Service and delivery – performance of the water companies in England and Wales 2008-09

Protecting consumers, promoting value, safeguarding the future

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About this document

Our role is to make sure that the water and sewerage sectors in England and Wales deliver the services consumers expect and meet their legal obligations.

In the absence of a competitive market, it is important to monitor the companies' performance to make sure they are delivering the services customers are paying for. Comparing aspects of the companies' performance also drives improvements. Consumers can use these comparisons to find out how well their local company is performing.

This report sets out our analysis of how the companies performed in 2008-09 in delivering services to consumers. It also outlines any action we are taking on behalf of consumers if a company fails to deliver.

The report summarises the companies' performance:

- in delivering the broad range of services provided to consumers;
- against minimum service standards;
- in maintaining their assets for the long term;
- in delivering the agreed investment programme; and
- in managing water supplies in 2008-09, including dealing with issues such as leakage and flooding.

The information in this report comes from each company's June return for 2008-09. We have verified the data with the companies, the Environment Agency and the Drinking Water Inspectorate.

During the period covered by this report, the names of Folkestone & Dover Water, Tendring Hundred Water and Three Valleys Water changed to Veolia Water South East, Veolia Water East and Veolia Water Central, respectively. We have used the original company names in this report for ease of reference.

We have not included the performance of exceptionally small companies, such as Cholderton and Albion, in this report. This has no material impact on the information in the report.

Detailed supporting information to this document is available on our website at www.ofwat.gov.uk.

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Headline issues

In England and Wales, most customers receive their water and sewerage services from 21 licensed monopoly suppliers. These companies must provide reliable, high-quality services. They must also manage and maintain their networks of pipes and treatment works so that they continue to deliver a safe, reliable and sustainable supply.

Because we subject the companies to rigorous scrutiny and challenge, our independent approach to regulation has delivered real benefits for consumers. For example:

- bills are more than a third lower than they would have been without our regulation;
- leakage is down by 35% since its peak in the mid-1990s;
- compliance with environmental standards is higher; and
- drinking water quality has improved.

These improvements are the result of the substantial investment programmes that the companies have carried out. By 2010, they will have invested more than £85 billion in maintaining and improving assets and services.

Against this background, we have set the companies challenging efficiency targets, which is how we have kept bills as low as possible. This is because we require the companies to deliver the level of service customers would choose in a competitive market. We measure and report on a range of key indicators to drive improvement and allow customers to see how their monopoly supplier is performing.

We can also take action if companies fail to deliver the services that consumers have the right to expect. Our approach to enforcement, which we published in March this year, sets out our aim to secure compliance and change behaviour so that consumers' interests are protected.

We hope that our new consumer service incentives will drive the companies to improve further and rise to the highest industry standards. By using this 'carrot and stick' approach, we have made sure that the companies do not abuse their positions as regional monopoly suppliers.

In these difficult economic times, it is even more critical that we protect the services that customers receive from their water company and the bills they pay.

Company performance 2008-09

In general, the companies delivered good levels of reliability and service to consumers in 2008-09. However, there is no room for complacency. We will continue to challenge the companies to deliver sustainable water and sewerage services to consumers.

- Customers previously affected by poor performance from some companies are now receiving better service. This has led to fewer complaints across England and Wales. However, there is still room for improvement.
- Most companies' performance on serviceability (which is the capability of the system of assets to deliver the right level of service to consumers now and in the future) is generally on track. Some companies, however, still do not have stable serviceability.
- All of the companies met their leakage targets. This is despite much of England and Wales experiencing cold weather conditions, with many companies reporting increases in the number of burst pipes.
- The companies have continued to focus on reducing the number of pollution incidents, resulting in one of the best overall years for both major and minor incidents. However, we continue to have concerns about performance at one company.
- The companies have delivered 96% of the schemes in the National Environment Programme due for delivery by March 2009. This is a list of environmental improvement schemes that ensure the companies meet national and European targets related to water. Only United Utilities has under-delivered against our expectations for scheme completion at this stage in the programme.
- The quality of the information the companies have submitted on their green house gas emissions is much improved this year.

We make sure that the companies are delivering the investment programme agreed for 2005-10 when we last set price limits in 2004. In this way, we make sure that they are delivering the benefits consumers have paid for through their bills. For the most part, the companies are on track to deliver their investment programmes.

- Aggregate gross capital investment was £4.7 billion. This is 14% higher than we assumed at the 2004 price review.
- Overall investment is still some 4% behind our expectations for the first four years of the current price limit period (2005-10). This is mainly the result of efficiency savings the companies have made.

- The companies have caught up on capital maintenance. This is 10% above the level we expected at this stage, and is primarily the result of companies increasing their investment in sewerage assets to ensure they maintain stable serviceability.

As a result of our regulation (and the actions of the companies themselves), the companies' levels of service to consumers have improved significantly since privatisation. This is shown in table 1 on page 7. Performance against the service indicators that we measure has stabilised at a high level in recent years. This is also demonstrated through our overall performance assessment, where companies' scores are generally high.

Although the companies have made progress, there is still work to do. They face significant long-term challenges and must be prepared to tackle them.

Securing compliance

We take action if a company fails to deliver the levels of service we expect, or if it fails to ensure its assets remain fit for purpose. We make sure the company investigates the root cause of any failures, and has plans in place to restore service levels and/or serviceability as quickly as possible. We may require the company to report progress and deliver agreed action plans. In more serious cases, we may take formal enforcement action.

In 2008-09, we completed enforcement action against Severn Trent and Thames by applying the proposed financial penalties reported in our 2007-08 report. We also fined Tendring Hundred £42,000 in October 2008 following an accounting error that led the company to misreport information in its 2006 June return.

We secured a formal undertaking from United Utilities to address problems at properties in the Penketh area of Warrington affected by sewer flooding. During our investigation into the problems that customers in the Penketh area experienced, we identified that the company had reported inaccurate data regarding the number of properties at risk of flooding from sewers.

United Utilities has put in place new systems to investigate and record sewer flooding incidents to bring them in line with industry best practice. The company acknowledges that the failings that led to it reporting inaccurate data have disadvantaged customers. It has given a binding commitment to assess and offer (at its shareholders' expense) solutions to mitigate the sewer flooding problems at all 1,600 properties on its revised 'at risk' registers by September 2012.

As part of this commitment, an independent review has been carried out on these new systems and processes, and has found them to be fit for purpose. We welcome the company's commitment to offer mitigation to customers at risk of sewer flooding. We also welcome the positive steps the company is taking to improve its approach. We will continue to monitor the company's approach.

Evidence provided by a consultant allowed us to identify that United Utilities had not accurately reported its practice of identifying increases in business rateable values and backdating charges to reflect those values. As a result of our investigation, the company has agreed to continue to offer refunds to customers whose rateable value has reduced, plus an additional 10%.

During 2008-09, Southern and Severn Trent provided reports to us on the progress they were making against their action plans to restore customer service performance. We are pleased to report that they have made satisfactory progress and both companies will now revert to our usual level of monitoring.

In addition, Thames completed its serviceability action plan for sewerage non-infrastructure, and we are able to confirm its achievement of stable serviceability this year.

Table 1 Total industry performance 1990-91 to 2008-09

Description	1990-95 %	1995-00 %	2000-05 %	2005-06 %	2006-07 %	2007-08 %	2008-09 %
DG2: Properties at risk of low pressure	1.33	0.35	0.07	0.03	0.02	0.02	0.03
DG3: Properties subject to unplanned supply interruptions of 12 hours or more	0.33	0.21	0.09	0.08	0.15	0.69	0.08
DG4: Population subject to hosepipe bans	14	15	0	7	30	0	0
DG5: Properties subject to sewer flooding incidents (overloaded sewers and other causes)	0.03	0.03	0.02	0.02	0.02	0.03[2]	0.02
DG5: Properties at risk of sewer flooding incidents (once in ten years)	–	0.07	0.05	0.02	0.02	0.02	0.01
DG5: Properties at risk of sewer flooding incidents (twice in ten years)[1]	0.08	0.05	0.02	0.01	0.01	0.01	0.01
DG6: Billing contacts not responded to (within five working days)	21.78	5.39	0.71	4.44	5.08	2.71[2]	1.08
DG7: Written complaints not responded to (within ten working days)	21.42	3.22	0.34	3.15[2]	3.71[2]	6.82[2]	0.38
DG8: Bills not based on meter readings	–	1.51	0.39	0.52	0.86	0.32	0.21
DG9: Received telephone calls not answered within 30 seconds[3]	–	16.16	7.01	–	–	–	–
DG9: Telephone call handling:							
Calls abandoned		5.40	2.27	6.69	9.76	7.63	7.03
All lines busy[4]			5.17	3.91	5.66	3.23	0.45
Call handling satisfaction[5]				4.50	4.47	4.58	4.60

Notes:
It is not appropriate simply to add up the totals for each indicator to determine the overall number of customers receiving poor service. Some customers may be included in more than one row. For example, a customer at risk of low pressure (DG2) may also have written to the company to complain (DG7). Where information was not collected, it is shown as a dash.

1. Data collected from 1992-93.
2. Data for come companies has been revised, which has changed performance since last year.
3. Data collected from 1996-97 to 2004-05.
4. Data collected from 2002-03.
5. This is a score on a scale of 1 to 5, where 5 is very satisfied.

1. Service – overall performance assessment

The overall performance assessment (OPA) is a method we use to measure and incentivise performance across the broad range of services provided to consumers and the environment. As well as allowing us to compare the quality of the overall service, it also tells consumers and other interested parties how their local water company has performed relative to others.

The OPA also incentivises the companies to maintain and improve services relative to each other. This is because we take account of relative performance when we set limits on the prices companies charge consumers. The OPA scores for the five years from 2004-05 to 2008-09 will be reflected in the price limits that will apply from 2010.

The key areas and contributing measures included are:

- **water supply** (low water pressure, unplanned interruptions to supply, and drinking water quality);
- **security of supply** (hosepipe restrictions, leakage, and performance against our security of supply index);
- **sewerage service** (sewer flooding incidents and risk of sewer flooding);
- **consumer service** (written complaints, billing contacts, billing metered consumers, telephone answering, telephone access, services to consumers with special needs, supply pipe repair policies, debt and revenue policies, complaint handling, compensation, and provision of information to consumers); and
- **environmental impact** (sewage treatment works, pollution incidents from water and sewerage activities, and sludge disposal).

