by March 2002.
- The high distribution input of Thames Water is of continued concern to both the Agency and Ofwat.
- We need to see credible pcc and occupancy rate values from Yorkshire Water.
- There is still a need to improve the estimation of occupancy rate. We will discuss methods with Ofwat and Water UK.
- Some companies appear to calculate some information at company level and then disaggregate this to resource zone level. These companies should reconsider the way that they collect information.
- Companies that do not collect information on actual outage should establish systems for its acquisition immediately. We will expect to see actual outage figures for all companies for 2001-02.

We will discuss all of these issues with Ofwat, DEFRA, NAW and the water industry (through Water UK).

The issues raised in this report have demonstrated once again the value of the annual review of water company plans. Ofwat has indicated that it finds the annual reviews valuable for monitoring companies' performance in delivering funded outputs. DEFRA and NAW have told us that they expect us to continue with these reviews. We will work with DEFRA, NAW, Ofwat and Water UK to define the information that should be provided for the 2001-2002 review. We will consult before the end of March 2002 or sooner, if possible, and write to water companies with our requirements during May 2002. In formulating our requirements for next year we will bear in mind comments from the water industry about the burden that this type of reporting imposes, and we will endeavour to keep any changes to a minimum. It is likely that we will expect 2001-2002 submissions to be produced by the middle of September 2002. Next year's annual review will be particularly important as companies work towards the fourth periodic review of water company prices.

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