

# Performance report

2011/12



Dŵr Cymru  
Welsh Water

Version 02 (*Jan 2013*)

## Index

Page

1. Introduction	3
2. Executive Review	4
3. Performance Scorecard	17
4. Dŵr Cymru key performance indicators	19
5. Exception reporting on delivery of outputs as against the 2009 Final Determination	58
6. Ofwat key performance indicators	59
<u>Appendices</u>	
1. The processes adopted in preparing this report	68
2. Reporter's Statement on Ofwat key performance indicators	72

# 1. Introduction

Throughout the year, we monitor our performance against a wide range of indicators, including the measures used by the Environment Agency to judge environmental compliance, some of the key measures of performance used by the Drinking Water Inspectorate to judge drinking water quality compliance, Ofwat's measures including their Service Incentive Mechanism (SIM), our cost efficiency and other financial measures of performance. Our performance is summarised in the Executive Review.

An important tool in monitoring performance is our "Performance Scorecard", reproduced in this document, which highlights our performance for the year ended 31 March 2012. While the Scorecard does not include every single metric, achieving targets set out in the Scorecard would demonstrate that we are on track to deliver a performance overall that would represent one of the best in the industry and, as such, reflect better outcomes for our customers and the environment.

This report provides a comprehensive account of our performance on non-financial metrics in the last year and should be read alongside our Annual Report and Accounts.

We have also commented by exception on the delivery of our outputs against the 2009 Final Determination.

The suite of performance indicators that Ofwat requires all companies to publish is also set out in this report.

In Appendix 1, we have summarised the processes followed in preparing this document and, in particular, ensuring that the data upon which we have made judgements are reliable, accurate and complete.

A statement produced by our Reporter, who audited aspects of this Performance Report, is included in Appendix 2.

**Nigel Annett**  
Managing Director

5th July, 2012

## 2. Executive Review

### **Performance Review**

We made real progress last year on most of the measures that matter for our customers and for the environment that we look after on behalf of all the communities we serve.

We achieved a best ever performance on some and where performance fell short last year we have implemented turnaround plans, backed by investment, to secure the required improvements.

The regulated water industry is particularly measurable which allows the Board to set targets for the business that are based on sector benchmarks and to judge where we stand compared with the best performers in the sector. We use a number of the key measures to make up our Performance Scorecard against which – alongside the achievement of cost efficiency targets – variable pay for every member of staff is calculated. Last year we achieved or beat the targets set by the Board for 15 of the 18 measures on our Performance Scorecard. This represents the best overall performance achieved by the Company in recent years.

## Protecting Public Health

Supplying safe drinking water at all times is our most important responsibility and this means that our tap water must be free from harmful chemicals and bacteria and have a good taste.

Over the course of a year some 300,000 water tests are taken and analysed under regulations monitored by the Drinking Water Inspectorate ('DWI'). In 2011 the high quality of the water we supply was maintained with 99.96% of samples taken and analysed meeting drinking water quality standards at customer taps. We also achieved our targets on four of the other five indices used by the DWI to measure water quality compliance at each point on the water supply system.

Customer complaints and contacts about discoloured water were well down once again and are a third lower than five years ago. Iron is the main cause of discolouration and our compliance with the water quality standard for iron in 2011 was 99.80%, which is an improvement on the previous year when compliance was 99.56%. However, notwithstanding the water mains renewal programme of the last ten years, we still have more than 6,500km of unlined iron mains which can cause discoloured water and managing and mitigating this risk is a major challenge for us.

Of the 22 events affecting water quality we notified to the DWI during 2011, just six were classified by the DWI as significant. This continues the very marked improvement on this key measure over recent years; in 2009 21, and in 2010 17, of the events we notified were classified by the DWI as significant.

Our accelerated investment programme to improve the reliability of our water supply network - based on our Drinking Water Safety Plans - continues to make good progress and last year we completed schemes at Alwen (Conwy), Cilfor (Gwynedd), Capel Curig (Conwy) and Penycefn (Dolgellau) and we are currently on sites at Llyswen (Powys), Bala (Gwynedd) and Sluvad (Torfaen). Our £120 million 'Go to Green' programme to rebuild, refurbish or upgrade 22 water treatment works across Wales has been agreed and will be delivered over the coming three years.

The Water Health Partnership for Wales, established by Dŵr Cymru in 2006, continues to be an important forum in which health and water professionals from across Wales can share learning and improve inter-agency knowledge of public health and drinking water quality issues. We also continue to host events where we work with landowners and others to identify and agree on ways in which we can work together to manage catchments and protect raw water quality.

### **Reliable Sanitation**

Following the transfer of private sewers to the regulated water and sewerage companies in England and Wales in October last year, we are now responsible for maintaining more than 30,000 km of sewers, potentially doubling the length of our sewer network.

As important for public health is reliable sanitation. Much of our sewer network is old and in poor condition and one of our biggest challenges is to minimise the impact of any blockages and other problems on the network. Prior to the transfer of private sewers, we typically dealt with just over 1,000 blockages every month; some months on from the transfer of private sewers, that figure has doubled. In more than 98% of cases, by responding quickly we manage to deal with the blockage without causing property flooding or environmental pollution.

We have also commenced the process of transferring private sewage pumping stations and we estimate that by 2016 we will have to take responsibility for more than 600 stations to add to the 2,000 we currently operate. Many of these assets are in very poor condition. 2012 will also see the adoption of new 'mandatory build standards' in Wales which will require that developers build new sewerage assets to a standard that will allow Dŵr Cymru to take them over without delay. We are collecting separately all the costs associated with the transfer of private sewers and related assets and in due course we will be considering how best to recover these additional costs from our customers.

Last year the total number of incidents resulting in the flooding of properties fell from 215 to 198, which is the lowest number for some years. Just 22 of these were due to hydraulic overload, which is where the sewer backs up during heavy rainfall due to lack of capacity; during the year we completed 35 sewer improvement schemes at a cost of £8 million to reduce from 267 to 218 the number of properties at risk of repeat flooding due to hydraulic overload.

### **Safeguarding our Environment**

We collect and clean the wastewater produced by households and businesses across our region so as to protect public health and safeguard our rivers and coastal waters from pollution.

Operating our estate of ageing wastewater treatment works so that we protect our rivers and coastal waters – which are among the best in the UK – is one of our toughest jobs. In 2011, 22 of our more than 800 wastewater treatment works did not comply with the relevant numerical consent. On the measure of compliance against ‘look up’ tables, 99.72% of population equivalent was served by a compliant wastewater treatment works in 2011, down from 99.96% in 2010. Insufficient samples were taken at a further four works to demonstrate compliance. This is not a satisfactory performance and for Ofwat’s serviceability assessment we have judged our performance on above ground wastewater assets for the year 2011 as ‘marginal’.

Over the last 12 months we have ‘fast tracked’ a detailed turnaround plan, backed by an additional investment of £30 million, targeted at reducing the risk of failing compliance at the 47 most-at-risk works. This plan is progressing well and our performance to date in 2012 is better than in the same period last year – and we are on track to return our assessment for serviceability to ‘stable’.

Continuing to renew and improve our wastewater treatment works estate will remain a priority for many years to come.

Following implementation of a wide ranging pollution reduction plan, we have reduced the total number of pollution incidents in 2011 to 246, down from 260 in 2010. There were just 4 serious pollution incidents in 2011 which was a marked improvement on previous years. Last year we self-reported 37% of all pollution incidents and have a target to increase this figure to 50% in 2012.

We continue to work hard to reduce the number of pollution incidents caused by blockages on our now much larger sewer network. Alongside upgrades and extensions to our 'early warning' telemetry system, initiatives in the year include teams of 'river rangers', who walk our sewers located close to watercourses, and engaging with river users such as canoe and angling clubs. We have also carried out a detailed analysis based on more than ten years of data to risk score our sewers based on material, size, condition, location and other criteria so as to better schedule proactive work such as sewer cleansing and reduce the risk of incidents. Key to reducing problems caused by blockages and other equipment failures is a fast response and last year our average response time was just over one hour.

We invested £32 million last year in maintaining and upgrading wastewater treatment works and during the year completed a number of schemes including Five Fords (Wrexham) and Denbigh. We are also currently on site or due to commence works at locations across our operating area, including Aberporth (Ceredigion), Narberth (Pembrokeshire) and Llanfoist (Monmouthshire). A further £6 million was invested in renewing 25km of sewers. In addition we invested £7million on private sewers and drains transferred to us in October 2011.

Ensuring our treatment works and our sewer network safeguard our rivers and coastal waters from pollution is essential, not least because of the importance of our environment for the economy of our region. Wales, with only 15% of the British coastline, secured 48 Blue Flag awards – a third of the total awarded to all of the UK – for the 2012 summer season. All but one of the 88 EC designated beaches in Wales passed the mandatory European standard for coastal water quality in 2011. In addition, 53 Green Coast awards for rural beaches were won. As a result, the Marine Conservation Society has been able to recommend 121 Welsh beaches as having excellent water quality, 20% more than in the previous year and the most in Wales in the Good Beach Guide's 25 year history.



The new Bathing Waters Directive introduces a new 'excellent' standard which is tighter than the current 'guideline' standard required in order to win a Blue Flag award and this, alongside new land based requirements, is expected to reduce the number of beaches that will be eligible for a Blue Flag in 2013.

We have also been working with the Environment Agency, Surfers Against Sewage and Pembrokeshire County Council to trial 'spill alerts' on three beaches in West Wales to make beach users aware of bathing water quality. This proved extremely popular and plans are now in place to extend the scheme in the year ahead. Wales continues to have some of the highest quality rivers in the UK and as well as protecting our rivers from pollution, we must also ensure that we abstract for public water supply no more than is necessary. Key to doing so is encouraging our customers to value the water we supply and use it efficiently and on our part to keep leakage under control and down to economic levels. Last year we more than recovered the sharp rise in leakage caused by the 2010 winter freeze and we achieved our target for the year, bringing leakage down to a lowest ever level.

Since the 1990s, we have halved total leakage from our water supply network and this together with lower demand for water from heavy industry has led to a 25% reduction in the amount of water we abstract for public water supply. This apparently relatively strong water resource position has led once again to speculation about the scope for large scale water transfers from Wales to the South and East of England which following two very dry winters experienced drought.

Our position is that we do not, as things stand, have a surplus of water stored and available that could be exported easily for the benefit of both our customers and customers in those areas in England short of water. And with the prospect of significant reductions in our allowed river abstractions as a result of the Habitats Directive in the near term – and projections of much reduced river flows in the longer term as a result of climate change – our overall water resource position could deteriorate materially (see Looking Ahead).

Building the new reservoirs and associated infrastructure that would be required for any large scale water transfer would require considerable economic and environmental justification and would only make sense if there were no cheaper and less environmentally damaging options. While large scale, long distance water transfers might not be economic as things stand, sharing of water resources closer to our regional boundary is more likely to be and we are considering all available options with our neighbouring water companies as part of our own water resource planning for the next 25 years.

In order to maintain a healthy and sustainable water resource position, we continue to encourage sensible water use by our customers. Water efficiency is a core theme in our education programme and we promote water efficiency in other ways, including collaborative projects with the Environment Agency, the Welsh Government and the Energy Savings Trust as well as with social housing providers. Our 'Be Waterwise' communication campaign involves a series of initiatives highlighting the benefits associated with sensible water consumption.

Customers opting for meters have been offered 'Meter Welcome packs' containing water and energy saving retrofit products and advice and we have undertaken over 150 business customer water efficiency audits in the year and, where appropriate, supplied and retrofitted water saving devices. We have also implemented an incentivised winter pipe lagging and communication programme (targeting those customers affected by the harsh winter of 2010) and have retrofitted our own offices as part of a 'Do as I do' campaign.

Energy efficiency and reducing our carbon emissions continues as a priority for the business. Last year electricity imported from the national grid fell by 8%, while gas consumption reduced by 66%. As a result, carbon emissions fell by almost 35,000 tonnes (12%) driven largely by our renewable energy generation which doubled for the second consecutive year. Our new Advanced Anaerobic Digestion sites, installed at our wastewater treatment works in Cardiff and Afan (Port Talbot), convert wastewater sludge into electricity, thereby significantly reducing both carbon emissions and our energy costs.

## Meeting Customer Expectations

We continue to improve the day to day service we give our customers.

These included setting much shorter target times for responding to sewer blockages and other network problems as well as offering more 'self-serve' options and better real time information for customers on our website. We now text customers when there is, for instance, a planned interruption to water supply or any other widespread problem to keep everyone informed and this has reduced the need for customers to call us to report a problem or ask what is happening.

A new and easy to follow bill layout – tested first with groups of customers – has contributed to the 22% reduction in customer calls and queries about the bill. By adopting new technologies we are now able to carry out planned work on our water network without interrupting supplies and last year only 116 customers experiencing unplanned interruptions to supply lasting more than 6 hours which is one of the best performances in the sector and a marked improvement on the previous year when the winter freeze caused a high number of interruptions. Targeted investment meant that by the end of the year just 151 customers were at risk of receiving a low pressure water supply.

As a result of all these efforts alongside our customer first culture right across the business, customer satisfaction as measured by independent research has never been higher and now stands at 90%. The number of customer complaints has fallen by more than half and the number of written compliments has increased three-fold. Our customer satisfaction rating, as measured independently by the industry regulator Ofwat, was amongst the best in the sector with our billing team coming top for the second year in a row. Independent research with our largest business customers showed that 89% were satisfied with the service they get from Dŵr Cymru.

We are developing a range of new products and services for our larger business customers, helping them to become more water efficient through the provision of meter telemetry, water efficiency audits and the proactive detection and repair of leaks. We are also investing heavily to provide a better, web based service to property developers, following a successful Developers' Seminar with national developers, consultants and contractors. As a result, we have established joint working groups to review key issues such as the new mandatory build standard for sewers, sustainable urban drainage schemes and the forthcoming legal requirement to provide fire sprinklers in all new domestic properties in Wales.

## Employer of Choice

We employ over 2,000 staff and support a further 1,500 jobs in our supply chain to ensure our vital public services are maintained for our customers.

Improving the safety and training of our workforce is crucial to our future success. The health and safety of everyone working for our Company is top of our agenda and last year on a like for like basis the number of reportable injuries fell from 24 to 21.

Equally encouraging was the further increase in near-miss reporting, a key indicator for a strong health and safety culture. A host of initiatives to improve the health of our staff and to reduce the risk of accidents were introduced successfully during the year including, for example, a bespoke programme of training on manual handling for more than 700 front line colleagues. We now include in our health and safety reporting much of our supply chain, which adds some 1,500 people to the 2,000 directly employed by the Company, and we now report our safety performance against this wider population.

We made real progress last year in developing our capabilities as an organisation. We have invested heavily in the training and development of our front-line operational colleagues, gaining accreditation by City and Guilds for our water and waste water competent operator programmes. Our graduate and apprentice programmes are now well established, attracting high calibre individuals and are aligned to our succession plans.

A new science laboratory was established in North Wales and a much larger laboratory for South Wales will be commissioned by the end of 2012 which will not only deliver some £1 million in savings but also enhance our overall science capability. We also strengthened our leadership team with a number of key external appointments. Overall, as a result of the investment we have made in all these areas, we are today a more resilient and capable enterprise than we were a year ago.

We are starting to harness the benefits of our new Working Together Agreement, which we agreed with our trade unions last year. It provides good terms and conditions and employment security in return for employee flexibility. We are on track to achieve our cost efficiency targets and with new shift patterns we can now offer our customers evening and weekend appointments in the normal course. We have underpinned these changes with a customer service improvement training programme for our front-line employees.

## Community

We encourage visitors to make the most of our Visitor Centres and reservoir sites which attract close to a million visitors each year.

We manage over 42,000 hectares of land situated in some of the most beautiful parts of Wales. At our larger reservoirs we offer a range of recreational activities including cycling, fishing, sailing, canoeing, wind-surfing and diving, as well as offering picnic areas, walks and nature trails. Three of our larger sites have visitor centres and we have submitted planning applications for a new visitor centre and water sports centre at Llandegfedd Reservoir, near Pontypool, and also for an extension to our visitor centre at Llyn Brenig to provide a cycling centre of excellence (as part of a Denbighshire-wide community project to encourage mountain biking).

Our reservoirs are looked after by a team of rangers dedicated to managing our facilities and the wildlife and special habitats that are in our care. The rangers also encourage visitors by hosting a range of activities including archaeological expeditions, stargazing evenings, fly-fishing courses, charity events and sponsored walks, boat trips, as well as guided nature walks and wildlife tracking. All our main reservoirs have biodiversity management plans and we encourage conservation best practice across all our landholdings, including in the Elan Valley where a new nature reserve was created in 2010 at Dol-y-Mynach.

We continue to provide practical support for a number of conservation projects in our region, the largest example of which is the Anglesey and Llyn Fens LIFE project, a five year programme led by the Countryside Council for Wales, to bring 750 hectares of important wetland habitat into favourable or recovering condition.

We have a long established and very popular environmental education programme. In the last academic year some 14,200 school children visited one of our education centres located near Pontypridd (Cilfynydd), Barry (Cog Moors), on the Denbigh Moors (Alwen) and in the Elan Valley, and over 13,000 children received lessons under an outreach programme in which our peripatetic teachers deliver water efficiency and safety lessons in schools and community groups. We also helped over 100 final year students from Newport University who spent four training days with our environmental education team.

### Looking Ahead

Last year was the second year of our AMP5 investment programme which will see the Company invest a total of £1.5 billion, including £100 million of accelerated investment that would otherwise have been included in our programme after the next regulatory price review in 2014.

Our investment spend is prioritised to protect drinking water quality, safeguard our rivers and coastal waters from pollution, improve our cost efficiency and improve day to day customer service. Last year we invested £253 million (net of grants and financial contributions), split between water (£135 million) and wastewater (£118 million), and including over 180km of new water mains and schemes to reduce the risk of sewer flooding at 152 properties.

Looking ahead, one of the most important challenges we face is how best to strike a balance between the need for investment and affordability. We employ a network of assets that would cost £25 billion to replace, and just maintaining and repairing those assets so that they continue to do the job required could absorb our entire capital budget. However, standards continue to rise and European Directives are likely to have a significant impact on what is required of Dŵr Cymru with in particular the transition to the new Bathing Waters Directive (starting this year before it comes into full effect in 2015) and the Habitats Directive (which is expected to lead to calls for significant reductions in our abstractions for public water supply from a number of sensitive rivers across Wales). This is in addition to the impact of climate change which is expected to lead to drier summers, impacting our water resource position, and more frequent high intensity storms, impacting our sewer network.

These pressures to achieve tighter environmental standards will require additional investment over and above what is required to maintain the existing network and this in turn will put pressure on customer bills. Affordability matters a great deal particularly in our region where household incomes are lower with the result that some 30% of households spend 3% or more of household income on their water and sewerage bill, the second highest percentage in the sector. Some 44,000 of our least well off customers are currently benefitting from one of our social tariffs or our Customer Assistance Fund, a higher figure than for other water companies. Our goal is to secure for our customers and future generations the best possible balance between affordability and standards, making sure that new requirements pass cost benefit tests and do not compromise other more important priorities.

We are better placed to secure this balance because of our particular business model and the fact that we have no competing priorities other than to deliver the best possible outcomes for our customers and the environment we look after. Since Glas Cymru acquired Dŵr Cymru in 2001 we have invested more than £2.5 billion on renewing and improving the assets we employ to deliver services to our customers and to protect our rivers and coastal waters from pollution.

We have also greatly improved the cost efficiency of our regulated operations in that time such that our operating costs are 8% lower today in real terms than they were in 2001, which is much the best track record in the sector. Financing efficiency is key and by having the strongest credit ratings in the UK utilities sector we are able to raise long term finance from investors at low rates of interest. Our operating and financing efficiency together have allowed us to carry out high levels of investment while keeping our customer bills affordable. In 2015, Ofwat projects that our average household bill for both water and sewerage will be 6% lower in real terms compared to what it was in the year before Glas Cymru acquired Dŵr Cymru.

Considerable attention is currently being given by industry regulators and the Welsh Government and UK Governments, to the future challenges faced by the water industry and the potential role that market reform could play in meeting those challenges.

Ofwat is consulting on its 'Future Price Limits' programme – wide ranging proposals that include separate price limits for 'retail' and 'wholesale', incentives for system management and water trading, more emphasis on longer term outcomes and customer endorsement of company plans and priorities. We are dedicated to looking after the water industry in our region on behalf of today's customers and future generations and we will always judge the proposed reforms in terms of the likely impact on our customers. We wholeheartedly support all efforts to put customers at the heart of regulation of the sector. Beyond that, the key test for us is that any changes must not put at risk the availability of efficient, long term funding for sustained capital investment which we believe will continue to be the overriding requirement for a high quality, reliable and affordable service, both now and into the future.



## 3. Performance Scorecard

We have a set of metrics against which the Board monitor and assess our performance. This takes the form of a performance “Scorecard” based around five groupings monitored each month against targets approved by the Board in the annual business plan. The “Scorecard” was designed so that achieving “target” performance would deliver (or maintain) above average sector performance, and achieving a “stretch” target would place us at or near top of the sector.

The 18 measures were chosen because they:

- are high level metrics that are crucial to measuring our success;
- reflect metrics that are important to our regulators (Environment Agency, Drinking Water Inspectorate and Ofwat) and include key serviceability indicators; and
- are meaningful and recognisable to our staff.

Our annual staff reward scheme is based in part on performance against these 18 measures, in addition to progress against our demanding operating efficiency target to reduce controllable costs by some 20% in the five years to 2015.

As well as these 18 measures, our “Scorecard” also includes four other measures which are equally important but against which it would be inappropriate to incentivise performance; these are:

- self reporting of pollution incidents (new in 2012/13);
- customer compliments (new in 2012/13);
- number of reportable injuries; and
- staff engagement levels.

The “Scorecard” is reviewed and reset annually by the Board. Further details of the “Scorecard” metrics are included in the following pages.

	2010/11	2011/12	At or better than target		Target (100 points)	Stretch (150 points)
<b>Safe Drinking Water</b>						
Bacti failures at Water Treatment Works	99.95%	99.96%	✓			
Reservoir Integrity Index	99.97%	99.97%	✓			
Compliance with standard for iron at tap	99.56%	99.80%	✓			
Mean Zonal Compliance	99.97%	99.96%	✓			
Process Control Index	100%	99.96%	✓			
Disinfection Index	99.88%	99.97%	✓			
Water Quality Events - Level 3 and above	17	6	✓			
<b>Safe Sanitation</b>						
Sewer flooding - Other Causes	136	156	✗ <sup>1</sup>			
Sewer flooding - Hydraulic Overload	47	30	✓			
<b>Protecting the Environment</b>						
Leakage (MI/d)	199	185	✓			
Number of serious pollution incidents	8	4	✓			
Total number of pollution incidents	260	246	✓			
Population equivalent - WwTWs compliant with consent	99.96%	99.72%	✗ <sup>2</sup>			
Percentage of WwTWs compliant with numeric consent	97.14%	96.27%	✗ <sup>2</sup>			
<b>Customer Service</b>						
Number of customers - loss of supply > 6 hours	3,759	116	✓			
Number of written complaints (stage 1 and stage 2.)	11,033	4,660	✓			
Number of unwanted telephone calls	432,101	204,895	✓			
Customer Satisfaction (SIM Qualitative )	4.26	4.5	✓			

<sup>1</sup> Sewer Flooding: The Proactive Prevention of Sewer Blockage project has been approved for implementation. The project focuses on identifying and assessing the leading factors that cause a sewer blockage, the main cause of 'other cause' sewer flooding. Once these leading factors have been identified, measures can be taken in order to proactively prevent a potential blockage. A Sewer Flooding Strategy, focussing on targeted investment and business process, is also being implemented to improve the position.

<sup>2</sup> A total of 22 Waste Water Treatment Works (WwTWs) failed their numeric consents and there were a further four WwTWs where there were insufficient samples taken to demonstrate compliance. As a consequence of the increase in compliance failures, a Compliance Strategy is now in place. The strategy and the related action plan have been developed through collaboration between Operations, Asset Strategy and Local Asset Management teams and focuses on:

- targeted investment ;
- better processes for investment and escalation; and
- improved maintenance.

This will form the basis of a tactical operations compliance plan that will align with and become part of the longer term AMP investment programme. Key to this plan is the work on 46 WwTWs we have identified as being in particular need of investment. Accelerated investment will take place at these sites.

## 4. Dŵr Cymru key performance indicators / Book of Metrics

Safe  
drinking  
water

WTW bacti  
compliance

S  
Sc

SRV bacti  
compliance

S

Iron  
compliance

S  
Sc

Turbidity  
compliance

S

Enforce-  
ments

S

S Serviceability metric  
Sc Scorecard metric  
O Ofwat required KPI

DWI

Mean zonal  
compliance

Sc

Process  
control index

Sc

Disinfection  
index

Sc

Reservoir  
integrity  
index

Sc

Customer  
contacts

S

Distribution  
maint index

S

Reportable  
events

Sc

EAW

All pollution  
incidents

Sc  
O

Pollution  
incidents

S

% PE in  
breach of  
consents

S  
Sc

% works in  
breach  
numeric con.