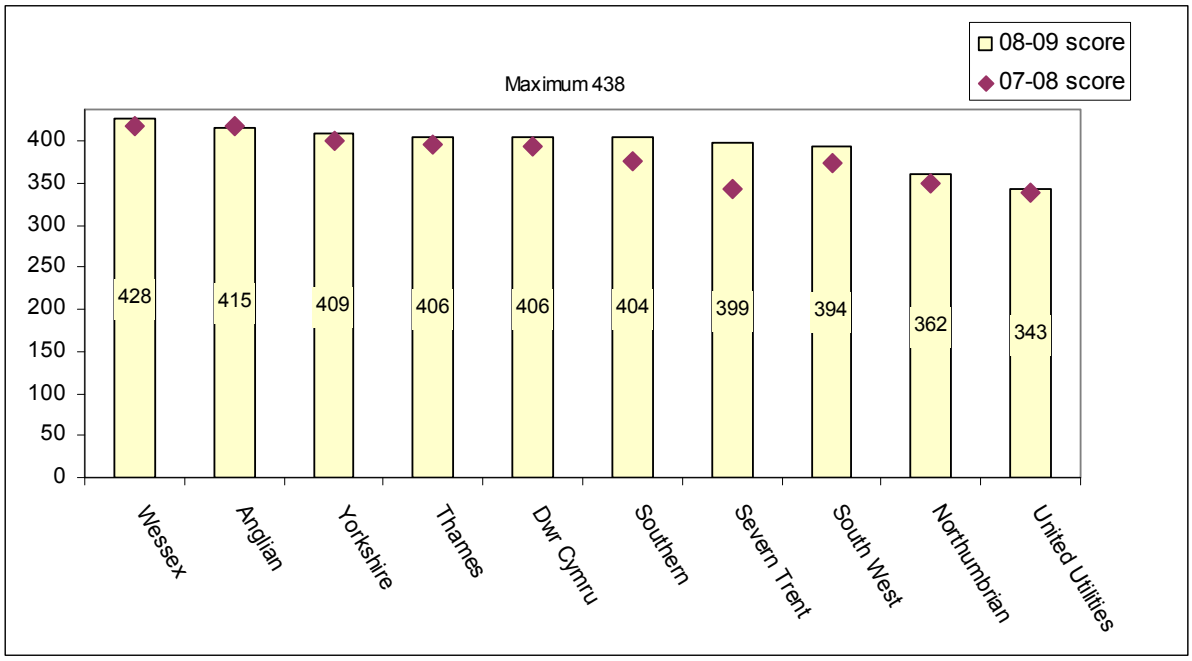
The results of our assessment for 2008-09 compared with 2007-08 are shown in figure 1 for the water and sewerage companies and figure 2 for all companies. The OPA scores for each company reflect their performance during the year. The companies with the most failures have the lowest scores.

Tables 2 and 3 show the breakdown of companies' total OPA scores into their component parts. This makes it possible to compare the performance of one company against another for each measure. The maximum achievable score for each measure is shown in the second column of the tables.

In March 2004, following consultation, we published our methodology for the OPA for 2004-05 onwards. Since then, we have published two updates. In April 2005, we updated the way telephone call handling is assessed to include a measure of consumer satisfaction. In April 2007, we updated the way security of supply is reflected by adding measures about company performance to the security of supply index. To accommodate this, we changed the weighting of the leakage and water restriction measures.

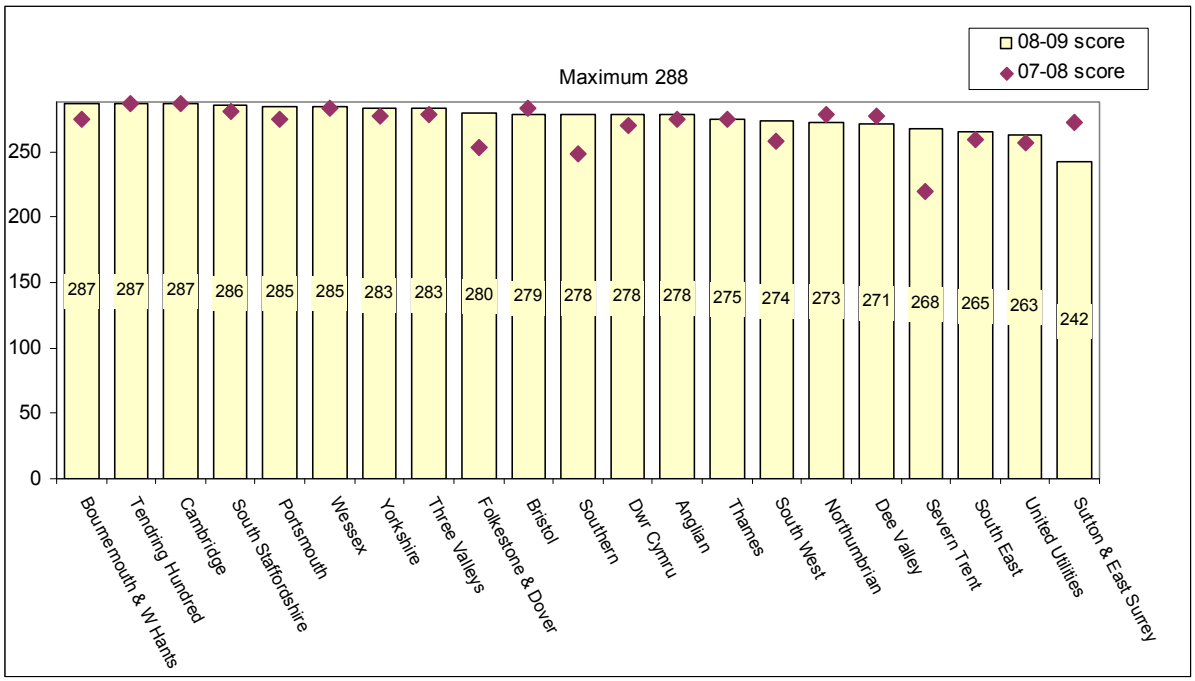
During 2008-09, we continued to review our approach to monitoring consumer service to focus more clearly on what consumers experience. In August 2009, we consulted on a new service incentive mechanism and we are now considering the responses. We will present our conclusions together with the wider package of incentives set out in our final determinations of price limits for all companies in England and Wales for 2010-15 in November.

Figure 1 Overall performance assessment – water supply, sewerage service and customer service for water and sewerage companies 2007-08 and 2008-09



Note:
Includes any revised data since last year's report was published.

Figure 2 Overall performance assessment – water supply and customer service for all companies 2007-08 and 2008-09



Note:
Includes any revised data since last year's report was published.

Table 2 Overall performance assessment – water supply, sewerage service and customer service for water and sewerage companies 2008-09

Output	Max score	Anglian	Dŵr Cymru	North-umbrian	Severn Trent	South West	Southern	Thames	United Utilities	Wessex	York-shire
Water supply, levels of service											
Properties at risk of low pressure (DG2)	38	36	37	36	29	36	35	37	37	36	37
Properties with unplanned interruptions (DG3)	38	35	38	30	30	32	36	34	33	37	36
Water quality failing DWI standards	50	48	47	44	49	48	46	49	44	50	47
Sewerage service, levels of service											
Sewer flooding incidents (capacity)	25	24	20	3	24	21	24	24	19	24	23
Sewer flooding incidents (other causes)	38	30	24	4	20	22	19	21	4	35	15
Properties at risk of sewer flooding	13	12	11	8	12	12	12	9	10	11	13
Security of supply											
Population with hosepipe restrictions	13	13	13	13	13	13	13	13	13	13	13
Leakage – performance against target	13	13	13	13	13	13	13	13	13	13	13
Security of supply index – absolute performance	13	11	11	13	11	11	13	8	13	13	13
Security of supply index – performance against target	13	11	10	13	13	11	13	13	13	13	13
Customer service											
Company contact score (DG6, 7, 8 and 9 combined)	38	37	38	38	38	37	36	37	25	38	38
Other customer service	38	38	38	38	38	38	38	38	38	38	38
Environmental performance											
Category 1, 2 pollution incidents – sewage	25	24	25	25	25	22	25	25	25	25	25
Category 3 pollution incidents – sewage	13	10	9	12	11	10	10	13	12	12	13
Category 1 and 2 pollution incidents – water	13	13	13	13	11	13	13	12	12	13	13
Sewage treatment works in breach of their consent	50	50	50	50	50	45	50	50	23	50	50
Sludge disposal	13	13	13	13	13	13	10	13	13	13	13
Total score	**438**	**415**	**406**	**362**	**399**	**394**	**404**	**406**	**343**	**428**	**409**
Rank		2	5	9	7	8	6	4	10	1	3

Table 3 Overall performance assessment – water supply and customer service for all companies 2008-09

Output	Max score	Anglian	Dŵr Cymru	North-umbrian	Severn Trent	South West	Southern	Thames	United Utilities	Wessex	York-shire
Water supply, levels of service											
Properties at risk of low pressure (DG2)	38	36	37	36	29	36	35	37	37	36	37
Properties with unplanned interruptions (DG3)	38	35	38	30	30	32	36	34	33	37	36
Water quality failing DWI standards	50	48	47	44	49	48	46	49	44	50	47
Security of supply											
Population with hosepipe restrictions	19	19	19	19	19	19	19	19	19	19	19
Leakage – performance against target	19	19	19	19	19	19	19	19	19	19	19
Security of supply index – absolute performance	19	17	17	19	17	17	19	11	19	19	19
Security of supply index – performance against target	19	17	15	19	19	17	19	19	19	19	19
Customer service											
Customer contact score (DG6, 7, 8 and 9 combined)	38	37	38	38	38	37	36	37	25	38	38
Other customer service	38	38	38	38	38	38	38	38	38	38	38
Environmental impact											
Category 1 and 2 pollution incidents – water	13	13	13	13	11	13	13	12	12	13	13
Total score	**288**	**278**	**278**	**273**	**268**	**274**	**278**	**275**	**263**	**285**	**283**
Rank		13	12	16	18	15	11	14	20	6	7

Table 3 Overall performance assessment – water supply and customer service for all companies 2008-09 (continued)

Output	Max score	Bourne-mouth & W Hamp-shire	Bristol	Cam-bridge	Dee Valley	Folkestone & Dover	Ports-mouth	South East	South Staffs	Sutton & East Surrey	Tendring Hundred	Three Valleys
Water supply, levels of service												
Properties at risk of low pressure (DG2)	38	38	37	37	35	37	36	37	38	37	38	37
Properties with unplanned interruptions (DG3)	38	38	33	38	37	38	38	35	37	4	37	37
Water quality failing DWI standards	50	50	47	50	45	50	49	46	48	48	50	48
Security of supply												
Population with hosepipe restrictions	19	19	19	19	19	19	19	19	19	19	19	19
Leakage – performance against target	19	19	19	19	19	19	19	19	19	19	19	19
Security of supply index – absolute performance	19	19	19	19	19	19	19	19	19	19	19	19
Security of supply index – performance against target	19	19	19	19	19	19	19	19	19	19	19	19
Customer service												
Customer contact score (DG6, 7, 8 and 9 combined)	38	38	38	38	38	31	38	25	38	37	38	36
Other customer service	38	38	38	38	29	38	38	38	38	29	38	38
Environmental impact												
Category 1 and 2 – water	13	13	13	13	13	13	13	9	13	13	13	13
Totals												
Total score	**288**	**287**	**279**	**287**	**271**	**280**	**285**	**265**	**286**	**242**	**287**	**283**
Rank		1	10	3	17	9	5	19	4	21	2	8

2. Service – consumer issues

2.1 What consumers experienced

Every year, we check that each company responds to consumer contacts thoroughly and quickly. We also check that customers with meters receive bills based on an actual meter reading rather than an estimate, so that bills are more accurate.

During 2008-09, performance on responding to billing contacts across the companies was better than the previous year, with nearly 99% of billing contacts responded to within five days. This compares with about 97% in 2007-08. Performance for responding to complaint letters was also better. The companies reported that in 2008-09, more than 99% of correspondence was answered within ten working days, compared with 93% in 2007-08. Metered billing performance remained high, with 99.8% of metered bills being based on at least one meter reading in the year, compared with 99.7% in 2007-08.

We also worked closely with companies where particular difficulties affected service levels.

- Southern and Severn Trent had customer service improvement plans in place from 2007-08. During 2008-09, both companies satisfactorily met the targets in their plans and their service levels are now restored to acceptable levels.
- Other companies, including United Utilities, Folkestone & Dover and South East, had short-term difficulties responding to consumer contacts during the year. These have now been resolved and service restored.

The GSS Regulations set out standards for how each company should respond to written complaints and written contacts about customer accounts. These are similar to our DG6 and DG7 indicators. In 2008-09, about 3,400 consumers received payment from their company under the GSS Regulations or company charter schemes in recognition of late responses to correspondence. Compared with the 26,000 payments made in 2007-08, this is a further demonstration that customer service has improved.

The Regulations also set out standards for how each company deals with consumers it needs to visit. We monitor this to make sure that appointments are made properly and attended on time. About 24,000 consumers received payment from their company in recognition of appointments where company representatives gave short notice of cancellation, turned up late or missed the appointment.

We also check how easy it is for consumers to deal with the companies by telephone. We monitor whether consumers can get through when they call and how satisfied they are with the way their call was handled. We use an annual satisfaction survey, which involves an independent market researcher questioning about 400 callers for each company. The survey covers many aspects of the telephone call experience, including consumers' satisfaction with:

- the number of times they had to telephone before the call was answered;
- the number of staff they spoke to;
- the length of time they were put on hold;
- how easy any automated systems were to use; and
- how polite the staff were.

In general, across all companies most consumers were satisfied or very satisfied with telephone services. In 2008-09, industry average satisfaction levels remained at 4.6 (on a scale of 1 to 5 where 1 is very dissatisfied and 5 is very satisfied).

The companies' annual returns to us also include information on the reasons why consumers have complained. The Consumer Council for Water (CCWater), which handles customer complaints, publishes an annual report about this.

2.2 How does this compare with companies' commitments?

Between 2005 and 2010, the companies have to maintain or exceed specified levels of consumer service. These reflect the previously established high levels of service, with all companies aiming to deliver better than our 'good' criteria for consumer contact service levels. We take action against companies if they fall short of these targets.

2.3 Looking ahead

We have continued working with a group of stakeholders to develop new consumer experience measures. The group comprises representatives from a cross-section of water companies and CCWater. We have further developed and piloted two new measures.

- A quantitative indicator that measures complaints and unwanted contacts.
- An independent survey to evaluate the quality of service experienced by consumers who have direct contact with the company.

All companies have pilot tested both measures and the results informed our consultation on the new service incentive mechanism (SIM) that we propose to use from April 2010. We will publish our detailed conclusions on this in November.

3. Delivery – water service

3.1 What consumers experienced

There were no water restrictions imposed on customers during 2008-09, and compliance with drinking water standards remained very high at 99.96% (for the 2008 reporting year).

The number of incidents affecting drinking water quality rose in 2008, with the Drinking Water Inspectorate (DWI) classifying 144 events this way. This compares with 129 incidents in 2007 and 98 in 2006. The DWI has investigated or will be investigating all of these incidents in full.

There are more than 24 million connected properties in England and Wales. At the end of March 2009, 6,620 of these were at risk of low water pressure, compared with 4,825 at March 2008. Of those affected, 4,147 were Severn Trent customers. The company is in the process of updating its knowledge of network pressures. It has shared its plans with us to improve pressure to these properties, and others it may identify, by the end of 2009-10.

About 2,600 consumers received payments from their company under the GSS Regulations or company charter schemes in recognition that low pressure had affected their properties.

The number of consumers experiencing unplanned interruptions to their water supply improved in 2008-09, compared with the previous year. In 2008-09, 958 properties were affected by unplanned interruptions that lasted longer than 24 hours compared with 1,400 properties in 2007-08[1].

About 30,000 consumers received payment from their company in recognition that their water supplies had been interrupted for an extended period, either in an emergency or because planned work had overrun. Another 19,000 payments were made to consumers who were not given advance notice of a planned interruption to supply.

[1] The figure for 2007-08 reported here does not include the 138,000 properties in the Severn Trent area affected by the closure of the Mythe water treatment works following the severe flooding in summer 2007).

3.2 How does this compare with companies' commitments?

Each company has a duty to ensure the security of its water supplies. We use a security of supply index (SoSI) to assess whether each company is complying with this duty. The SoSI also enables us to assess leakage, water resource and demand management issues in a wider context, and to track changes in the service companies offer to consumers over time.

When we last set price limits in 2004, we expected all companies to achieve or maintain a security of supply score of 100 by 2009-10 (assuming average daily conditions during a dry year). Using the same planning assumptions that were applied in 2004, we can confirm that most companies are on course to deliver this.

We expect the companies to balance water supply and demand in a way that provides the best value for consumers and the environment. In order to achieve this, we set each company targets to control leakage. Metering and the efficient use of water by consumers also contribute to balancing supply and demand. We monitor the companies' progress with these measures through the June return.

The companies are also required to manage and invest in their assets so that they can provide services to consumers over the long term, while protecting the environment. We refer to this as maintaining 'serviceability'. The companies have minimum levels of service to maintain and we monitor their performance against these.

They also have programmes in place to continue to improve water quality. Again, we monitor the companies to ensure that they deliver the programmes that were allowed for when we last set price limits in 2004.

We discuss the companies' performance in each of these areas in more detail below.

3.2.1 Security of supply performance

Table 4 sets out the SoSI results for each company for 2008-09. The results are presented for both:

- the dry year annual average conditions (which reflect the average daily conditions throughout a dry year); and
- critical period conditions (which reflect 'peak' conditions, for example during a summer period where demand is significantly higher than average) against which the companies plan their capacity.

The results reflect each company's resource position for its planned level of service as at 31 March 2009. They are not directly comparable because different companies plan for different levels of service. These are set out in section 5.11 of the supporting information to this document.

In 2008-09, three companies improved their SoSI score for their dry year annual average conditions.

- Severn Trent moved from band C (significant deficit) last year to band B (marginal deficit) this year. This is because the company has reassessed its supply/demand balance.
- Southern moved from band B (marginal deficit) to band A (no deficit in any zone). This is because the company has completed schemes to transfer water across the company's area.
- Folkestone & Dover moved from band D (large deficit) to band B (marginal deficit). The improvement the result of reductions in demand and in leakage, together with additional resources made available during the year.

Most companies are on target to deliver the security of supply that we assumed at the 2004 price review. For those companies that are not, we will adjust the price limits that we set later in 2009 to reflect any underperformance.

The companies are in the process of updating their water resource management plans. These plans forecast available supplies and changes in demand over the next 25 years. They also set out how the companies will meet these demands, in line with their stated levels of service for restrictions on supply.

In developing these plans, the companies have used best practice techniques and the latest available data to review:

- their assessments of resources;
- demand and its components; and
- the allowances made for planning uncertainty, including the impact of climate change.

The Secretary of State for the Environment, Food and Rural Affairs has given some companies permission to finalise their plans. For others, he has asked for further information to support the proposals before reaching a decision. The Secretary of State has called for a public inquiry for three companies' plans. Further information is available on Defra's website.

Table 4 Security of supply index banding 2008-09

Company	Security of supply index for planned levels of service	Security of supply index for critical/ peak conditions	Rank[1, 2]	Change in banding since 2007-08[2]
Bournemouth & West Hampshire	A	A	1	=
Bristol	A	n/a	1	=
Cambridge	A	n/a	1	=
Dee Valley	A	n/a	1	=
Northumbrian (North East)	A	A	1	=
Portsmouth	A	A	1	=
South East	A	B	1	=
South Staffs	A	A	1	=
Southern	A	A	1	+
Sutton & East Surrey	A	C	1	=
Tendring Hundred	A	n/a	1	=
Three Valleys	A	A	1	=
United Utilities	A	A	1	=
Wessex	A	A	1	=
Yorkshire	A	A	1	=
Folkestone & Dover	B	A	16	+
South West	B	n/a	17	=
Anglian	B	B	18	=
Severn Trent	B	n/a	19	+
Dŵr Cymru	B	B	20	=
Northumbrian (Essex & Suffolk)	C	n/a	21	=
Thames	C	C	22	=

Key:		
	A	No deficit in any zone
	B	Marginal deficit
	C	Significant deficit
	D	Large deficit

Notes:
1. Rank is based on planned levels of service.
2. Rank and change in banding is based on dry year annual average conditions.

Leakage performance

We have been monitoring the companies' leakage performance since 1997. We require each company to maintain leakage at a level that provides the best value for its customers and for the environment. In 2008-09, all of the companies in England and Wales met their leakage targets for the second year in a row.

Table 5 shows company estimates of total leakage and future targets for the current price limit period, in megalitres per day (Ml/d).

Table 5 Company estimates of total leakage (Ml/d)

	Performance				Target	
	2005-06	2006-07	2007-08	2008-09	2008-09	2009-10
Water and sewerage companies						
Anglian	215	200	210	210	210	210
Dŵr Cymru	225	210	205	195	195	195
Northumbrian (North East)	155	145	135	150	150	150
Northumbrian (Essex & Suffolk)	67	68	68	67	67	66
Severn Trent	540	525	490	490	500	500
South West	84	83	84	84	84	84
Southern	93	82	82	87	92	92
Thames	860	790	715	700	715	685
United Utilities	475	470	460	460	465	465
Wessex	73	72	72	72	74	74
Yorkshire	295	295	295	295	295	295
Water only companies						
Bournemouth & West Hampshire	22	22	22	22	22	22
Bristol	53	54	53	54	54	54
Cambridge	13.9	13.4	13.9	14.0	14.0	14.0
Dee Valley	11.3	10.6	10.3	10.3	10.4	10.2
Folkestone & Dover	8.0	7.8	7.9	7.5	8.1	8.0
Mid Kent	28	–	–	–-	–	–
Portsmouth	30	29	30	30	30	30
South East	69	96	96	96	96	96
South Staffs	73	73	72	74	75	75
Sutton & East Surrey	24	24	24	24	25	25
Tendring Hundred	5.1	5.1	5.0	5.1	5.1	5.1
Three Valleys	150	145	140	140	145	140
Industry	**3,575**	**3,420**	**3,290**	**3,290**	**3,330**	**3,295**

Notes:
Numbers may not add up because of rounding.
1. Twelve-month rolling averages.
2. We have applied the following rules when rounding up the numbers: performance and targets less than 20 Ml/d are given to one decimal place; less than 100 Ml/d are given to 0 places; and greater than 100 Ml/d are rounded to the nearest 5 Ml/d.