S  
Sc  
O

Self reporting  
(new)

Sc

Sludge  
disposal  
(new)

O

Environment  
and sanitation

SOSI  
(new)

O

Leakage

Sc  
O

GHG  
emissions  
(new)

O

HO sewer  
flooding

S  
Sc  
O

OC sewer  
flooding

S  
Sc  
O

Customer  
Service

Low  
pressure

S

Interruptions  
to supply

S  
Sc  
O

SIM

Unwanted  
telephone  
contacts

Sc

Written  
complaints

Sc

Escalated  
written  
complaints

Sc

Quantitative  
score

Qualitative  
score

Sc

SIM  
combined

O

Compliments

Sc

Looking after  
our assets

Sewer  
blockages

S

Sewer  
collapses

S

Mains  
bursts

S

Unplanned  
maintenance  
wastewater

S

Equipment  
failures  
wastewater

S

Unplanned  
maintenance  
water

S

Safe drinking water

WTW bacti compliance S Sc

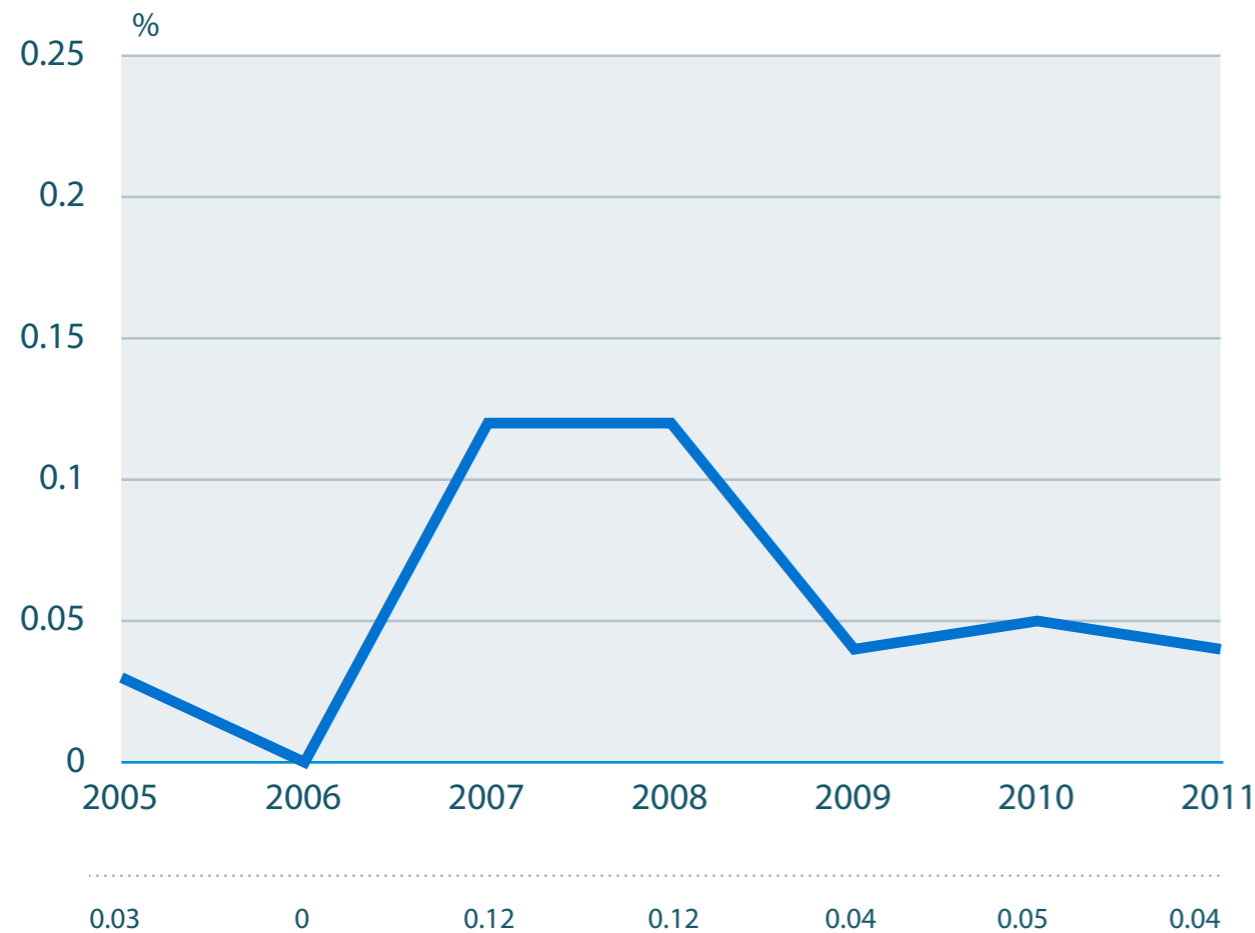
SRV bacti compliance S

Iron compliance S Sc

Turbidity compliance S

Enforce-ments S

WTW bacti non compliance



Water Treatment Works (WTWs) bacteriological non compliance is calculated using the number of WTWs with samples containing coliforms, expressed as a percentage of the total number of samples taken from water leaving WTWs. A WTW with more than one sample failure counts only once for Ofwat serviceability whereas the Drinking Water Inspectorate count each failure.

This is one of the five indicators used to determine the regulatory assessment of serviceability for water non infrastructure assets. The percentage non-compliance figure for 2011 stands at 0.04 (0.05 last year). The non compliance is driven by a small number of failures at specific WTWs. There were six sample failures (at five WTWs) out of a total of 11,344 samples taken.

Each incident was fully investigated and, where appropriate, remedial action was taken. In none of these incidents was there any evidence or suggestion of a risk to public health as resamples and wider sampling in the distribution network were satisfactory.

Safe drinking water

WTW bacti compliance S  
Sc

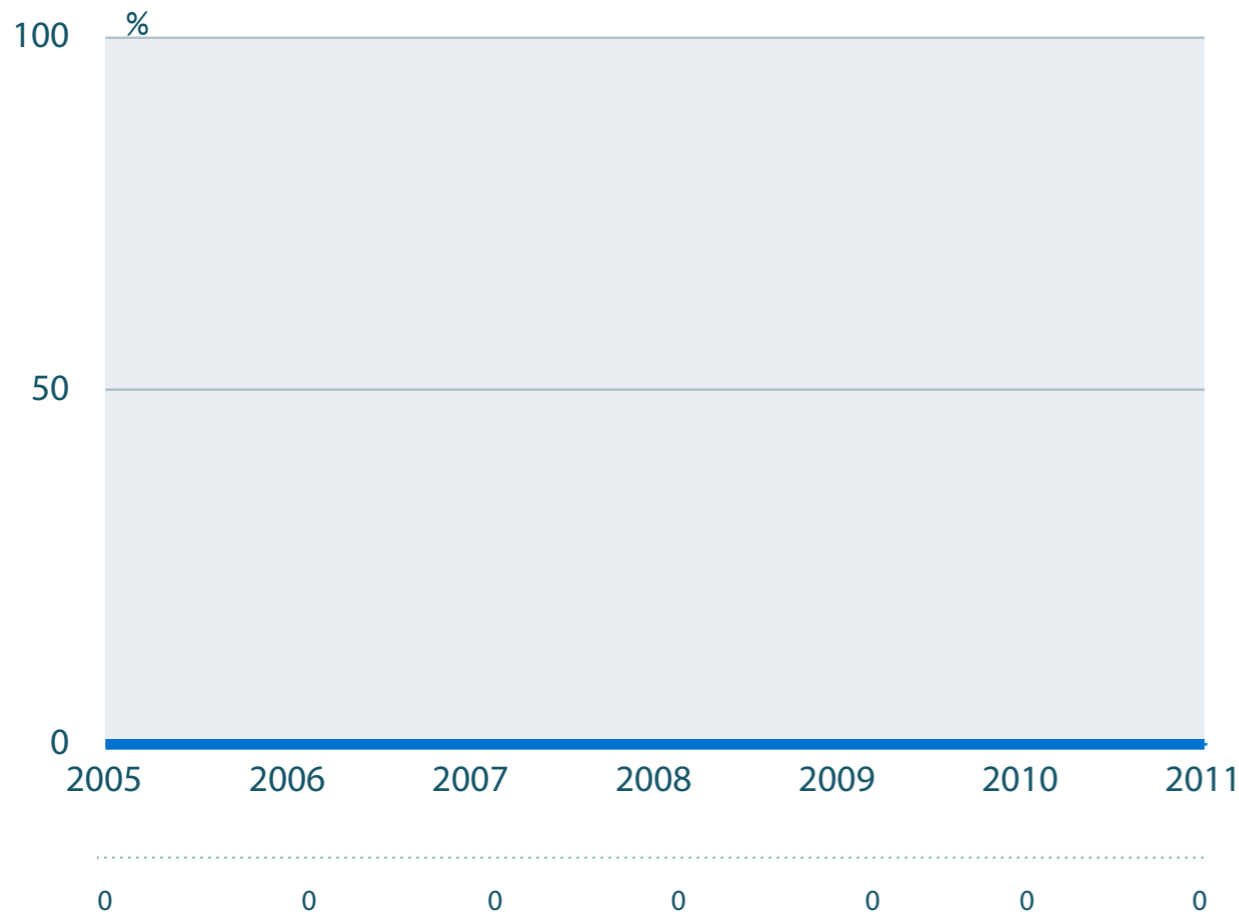
SRV bacti compliance S

Iron compliance S  
Sc

Turbidity compliance S

Enforce-ments S

### SRV bacti non compliance

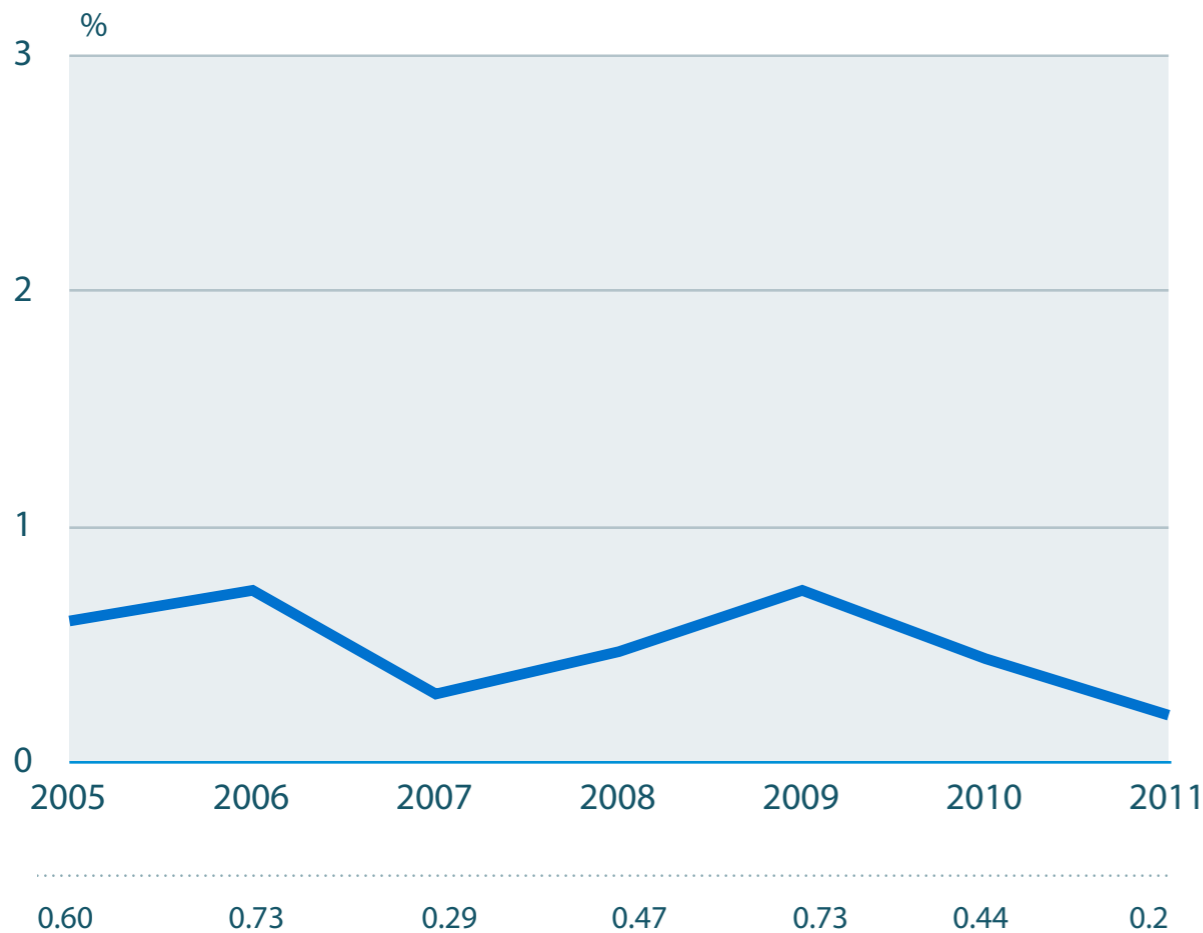


At each of our Service Reservoirs (SRVs) we take water samples and test for coliform bacteria. Total coliforms include bacteria that are found in the soil, in water that has been influenced by the surface water and in human or animal waste.

The definition for this serviceability measure includes the number of SRVs where more than 5% of the samples taken exceed the maximum concentration required for coliform bacteria, as a percentage of the number of SRVs tested for microbiological parameters.

Our performance on this measure has been stable with no sample failures in the last six years. In the report year, there was a total of 19,826 samples taken.

## Safe drinking water

WTW bacti compliance S ScSRV bacti compliance SIron compliance S ScTurbidity compliance SEnforcements SIron non compliance

Iron non-compliance (as 100 minus Mean Zonal Compliance) (%) is the percentage mean zonal non-compliance with the iron parameter measured "at the tap" during the calendar year.

This measure covers the percentage of samples taken from our water supply zones which do not comply with the standard for iron during the calendar year.

Our performance this year has improved and the 2011 non-compliance figure of 0.2% represents 11 iron failures in nine different zones. Last year, there were ten failures (giving an equivalent non-compliance figure of 0.44%).

Safe drinking water

WTW bacti compliance <sup>S</sup> <sub>Sc</sub>

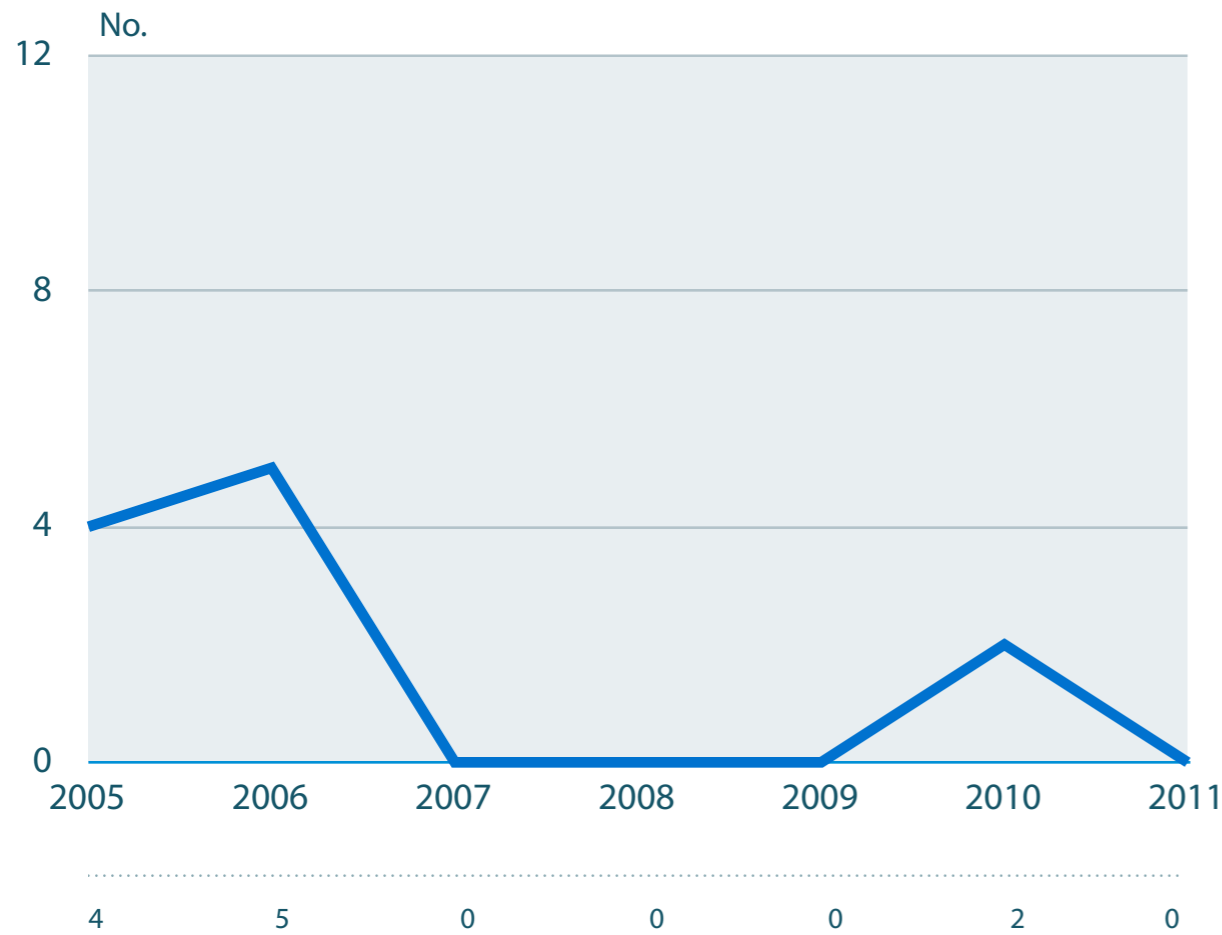
SRV bacti compliance <sup>S</sup>

Iron compliance <sup>S</sup> <sub>Sc</sub>

Turbidity compliance <sup>S</sup>

Enforce-ments <sup>S</sup>

### Turbidity non compliance



This is the number of operational Water Treatment Works (WTWs) and sources where turbidity exceeds a specified threshold. Turbidity is a measure of how much light can pass through water and indicates the condition or 'cloudiness' of water.

The metric measures the number of WTWs where, for turbidity, 95% of samples measured were greater than or equal to 0.5 Nephelometric Turbidity Units (NTU).

There were no failures in the year.

Safe drinking water

WTW bacti compliance <sup>S</sup> <sub>Sc</sub>

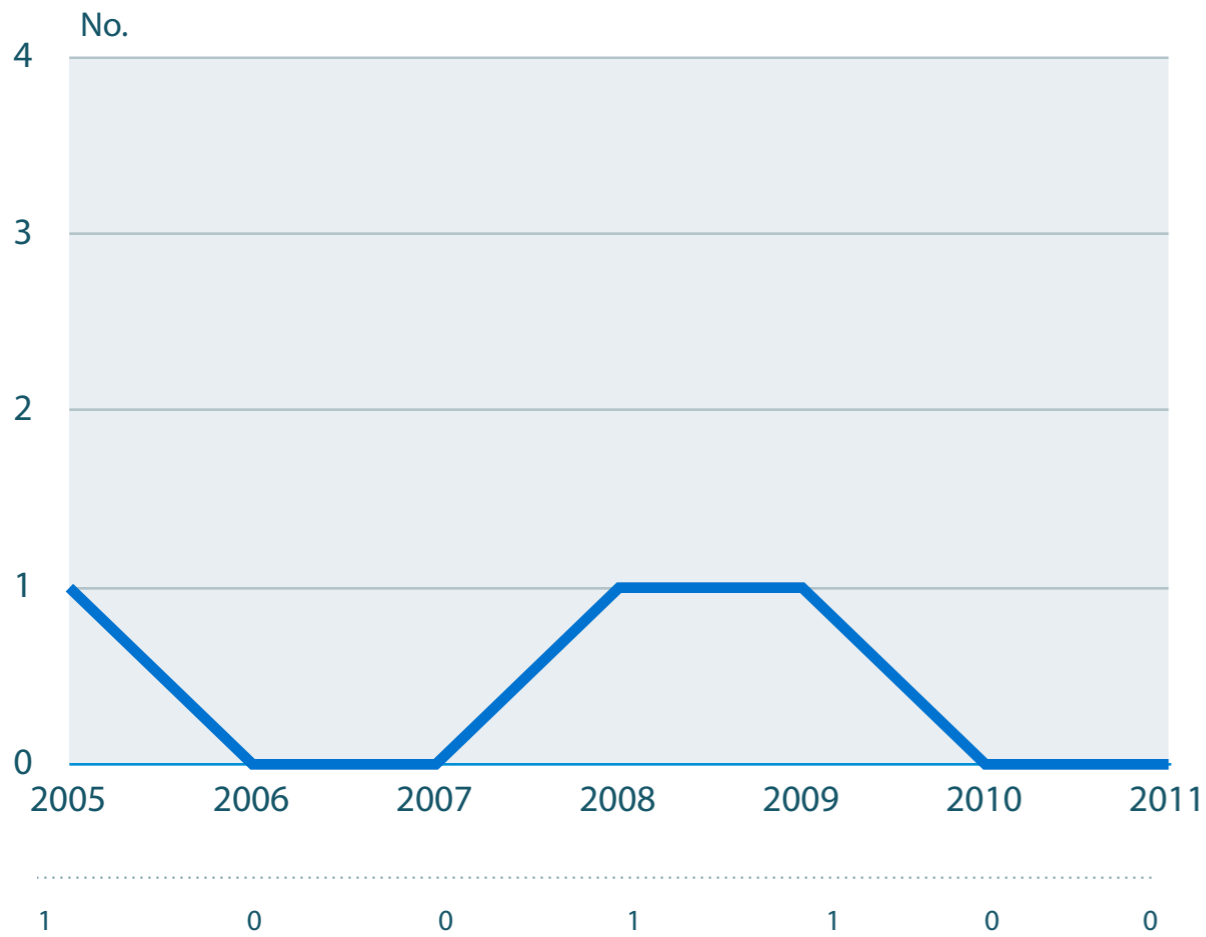
SRV bacti compliance <sup>S</sup>

Iron compliance <sup>S</sup> <sub>Sc</sub>

Turbidity compliance <sup>S</sup>

Enforce-ments <sup>S</sup>

### Enforcements



This measure is the number of enforcement actions considered by the Drinking Water Inspectorate for a breach of microbiological standards at Water Treatment Works during the calendar year.

There were no enforcement actions in respect of 2011.



DWI

Mean zonal compliance <sup>Sc</sup>

Process control index <sup>Sc</sup>

Disinfection index <sup>Sc</sup>

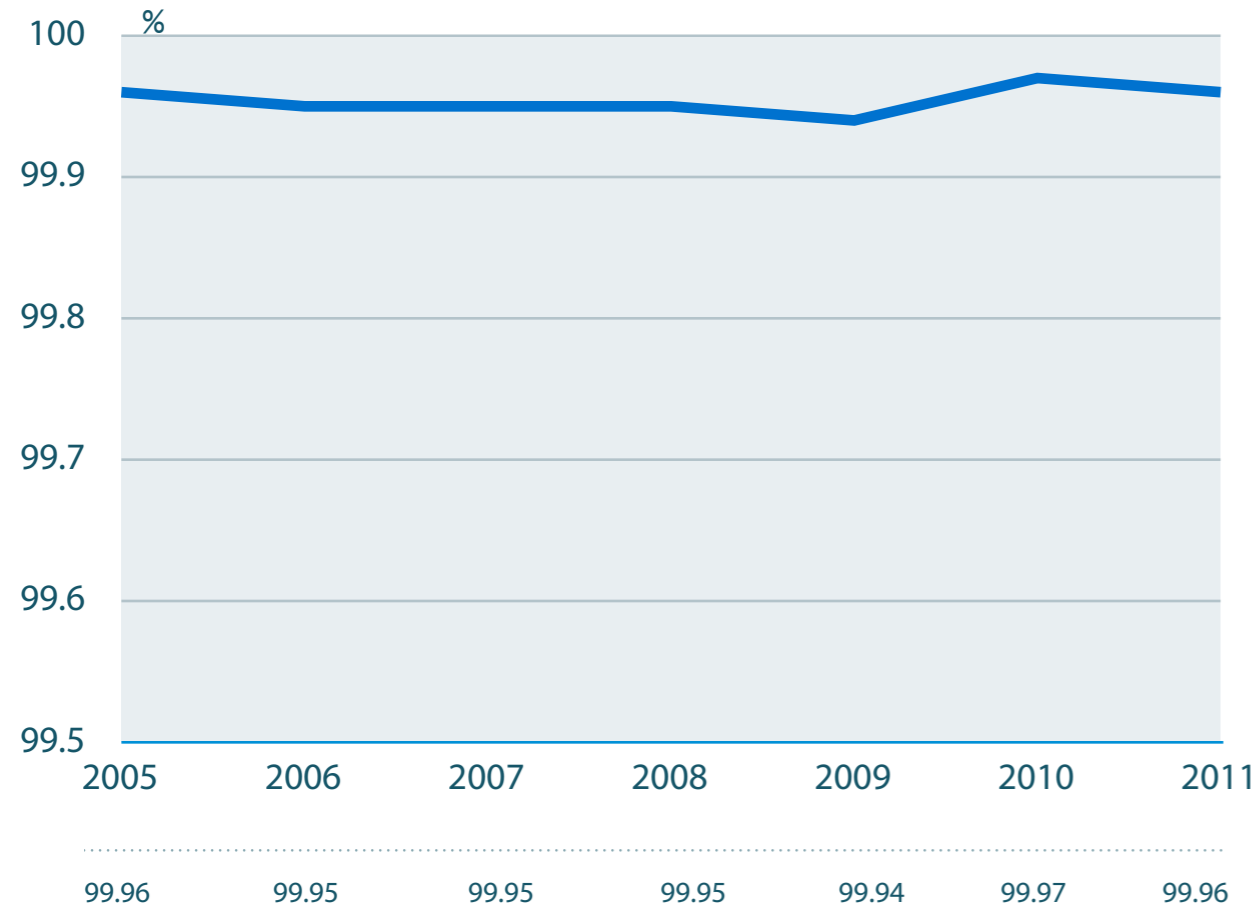
Reservoir integrity index <sup>Sc</sup>

Customer contacts <sup>S</sup>

Distribution maint. index <sup>S</sup>

Reportable events <sup>Sc</sup>

### Mean zonal compliance



Mean Zonal Compliance (MZC) is the average for all zones of the mean water quality compliance in each zone for 39 key chemical and biological parameters, as measured by the statutory distribution sampling. This is a measure of the overall quality at customers' taps.