Having met its leakage target in 2008-09, Severn Trent continued to make improvements since reporting failures in 2005-06 and 2006-07. We will continue to monitor the company's performance in 2009-10 against the legal undertaking we secured in 2007 through audited quarterly reports.

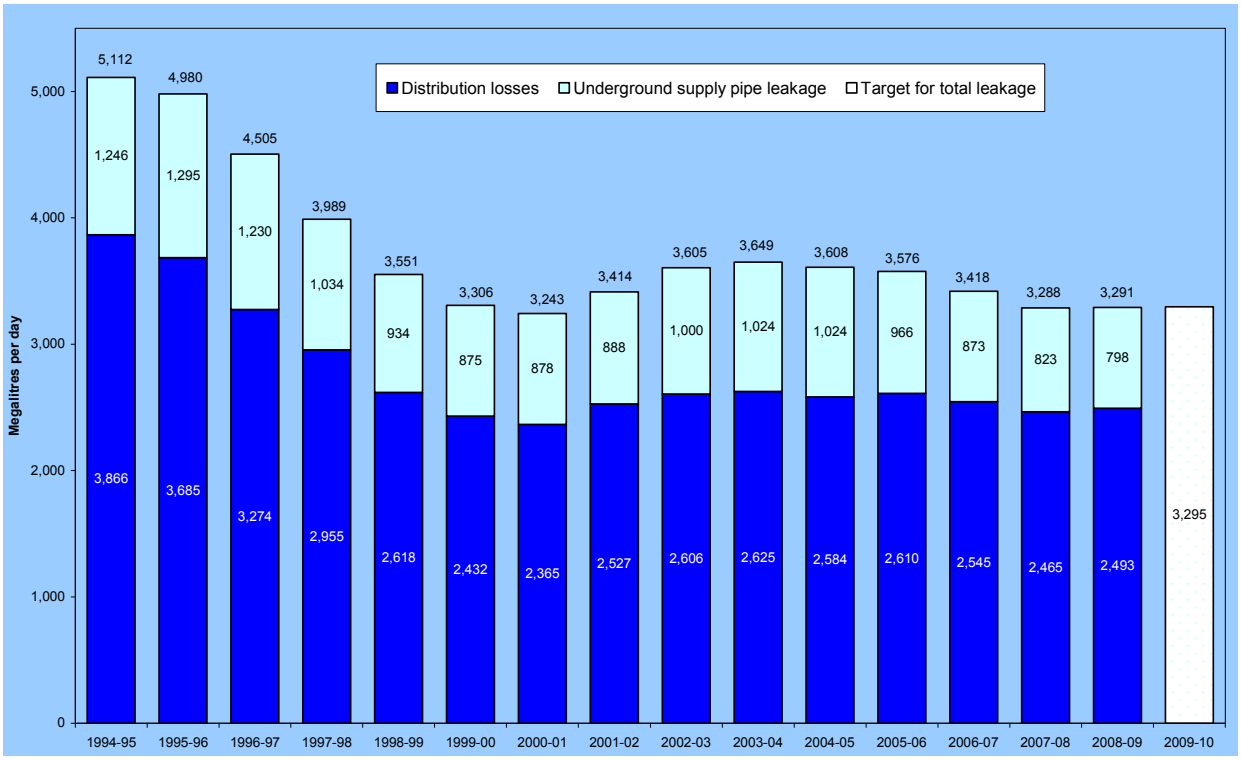
Thames also met its leakage target, for the third year in a row. It provided a legal undertaking in 2005-06 to meet future targets. Again, we will continue to monitor progress against this undertaking in 2009-10.

These interim monitoring arrangements will allow us to take swift action should either company fail to deliver its commitments.

The companies achieved their leakage targets despite much of England and Wales experiencing extremely cold weather conditions throughout December and January. Average temperatures fell to their lowest since 1995[2]. Many companies reported significant increases in the numbers of pipes bursting because of ground movement caused by freezes and thaws.

Figure 3 shows the industry annual leakage estimates from 1994-95 and the targets until 2009-10. Each bar represents total leakage split between leakage on company pipes (distribution losses) and leakage on consumers' pipes (underground supply pipe leakage).

Figure 3 Total industry leakage 1994-95 to 2009-10



The supporting information to this report also contains:

- key estimates and assumptions about leakage and consumers' water use for 2008-09; and
- more details on how the companies identify the targets that we set.

[2] Source: Met Office website.

Water efficiency performance

In 2008-09, the companies reported a lower level of water saved (59 Ml/d) than last year (67 Ml/d). Expenditure also fell by about £3 million to £27.2 million.

As in previous years, most of the reported savings were the result of the companies' activity in replacing and repairing customer supply pipes. In 2008-09, this activity accounted for 33 Ml/d or 56% of total savings. This is a reduction of more than 13 Ml/d on the level reported last year. Other water efficiency activity has risen from 20.4 Ml/d to 26.4 Ml/d.

We provide more details about companies' supply pipe policies in the supporting information to this report.

The companies distribute a wide range of water saving devices to consumers, either free or at a subsidised cost. The most widely promoted are cistern displacement devices, such as the 'save-a-flush' or hippo.

In 2008-09, the companies distributed almost 450,000 of these devices to household customers at a cost of £500,000. This is similar to the number that companies distributed in the previous year. The reported water saved from this activity was 3.7 Ml/d. The companies also reported an additional saving of 0.35 Ml/d from cistern displacement devices distributed to non-household customers.

The companies also promote other water saving devices, including:

- water butts;
- trigger hoses for the garden; and
- shower timers.

Of these, water butts are used most widely. In 2008-09, the companies distributed almost 40,000 water butts at a cost of £196,000. This saved about 0.06 Ml/d. The companies generally offer water butts at subsidised rates, although they provide a small number free of charge.

The number of water audit packs distributed to household consumers rose slightly to 5.6 million. The companies distribute audits in two main ways. Some distribute them to all consumers when they send out bills. Others advertise the availability of audits on their websites or in literature sent to consumers, and send an audit on request.

The companies also promote water efficiency by providing consumers with information on how to use water more wisely. For example, they:

- make leaflets available to consumers;
- offer advice on their websites or through education centres; and
- work with schools and other institutions.

The number of non-household audit packs distributed increased significantly from about 50,000 to over 90,000. This was mainly the result of an increase in activity by South East.

Table 6 Industry progress in promoting water efficiency

	2004-05	2005-06	2006-07	2007-08	2008-09	Five-year total
Supply pipe repairs:						
Number repaired	49,031	53,482	51,186	52,460	46,640	252,799
Number repaired free	43,318	36,710	33,871	32,381	29,121	175,401
Number charged for	5,713	16,772	17,315	20,079	17,519	77,398
Supply pipe replacements:						
Number replaced	6,027	8,375	9,284	10,721	10,842	45,249
Number replaced free	2,255	2,433	2,656	4,675	4,032	16,051
Number charged for	3,772	5,942	6,628	6,046	6,810	29,198
Cistern devices:						
Number distributed to households	474,622	427,279	760,237	456,309	447,317	2,565,764
Number installed	226,420	265,818	523,449	314,474	293,665	1,623,826
Percentage installed	48%	62%	69%	69%	66%	63%
Water butts:						
Number distributed	0	0	85,530	34,283	39,658	159,471
Number installed	0	0	81,806	32,848	34,282	148,936
Household water audits:						
Household water self-audit packs distributed by company	4,210,258	4,838,237	4,037,825	4,954,150	5,600,682	23,641,152
Household water audit completed by company or agent	8,110	4,699	11,961	7,282	5,004	37,056
Non-household water audits:						
Water self-audit packs distributed to commercial consumers by company	42,863	52,125	78,428	48,621	91,835	313,872
Water audits at commercial premises completed by company or agent	866	1,012	3,082	7,931	4,326	17,217
Total savings/costs:						
Total savings achieved/assumed (Ml/d)	54.41	45.59	64.9	66.7	59.4	291
Total cost of initiatives (£000s)	22,902.44	24,994.55	30,939.89	30,105.20	27,233.51	136,176
Unit cost of savings (p/m^3)	115	150	131	124	126	128

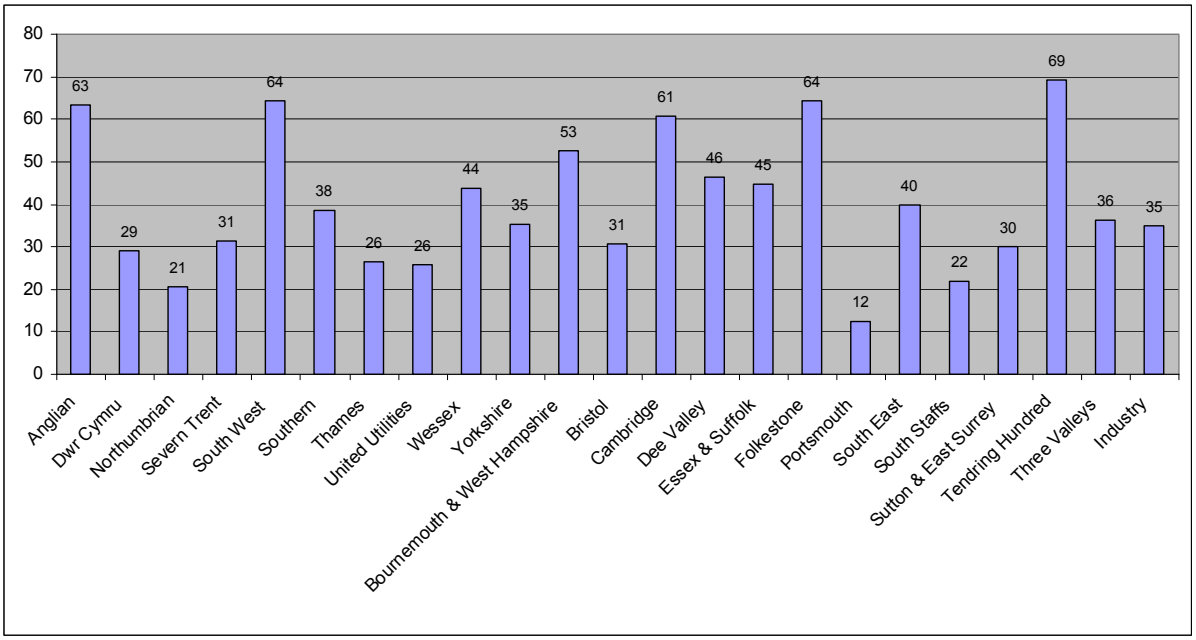
Trends in metering

In 2008-09, the companies installed 411,000 meters in existing household properties. Of these, 369,000 households asked for meters to be installed, and the companies selectively metered a further 42,000 existing household properties. Thirty-five per cent of household properties in England and Wales now have a water meter. This is a rise of 2% since last year.

During the first four years of the current price limit period, the companies have installed 1.5 million meters in existing household properties. This is 300,000 more meters than we assumed at the 2004 price review. Nine companies have fallen behind with their selective metering programmes. We will reflect this underperformance in our final determination of price limits in November.

Figure 4 shows the current level of meter penetration for each company and at the industry level.

Figure 4 Household meter penetration 2008-09



3.2.2 Managing the assets

Every year, we publish serviceability assessments for each company. The assessment is our measure of the capability of a company's system of assets to deliver the right level of service to consumers now and in the future. They show how well each company is doing in maintaining its assets. The assessments are a key part of our work to safeguard the long-term sustainability of services.

Our yearly assessments are informed by trends in service and asset performance from information accumulated from successive June returns. We make separate assessments for above-ground and underground asset systems.

Serviceability is ranked (from best to worst) as:

- ‘improving’;
- ‘stable’;
- ‘marginal’; or
- ‘deteriorating’.

As a minimum, we require the companies to maintain (or achieve and maintain) stable serviceability. If a company’s serviceability is assessed as deteriorating, we will intervene and require it to produce a corrective action plan to recover performance and deliver stable serviceability. There is a detailed explanation of serviceability in the supporting information to this report.

Table 7 shows the serviceability assessments at company level, by sub-service for 2008-09. We have subjected our serviceability assessments to quality control checks, including a statistical analysis and an overview by an independent expert. Across the water service, serviceability is stable in both the underground (‘infrastructure’) and above-ground (‘non-infrastructure’) systems. Each company needs to continue to focus on making sure that stable serviceability is maintained. We will continue to take action against any company that fails to deliver or demonstrate stable serviceability.

Table 7 Water service serviceability assessments for 2008-09

	Water infrastructure		Water non-infrastructure	
		Bursts		WTW samples with coliforms
Water and sewerage companies				
Anglian	Stable	•	Stable	☆
Dŵr Cymru	Stable	•	Marginal	▼
Northumbrian	Stable	•	Stable	•
Severn Trent	Stable	•	Improving	☆
South West	Stable	•	Stable	•
Southern	Stable	•	Marginal	▼
Thames	Stable	▼	Improving	☆
United Utilities	Stable	•	Stable	•
Wessex	Stable	•	Stable	•
Yorkshire	Stable	▼	Stable	☆
WaSC assessment	**Stable**		**Stable**	
Water only companies				
Bournemouth & W Hampshire	Stable	•	Stable	▼
Bristol	Stable	•	Stable	•
Cambridge	Stable	•	Stable	•
Dee Valley	Stable	☆	Stable	▼
Folkestone & Dover	Stable	☆	Stable	☆
Portsmouth	Stable	☆	Stable	☆
South East	Stable	•	Stable	•
South Staffs	Stable	•	Stable	☆
Sutton & East Surrey	Stable	☆	Stable	•
Tendring Hundred	Stable	☆	Stable	☆
Three Valleys	Marginal	▼	Marginal	▼
WoC assessment	**Stable**		**Stable**	
Industry assessment	**Stable**		**Stable**	

Notes:
☆ = Better than industry average performance by over 50% (25% for bursts);
• = Between +/- 50% (25% for bursts) of industry average performance;
▼ = Worse than industry average performance by over 50% (25% for bursts).

In MD212, 'Asset management planning to maintain serviceability', we signalled our intention that if a company cannot demonstrate stable serviceability at the next price review in 2009, our starting presumption will be a shortfall in service delivery.

We will make appropriate financial adjustments so that consumers do not pay for a level of service they have not received. This should act as an incentive to the companies to continue to focus on this critical area of their activities. The success we are seeing in the companies' ability to deliver stable serviceability builds a suitable foundation for capital maintenance needs in the future.

When we published our draft determinations in July 2009, we applied shortfall penalties, in line with PR09/06, 'Setting price limits – logging down and shortfalling'. These were based on early views of our analysis of this year's June returns for those companies with less than stable serviceability last year.

Having completed our analysis of the water service, we found that most water sub-services are stable, with Severn Trent and Thames water non-infrastructure assessed as improving. However, we assessed three companies as less than stable. These are:

- Dŵr Cymru and Southern (water non-infrastructure); and
- Three Valleys (water infrastructure and non-infrastructure).

We found that two companies have a shortfall against their serviceability output, Dŵr Cymru and Three Valleys (for water infrastructure). Two others need to improve their reporting capability.

We are disappointed to see three companies assessed as marginal for water non-infrastructure. This is the result of emerging adverse trends in water treatment works coliform compliance.

- Three Valleys has reported this is due to water sampling problems, which it is pursuing vigorously. We have required the company to put an action plan in place to ensure that reported sampling results are fully representative of serviceability.
- Southern has reported that the coliform failures are primarily the result of recurring sampling problems. Again, we have required the company to produce an action plan to ensure that it can report reliable sampling results.
- Dŵr Cymru has identified insufficient capital maintenance as the cause of coliform failures. It is therefore in shortfall of meeting its serviceability output for water non-infrastructure, which is something we require the company to address urgently. This issue is giving us cause for concern and we are talking to DWI about the underlying causes.

The companies carry out various activities to maintain serviceability. During 2008-09, they rehabilitated 2,865 km of water mains (approximately 1% of the network). Across the water and sewerage sectors, this renewals rate is slightly lower than the average since 1990-91.

Most companies' mains rehabilitation rates have decreased since they completed planned programmes of work to address water quality issues. However, several companies have continued to increase their mains rehabilitation activity. This is to tackle leakage and to maintain stable serviceability of their infrastructure assets.

The amount of capital maintenance activity that the industry carried out in 2008-09 is set out in table 8, while table 9 shows the levels of infrastructure maintenance over the last ten years. Table 10 shows the trends in network activity levels by company since 1990-91.

Table 8 Activity in 2008-09

	Mains renewed and relined (km)	Existing water treatment works refurbished[1]	New or enhanced water treatment works[2]	Pumping stations refurbished	Service reservoirs and water towers refurbished
Water service					
Anglian	71	0	8	11	0
Dŵr Cymru	479	3	1	2	2
Northumbrian	139	4	0	6	2
Severn Trent	249	4	4	3	6
South West	376	3	5	1	0
Southern	31	0	0	1	0
Thames	439	5	1	3	4
United Utilities	289	2	2	5	2
Wessex	49	4	2	1	4
Yorkshire	382	2	2	1	3
Bournemouth & W Hampshire	8	0	0	3	1
Bristol	35	0	0	0	0
Cambridge	4	0	0	0	0
Dee Valley	11	0	0	0	0
Folkestone & Dover	7	1	0	0	0
Portsmouth	24	0	2	0	0
South East	32	0	0	0	0
South Staffs	68	2	0	0	0
Sutton & East Surrey	35	2	0	0	0
Tendring Hundred	4	0	0	0	0
Three Valleys	135	1	1	4	3
Water service total	**2,865**	**33**	**28**	**41**	**27**

	Sewers renovated and replaced (km)	Sewage treatment works refurbished	New or enhanced sewage treatment works[1]	Sludge treatment works refurbished[1]	Pumping stations refurbished
Sewerage service					
Anglian	75	0	17	0	0
Dŵr Cymru	22	7	6	1	1
Northumbrian	14	6	6	1	7
Severn Trent	34	19	14	0	6
South West	21	9	4	1	16
Southern	15	8	3	5	2
Thames	42	27	1	7	4
United Utilities	139	9	9	0	5
Wessex	24	5	13	0	0
Yorkshire	17	10	8	0	1
Sewerage service total	**402**	**100**	**81**	**15**	**42**

Note:
1. Activity shown represents 10% or more of the gross replacement cost of the asset involved (or £100,000 or more).

Table 9 Activity on underground assets – industry

Industry totals	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Water service										
Water mains relined (km)	2,115	1,597	2,275	1,877	1,846	1,660	1,595	1,469	1,120	807
Water mains renewed (km)	4,082	2,489	2,799	2,831	2,725	2,362	2,702	3,096	3,074	2058
Communication pipes replaced (number)	239,156	157,268	146,393	113,390	123,469	107,527	117,348	147,223	163,389	124,660
Sewerage service										
Critical sewers renovated (km)	104	132	94	105	68	60	81	144	105	76
Critical sewers replaced (km)	85	54	40	77	47	39	53	97	101	54
Non-critical sewers renovated (km)		52	71	96	82	72	66	103	106	175
Non-critical sewers replaced (km)		53	60	112	82	86	88	99	104	97

Table 10 Activity on underground assets by company – 1990-91 to 2008-09

	Water mains relined (km)	Water mains renewed (km)	Communic-ation pipes replaced	Critical sewers renovated (km)	Critical sewers replaced (km) [1]
Water and sewerage companies					
Anglian	446	5,723	293,749	185	119
Dŵr Cymru	2,206	5,881	270,823	74	188
Northumbrian	3,862	4,241	245,003	421	40
Severn Trent	7,104	8,264	657,595	190	414
South West	4,396	1,564	75,961	58	20
Southern	519	861	110,364	57	53
Thames	4,787	2,501	374,076	408	264
United Utilities	208	13,047	701,621	416	310
Wessex	977	1,272	53,676	198	48
Yorkshire	5,641	3,642	129,406	78	49
Water only companies					
Bournemouth & W Hampshire	24	117	34,891		
Bristol	265	519	51,270		
Cambridge	24	241	7,611		
Dee Valley	227	223	31,216		
Folkestone & Dover	165	54	10,947		
Portsmouth	14	556	57,298		
South East	2,928	1,031	104,570		
South Staffs	7	969	61,697		
Sutton & East Surrey	251	575	30,938		
Tendring Hundred	90	153	12,929		
Three Valleys	568	1,483	177,048		

Note:
1. The figures for critical sewers replaced are from 1991-92 only.

3.2.3 Delivering the water quality programme

All the companies are on target to deliver their drinking water quality programmes. By March 2009, more than 95% of the assumed outputs had been delivered. Some of the exceptions involve a change in solution from that proposed in at the last price review in 2004. We are using the logging down/shortfall mechanism as part of the 2009 price review process to assess any outputs that are no longer required, or have not been delivered as expected.