In terms of performance against the MZC measure, 99.96% of the 58,896 samples met the required quality standard. The equivalent figure last year was 99.97%.

DWI

Mean zonal compliance <sup>Sc</sup>

Process control index <sup>Sc</sup>

Disinfection index <sup>Sc</sup>

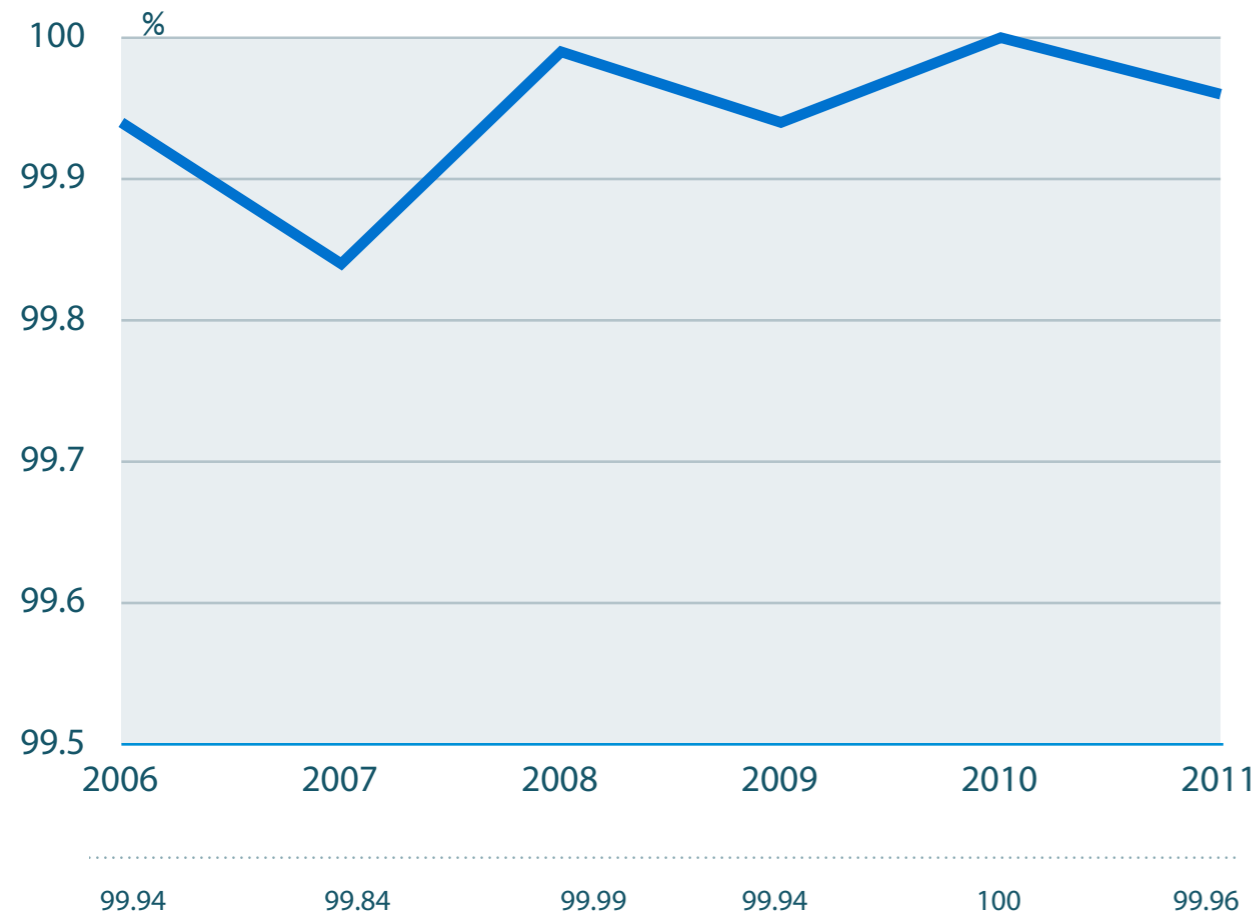
Reservoir integrity index <sup>Sc</sup>

Customer contacts <sup>S</sup>

Distribution maint. index <sup>S</sup>

Reportable events <sup>Sc</sup>

### Process control index



The Process Control Index is based on a selection of parameters which are, in general terms, controlled by the process in place at Water Treatment Works.

Performance against the measure was 99.96% of the 8,020 samples meeting the required quality standard. Last year's compliance figure was 100%.

DWI

Mean zonal compliance <sup>Sc</sup>

Process control index <sup>Sc</sup>

Disinfection index <sup>Sc</sup>

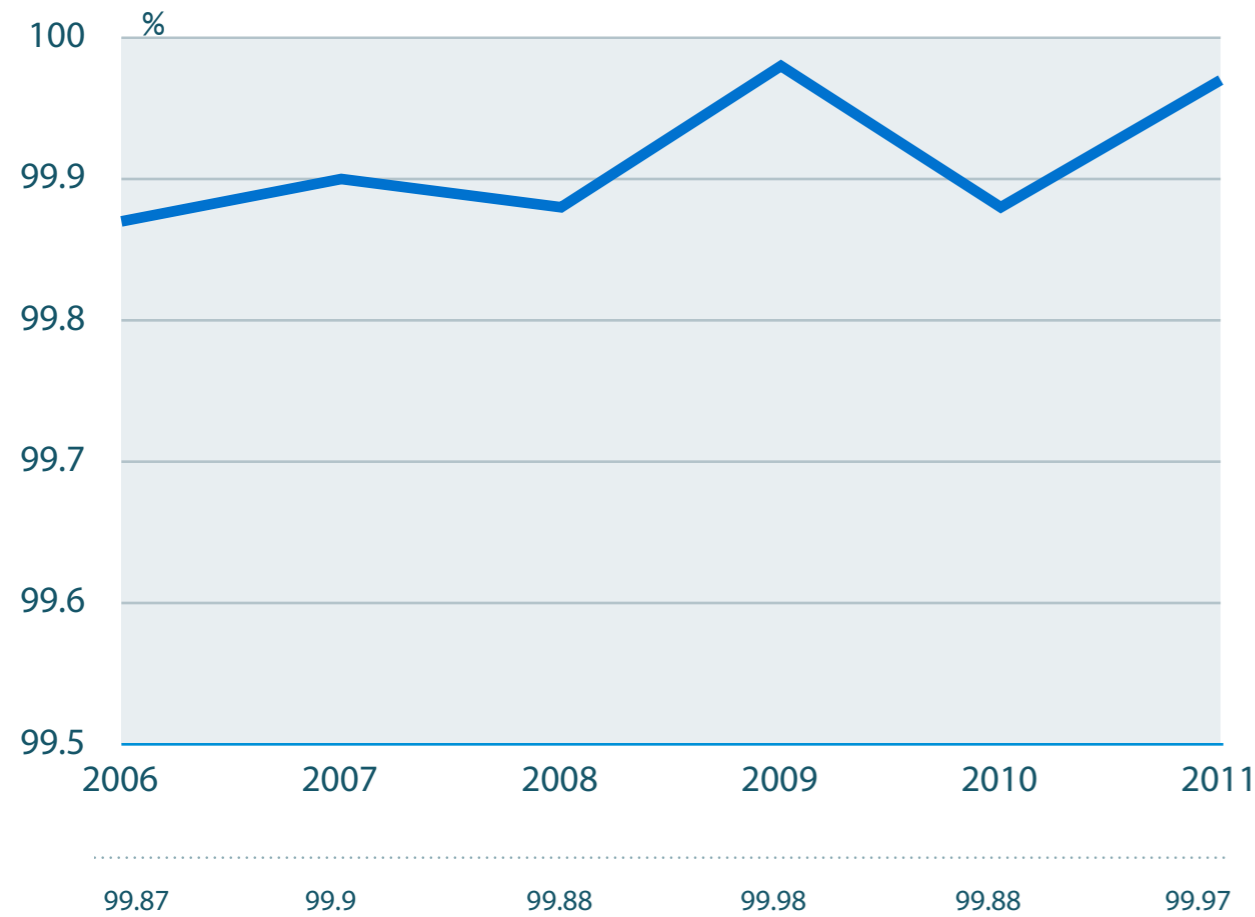
Reservoir integrity index <sup>Sc</sup>

Customer contacts <sup>S</sup>

Distribution maint. index <sup>S</sup>

Reportable events <sup>Sc</sup>

### Disinfection index



The Disinfection Index is based on a selection of parameters which explain the effectiveness of disinfection and pathogen removal. It is calculated by taking the average of Mean Zonal Compliance figures for coliforms, E.Coli and turbidity and measuring it against all samples taken at works.

Performance against the measure was 99.97% of samples meeting the required quality standards, an improvement on last year's compliance figure of 99.88%. There were 34,029 samples taken in the year and there were 12 sample failures.

DWI

Mean zonal compliance Sc

Process control index Sc

Disinfection index Sc

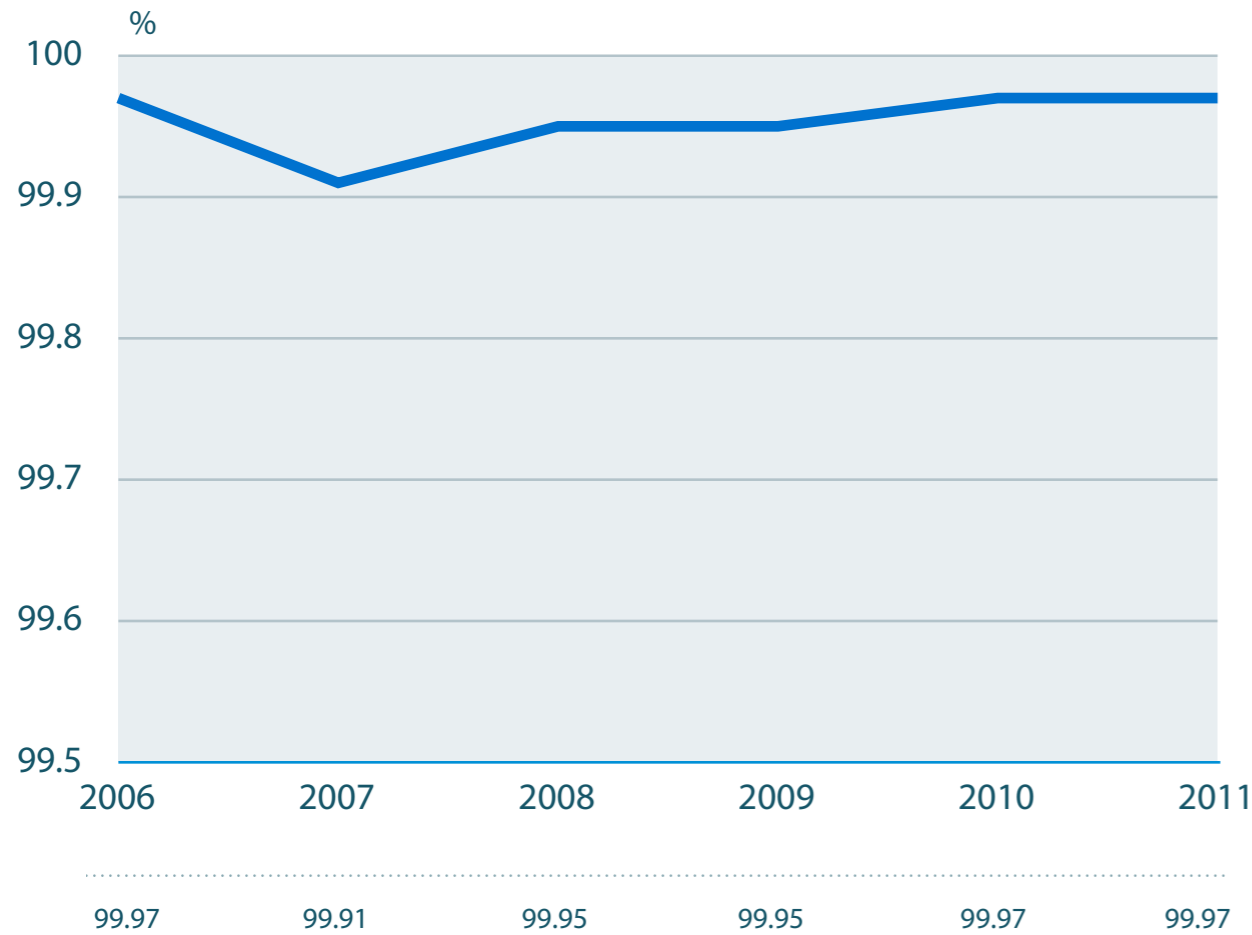
Reservoir integrity index Sc

Customer contacts S

Distribution maint. index S

Reportable events Sc

### Reservoir integrity index



Reservoir integrity index is microbiological sampling that takes place at Service Reservoirs (SRVs) as a check on their integrity and general hygienic status. It is calculated by taking the average Mean Zonal Compliance figures for coliforms and E.coli at SRVs.

Performance against the measure has remained at 99.97%. There were 39,652 samples taken during the year.

DWI

Mean zonal compliance <sup>Sc</sup>

Process control index <sup>Sc</sup>

Disinfection index <sup>Sc</sup>

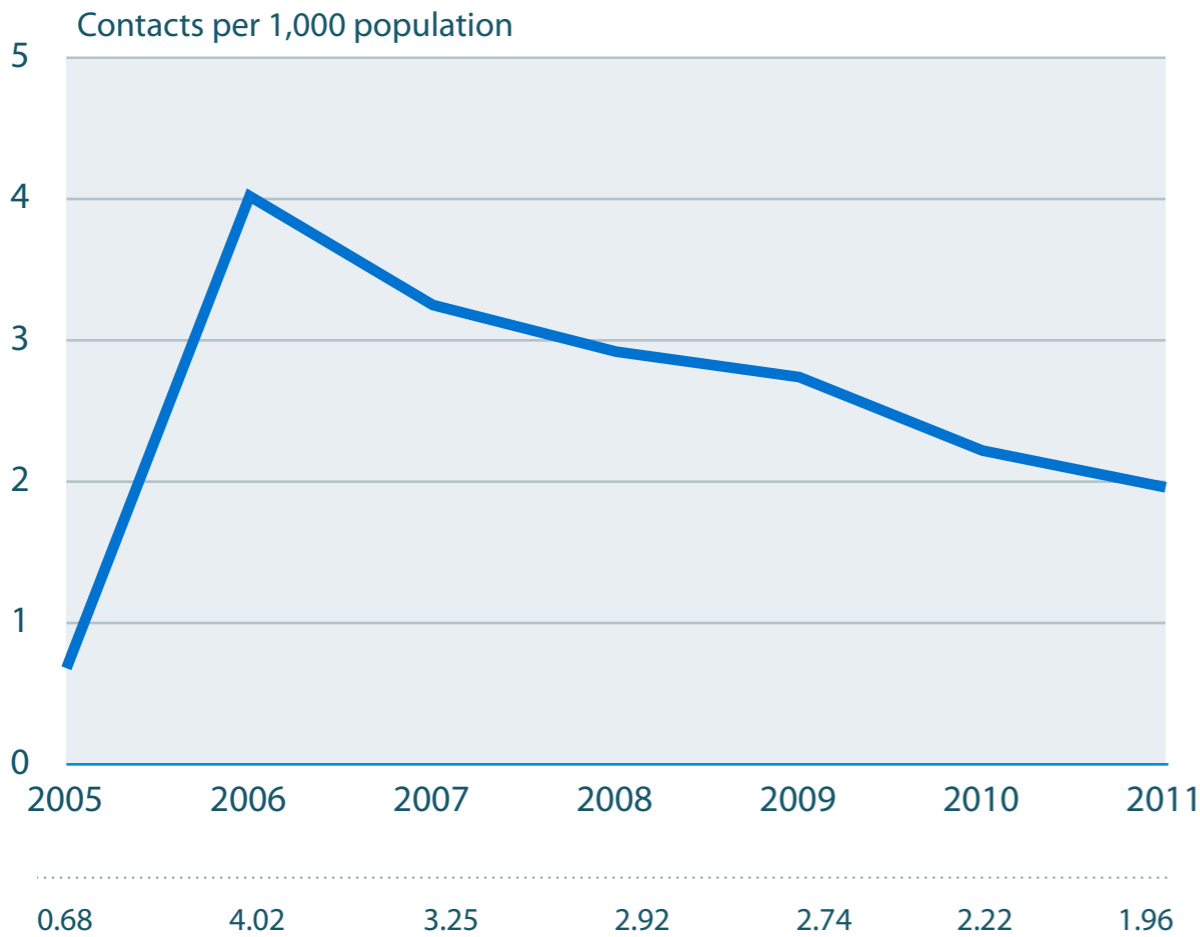
Reservoir integrity index <sup>Sc</sup>

Customer contacts <sup>S</sup>

Distribution maint. index <sup>S</sup>

Reportable events <sup>Sc</sup>

### Customer contacts



The "customer contacts rate per 1,000 population" metric is the number of contacts from customers around discoloured water (orange/brown/ black) and is measured by reference to our total population.

Performance has again improved with a continuing downward trend from 2.22 contacts per 1,000 population in 2010 to 1.96 contacts per 1,000 population in 2011. This equates to 6,242 contacts on discoloured water against a population residency figure of 2,969,218. The equivalent figures in 2010 were 6,650 contacts and a population residency figure of 2,950,279.

DWI

Mean zonal compliance

Sc

Process control index

Sc

Disinfection index

Sc

Reservoir integrity index

Sc

Customer contacts

S

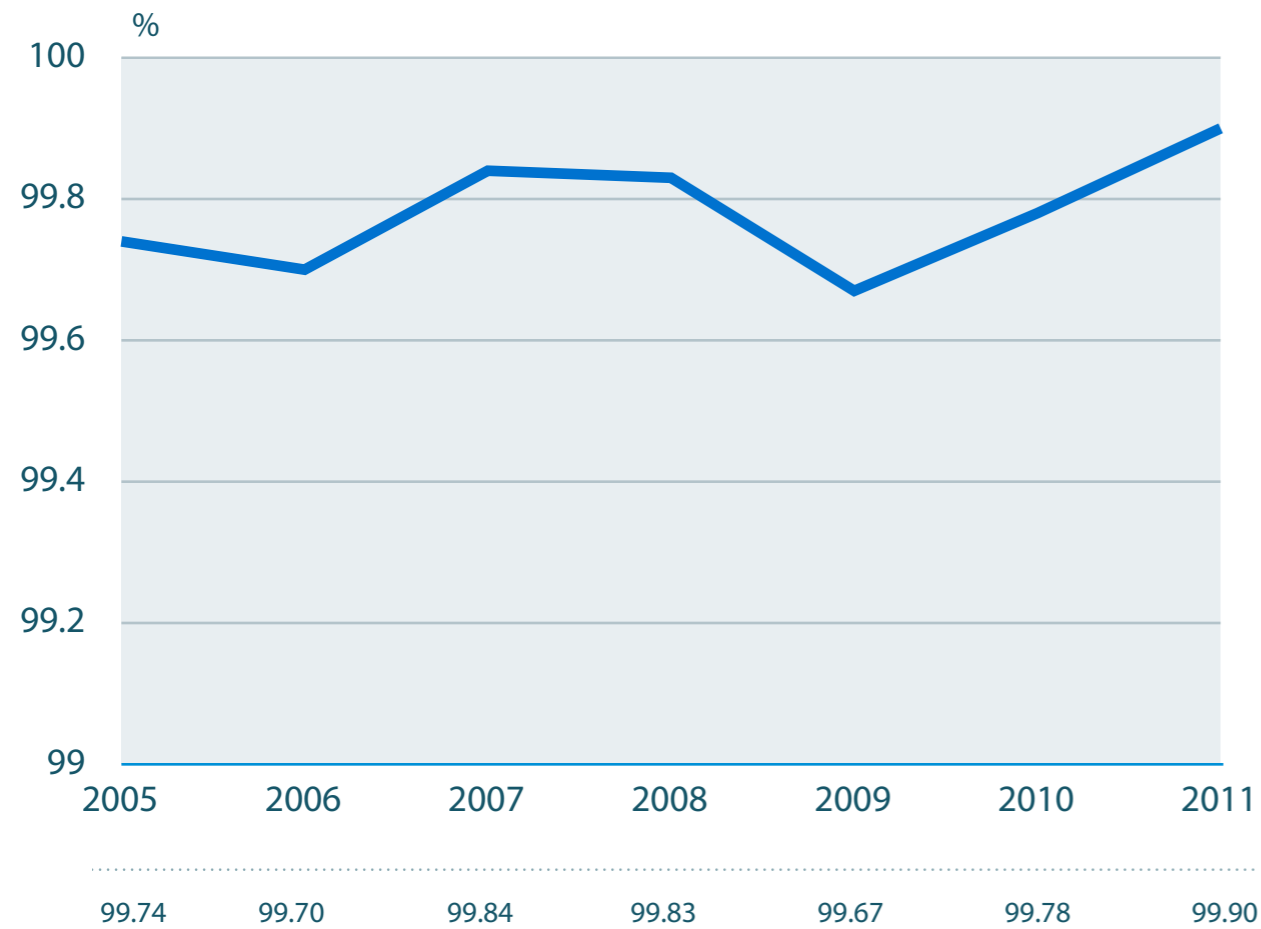
Distribution maint. index

S

Reportable events

Sc

## Distribution Maintenance Index



The Distribution Maintenance Index (measured as 100 minus Mean Zonal Compliance) (MZC) (%) is based on a selection of parameters mainly reflecting the age, condition and maintenance status of the pipes (mains) and to a lesser extent the reservoirs which comprise the distribution networks of companies. It is calculated by taking the average of MZC figures for turbidity, iron and manganese.

Performance against the measure improved to 99.90% in 2011, up from the 2010 figure of 99.78%. There were 5,545 samples taken during the year.

DWI

Mean zonal compliance <sup>Sc</sup>

Process control index <sup>Sc</sup>

Disinfection index <sup>Sc</sup>

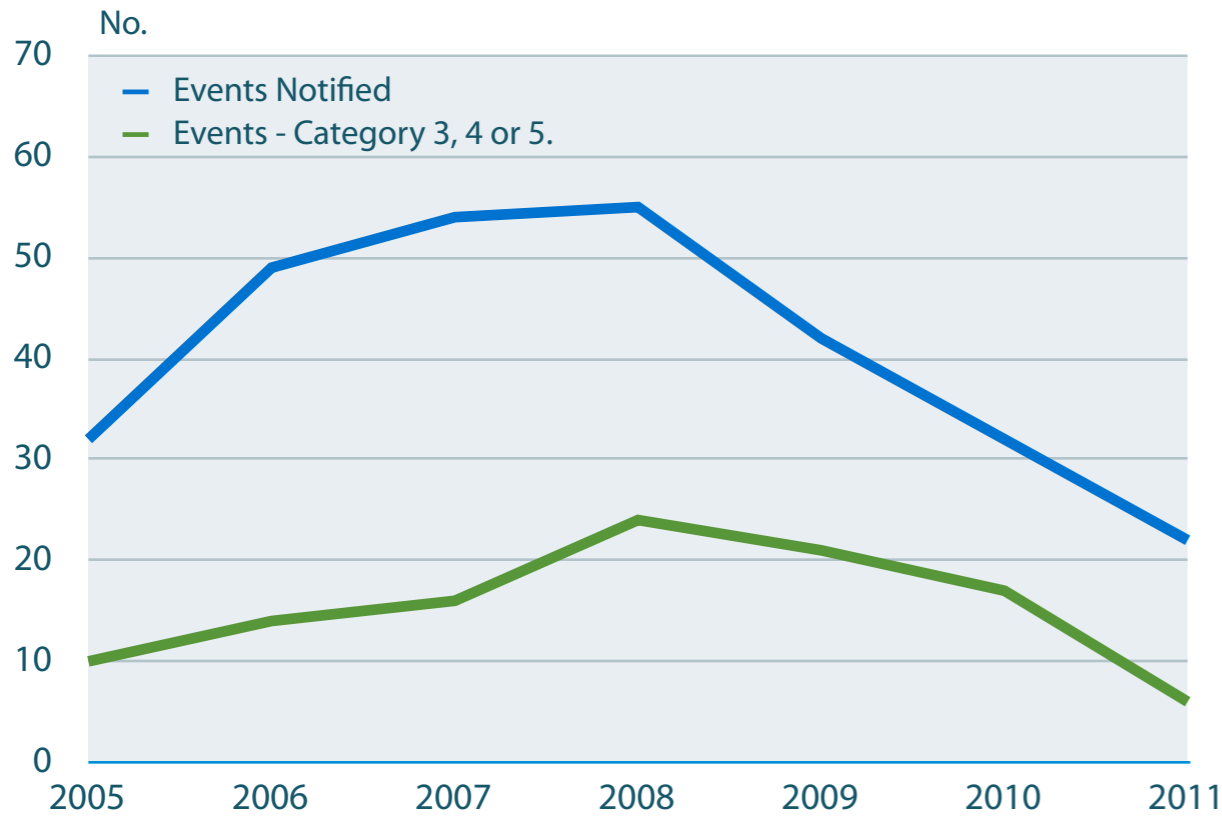
Reservoir integrity index <sup>Sc</sup>

Customer contacts <sup>S</sup>

Distribution maint. index <sup>S</sup>

Reportable events <sup>Sc</sup>

## Reportable events



The Drinking Water Inspectorate (DWI) classifies notified events into one of five categories:

1. Not significant
2. Minor
3. Significant
4. Serious
5. Major

Our performance in 2011 has improved with 22 events notified to the DWI as against 32 in 2010. Of these, 6 were classed as significant or above, and this compares with 17 last year.

Most of the events were of a short term nature and appropriate action was taken to safeguard water quality and to keep customers and other stakeholders informed.

Events Notified	32	49	54	55	42	32	22
Events - 3,4 or 5.	10	14	16	24	21	17	6

EAW

All pollution incidents Sc  
O

Pollution incidents S

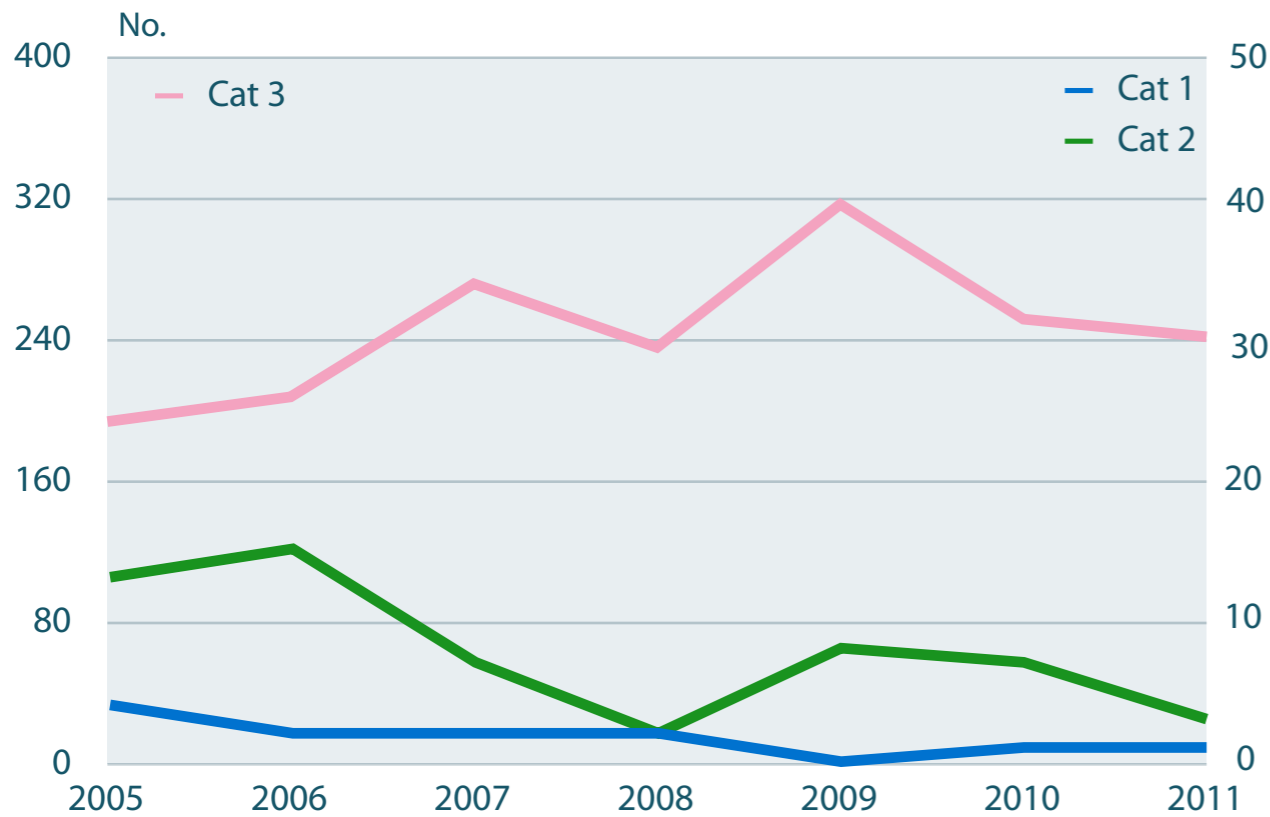
% PE in breach of consents S  
Sc

% works in breach numeric con. S  
Sc  
O

Self reporting (new) Sc

Sludge disposal (new) O

### Pollution Incidents (categories 1, 2 and 3)



Cat 1	4	2	2	2	0	1	1
Cat 2	13	15	7	2	8	7	3
Cat 3	194	208	272	236	317	252	242

Pollution incidents are classified into four categories. We report the highest three categories which are those which materially affect the environment, category 1 being the most serious.

This measure is the total number of material pollution incidents which we or members of the public identify and report to the Environment Agency annually.

Despite there being a higher number of self reporting instances, overall, the total number of pollution incidents during the year has fallen from 260 to 246.

We continue to work hard to reduce the number of pollution incidents caused by blockages on our now much larger sewer network. Alongside upgrades and extensions to our "early warning" telemetry system, initiatives in the year include deploying teams of "river rangers" who walk our sewers located close to watercourses and engaging with river users such as canoe and angling clubs.

We have also carried out a detailed analysis based on more than ten years of data to risk score our sewers based on material, size, condition, location and other criteria so as to better schedule proactive work such as sewer cleansing and reduce the risk of incidents. Key to reducing problems caused by blockages and other equipment failures is a fast response and in 2011 our average response time was just over one hour.



EAW

All pollution incidents

Sc  
O

Pollution incidents

S

% PE in breach of consents

S  
Sc

% works in breach numeric con.

S  
Sc  
O

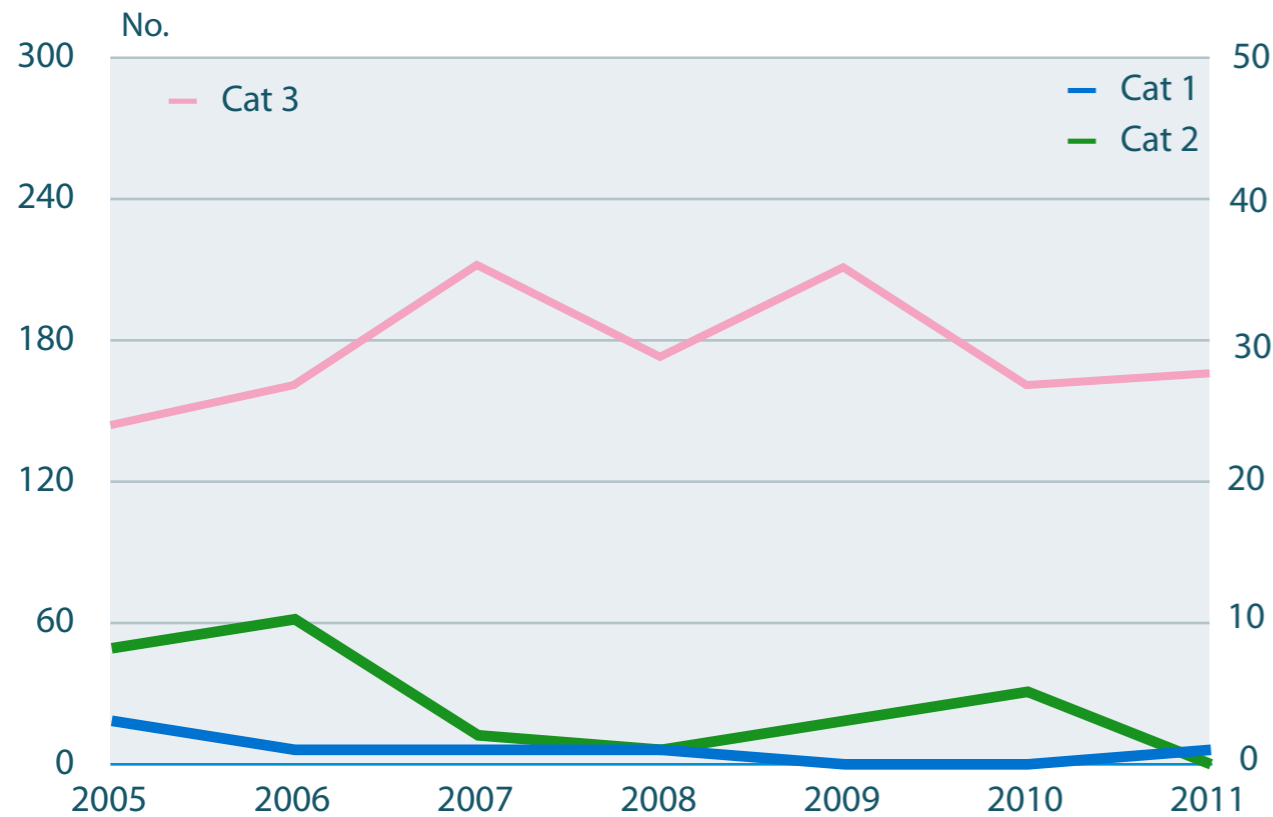
Self reporting (new)

Sc

Sludge disposal (new)

O

## Pollution incidents (Serviceability Measure)



Cat 1	3	1	1	1	0	0	1
Cat 2	8	10	2	1	3	5	0
Cat 3	144	161	212	173	211	161	166

This serviceability measure only includes those pollution incidents from foul sewers, combined sewer overflows and rising mains.

Our performance on the measure has deteriorated slightly from last year with the total number increasing from 166 to 167.

Unfortunately, there was one Category 1 incident during the year (in May 2011) at Tydu Farm, Rhydlafar which arose from a blockage caused by the presence of domestic drainage rods in a sewer. This resulted in a surcharge of sewage from a manhole which eventually escaped into a water course causing pollution.

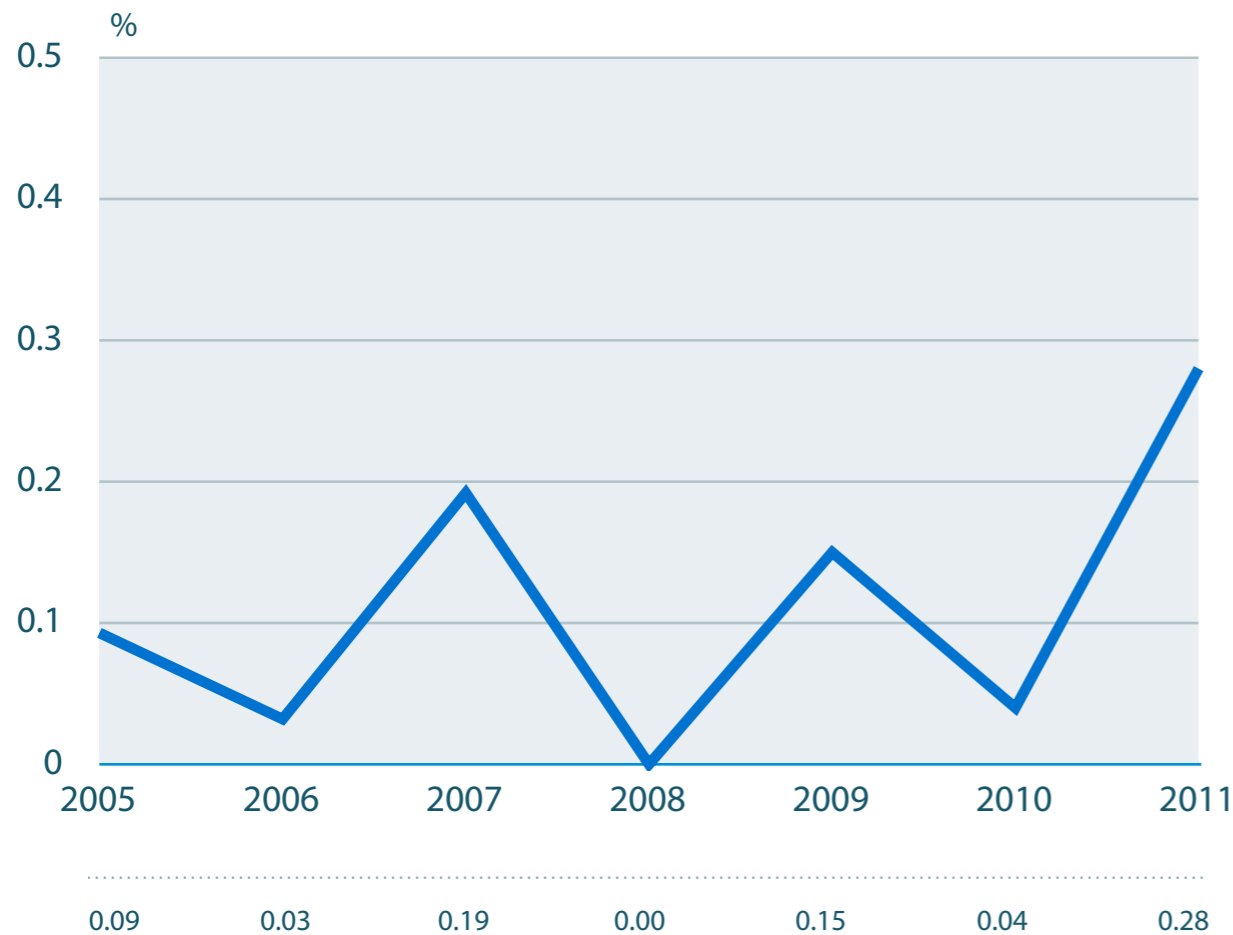
There was no history of pollution at this site and the incident could not have been anticipated. We nevertheless cleaned up the site and renewed manhole chamber covers where required.

Despite this improvement, there is scope for better performance and this remains one of our main business priorities.

EAW

All pollution  
incidents Sc  
OPollution  
incidents S% PE in  
breach of  
consents S  
Sc% works in  
breach  
numeric con. S  
Sc  
OSelf reporting  
(new) ScSludge  
disposal  
(new) O

## % PE in breach of consents



This serviceability measure covers the Water Resource Act “look-up” compliance element of a Waste Water Treatment Works (WwTW) discharge permit, plus part of the Urban Waste Water Directive Biochemical Oxygenation Demand (BOD) “look-up” compliance and phosphate as measured on an annual average basis.

In the year we were 0.28% non compliant (compared to 0.04% last year).

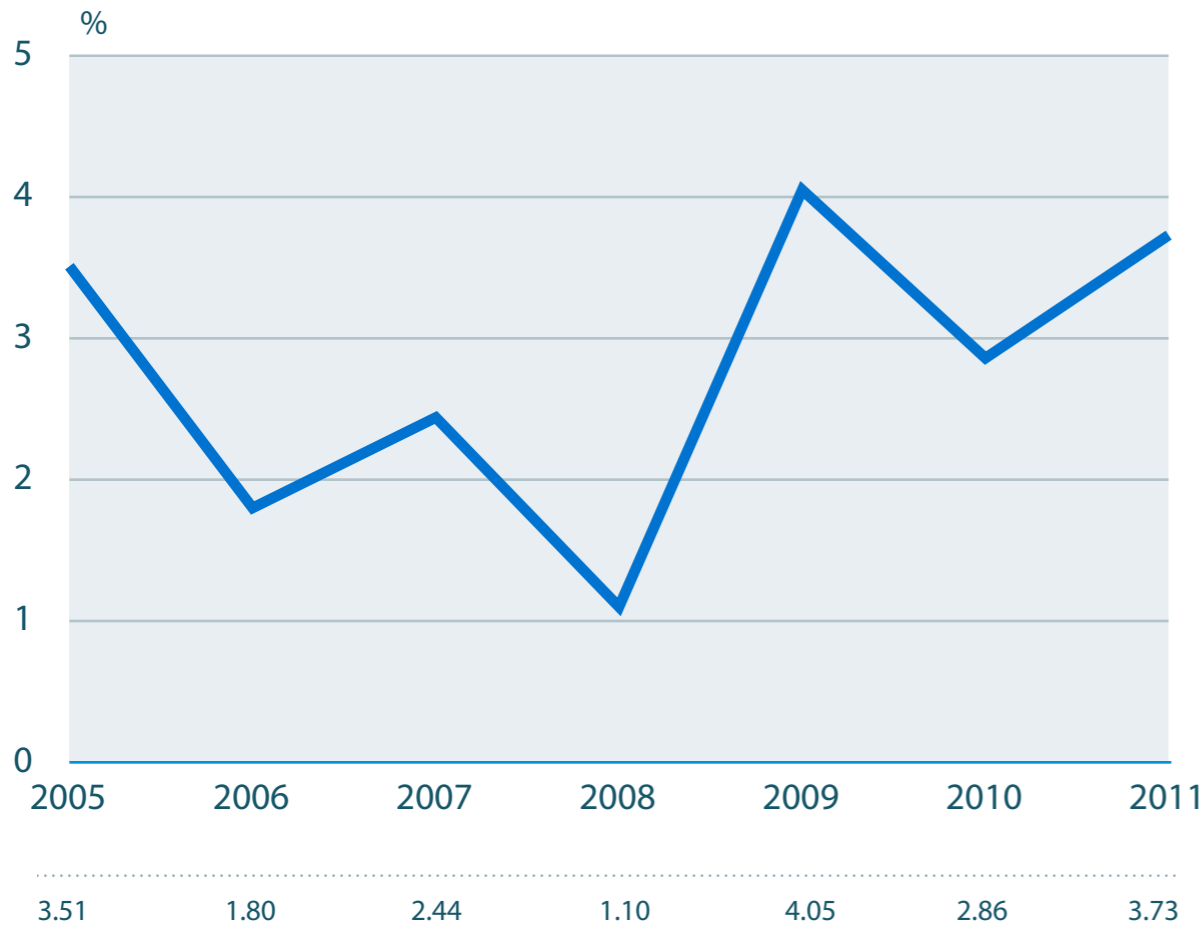
The failures were at 9 different WwTWs and the population equivalent served by these WwTWs was 10,470. This represents a small part of the overall population equivalent figure of 3,744,840. The most significant failure in terms of population equivalent was Brecon WwTW with a population of 7,693 affected.

There are a further four WwTWs which the Environment Agency assessed as non-compliant. These are Ponthir, Presteigne, Raglan and Usk. We did not take the required number of samples set out in the consents for these works. We accept that these are technical breaches of consent but we believe, based on other environmental performance data we have for these sites, that the environment was not adversely affected during this time.

EAW

All pollution incidents Pollution incidents % PE in breach of consents % works in breach numeric con. Self reporting (new) Sludge disposal (new)

% works in breach



This serviceability measure applying to Waste Water Treatment Works (WwTWs) covers the Water Resource Act “look-up” compliance plus compliance with all of the Urban Waste Water Directive parameters.

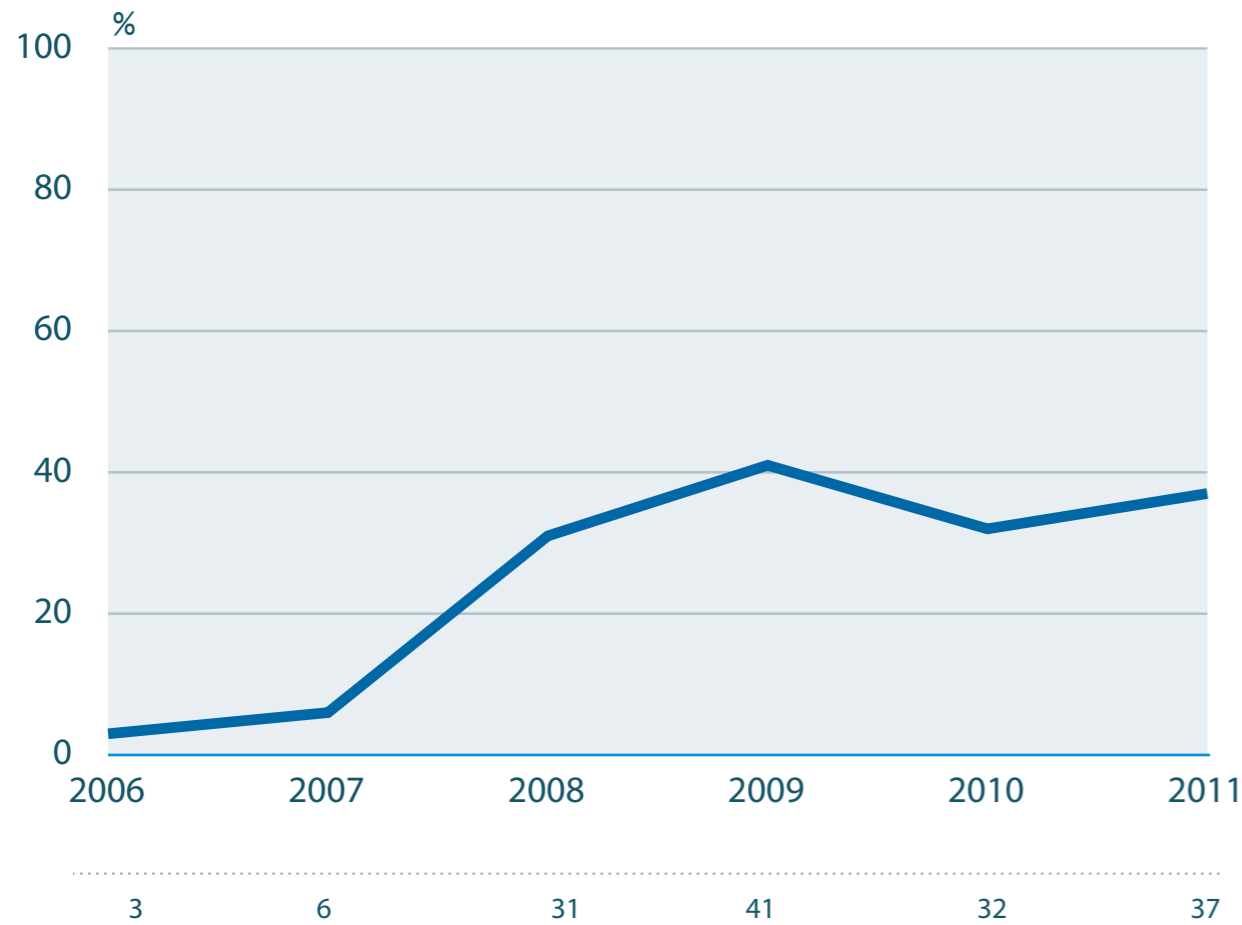
The non compliance figure of 3.73% is a deterioration on last year’s figure of 2.86%. In the year, 22 WwTWs (out of 590) which have numeric consents were in breach of their numeric consents.

There are a further four WwTWs which the Environment Agency assessed as non-compliant. These are Ponthir, Presteigne, Raglan and Usk. We did not take the required number of samples set out in the consents for these works. We accept that these are technical breaches of consent but we believe, based on other environmental performance data we have for these sites, that the environment was not adversely affected during this time.

EAW

All pollution incidents Pollution incidents % PE in breach of consents % works in breach numeric con. Self reporting (new) Sludge disposal (new)

### Self Reporting



Self reporting is when we inform the Environment Agency (EA) that a pollution incident has occurred, e.g. when sewage escapes from our assets and enters a watercourse or is deposited on land. Amongst the details provided are the location of the incident, the work carried out and timescales for resolution of the matter.

We report for all incidents any environmental information we gather at the site together with a root cause analysis and confirmation of our activities to remediate any damage caused.

Our level of self reporting has increased from 32% to 37% and means that, at this stage, we are on course to meet the September 2012 target agreed with the EA to achieve 50% self reporting.

EAW

All pollution incidents Sc  
O

Pollution incidents S

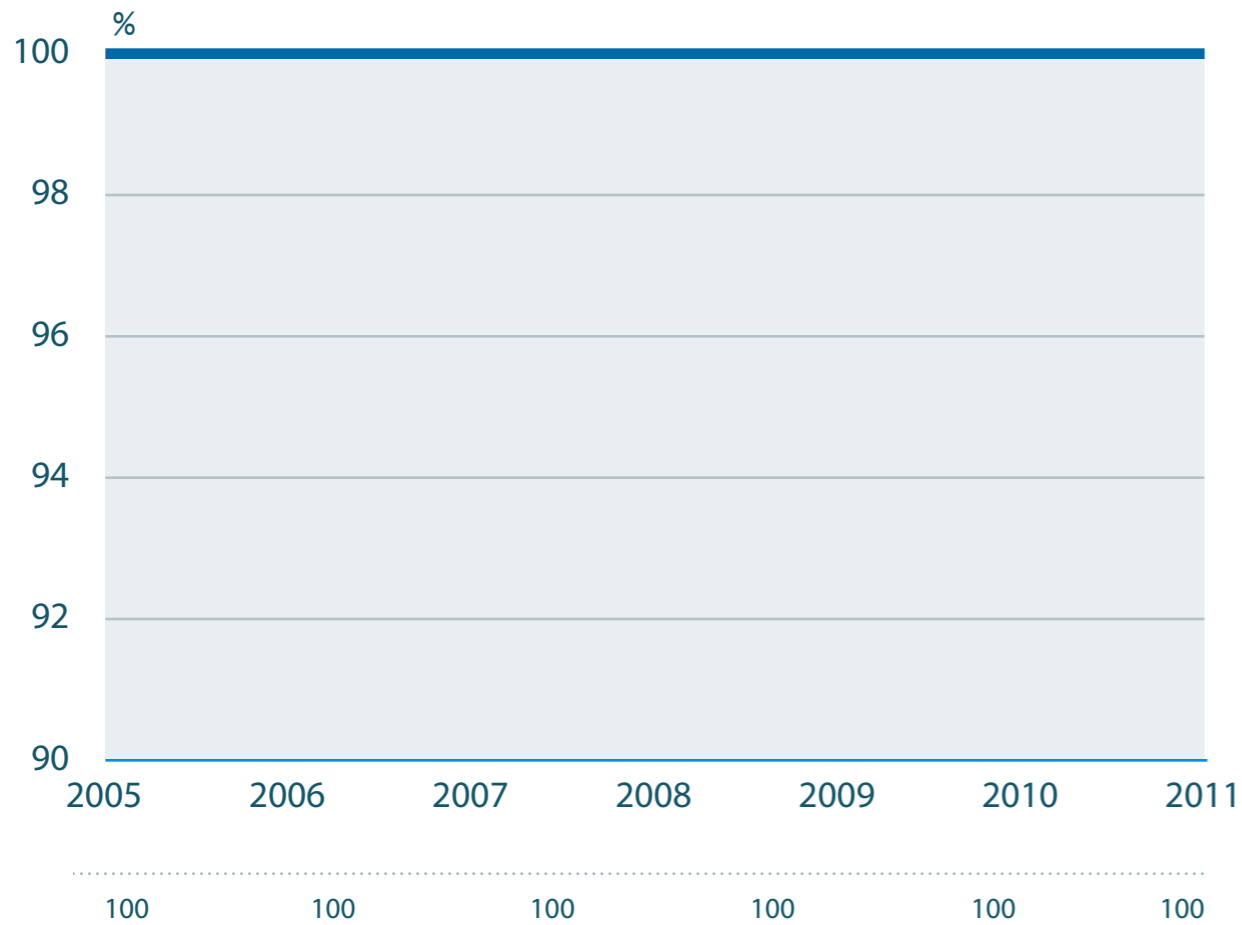
% PE in breach of consents S  
Sc

% works in breach numeric con. S  
Sc  
O

Self reporting (new) Sc

Sludge disposal (new) O

### Sludge disposal



This relates to the satisfactory disposal of sludge and is one of the new metrics upon which companies are required by Ofwat to report. In the year, we achieved 100% compliance, the same figure as in the last five years.