3.2.4 Carbon accounting

It is important that the companies measure and monitor their greenhouse gas (GHG) emissions accurately. An understanding of GHG emissions can provide clear benefits to the companies, consumers and the environment. This is revealed by the proposed investment to increase renewable energy and energy efficiency that we have seen as part of the 2009 price review. These will deliver economic benefits to the companies and customers, as well as contributing to national climate change mitigation efforts that aim to reduce environmental degradation.

This is the second year that the companies have reported their operational GHG emissions. We have seen clear improvements in the quality of data they submitted. We are pleased that the companies are showing leadership and responsibility in this area. However, as with all new data, there is still scope for further improvements in its robustness and consistency.

While we see little reason to change the methodology for data collection, it is likely that the format of the data will continue to evolve. We envisage that, in future, reported data will give greater visibility of the GHG emissions that the companies own, manage and influence and reveal the efforts made to control and mitigate these emissions.

Figure 5 shows operational GHG emissions values for each company. These values do not include GHG emissions released in the construction of assets or materials. They are presented according to the following definitions.

- The carbon reduction commitment (CRC), which records only GHG missions from energy use. According to this definition, the total GHG emissions for the water and sewerage sectors is 3.7 million tonnes CO_2e [3].
- Defra guidelines, which record GHG emissions from energy use, transport and process GHG emissions. By this definition the total GHG emissions for the water and sewerage sectors is 4.6 million tonnes CO_2e.

[3] CO_2e is the amount of carbon dioxide emissions that would cause the same heating rate, over a given time horizon, as an emitted amount of a greenhouse gas or a mixture of greenhouse gases. The carbon dioxide equivalent emission is obtained by multiplying the emission of greenhouse gas by its global warming potential (the measure of the potency and lifespan of a greenhouse gas relative to carbon dioxide) for the given time horizon. For a mix of greenhouse gases it is obtained by summing the carbon dioxide equivalent emissions of each gas.

Figure 6 shows operational GHG emissions (according to Defra guidelines) relative to the volume of water or sewage[4] treated by each company as reported elsewhere in the June return.

These figures are broadly comparable with the data the companies provided in the 2008 June return. We have not provided a comparison here, as it is not possible at the moment to differentiate actual changes in GHG emissions from improvements in data collection and changes in overlying definitions.

For the first time, the companies were instructed to give confidence grades for operational emissions. These are set out in table 11. Most companies followed a weighted average approach or considered only the data that forms a material component to the overall value. The companies' approaches have been broadly appropriate and we will use this information to improve future reporting requirements and guidance.

[4] The volume of sewage treated is assumed to be the same as the volume of water delivered to properties (as assumed elsewhere in the June return). This does not take any account of surface water entering sewers. Therefore, the reality is that the emissions values presented here are likely to be higher than is actually the case. This issue is being considered for future data reporting.

Figure 5 Operational greenhouse gas emissions by company

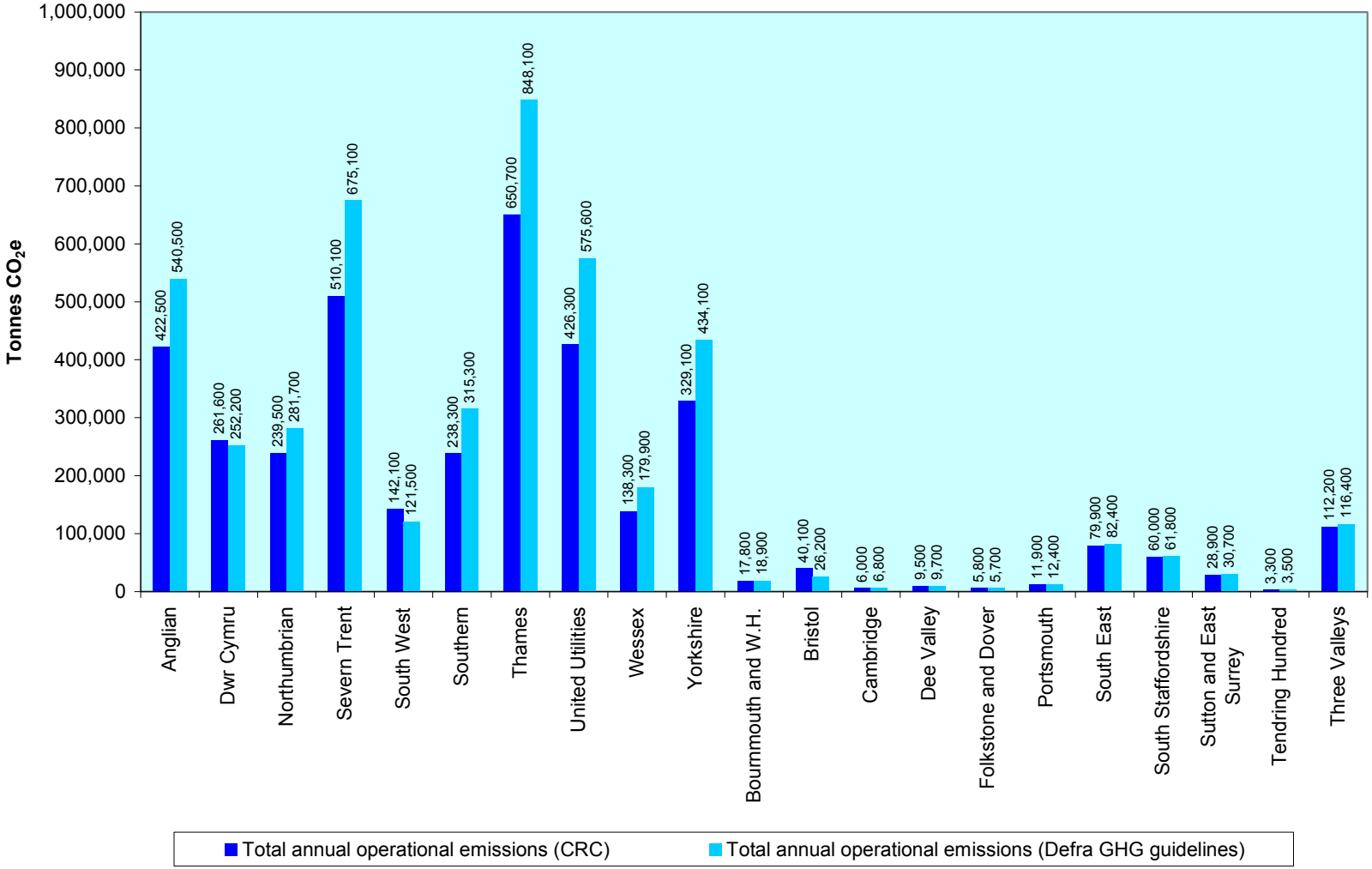


Figure 6 Operational greenhouse gas emissions relative to water and sewage treated

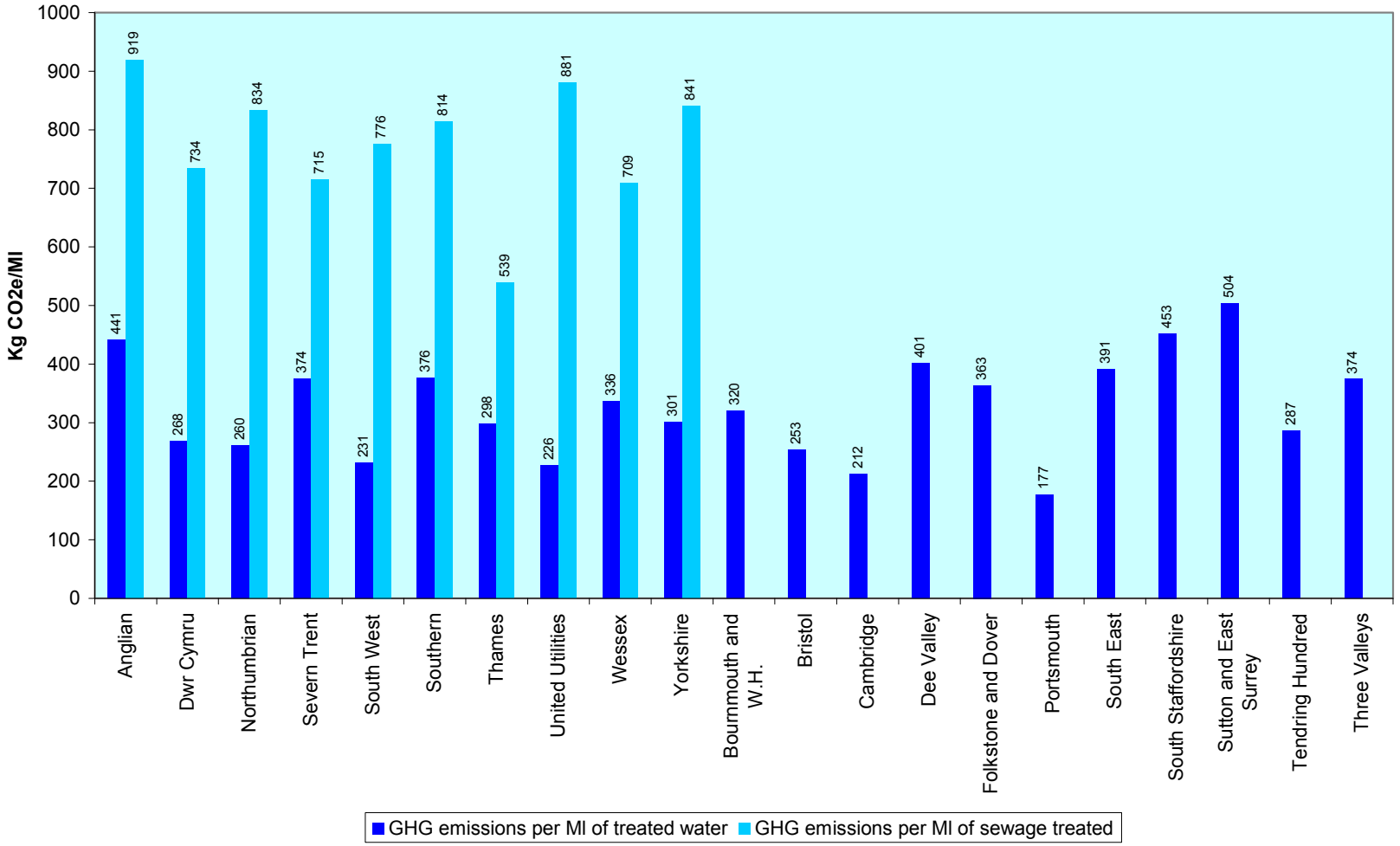


Table 11 Operational greenhouse gas emissions – confidence grades

	Annual operational greenhouse gas emissions (tonnes CO_2e)			
	According to CRC boundary	Confidence grade	According to Defra GHG reporting boundary	Confidence grade
Water and sewerage companies				
Anglian	422,500	A2	540,500	A2
Dŵr Cymru	261,600	B4	252,200	B4
Northumbrian	239,500	A2	281,700	B2
Severn Trent	510,100	A1	675,100	A2
South West	142,100	A2	121,500	A2
Southern	238,300	A3	315,300	C4
Thames	650,700	B3	848,100	B3
United Utilities	426,300	B2	575,600	B2
Wessex	138,300	B2	179,900	B2
Yorkshire	329,100	A2	434,100	A2
Water only companies				
Bournemouth & W Hampshire	17,800	B2	18,900	B2
Bristol	40,100	A2	26,200	A2
Cambridge	6,000	B3	6,800	B3
Dee Valley	9,500	B3	9,700	B3
Folkestone & Dover	5,800	A1-A2	5,700	A1-A2
Portsmouth	11,900	B2	12,400	B2
South East	79,900	A1	82,400	B3
South Staffs	60,000	B2	61,800	B2
Sutton & East Surrey	28,900	A2	30,700	A2
Tendring Hundred	3,300	A2	3,500	A2
Three Valleys	112,200	A1	116,400	A2
Total	**3,733,900**		**4,598,500**	

3.3 Looking ahead

Water efficiency targets

In November 2008, we published water efficiency targets for each company in PR09/20, 'Water supply/demand policy'. This set out our minimum expectations for each company's water efficiency base service. We stated that we expect each company to:

- save an assumed 1 litre per property per day through water efficiency activity a year, or 0.5 litres per property per day where average per capita consumption is lower than 130 litres per head per day;
- continue to provide its consumers with information on how to use water more wisely, and improve water conservation; and
- contribute to improving the evidence base for water efficiency.