Environment & sanitation

SOSI (new) O

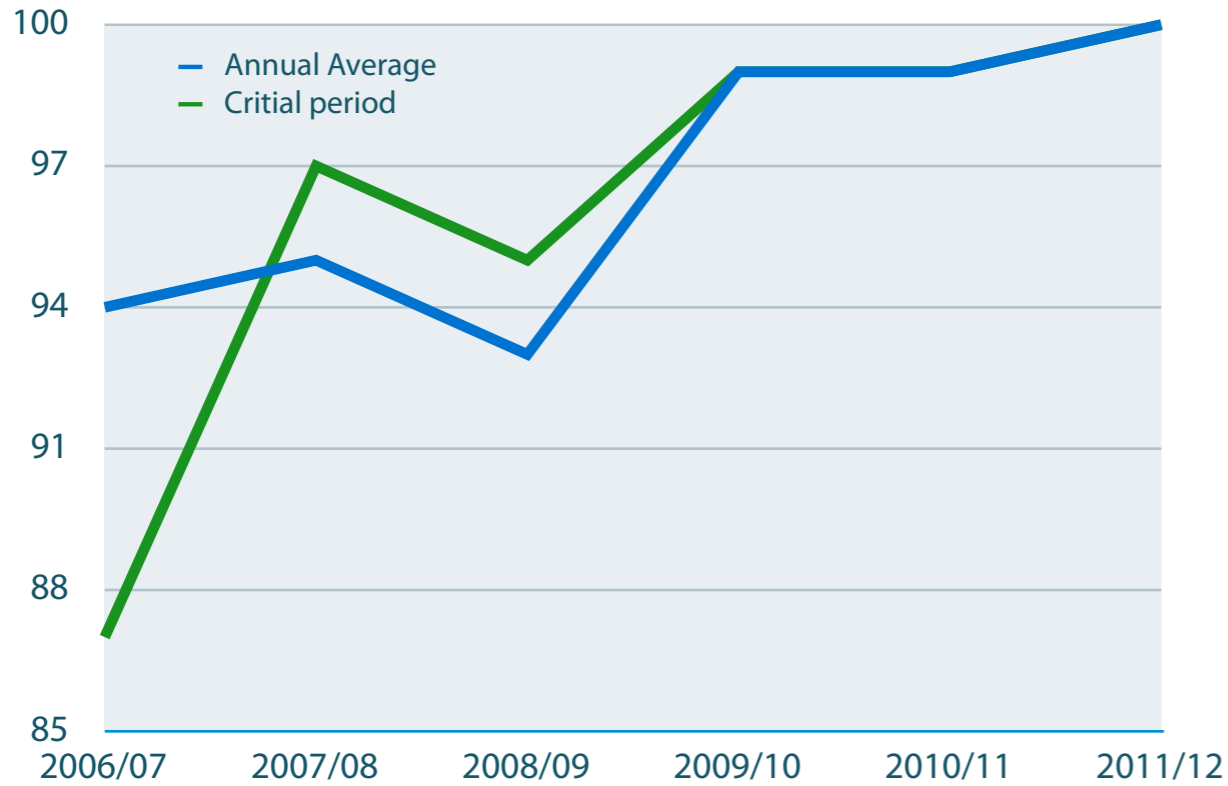
Leakage Sc  
O

GHG emissions (new) O

HO sewer flooding S  
Sc  
O

OC sewer flooding S  
Sc  
O

SOSI



We calculate our ability to maintain water supplies to customers during dry weather through the "Security of Supply Index" or "SOSI". For both "annual average scenario" and "critical period scenario" a SOSI score of 100 is achieved if all our water resource zones have sufficient water available to meet the equivalent dry year demand.

Last year, our respective "annual average scenario" and "critical period scenario" compliance were as follows:

- "Annual average" 99.94 rounded to 100,
- "Critical Period" 99.97 rounded to 100.

Annual Average	94	95	93	99	99	100
Critical period	87	97	95	99	99	100

Environment & sanitation

SOSI (new)

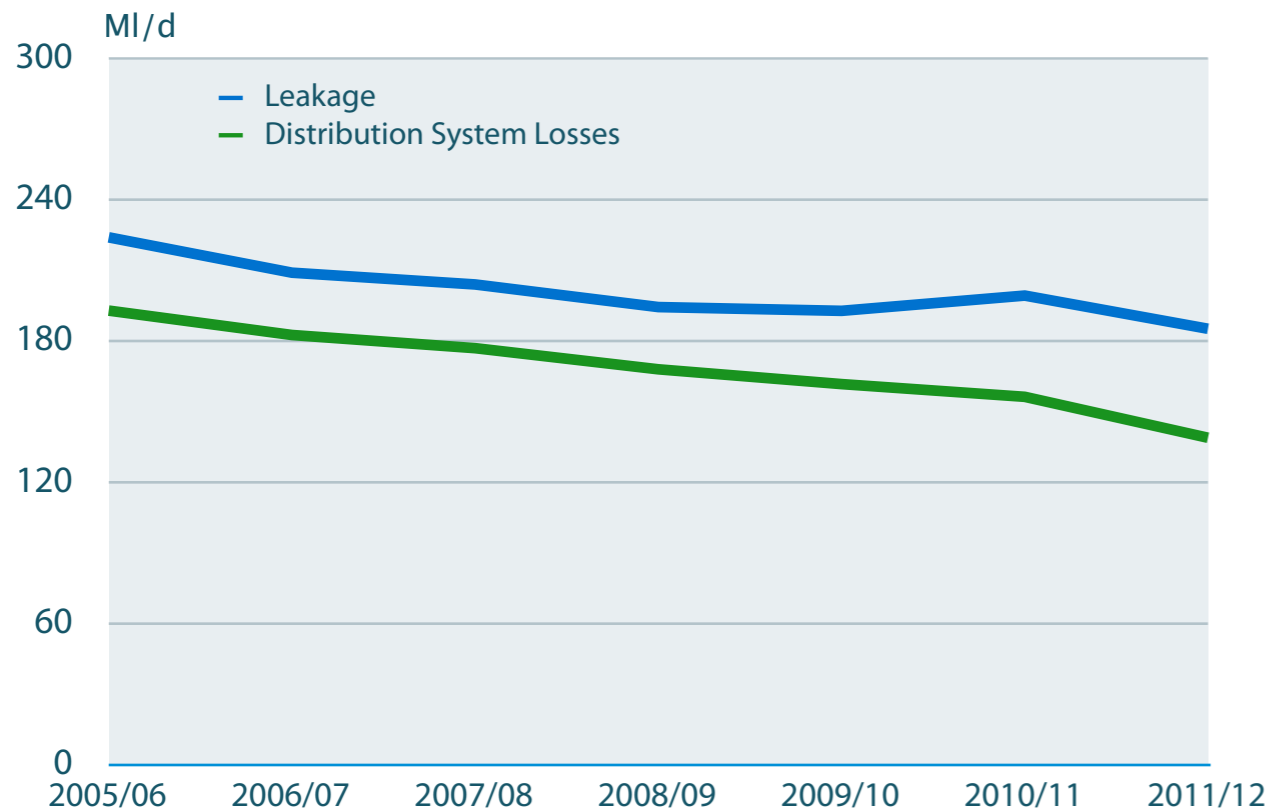
Leakage

GHG emissions (new)

HO sewer flooding

OC sewer flooding

Leakage



Leakage is one of the components of the total water lost in a network and comprises of physical losses from pipes, joints and fittings, and also from overflowing service reservoirs. While larger losses are usually from burst pipes, or from the sudden rupture of a joint, smaller losses tend to be from leaking or "weeping" joints, fittings, service pipes and connections.

Total leakage includes distribution system losses plus losses from customer supply pipes, service reservoirs and trunk mains.

In 2011/12 total leakage was 185.2 MI/d, an improvement on last year's figure, and meeting the target set in the 2009 Final Determination.

This was partly achieved by increasing the resource employed on leakage reduction. We also completely reviewed and improved leakage detection and repair activities as well as insourcing the supervision of leakage activities which had previously been outsourced.

Leakage	224.0	209.0	204.0	194.4	192.8	199.3	185.2
Distribution Losses	192.9	182.6	177.0	168.0	161.7	156.3	138.9

## Environment &amp; sanitation

SOSI (new)

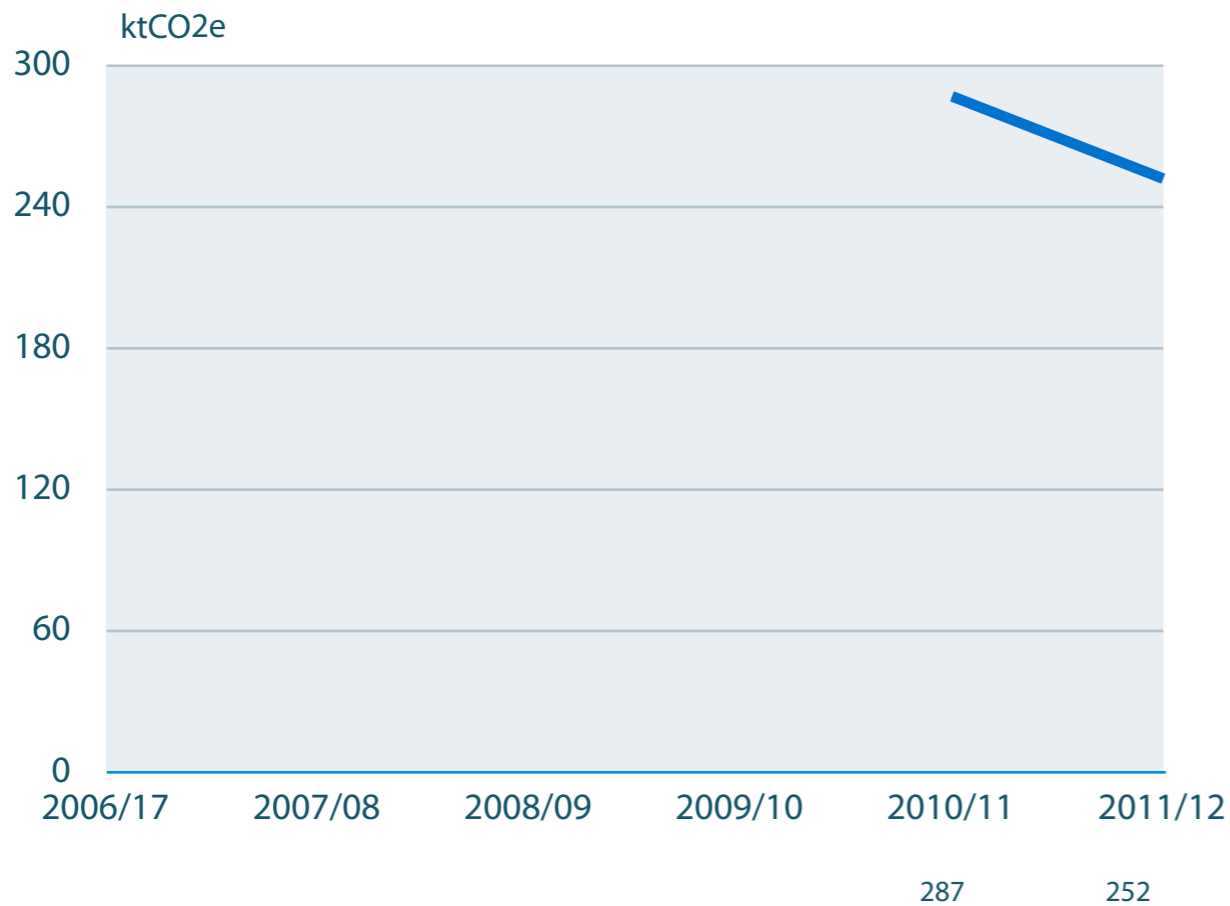
Leakage

GHG emissions (new)

HO sewer flooding

OC sewer flooding

## Green House Gas (GHG) emissions



Net Green House Gas (GHG) emissions come mainly from electricity and gas that is brought in from the Grid to run our business. Small contributions are also made by direct emissions from our sludge processes, transport fuels and heating oils. These are offset by a small export of surplus renewable energy to the Grid.

Our annual operational GHG emissions was 252 ktCO2e, which is an improvement on the equivalent figure of 287 ktCO2e last year.

Renewable generation at Afan and Cardiff Waste Water Treatment Works, where we have recently introduced advanced anaerobic digestion, played a significant part in achieving this reduction.

Electricity import from the Grid, which accounts for over 85% of the total GHG emissions, has fallen by 8% from last year. Weather can have a large impact on this measure. In extreme dry or wet conditions, more electricity is needed to pump and treat water and waste water. However, in 2011/12 the weather was generally dry and cool, favourable conditions for minimising electricity consumption.



## Environment &amp; sanitation

SOSI (new)

O

Leakage

Sc

O

GHG emissions (new)

O

HO sewer flooding

S

Sc

O

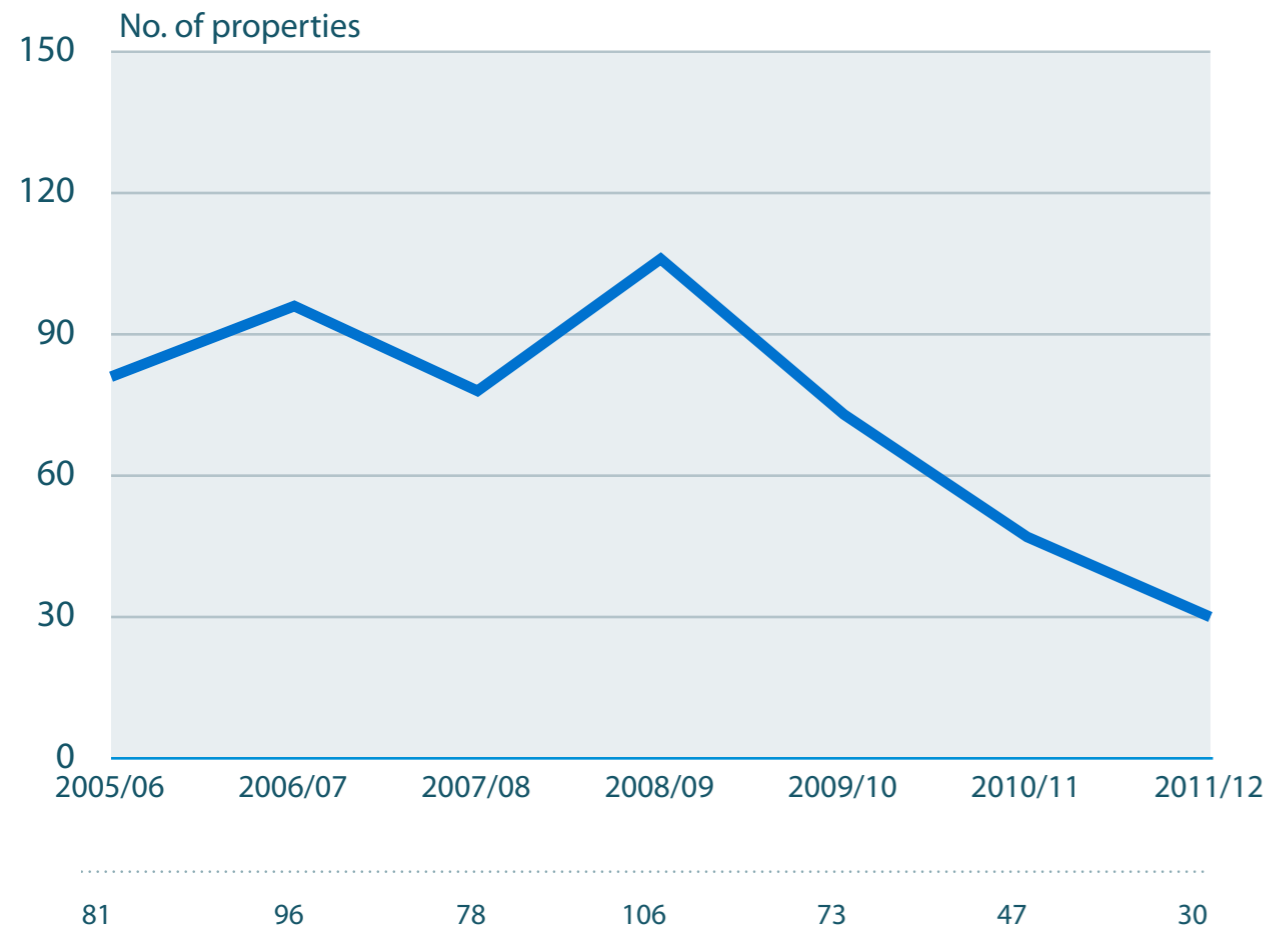
OC sewer flooding

S

Sc

O

## Hydraulic Overload Sewer Flooding



This is the number of properties affected by internal flooding due to overloaded sewers, but excluding severe weather, i.e. storms with a confirmed return period greater than once in 30 years.

Excluding severe weather, a total of 30 properties were subjected to Hydraulic Overload (HO) sewer flooding during the year. This is down by some 40% from last year, and building on last year's reduction, is our best performance over the last five years.

Environment & sanitation

SOSI (new) O

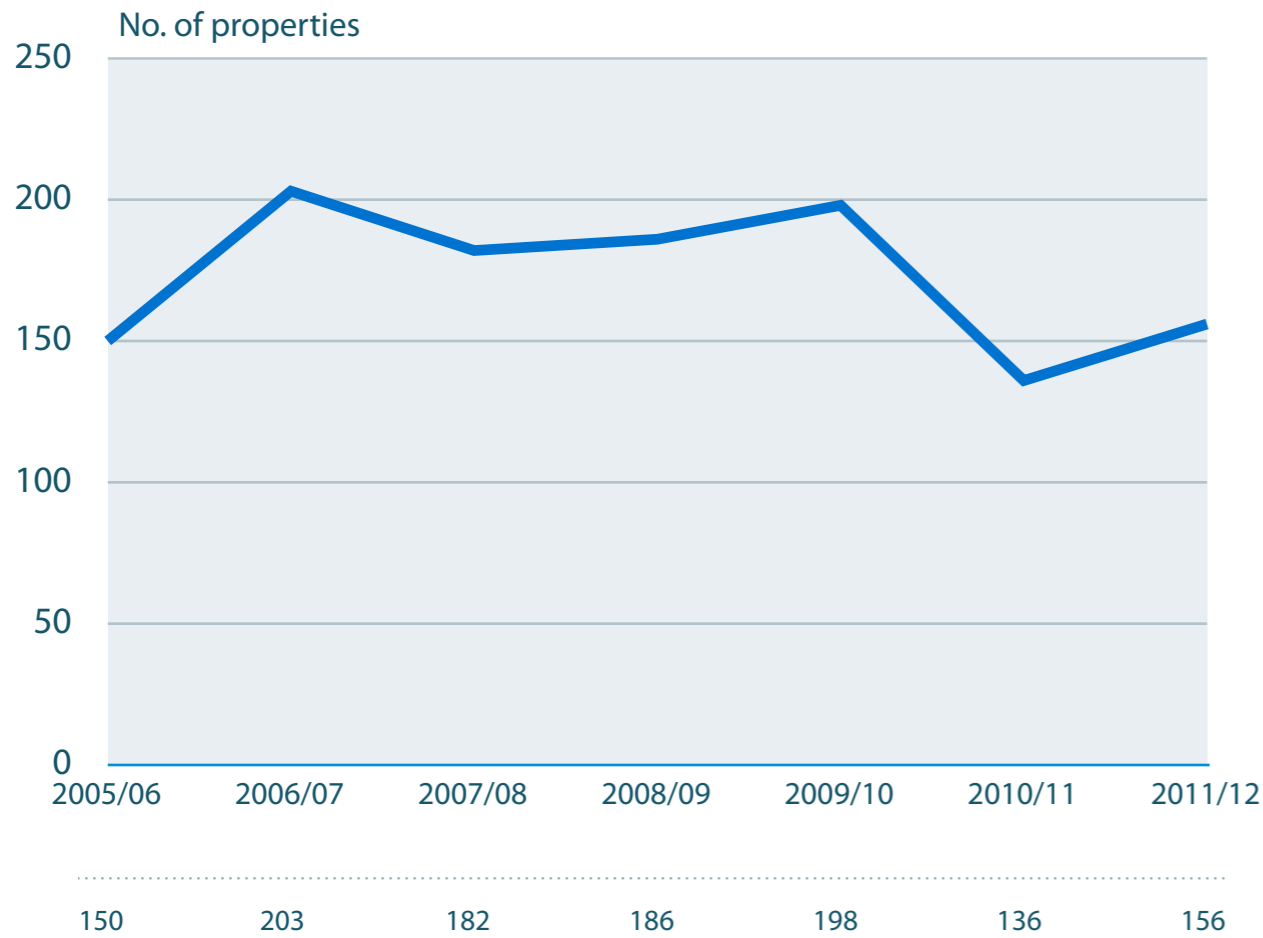
Leakage Sc  
O

GHG emissions (new) O

HO sewer flooding S  
Sc  
O

OC sewer flooding S  
Sc  
O

## Other Cause Sewer Flooding



The Other Cause (OC) sewer flooding metric is the total number of properties affected by flooding incidents from equipment failures, blockages or collapses.

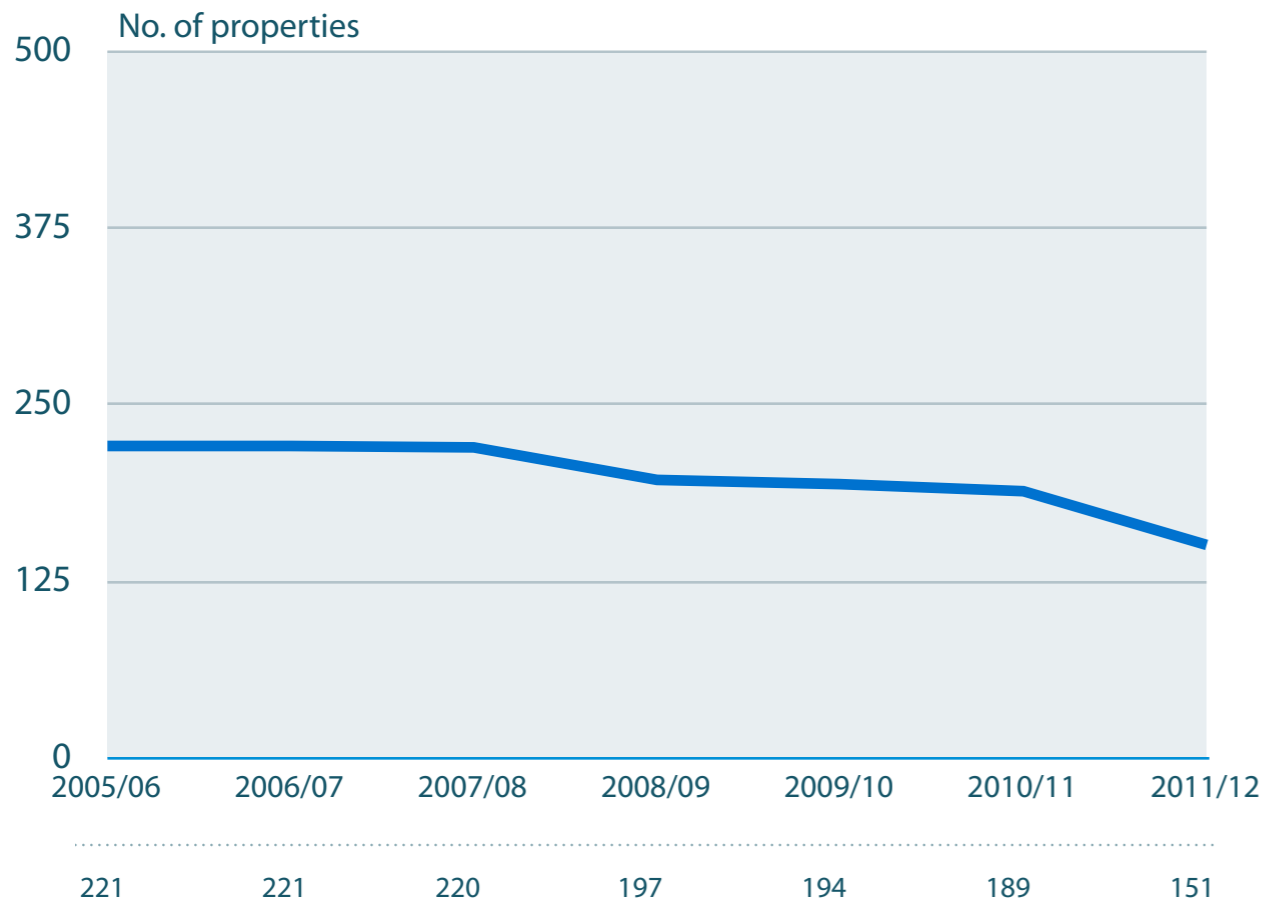
The number of properties affected (156) is higher than last year by some 14%. We believe that the programme of de-silting and the targeting of "hot spots" will, in due course, lead to a steady improvement.

Customer Service

Low pressure <sup>S</sup>

Interruptions to supply <sup>S</sup>  
<sup>Sc</sup>  
<sup>O</sup>

### Low pressure



The DG2 (low pressure) measure applies to the number of properties which at the end of the year have or are likely to receive low water pressure.

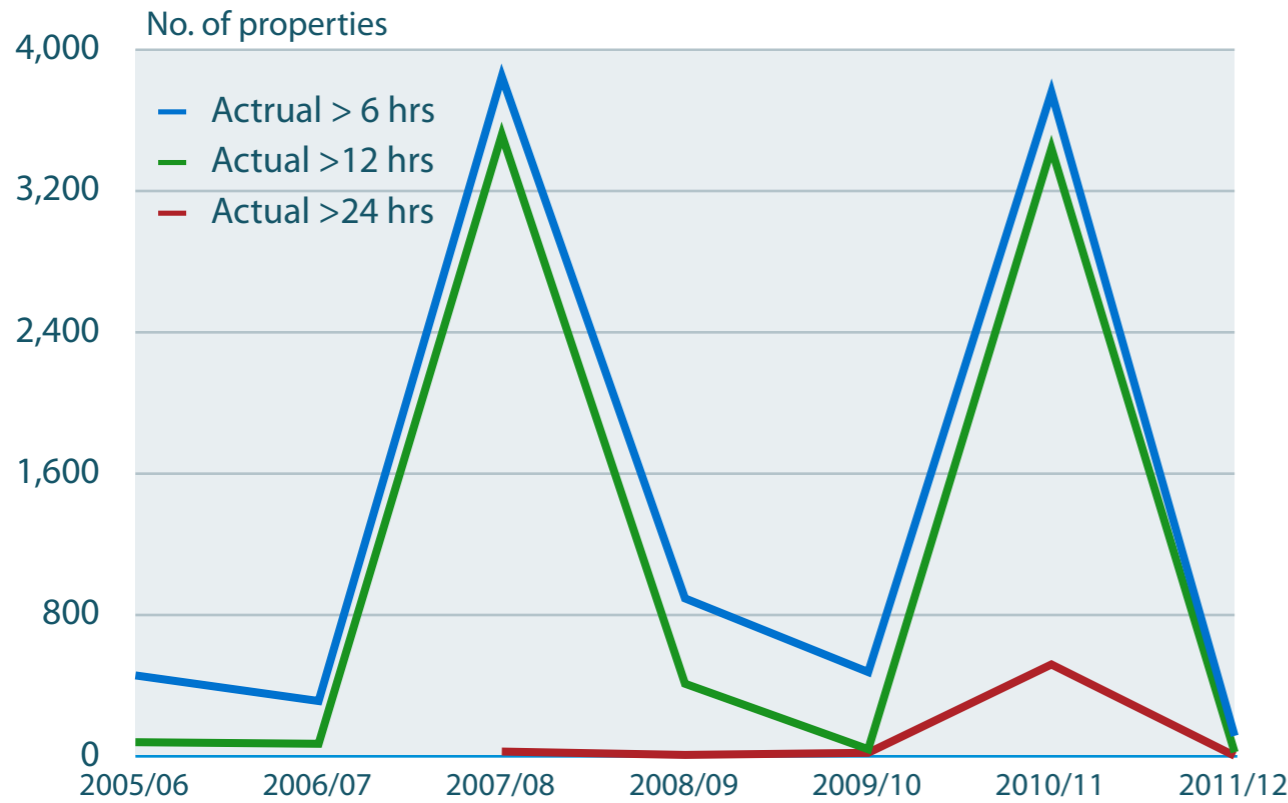
There has been a continued downward trend and our performance in the year improved, with the number of properties experiencing low pressure during the year reducing from 189 to 151.

Customer Service

Low pressure

Interruptions to supply

Interruptions to supply - DG3



This Ofwat serviceability metric applies to the number of properties affected by unplanned interruptions lasting more than 12 hours (where no warning has been given).

In 2011/12 there were only 5 incidents affecting 23 properties which were without supply for over 12 hours and a further 13 incidents affecting 93 properties which were without supply for between 6 and 12 hours. There were only three properties affected by interruptions of over 24 hours.

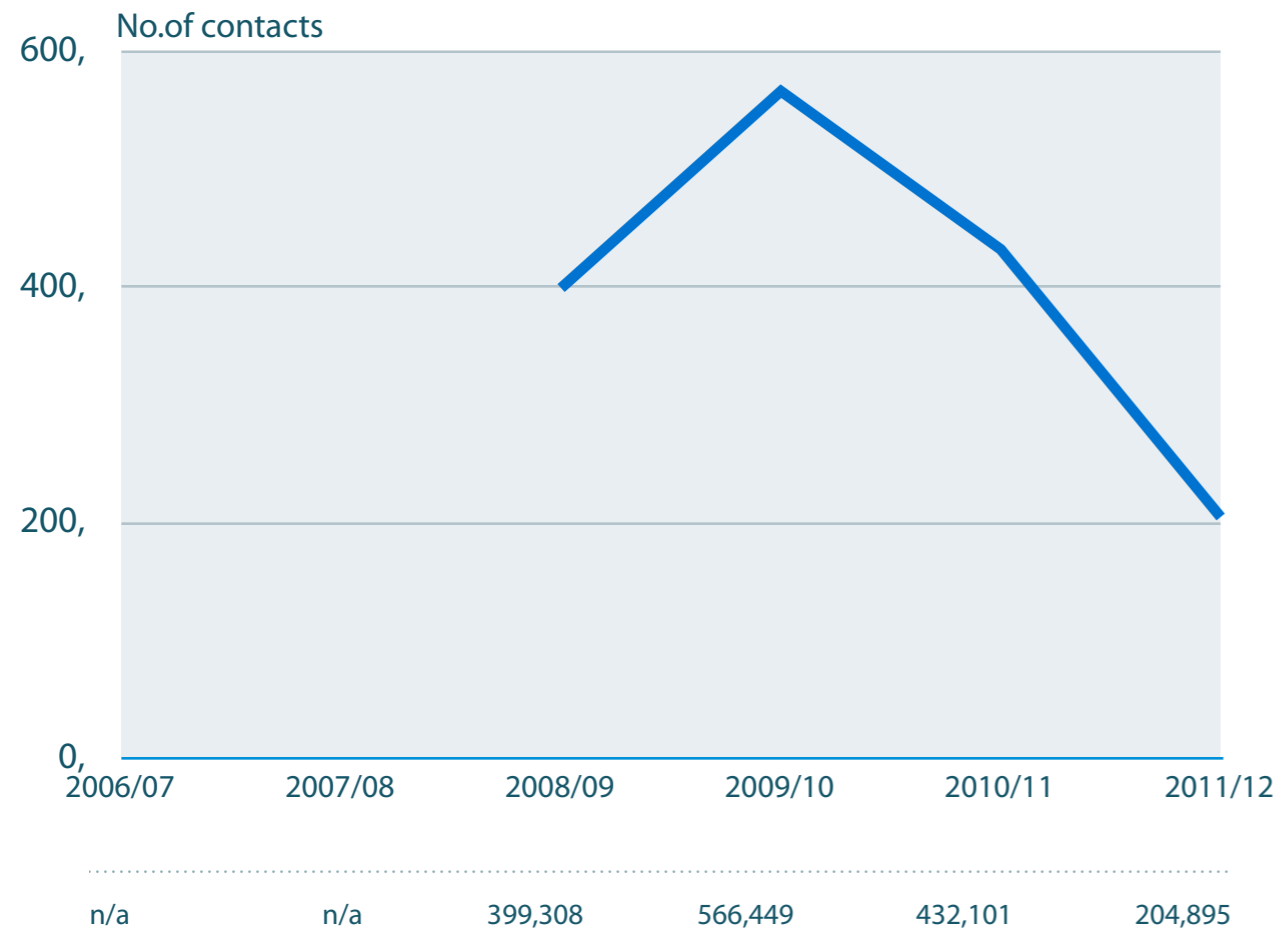
This compares well with last year's performance, although last year's figures were distorted by the impact of the freeze thaw events of the 2010/11 Christmas and New Year period.

>6	458	313	3,848	894	477	3,759	116
>12	80	71	3,518	411	40	3,441	23
>24			27	8	20	520	3

SIM

Unwanted telephone contacts <sup>Sc</sup>   Written complaints <sup>Sc</sup>   Escalated written complaints <sup>Sc</sup>   Quantitative score   Qualitative score <sup>Sc</sup>   SIM combined <sup>O</sup>   Compliments <sup>Sc</sup>

## Unwanted telephone contacts



We receive a variety of types of telephone contact. From a customer perspective, some of these can be regarded as “wanted”, for example when the caller wants to pay their bill or is providing or seeking information. Others can be defined as “unwanted”. These are where the caller has experienced some form of aggravation and this has prompted them to make contact with us.

The number of unwanted calls has decreased (by some 48% from 432,101 to 204,895). This is partly a reflection of some of the initiatives we have in place such as a customer call back process, texting facilities and web page improvements, but is also affected by the reclassification of unwanted calls during the year.

Following a benchmarking exercise (which focused on how other water and sewerage companies report “wanted” and “unwanted” calls), we carefully reviewed our own approach and, having informed Ofwat of our intentions, we introduced specific changes to the means of classification. This included reviewing the contact codes and taking steps to ensure that calls which we have in the past failed to define were properly allocated to the appropriate categories.

Over the year, we received a total of 1,216,033 calls of which 910,983 were wanted calls and 204,895 were unwanted calls, the balance of 100,155 excluded calls includes some 18,700 calls that are undefined.

## SIM

Unwanted  
telephone  
contacts

Sc

Written  
complaints

Sc

Escalated  
written  
complaints

Sc

Quantitative  
scoreQualitative  
score

Sc

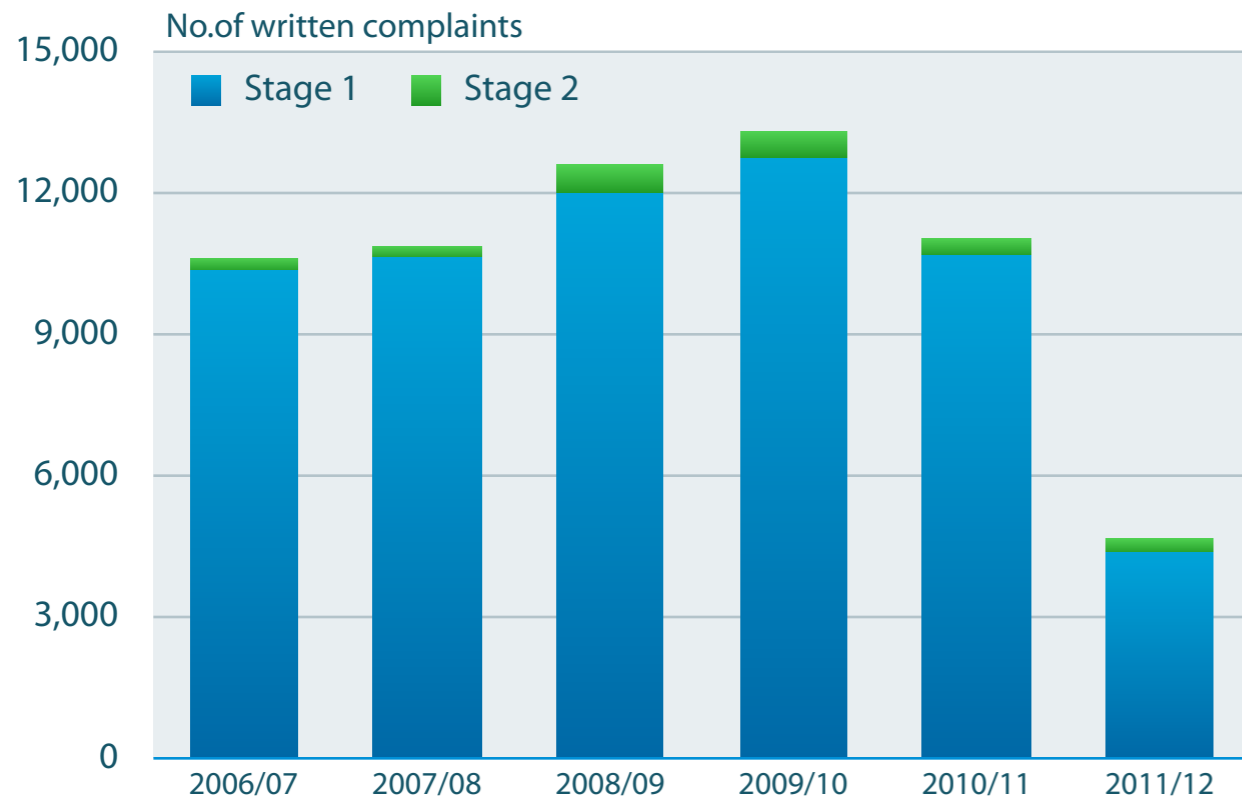
SIM  
combined

O

Compliments

Sc

## Written complaints



Stage 1	10,348	10,628	11,998	12,739	10,679	4,364
Stage 2	270	237	598	574	354	296
Total	10,618	10,865	12,596	13,313	11,033	4,660

Written complaints include those made by letter, fax and electronic mail and comments written on a piece of company correspondence, for example a bill.

During the year there has been a significant improvement in performance and the volume of complaints we have had to deal with has reduced by some 58%. This is a reflection of some of the initiatives we have in place such as first time resolution of complaints ("getting it right first time"), proactively contacting customers on any "repeat calls" and generally keeping customers informed.

The most significant improvement in performance was in "Billing and Charging" where the number of complaints reduced by some 70%. However, there was sustained improvement in each of the other categories. In "water" and "sewerage" services, the respective percentage reductions were 44% and 30% and in "metering", the percentage decrease in complaints was some 35%.

We also responded to 99.7% of these written complaints within 10 working days, the same as 99.7% last year.

## SIM

Unwanted  
telephone  
contacts

Sc

Written  
complaints

Sc

Escalated  
written  
complaints

Sc

Quantitative  
scoreQualitative  
score

Sc

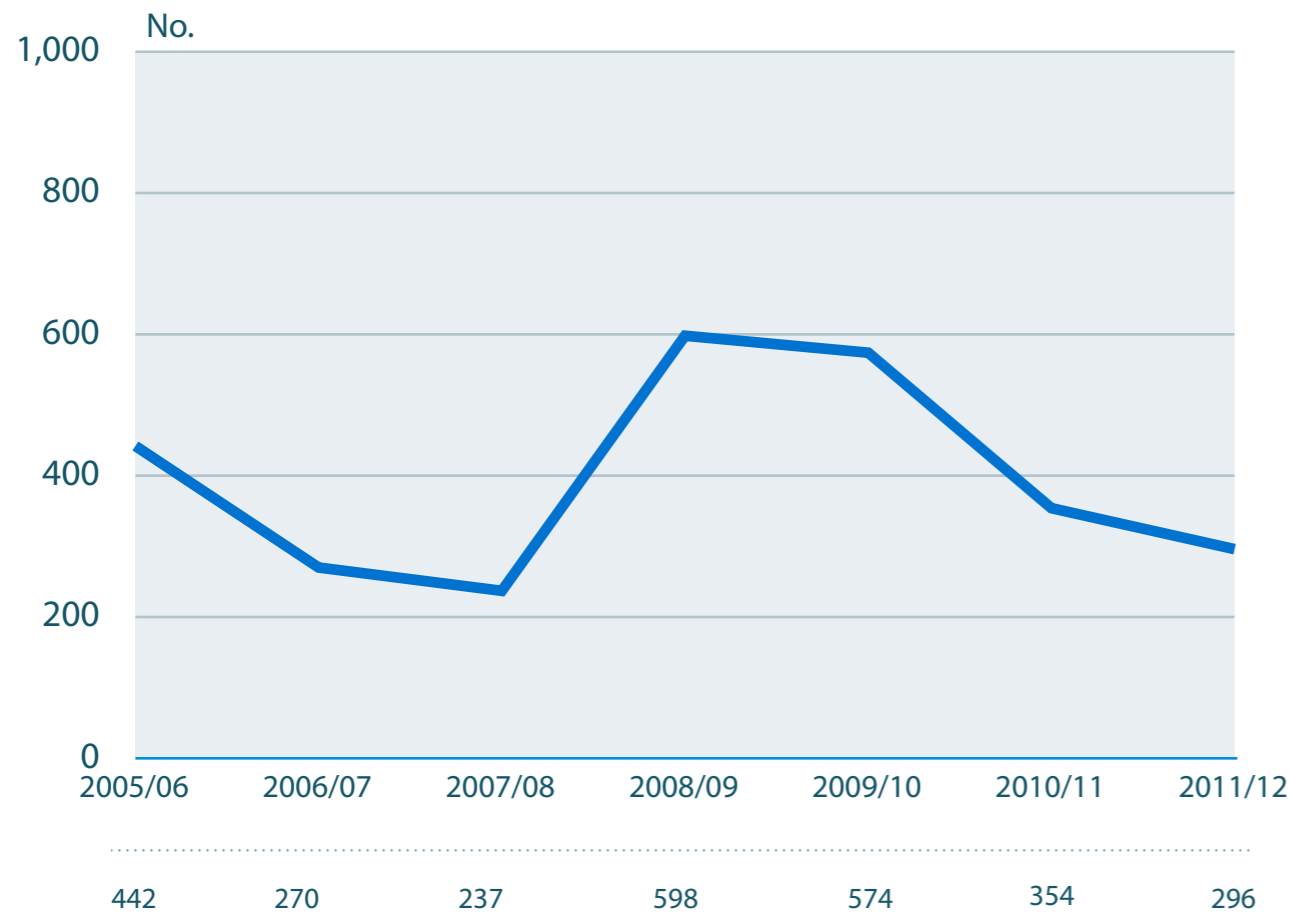
SIM  
combined

O

Compliments

Sc

## Escalated complaints



This is defined as a second complaint from a customer relating to the same issue that, in accordance with the company's approved complaints procedure, is reviewed by a person or persons not involved in providing the response to the customer's first complaint.

There has been a reduction of some 50% in the number of escalated complaints. The figure of 296 represents 6% of the total number of DG7 complaints (4,660) to which we responded in the year.

SIM

Unwanted telephone contacts

Sc

Written complaints

Sc

Escalated written complaints

Sc

Quantitative score

Qualitative score

Sc

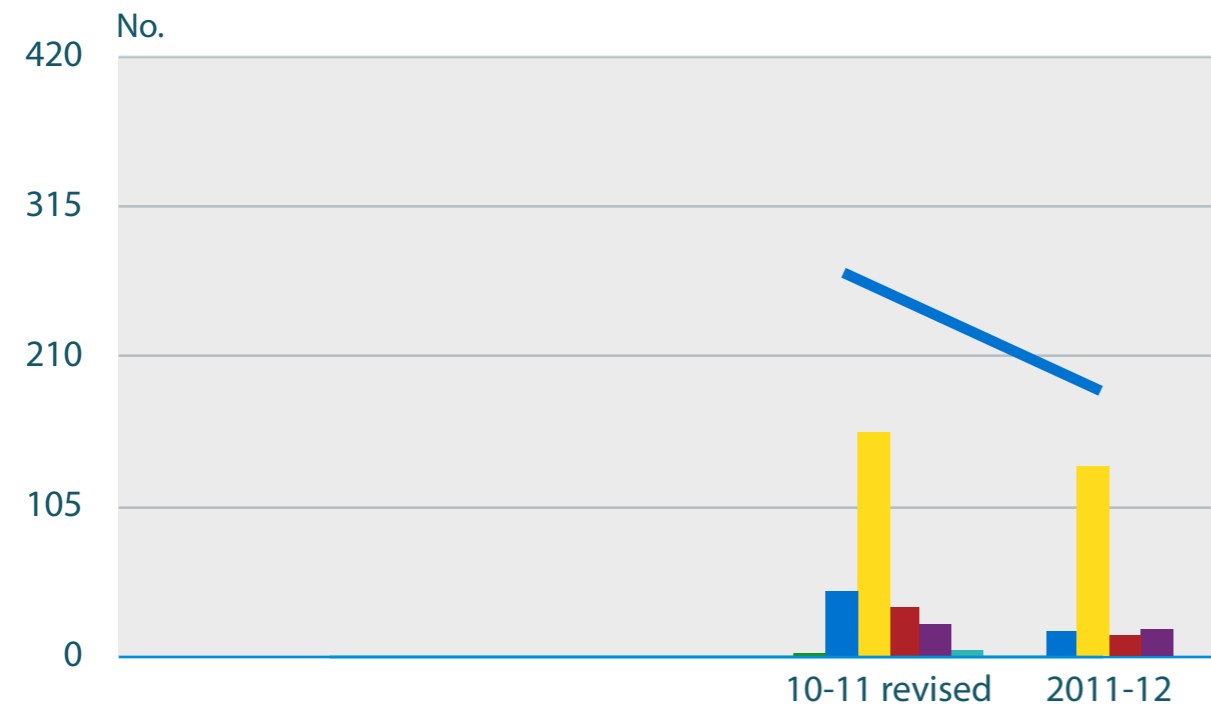
SIM combined

O

Compliments

Sc

## SIM quantitative score



Element	10-11 revised	2011-12
All lines busy	2.4	0.0
Calls Abandoned	46.2	18.1
Unwanted Telephone Contacts	157.7	133.7
Total Written Complaints	34.9	15.2
Escalated Written Complaints	23.2	19.3
CCWater Investigations	4.6	0.0
<b>Total SIM</b>	<b>269</b>	<b>186</b>

The Service Incentive Measure (SIM) comprises quantitative and qualitative indicators.

The quantitative measure combines several elements. Each element is weighted to reflect the increasing impact on consumers and the cost to the company. The table below shows how the quantitative measure is made up and the weighting of the individual elements.

Element	Weighting
All lines busy	1
Calls abandoned	1
Unwanted telephone contacts	1
Written complaints	5
Escalated written complaints	100
Consumer Council for Water (CCWater) investigations	1,000

Our score, which we calculate to be 186, is an improvement on last year's figure of 269.

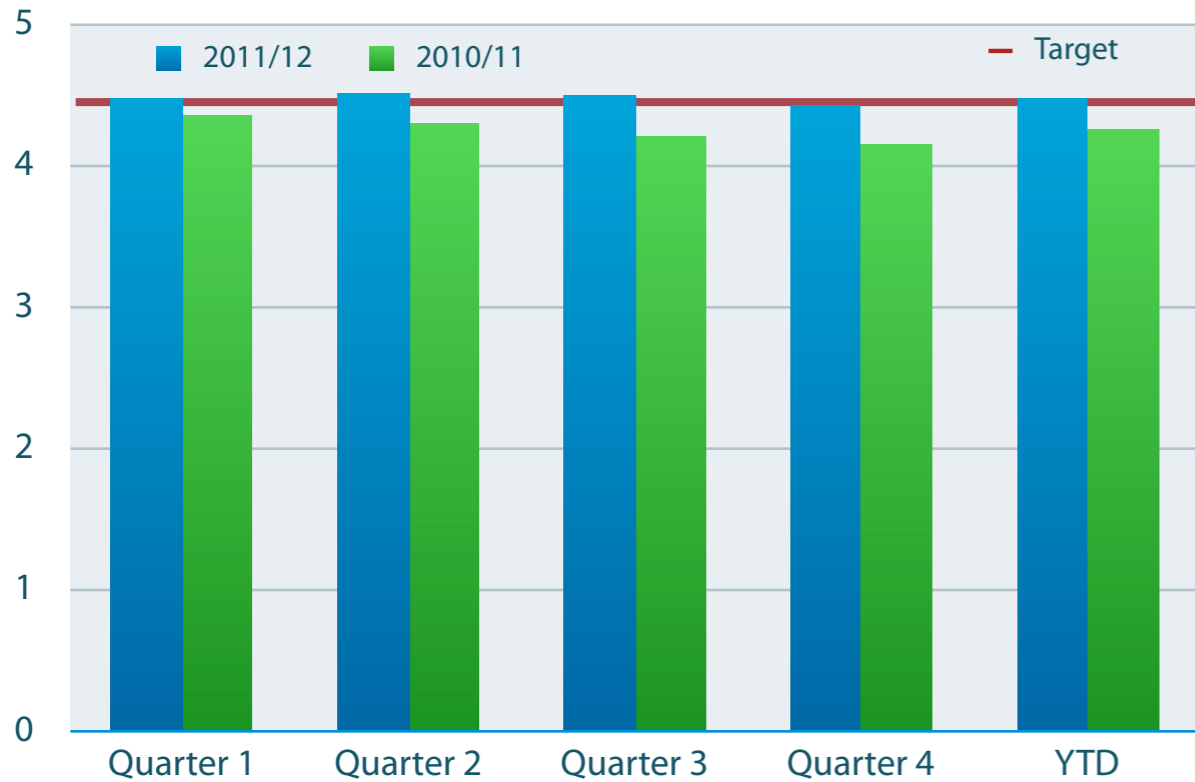
The 2010/11 original submitted figure of 394 was later revised to 269 following benchmarking of our classification of unwanted contacts and recognised and reported by Ofwat in their Service Incentive Mechanism 2010/11 Company Performance Report.