The second element of the water efficiency targets is the sustainable economic level of water efficiency. Here, the companies can propose additional water efficiency activity if it forms part of a sustainable economic approach to balancing supply and demand. Eight companies proposed additional water efficiency activity in their final business plans for the 2009 price review.

When we set targets, we said we would work with the companies to place a value on the education services and information they provide to consumers. We also said that we would consider how this could be set against base service water efficiency. The companies have commissioned UKWIR to carry out a study on this issue. We expect it to be, finalised by the end of 2009. We will continue to update the companies and other stakeholders on progress during the coming year.

Gathering evidence

In PR09/20, we stressed the importance of developing the evidence base for water efficiency. In the past, the companies have sought to gather more reliable evidence on the effectiveness of water efficiency activity. Waterwise's 'Evidence base for large-scale water in homes' (October 2008), has built on this process.

Waterwise is currently developing the second phase of its evidence base, with support from us and from other stakeholders. We expect the companies to continue to improve the available information on the effectiveness of water efficiency activities.

4. Delivery – sewerage service

4.1 What consumers experienced

The companies continued to invest in 2008-09 in order to reduce the total number of properties considered to be at risk of internal sewer flooding.

- During the year, 1,445 properties were removed from the higher risk registers.
- The number of properties considered to be at risk of sewer flooding once in every ten years fell from 4,332 in 2007-08 to 3,644 in 2008-09.
- Those properties considered at risk of flooding twice or more in ten years fell from 2,075 to 1,977.
- The data for 2008-09 suggests that about 60 properties in every 100,000 are at risk of flooding at least once in every 20 years (but less than once in every ten years).

Each company is required to assess the numbers of properties that are at risk of internal flooding because of overloaded sewerage systems. They must provide data on the numbers of properties at risk of flooding once in ten years, and twice or more in every ten years.

United Utilities has put in place new systems to investigate and record sewer flooding incidents to bring them in line with industry best practice. The company acknowledges that the failings that led to it reporting inaccurate data have disadvantaged customers. It has given a binding commitment to assess and offer (at its shareholders' expense) solutions to mitigate the sewer flooding problems at all 1,600 properties on its revised 'at risk' registers by September 2012.

As part of this commitment, an independent review has been carried out on these new systems and processes, and has found them to be fit for purpose. We welcome the company's commitment to offer mitigation to customers at risk of sewer flooding. We also welcome the positive steps the company is taking to improve its approach. We will continue to monitor the company's approach.

Severn Trent also altered the way it allocated properties to the 'at risk' registers following work that Mott McDonald carried out on our behalf. Mott McDonald studied the differences in the way the companies record sewer flooding incidents and added properties to the risk registers. Severn Trent has now reduced the numbers of properties on the higher risk registers by 60%.

Northumbrian has again seen an increase in the numbers of properties on the high risk overloaded sewer registers. This is because properties continue to be added to registers when investigations of flooding events are completed. There are about 100 more properties on the high risk register this year than last year. The number of properties at risk of flooding once in ten years has fallen to 15 in every 100,000, from 18 in every 100,000 in 2007-08.

Table 12 Properties at risk of flooding from sewers – performance analysis 2006-07 to 2008-09

Twice in ten years				Water and sewerage companies	Once in ten years			
2006-07	2007-08	2008-09			2006-07	2007-08	2008-09	
%	%	%	Number		%	%	%	Number
0.014	0.011	0.009	239	Anglian	0.007	0.006	0.005	124
0.010	0.009	0.007	101	Dŵr Cymru	0.021	0.018	0.012	164
0.019	0.027	0.031	370	Northumbrian (inc. Essex & Suffolk)	0.010	0.010	0.016	189
0.005	0.003	0.002	91	Severn Trent[1]	0.012	0.014	0.014	539
0.003	0.004	0.004	30	South West	0.013	0.008	0.006	44
0.004	0.004	0.004	73	Southern	0.015	0.009	0.007	139
0.010	0.009	0.009	492	Thames	0.046	0.038	0.029	1,669
0.015	0.015	0.015	469	United Utilities[2]	0.016	0.017	0.016	521
0.017	0.011	0.004	51	Wessex	0.024	0.019	0.011	126
0.003	0.003	0.003	61	Yorkshire	0.007	0.006	0.006	129
0.010	**0.009**	**0.008**	**1,977**	**Total industry**	**0.021**	**0.018**	**0.015**	**3,644**

Notes:
1. Severn Trent has restated the numbers on the registers following a change in the way properties are allocated to registers.
2. United Utilities has restated the numbers on the registers following a change in the way properties are allocated to registers.

Across England and Wales, the companies have completed schemes to reduce the likelihood of 1,445 properties at high risk of experiencing internal flooding from sewers.

About 6,700 consumers received payment from their company in recognition that their properties had been flooded internally by sewage. A further 13,200 payments were made for occasions where external property was flooded.

2008 was another record year across the water and sewerage sectors with regard to compliance with discharge consents measured by the proportion of sewage treatment works breaching these consents. This follows on from the good performance in 2007.

Compliance with the Water Resource Act look-up table consents was the best ever (99.7%), with five companies recording 100% compliance. Compliance with the upper-tier consents reached a record high of 99.1%. For the second consecutive year, the overall Urban Waste Water Treatment Directive compliance was 98.8%. However, for some UWWTD parameters like phosphorus there was 100% compliance in terms of the population served.

More detailed information can be found in the Environment Agency's MD109 tables that are submitted to us each year. These are available on our website.

Table 12 Environmental impact by company

Water and sewerage companies	Equivalent population served by sewage treatment works			Unsatisfactory combined sewer overflows [a] %	Bathing waters non-compliant [4, b] %	Successful prosecutions [b]
	Resident numerical consents [1, a] (millions)	In breach of their WRA consent [2, b*] %	In breach of their UWWT consent [3, c*] %			
Anglian	6.4	0.04	0.00	0.5	0	7
Dŵr Cymru	3.7	1.77	0.00	3.7	0	10
Northumbrian	3.7	0.00	0.00	7.6	0	5
Severn Trent	10.0	0.00	0.00	1.0	0	4
South West	1.6	0.51	0.00	0.1	0	11
Southern	4.1	0.00	0.00	0.5	1	4
Thames	14.1	0.00	0.00	1.6	0	2
United Utilities	8.7	2.80	0.00	9.6	2	3
Wessex	3.1	0.05	0.00	0.3	0	1
Yorkshire	6.1	0.00	0.00	0.5	0	5
Totals						
2008-09		0.7	0.0	3	3	52
2007-08		0.5	0.0	5	0	46
2006-07		1.0	0.3	9	0	74
2005-06		1.4	0.5	11	0.2	56
2004-05		0.1	0.0	13	0.0	76
2003-04		0.2	0.0	18	0.4	53
2002-03		1.2	1.4	25	0.8	94
2001-02		1.2	1.6	26	3	54
2000-01		1.0		29	4	52
1999-00		1.2		24	8	33
1998-99		1		25	10	28
1997-98		1		26	11	24
1996-97		3		27	11	39
1995-96		3		29	11	39

* The data presented in these two columns is a subset of information on consent compliance provided by the Environment Agency.

Sources:
a. Companies' June returns 2009.
b. The Environment Agency Regions' reports to Ofwat, 2008.
c. The Environment Agency report, 'Bathing Water Quality in England and Wales in 2008'.

Notes:
1. Equivalent population relates to both the population served and the non-household load on the sewage treatment service.
2. Only sewage treatment works failing the Water Resources Act condition of their consent for BOD, SS, or Amm under the requirements of the look-up table (LUT) or the 99% annual dosage rule for UV disinfection have been included. The LUT requires 95% compliance with the limits specified for BOD, SS, or Amm. Reporting is based on a calendar year.
3. Only sewage treatment works failing the Urban Waste Water Regulations condition of their consent for BOD under the requirements of the LUT or P under the requirement of an annual average concentration have been included. The LUT requires 95% compliance with the limits specified for BOD. Reporting is based on a calendar year.
4. Bathing water compliance data is for each bathing season, where sampling is carried out from 1 May to 30 September. These figures do not include inland bathing waters. Where it is known that a bathing water non-compliance is in no way attributable to a water company's activities, that non-compliant bathing water is not recorded in the figures.

BOD: biochemical oxygen demand
SS: suspended solids
Amm: ammonia
P: phosphorus

Delivering the National Environment Programme for this investment period has meant that the companies have continued to reduce the numbers of combined sewer overflows that are deemed unsatisfactory. Across the water and sewerage sectors, just 3.2% of combined sewer overflows (out of a total of 14,386) considered unsatisfactory and have been targeted for further improvements. This is a reduction from 5.1% in 2007-08.

The companies have continued to focus on reducing the numbers of pollution incidents. This has resulted in one of the best overall years for both serious (category 1 and 2) and minor (category 3) incidents that occur at sewage related assets across the water and sewerage sectors.

Only nine category 1 incidents occurred at sewage related assets. This makes 2008 the third best year since 1995 (there were eight incidents in both 2000 and 2002). For the seventh consecutive year, Wessex has not been responsible for a single category 1 pollution incident.

Category 2 incidents reached a record low of 46. This represents a reduction of more than a 30% from 2007 (68). The slightly increasing trend for category 3 incidents over the past four years has been reversed. There were 1,815 such incidents in 2008, which made it the best ever year (a reduction of 40% since 1995).