SIM

Unwanted telephone contacts <sup>Sc</sup>    Written complaints <sup>Sc</sup>    Escalated written complaints <sup>Sc</sup>    Quantitative score    Qualitative score <sup>Sc</sup>    SIM combined <sup>O</sup>    Compliments <sup>Sc</sup>

SIM qualitative score



The qualitative indicator measures how satisfied customers are with the quality of service they receive and is based on an Ofwat survey of customers who have had direct contact with us during the year.

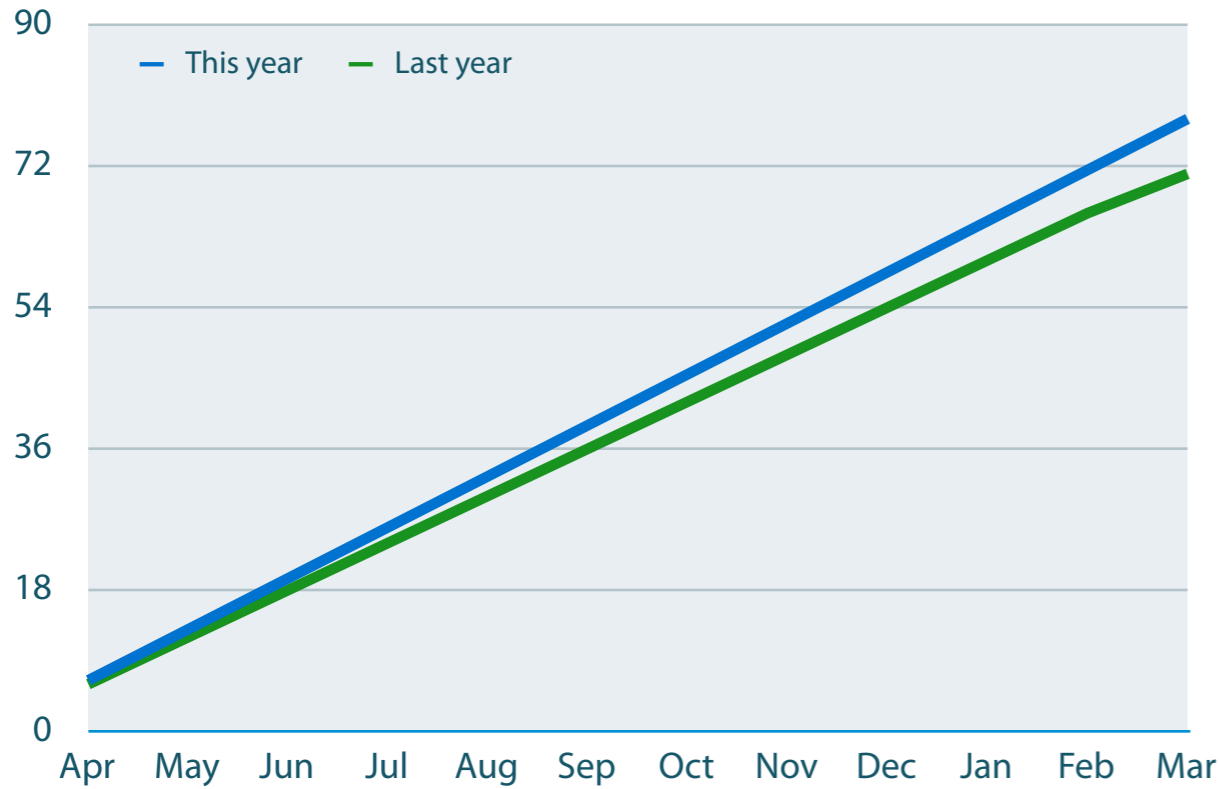
Our performance on this element of the Service Incentive Mechanism (SIM) was 4.48 out of 5, an improvement on last year's score of 4.26.

2011-12	4.48	4.51	4.50	4.43	4.48
2010-11	4.36	4.30	4.21	4.15	4.26

SIM

Unwanted telephone contacts <sup>Sc</sup>    Written complaints <sup>Sc</sup>    Escalated written complaints <sup>Sc</sup>    Quantitative score    Qualitative score <sup>Sc</sup>    SIM combined <sup>O</sup>    Compliments <sup>Sc</sup>

### SIM Combined score



This is a combination of the Service Incentive Mechanism (SIM) quantitative and SIM Qualitative scores.

By reference to the formula used to calculate the overall score, our SIM combined score for the year is 78, which is an improvement on last year's combined SIM score of 71.

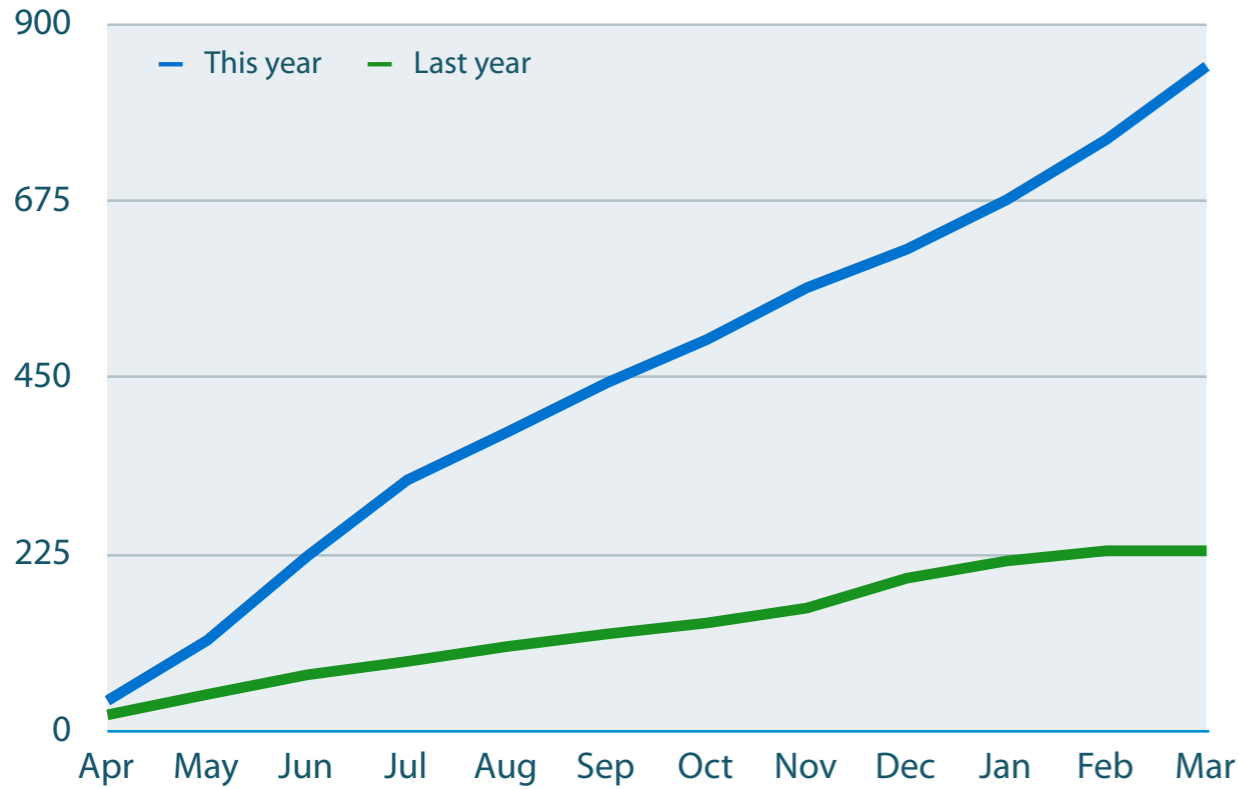
The original figure of 58, submitted in 2010/11, was later revised to 71 following benchmarking of our classification of unwanted contacts and recognised and reported by Ofwat in their Service Incentive Mechanism 2010/11 - Company Performance Report.

2011-12	78
2010-11	71

SIM

Unwanted telephone contacts <sup>Sc</sup>    Written complaints <sup>Sc</sup>    Escalated written complaints <sup>Sc</sup>    Quantitative score    Qualitative score <sup>Sc</sup>    SIM combined <sup>O</sup>    Compliments <sup>Sc</sup>

### Compliments



Over the last 12 months we have started recording the number of letters or email contacts where customers express their thanks or acknowledge the good service they have received. These are recorded as 'compliment' contacts.

The total received during the year was 847, an improvement of some 270% on last year's figure of 230.

There is no industry comparison data available but we will continue to track performance by recording the number of contacts received where we have been complimented for our service.

2011-12	39	116	223	320	381	444	499	565	614	677	754	847
2010-11	21	47	72	89	108	124	138	157	195	217	230	230

Looking after our assets

Sewer blockages <sup>S</sup>

Sewer collapses <sup>S</sup>

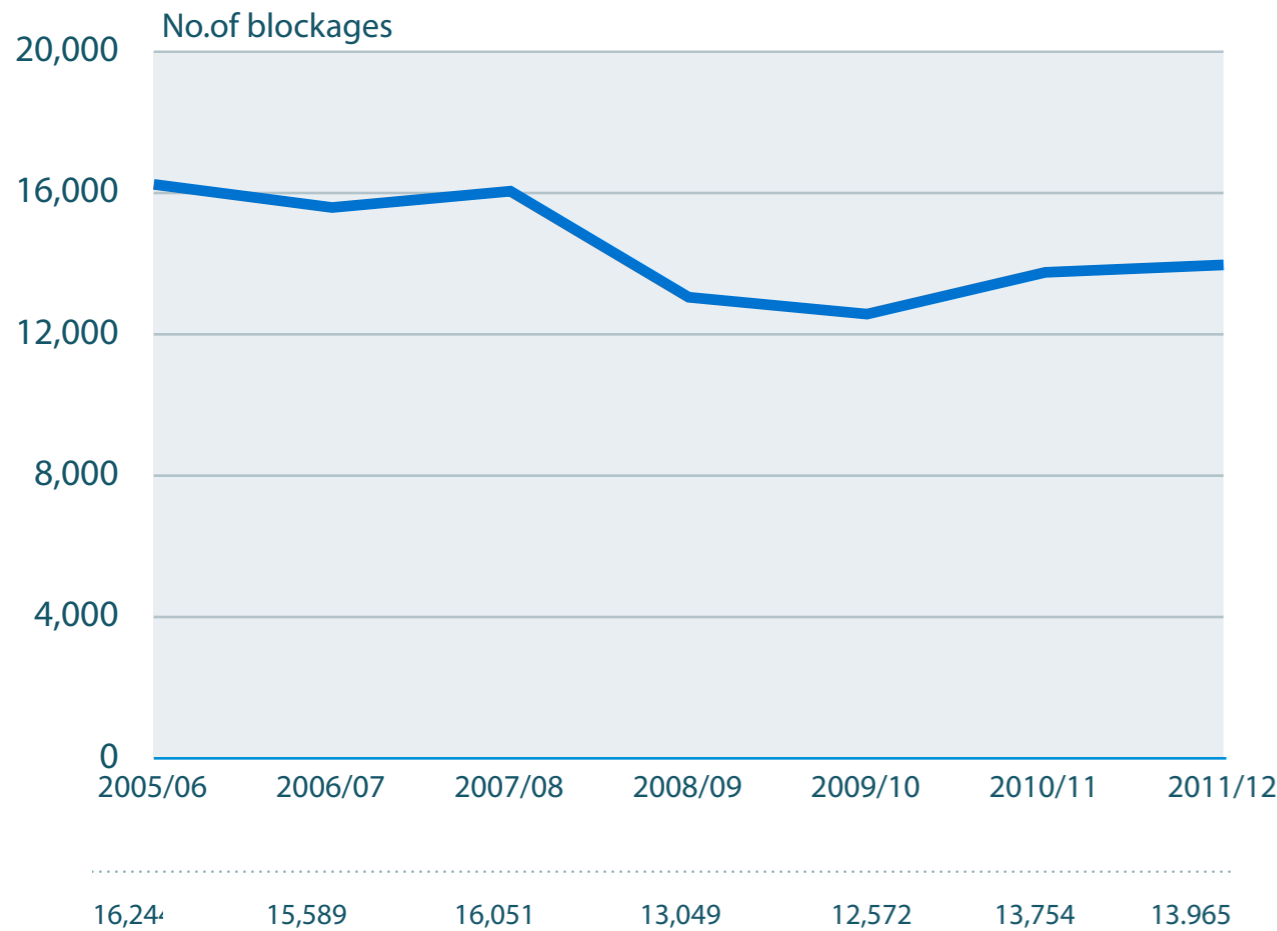
Mains bursts <sup>S</sup>

Unplanned maintenance wastewater <sup>S</sup>

Equipment failures wastewater <sup>S</sup>

Unplanned maintenance water <sup>S</sup>

## Sewer blockages



This is the number of sewage blockages that require clearing. These may be caused by an obstruction in a sewer and give rise to a reportable problem such as flooding or discharge to a watercourse, unusable sanitation, surcharged sewers or odour problems.

The number of blockages has increased from 13,754 last year to 13,965 this year

Last year, we adopted a different approach and calculated the figure on reported performance failures i.e. incidents rather than the number of properties affected. We believe that this is consistent with the methodology adopted by other companies and we have continued to adopt this approach.

Looking after our assets

Sewer blockages S

Sewer collapses S

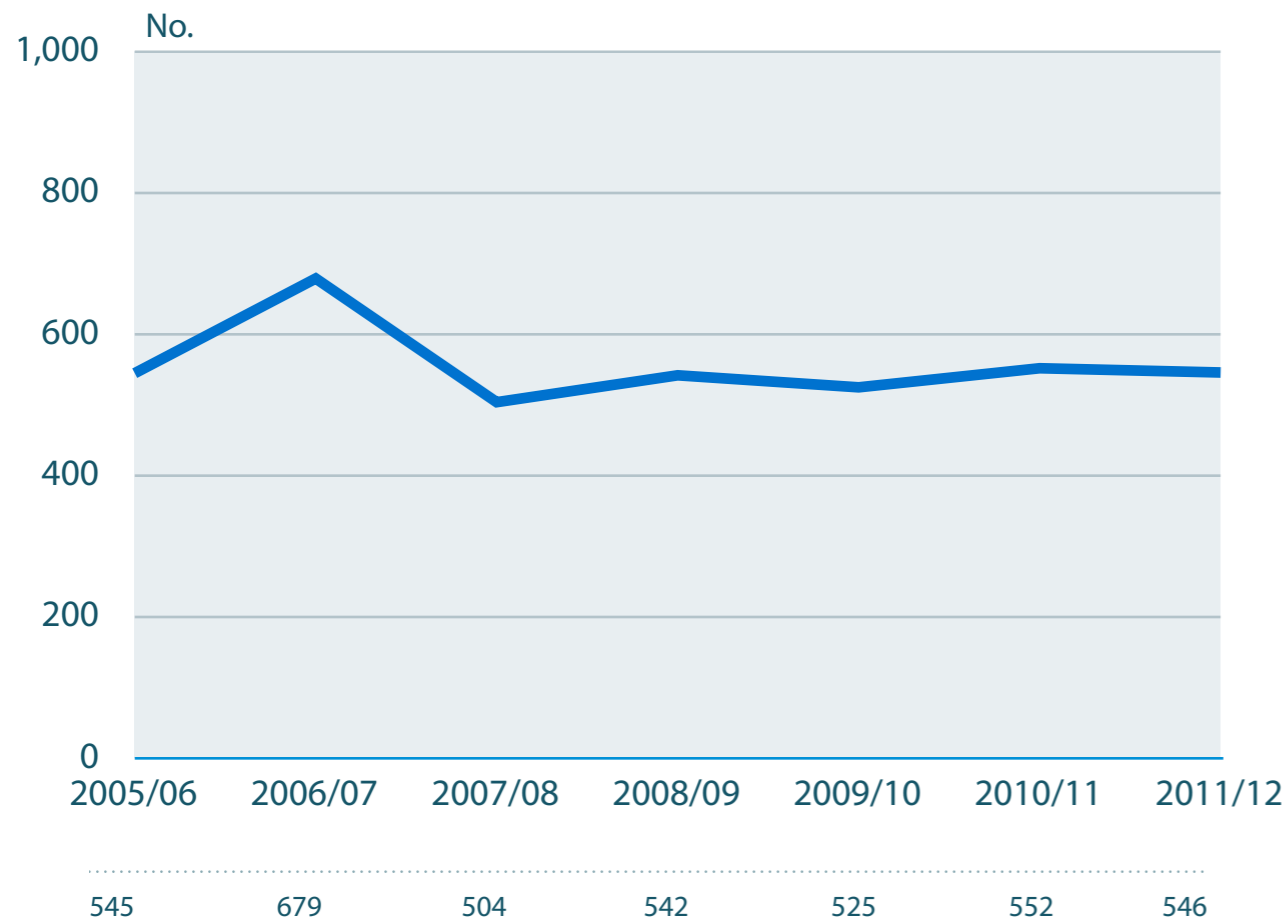
Mains bursts S

Unplanned maintenance wastewater S

Equipment failures wastewater S

Unplanned maintenance water S

### Sewer collapses



This is the total number of sewer collapses occurring (including collapses of gravity sewers and rising mains).

The number of collapses has decreased from 552 to 546 this year.

Last year, we adopted a different approach and calculated the figure on reported performance failures, i.e. incidents rather than the number of properties affected. We believe that this is consistent with the methodology adopted by other companies and we have continued to adopt this approach.

Looking after our assets

Sewer blockages <sup>S</sup>

Sewer collapses <sup>S</sup>

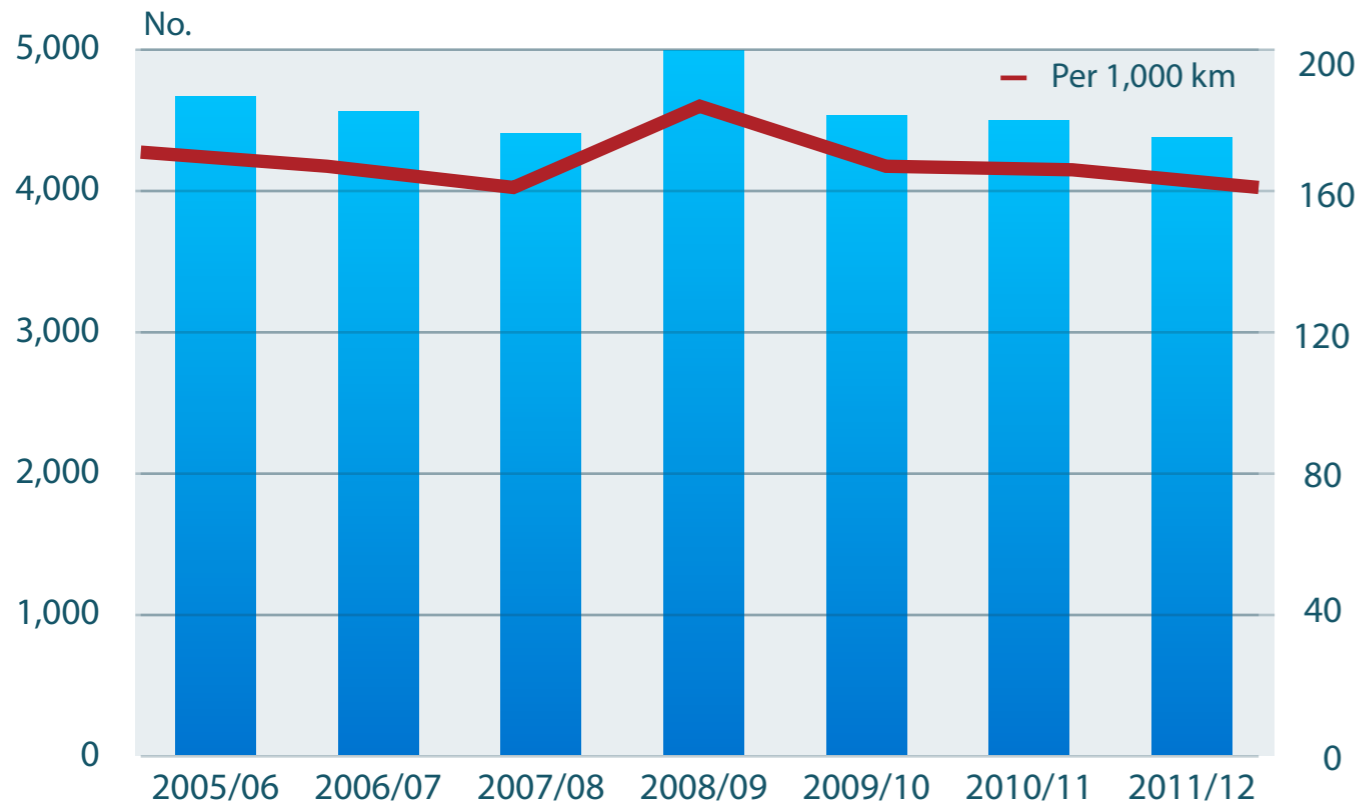
Mains bursts <sup>S</sup>

Unplanned maintenance wastewater <sup>S</sup>

Equipment failures wastewater <sup>S</sup>

Unplanned maintenance water <sup>S</sup>

## Mains bursts



This metric measures the number of mains bursts caused by failure in the type of material used and can arise from shortcomings in pipe laying or changes in ground conditions.

Water mains burst rates have fallen by 50% since 1990 and over the last five years the figure has stabilised at around the current level. Almost 25% of the network has been renewed and a substantial pressure management programme put in place to achieve this outcome.

The mains renewal activity and a continuing programme of pressure management and proactive air valve renewal should help maintain burst levels.

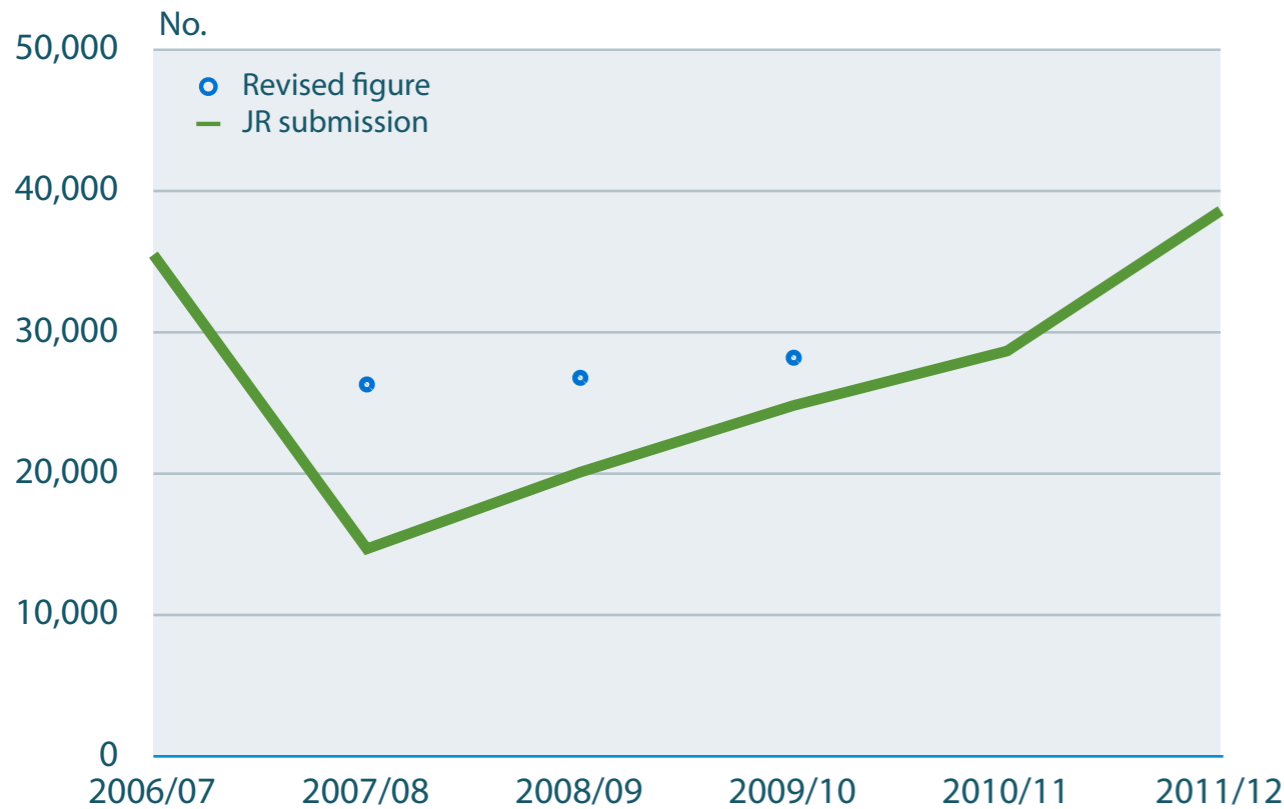
The number of incidents decreased from 4,496 to 4,379 and there was a commensurate reduction in the burst rates from 166 per 1,000 kms to 161 per 1,000 kms.

Number	4,671	4,564	4,406	4,991	4,537	4,496	4,379
Per 1000 km	171	167	161	184	167	166	161

Looking after our assets

Sewer blockages Sewer collapses Mains bursts Unplanned maintenance wastewater Equipment failures wastewater Unplanned maintenance water

## Unplanned maintenance wastewater



This is the total number of incidents of unplanned maintenance required as a result of equipment failure or reduced asset performance on the waste water side of the business.

The revised figures shown on the chart reflect the improved methodology in place.

The year end value for 2011/12 is 35% above the previous year's figure. This increase is mainly due to an increased recording of unplanned work, especially amongst operators, as a result of the Leading Edge Assets and People (LEAP) project which was designed to improve processes for data capture.

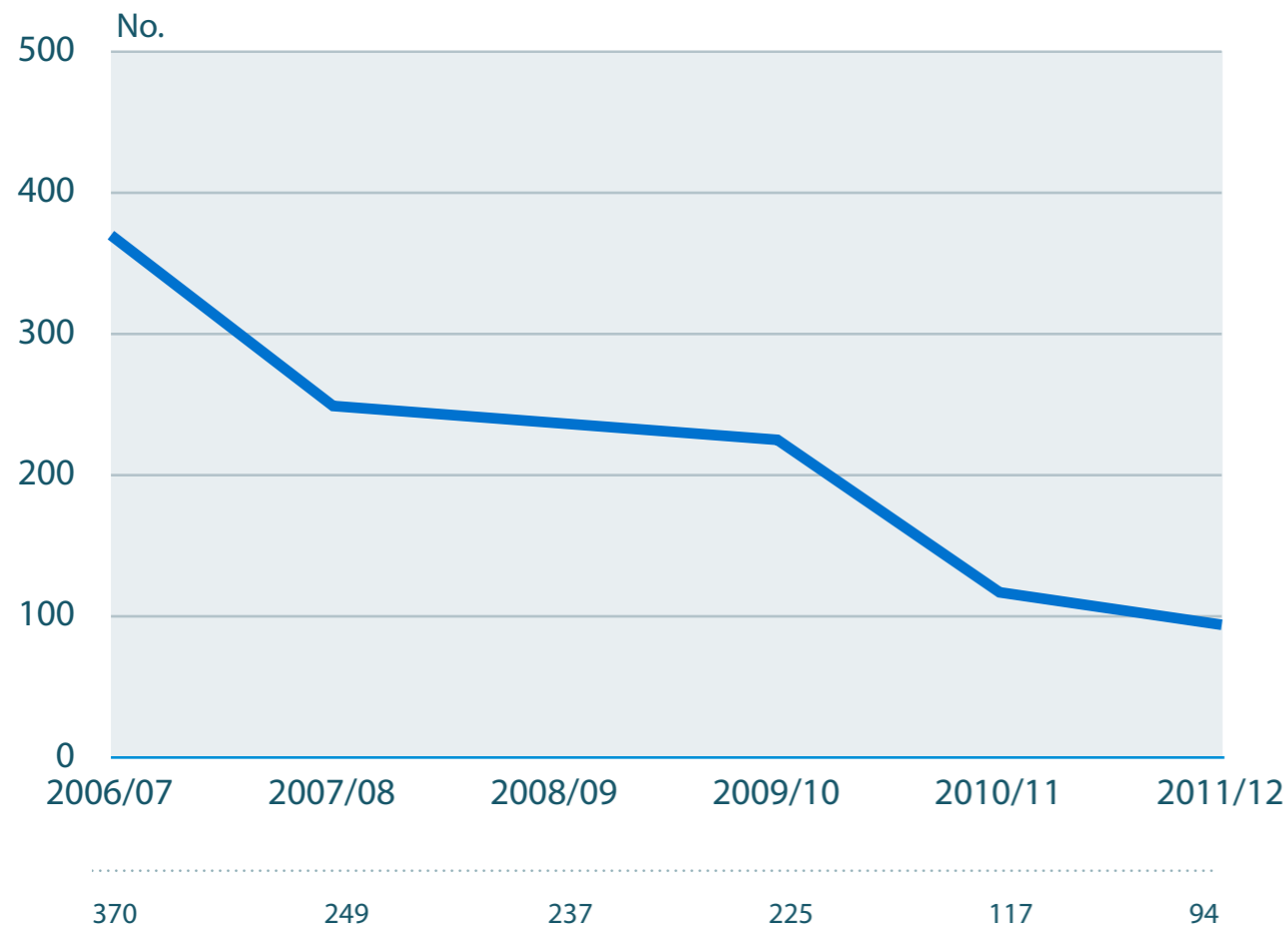
The reference levels set during the last price review were based upon only a subset of unplanned maintenance data. We now have more robust data and we will be better placed to review the relevant reference levels at the appropriate time.

JR submission	35,494	14,682	20,107	24,827	28,681	38,601
Revised figure		26,311	26,781	28,204	-	-

## Looking after our assets

Sewer blockages <sup>S</sup>Sewer collapses <sup>S</sup>Mains bursts <sup>S</sup>Unplanned maintenance wastewater <sup>S</sup>Equipment failures wastewater <sup>S</sup>Unplanned maintenance water <sup>S</sup>

## Equipment failures wastewater



This is the total number of sewerage equipment failures which are likely to have a detrimental impact on service to customers or to the environment.

The number of equipment failures reported this year is some 20% below last year's level.



Looking after our assets

Sewer blockages <sup>S</sup>

Sewer collapses <sup>S</sup>

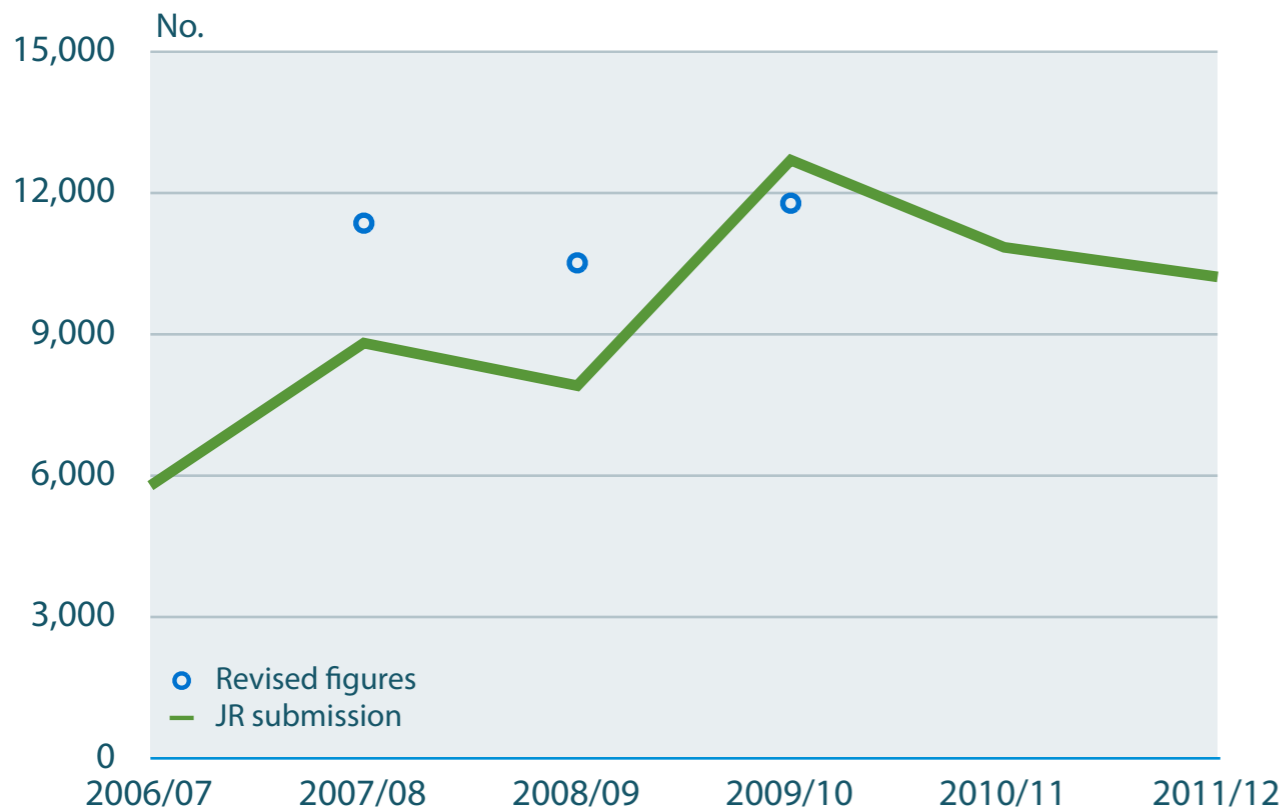
Mains bursts <sup>S</sup>

Unplanned maintenance wastewater <sup>S</sup>

Equipment failures wastewater <sup>S</sup>

Unplanned maintenance water <sup>S</sup>

## Unplanned maintenance water



This is the total number of incidents of unplanned maintenance required as a result of equipment failures or reduced asset performance on the water side of the business.

The number for the year is lower than in previous years but remains above the Final Determination reference levels. The reference levels set during the last price review were based upon only a subset of unplanned maintenance data. We now have more robust data and we will be better placed to review the relevant reference levels at the appropriate time.

The revised figures shown on the chart reflect the improved methodology.

JR submission	5,788	8,814	7,910	12,698	10,847	10,219
Revised figure		11,360	10,517	11,783	-	-

## 5. Exception reporting on the delivery of outputs as against FD09

The delivery of outputs at the end of this second year of the AMP5 period is not materially different to what was assumed in the 2009 Final Determination (FD09). We are on track to deliver all significant outputs in the FD09 for the five year period to 31 March 2015. However, in some areas there are some small differences to FD09; these are:

### Security Emergency Measures Directive (SEMD) Schemes

There are two schemes where we are currently behind schedule. In both cases, the delay is due to external causes and the schemes are expected to be finalised in 2012/13.

### First Time Sewerage Scheme

Beachley - The delay in delivering the first time sewerage scheme (which had a target date of March 2012) arose due to planning issues.

### Meters

Optant Meters - The five year FD09 figure is 98,920 and the target at the end of year 2 was 41,400. We have installed 30,028 meters in the first two years of the AMP period, which means that we are roughly 11,000 behind target.

## 6. Ofwat key performance indicators

To support Ofwat's risk based approach, water and sewerage companies are required to publish a common suite of key indicators which reflect a balanced view of companies' performance. Although we have included details of performance in other parts of this report, e.g. our own performance "Scorecard" (Section 3), for ease of reference we have reproduced the Ofwat suite of indicators in this section.

Recognising that stakeholders may wish to understand how performance compares with earlier years, we have included the equivalent figures/assessments for last year.

In addition, we have shown historical performance over a six year period for each of the metrics included in section 4 of this report (headed "Dŵr Cymru key performance indicators / Book of Metrics").

# Ofwat key performance indicators

	2010/11	2011/12	
<b>Customer experience</b>			
Service incentive mechanism (SIM)	71	78	Score
Internal Sewer flooding	83	47	Number of incidents of internal sewer flooding at properties that have suffered repeat flooding within the last 10 years
Water Supply interruptions	0.29 (17 minutes)	0.40 (24 minutes)	Hours per property
<b>Reliability and availability</b>			
Serviceability water non-infrastructure	Stable	Stable	
Serviceability water infrastructure	Stable	Stable	
Serviceability sewerage non-infrastructure	Stable	Marginal	See below (page 66)
Serviceability sewerage infrastructure	Stable	Stable	
Leakage	199.3	185.2	MI/day
Security of supply index (SoSI)	99	100	index score
<b>Environmental impact</b>			
Greenhouse gas (GHG) emissions	287	252	ktCO <sub>2</sub> e
Pollution incidents (sewerage)	13.9	13.2	Category 1-3 incidents per 1,000 km of sewer
Serious Pollution incidents (sewerage)	4.4	2.2	Category 1 & 2 incidents per 10,000 km of sewer
Pollution incidents (water)	1.8	1.1	Category 1-3 incidents per 10,000 km of main
Discharge permit compliance	96.6 <i>Note A</i>	95.6 [Red] [96.3] <i>Note B</i>	%
Satisfactory sludge disposal	100	100	%
<b>Financial</b>			
Post-tax return on capital	5.6	5.6	%
Credit rating	A3/A/A	A3/A/A	Moodys/S&P/Fitch
Gearing	67	65	%
Interest cover	2.4	1.8	Ratio (post infrastructure maintenance expenditure)

#### Tolerances

■ In line or better than expected
 ■ Not in line with expected but performance has slipped only slightly
 ■ Significantly below target or expectation

# Ofwat key performance indicators - definitions

## **Customer Service**

### **Service Incentive Mechanism (SIM)**

This is a combination of the SIM quantitative and qualitative scores and measures the level of customer concern with the service provided and how well companies deal with such concerns.

### **Internal Sewer Flooding**

This new measure records the number of incidents of internal sewer flooding during the year where the properties affected have been subjected to either internal or external flooding on at least one occasion during the last ten years. This includes flooding incidents arising from severe weather.

### **Water Supply Interruptions**

This new measure records the number hours lost per property where such properties have experienced supply interruptions of 3 hours or longer, irrespective of whether it was planned, unplanned or caused by a third party. By contrast, the DG3 measure set out on page 44 of the Book of Metrics section refers only to unplanned interruptions greater than six hours.

## **Reliability and Availability**

### **Serviceability assessments**

These are the assessments of the recent historical trend in serviceability to customers, as measured by movements in service and asset performance indicators. There are four separate sub-services, i.e. water infrastructure, water non-infrastructure, sewerage infrastructure and sewerage non-infrastructure. Companies make a judgement about the overall serviceability in each sub-service as one of the following:

- Improving
- Stable
- Marginal
- Deteriorating.

Our assessment of serviceability for 2011/12 is discussed on pages 65-66 below.

### **Leakage**

Total leakage measures the sum of distribution losses and supply pipe losses in megalitres per day (Ml/d). It includes any uncontrolled losses between the treatment works and the customer's stop tap. It does not include internal plumbing losses.

### **Security of supply index (SOSI)**

This measure is an indication of whether a company has concerns regarding its ability to maintain water supplies to customers during dry weather.

## **Environmental Impact**

### **Greenhouse gas (GHG) emissions**

This records the annual operational GHG emissions and is a measurement of how companies can effectively manage their business so as to deliver their core services in a low-carbon way and play a part in reducing national GHG emissions where it is economic to do so and in customers' interests.

### **Pollution incidents (sewerage)**

This measure is the total number of pollution incidents (categories 1 to 3) emanating from a discharge or escape of a contaminant from a sewerage asset per 1,000 kms of sewer length.

### **Serious pollution incidents (sewerage)**

This measure is the total number of pollution incidents (categories 1 and 2) emanating from a discharge or escape of a contaminant from a sewerage asset per 10,000 kms of sewer length.

### **Pollution incidents (water)**

This measure is the total number of pollution incidents (categories 1 to 3) emanating from a discharge or escape of a contaminant from a water asset per 10,000 kms of water mains length.

### **Discharge permit compliance**

This measures the performance of sewerage assets to treat and dispose of sewerage in line with the discharge permit conditions imposed on Waste Water Treatment Works.

### **Satisfactory Sludge disposal**

This measures the satisfactory disposal of sludge (bio solids produced from the waste water treatment process) by reference, inter alia, to the Safe Sludge Matrix while complying with any legal obligations.

## **Financial**

### **Post- tax return on capital**

This is the current cost operating profit less tax as a return on regulatory capital value.

### **Credit Rating**

This is a company's ability to comply with its licence requirement to maintain an investment grade credit rating.

### **Gearing**

This is net debt as a percentage of the total regulatory capital value at the financial year end.

### **Interest Cover**

This is the covenanted interest cover ratio, post infrastructure maintenance expenditure.



## Judgements and serviceability assessments

This section covers the following:

- serviceability assessments for sub services
- other material judgements.

### Serviceability assessments for sub-services

We are required to make an assessment of the serviceability of the four asset sub-services and include the assessments in the suite of performance indicators that Ofwat require to be published.

The four sub-services are water infrastructure (WI), water non-infrastructure (WNI), sewerage infrastructure (SI) and sewerage non-infrastructure (SNI). The serviceability assessment involves reviewing the recent historical trends in a defined suite of asset performance indicators. At the 2009 Price Review, a reference level and control limits were set for each indicator. An indicator is regarded as stable when its value remains within the control limits and oscillates around the reference level year on year. The suite of indicators have been reviewed for each sub-service and our conclusions are as follows:

Water Infrastructure – Our assessment of serviceability is “Stable”. Details of our performance on the six individual indicators comprising this sub service are included in Section 4 (“Dwr Cymru key performance indicators/Book of Metrics) and marked “S”.

Water non-infrastructure – Our assessment of serviceability is “Stable”. Details of our performance on the five individual indicators comprising this sub service are included in Section 4 (“Dwr Cymru key performance indicators /Book of Metrics) and marked “S”.

Sewerage infrastructure – Our assessment of serviceability is “Stable”. Details of our performance on the six individual indicators comprising this sub service are included in Section 4 (“Dwr Cymru key performance indicators /Book of Metrics) and marked “S”.

## Judgements and serviceability assessments *continued*

### Sewerage non-infrastructure

The more difficult judgement is Sewerage Non-infrastructure. The relevant asset performance indicators for this sub-service are:

- Equipment failures (see page 56);
- Waste Water Treatment Works (WwTWs) failing numeric consents (measured as a % of total works); and
- WwTWs Look-up Table consents (measured as a % of population equivalent served).

This year, 22 WwTWs are non-compliant, under the numeric consent measure, of which 9 WwTWs were also non compliant under the look-up table measure. This means that for both these measures, performance is above the upper control limit. However, the important judgement to be made is whether this year's performance is symptomatic of an underlying deterioration in the condition and/or operation of these assets.

The relevant factors are:

- numeric consent failures were above the upper control limit in 2010 and just within in 2011. That is, the performance over the past three years has oscillated around the upper control limit of 19 works;
- LUT consent failures have been within the control limits for the previous 6 years with only one year, 2007/08, close to the upper limit; and
- capital maintenance expenditure on wastewater non-infrastructure assets over the past 5 years amounts to £345 million, some £118 million (or 52%) more than allowed by Ofwat in price limits.

There are strong arguments that the deterioration in the company wide performance for 2011 is attributable to temporary operational issues in one region which can confidently be expected to reverse this year and, indeed, performance in the first five months of the year has greatly improved. We have mitigation measures in place and believe that the issues have now been largely addressed. Notwithstanding this, it is management's view that for 2011 we should assess serviceability as "Marginal".

However, if the 2012 performance to date is sustained, then we anticipate returning to a "Stable" assessment this time next year.

## Judgements and serviceability assessments *continued*

### Other material judgements

#### Private sewers and lateral drains

Private sewers and lateral drains transferred to companies on 1 October 2011. We estimate that this may have doubled the length of our network, much of which is in a poor condition. We have excluded data involving private sewer and lateral drain assets but are recording these separately.

#### Service Incentive Mechanism (SIM) - unwanted calls

The number of unwanted calls has decreased (by some 48 % from 432,101 to 204,895). This is partly a reflection of some of the initiatives we have in place such as customer call backs, the extension of texting facilities and web page improvements but is also affected by the reclassification of “unwanted” calls during the year. We also recognise that the 2010/11 performance was affected by an increased number of unwanted calls received during the December and January freeze /thaw problems.

Following a benchmarking exercise (which focused on how other water and sewerage companies report “wanted” and “unwanted” calls), we carefully reviewed our own approach and, having informed Ofwat of our intentions, introduced specific changes to the way some of the calls were classified. This included reviewing the contact codes and taking steps to ensure that calls which we have in the past failed to define were properly allocated to the appropriate categories.

As part of an improved service to customers we have recently introduced a webchat facility. By their very nature such contacts tend not to fall within the “unwanted” classification and they are not part of this classification, i.e. they will not be recorded as “wanted” or “unwanted”.

# Appendix 1. Processes adopted in preparing this report

The company has established appropriate processes and systems of control that provide the necessary assurance in respect of the information contained within and underpinning this report. These systems have recently had ISO9000:2008 accreditation reaffirmed following an audit undertaken by SGS Ltd in February 2012 and it is now the fifth year we have had this accreditation.

The following paragraphs summarise the processes and internal systems of control in place.

## **Policies and Procedures**

- ▶ We have documented key processes and internal controls and have assessed the quality of systems and processes used for generating regulatory information. These processes have been followed to produce this year's Performance Report. Although we are no longer required to produce a June Return we have used the same processes as in previous years and retained table ownership.
- ▶ As part of due diligence, each Dŵr Cymru table owner was required to confirm that they had completed the table in accordance with the process maps and procedure notes and to highlight whether any updates were required. The procedures are kept up to date and are published on the Dŵr Cymru Infozone.
- ▶ We have a policy document which outlines the formal process to be undertaken and, inter alia, the roles and responsibilities of key people including table owners, the Regulation team, Dŵr Cymru Executive (collectively and individually), the Audit Committee and the Board.
- ▶ The Company's 'Whistle-Blowing Policy' was reissued in May 2010 as part of the Dŵr Cymru 'Compliance for Staff' booklet with its importance re-emphasised, both to Dŵr Cymru staff and the relevant service providers. This policy contributes to a culture of openness within Dŵr Cymru and right across the business, where issues can be discussed and any concerns raised without fear of criticism or reprimand.

## Processes adopted in preparing this Report *continued*

- ▶ A clearly defined organisational structure has been established for completion of the Performance Report, with appropriate delegated authorities and clearly defined allocation of responsibilities, all co-ordinated and managed by the Regulation Department.
- ▶ Ownership and responsibility for each regulatory table have been clearly defined. Each individual is responsible for adhering to all appropriate guidance in the compilation of the data and associated commentary. This also involved formal 'sign off' by the individual, verifying that the figures in each line had been obtained from a recognised data source and have been accurately compiled. In addition, confirmation was required that any material judgements or assumptions had been highlighted and documented, ensuring an accurate audit trail, with a review of confidence grades where applicable. Where material is within an individual's personal knowledge, he or she is required to confirm that it is true or, where it is not within their personal knowledge, that appropriate enquiry has been made.
- ▶ Allocation of overall responsibility for individual tables and associated commentaries was assigned to the appropriate Dŵr Cymru Leadership Team Member. Each was responsible for the review and 'sign off' of their own tables and commentaries.
- ▶ ISO9001:2008 accreditation was reaffirmed following a full audit undertaken by SGS UK Ltd in February 2012, with no major or minor non-conformities recorded within our quality management system during their assessment. This external endorsement recognises the structured processes that we have in place.

### **Implementation and Internal Review**

- ▶ Production of 'table packs' by the Regulation team ensured that all table owners had a single point of reference for all information necessary to undertake their specific responsibilities. These 'Packs' included last year's Reporting Requirements for each table, information on confidence grades and the Reporter's report on each individual table.
- ▶ All the information included within the table packs (described above) was made available on the InfoZone. This streamlined the process, improved communication, facilitated swifter and more efficient management of documents and reduced the risk of misunderstandings or errors occurring.

## Processes adopted in preparing this Report *continued*

- ▶ A training session for all table owners was held on 2 April 2012, where the processes were fully explained, the importance of regulatory data being reliable, accurate and complete highlighted and a “table pack”, comprising key documents, was distributed.
- ▶ A mid year exercise involving the review of selected tables to test some of the key assumptions was designed to help identify issues.
- ▶ Regular communication between the Regulation Department and all table owners was undertaken prior to and during the preparation of this report.
- ▶ During the year, a programme of mid-term audits was undertaken by the Reporter. No significant issues were raised via these mid-term audits.
- ▶ There was regular reporting of key performance indicators to the Board, the Quality and Environment Committee (QEC) and the Executive Team throughout the year.
- ▶ A rigorous process of internal due diligence meetings was undertaken by the Regulation Department between the 10th May and 13th June, to challenge information, judgements and assumptions made and to ensure compliance with the relevant guidance.
- ▶ A review was undertaken by the Regulation team to ensure consistency between the Performance Report and the individual tables and the relevant commentaries.
- ▶ The ‘sign off’ forms were endorsed by each table owner and the responsible member of the Dŵr Cymru Leadership Team before the publication of the Performance Report. The ‘sign off’ form also included confirmation from table owners that the process maps had been followed.
- ▶ A process review meeting, involving the Dŵr Cymru Executive Directors, took place on 22nd May, also attended by the Reporter, the Business Assurance auditor and table owners. Each table was scrutinised and progress reports were delivered on the internal challenge and the Reporter sessions, with any relevant and material issues highlighted and discussed.

# Processes adopted in preparing this Report *continued*

## External Review and Board Engagement

- ▶ The involvement of the Dŵr Cymru Business Assurance auditor in the review of processes has meant that there was a rigorous independent evaluation of the procedures in place.
- ▶ The recent high level evaluation of the systems in place within Dŵr Cymru, undertaken by the internal audit department, concluded that the adequacy and application of internal controls are good, with an overall rating of 'Full Assurance' - the highest rating achievable.
- ▶ The successful attainment of ISO9001:2008 accreditation, with no major or minor non conformities, further reinforced the adequacy and suitability of the procedures in place.
- ▶ There was a formal review and certification of the majority of the non financial Ofwat - specified Performance Report by the external Reporter, who also checked on the delivery of 2009 Final Determination outputs at a programme level. The Reporter also attended the Executive Directors' meeting on the 22nd May and Board meetings on the 8th June and 5th July where he provided briefings on the results of his oversight process.
- ▶ There were formal Audit Committee reviews of the June Return processes and progress in the implementation of these processes. On the 2nd February 2012, the Audit Committee received the timetable for and reaffirmed the adoption of the same processes as in the previous year. On the 29th May 2012, the Audit Committee received an update on progress.
- ▶ The Board met on 8th June 2012 to review the overall process, the operation of the systems of internal control and to review the key judgements required in compiling this Performance Report. The Board received reports from management and the Reporter on the implementation and review of the processes followed in compiling the Performance Report (including the Ofwat Performance Indicators) which had previously been reviewed by the Audit Committee.