The level of self-reporting has increased to 48% of all sewage related incidents. We will look to the companies to maintain and improve further on these results in 2009.

Table 13 Environmental impact (pollution incidents by category) – company performance 2008-09

	Pollution incidents by category [1, a]					
	Sewage related				Water related [b]	
	Category 1	Category 2	Category 3	Self-reporting[c]	Category 1	Category 2
Water and sewerage companies						
Anglian	1	9	432	71%	0	0
Dŵr Cymru	2	1	230	31%	0	1
Northumbrian	2	2	78	30%	0	1
Severn Trent	0	6	261	52%	1	1
South West	0	3	87	45%	0	0
Southern	1	3	194	58%	0	0
Thames	0	2	193	47%	0	1
United Utilities	1	9	178	31%	0	1
Wessex	0	0	68	57%	0	0
Yorkshire	2	11	94	33%	0	0
Water only companies	–	–	–	–	0	1
Totals						
2008	9	46	1,815	48%	1	6
2007	14	68	2,034	45%	1	9
2006	15	100	1,980	38%	1	13
2005	18	125	1,888	32%	0	9
2004	16	109	1,830	28%	0	6
2003	20	144	2,249	22%	4	17
2002	8	124	2,011	–	1	6
2001	17	129	2,241	–	1	4
2000	8	87	2,263	–	1	5
1999	13	115	1,968	–		
1998	10	135	2,259	–		
1997	25	229	2,701	–		
1996	23	228	2,560	–		
1995	37	374	3,061	-		

Source:
1. The Environment Agency Regions' reports to Ofwat, 2008.

Notes:
a. Pollution incident categories 1, 2 and 3 are defined on the Environment Agency's website. In broad terms, categories 1, 2 and 3 correspond to major, significant and minor incidents, respectively.
b. Water-related pollution incidents include those from water companies' water treatment and supply operations.
c. This is the first year this data has been recorded on this table. Historical industry averages have been provided for comparison.

4.2 How does this compare with companies' commitments?

4.2.1 Managing the assets

Across the sewerage service, serviceability is stable in both the underground and above-ground systems. Those companies that had action plans to recover stable serviceability are now delivering significant improvements in performance. However, all the companies need to continue to focus on making sure that stable serviceability is maintained. We take action against any company that fails to deliver stable serviceability.

Table 14 below shows the serviceability assessments at company level, by sub-service for 2008-09. We have subjected our serviceability assessments to quality control checks, including a statistical analysis and an overview by an independent expert.

Table 14 Sewerage service serviceability assessments for 2008-09

	Sewerage infrastructure		Sewerage non-infrastructure	
		Collapses and blockages		STWs non-compliant
Water and sewerage companies				
Anglian	Stable	•	Stable	•
Dŵr Cymru	Stable	▼	Stable	•
Northumbrian	Marginal	☆	Stable	•
Severn Trent	Stable	•	Stable	•
South West	Stable	•	Stable	▼
Southern	Stable	•	Stable	•
Thames	Stable	▼	Stable	•
United Utilities	Stable	•	Marginal	•
Wessex	Stable	•	Stable	•
Yorkshire	Stable	•	Stable	•
WaSC assessment	**Stable**		**Stable**	

Notes:
☆ = Better than industry average performance by over 50%.
● = Between +/- 50% of industry average performance.
▼ = Worse than industry average performance by over 50%.

As with the water service, if a company cannot demonstrate stable serviceability at the 2009 price review, our starting presumption will be a shortfall in service delivery.

When we published our draft determinations in July 2009, we applied shortfall penalties, in line with PR09/06, 'Setting price limits – logging down and shortfalling'. These were based on early views of our analysis of this year's June returns for those companies with less than stable serviceability last year.

Having completed our analysis of the sewerage service, we found that most water sub-services are stable. However, we assessed two companies as less than stable. These are:

- United Utilities (sewerage non-infrastructure); and
- Northumbrian (sewerage infrastructure)

We are considering shortfalling both companies against delivery of their serviceability outputs at our final determinations in November.

There are signs of recovery in performance at United Utilities. However, we need to wait for another year before we can determine whether this is signalling a return to stable serviceability.

Northumbrian has also failed to deliver sufficient outputs in relation to reducing flooding from sewers. We will be considering the overlap between serviceability and sewer flooding outputs when applying the shortfall penalty at final determinations.

We are pleased to see that Thames has now recovered all three sub-services to stable serviceability, the last being sewerage non-infrastructure this year. The other successes are at Southern and Severn Trent. Both have recovered to stable serviceability in sewerage infrastructure.

However, we are beginning to see signs of adverse trends in the DG5 indicator (properties flooded due to other causes) for Anglian, Dŵr Cymru, Northumbrian, Severn Trent and Southern. Some companies have also resubmitted figures for this indicator. The largest changes are at Yorkshire, with smaller changes at Dŵr Cymru, United Utilities and South West. At present, the trends are not developed enough to warrant a marginal serviceability assessment, but companies are advised to act to avoid this outcome in future.

We are disappointed to see Northumbrian has again been assessed as marginal for sewerage infrastructure, after having been very successful at reducing pollution incidents. A pattern of adverse trends in collapses and all flooding indicators (hydraulic overload and other causes) has emerged. We are requiring the company to develop an action plan to address these problems, in conjunction with its plans to address flooding due to overloaded sewers.

The companies carry out various activities to maintain serviceability. During 2008-09, they rehabilitated 130 km of critical sewers (0.1% of the critical sewerage network). The number of critical sewers rehabilitated has reduced compared with previous years, but the number of non-critical sewers rehabilitated has increased. This means that across the water and sewerage sectors the overall rehabilitation rate is slightly higher than the average since 1990-91, as shown in table 8.

The amount of capital maintenance activity that the industry carried out in 2008-09 is set out in table 8, while table 9 shows the levels of infrastructure maintenance over the last ten years. Table 10 shows the trends in network activity levels by company since 1990-91.

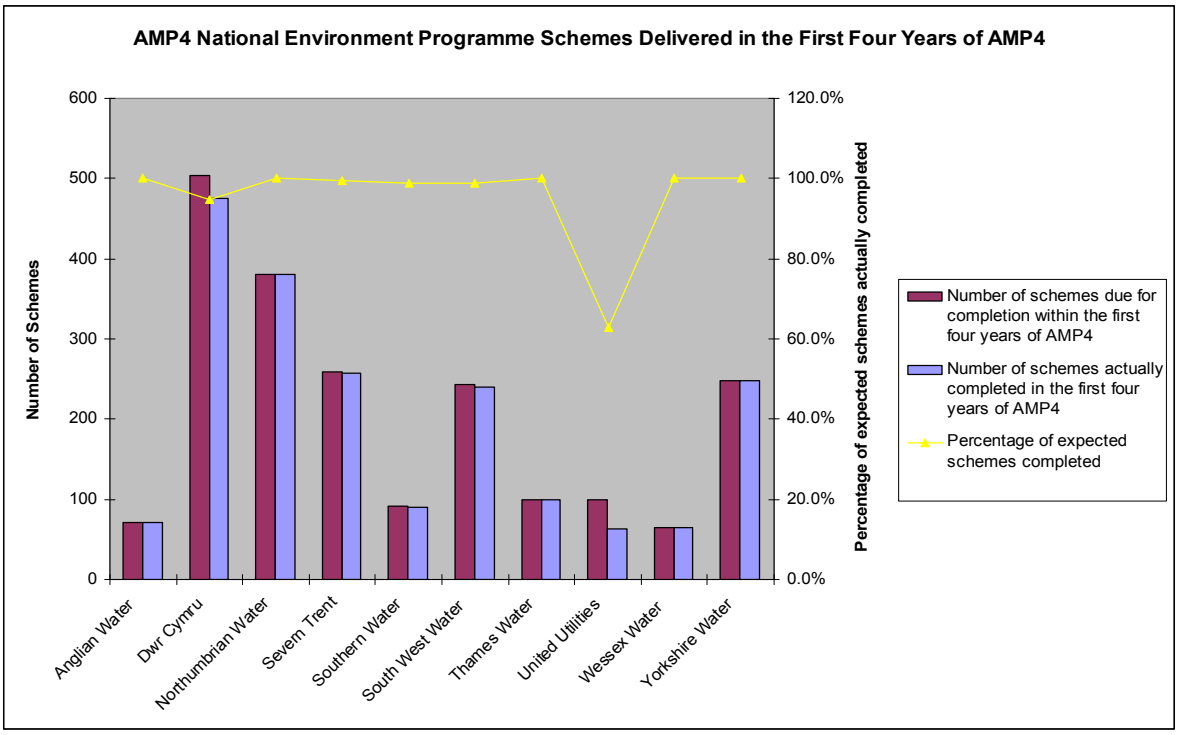
4.2.2 Delivering the sewerage quality programme

Overall, we are pleased with the progress that the companies have made in delivering the sewerage quality programme for 2005-10, a large part of which is accounted for by the National Environment Programme agreed with the Environment Agency in 2004.

Figure 7 shows the progress for each company in delivering the programme so far against our expectations for:

- continuous discharges (sewage treatment works); and
- intermittent discharges (including combined sewer overflows).

Figure 7 National Environment Programme schemes delivered 2005-09



With just one year remaining in the current investment period most companies have progressed well with delivery of the National Environment Programme. Of the schemes due to be delivered by 31 March 2009, 96.8% were completed by this date. Together with 81 schemes that were due for completion in the final year, but which have been delivered early, these represent 77.4% of total number of NEP schemes in the current investment programme.

Both Northumbrian and Dŵr Cymru have more than 100 schemes left to deliver in 2009-10, the final year of this investment period. However, both companies have already shown that they are capable of delivering a high number of schemes a year. Currently, we do not have any concern that they will be unable to deliver the remainder of the National Environment Programme on time. The Environment Agency is monitoring the companies' progress to make sure that if delays arise, any slippage is minimal.

We are disappointed that for the third year in a row, United Utilities has significantly under-delivered against our expectations compared with the rest of the water and sewerage sectors. The company has still to complete a large proportion of its programme for the current investment period, including a number of complex schemes.

United Utilities has also continued to delay a large number of schemes agreed in the previous investment period as part of the company's unsatisfactory intermittent discharge programme. We are concerned that it may not be able to deliver this work in line with our expectations. We are discussing this further with the Environment Agency, United Utilities and Defra.

East Sussex County Council has granted planning permission for the sewage treatment works that forms part of the delayed Urban Waste Water Treatment Directive scheme for Brighton and Hove. Southern can now begin work on the new plant. This will provide treatment in line with the Directive's requirements for more than 200,000 people in the communities of Peacehaven and the Brighton and Hove area for the first time.

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We are responsible for making sure that the water and sewerage sectors in England and Wales provide customers with a good quality and efficient service at a fair price.

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