Dŵr Cymru Welsh Water:
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Your views: We would welcome comments on this document. Further information is available on our website (www.dwrcymru.com). You can also make your response on-line using our designated address: feedback@dwrcymru.com

Alternatively written comments may be sent to:
Dŵr Cymru Welsh Water, Regulation Department
Pentwyn Road, Nelson,
Treharris, CF46 6LY

Photography: Welsh Water Photography Bursary winners 2005-07
Stuart Bailes (cover, pages 10/11 and 16/17); Dan Salter (page 12/13),
Zoltan Varga (pages 14/15 and 20/21).
Foreword

This first Strategic Direction Statement is an important milestone for Welsh Water. In the water industry, many of the decisions we take today will have a major impact on our customers, the economy and the environment for decades to come. It is therefore important that we are clear about our long-term objectives and how we plan to achieve them.

Over the next 25 years, we will constantly be striving to provide better value for money for our customers. Our vision is that customers should be able to look forward to:

- even higher quality standards — for drinking water, customer service and the protection of the environment,
- a zero tolerance approach to pollution and service failure,
- at least a 50% cut in greenhouse gas emissions, and
- the lowest possible customer bills — lower than those of other equivalent UK water companies.

To deliver this vision, we will need to pursue a genuinely sustainable, long-term strategy, as set out in this document.

Of course, there are inevitably major uncertainties when trying to plan over such a long period of time, most notably over the scale and nature of the impact that climate change will have on our operations. For this reason, we intend to update this statement periodically, as an integral part of a rolling business planning process.

Innovation and continuous improvement will be crucial in striving to achieve such a desirable outcome. We have already begun to develop the new business processes and systems, the low carbon technologies and the sustainable urban drainage solutions that we will need.

Our vision is based on extensive initial research and discussion with our customers and other key stakeholders, so that we can reflect their views and priorities. In particular, we have carried out a deliberative customer research exercise and discussed our proposed approach in detail with the Welsh Assembly Government, Ofwat, the Environment Agency Wales, the Drinking Water Inspectorate, the Consumer Council for Water Wales and the Countryside Council for Wales.

We now want to hear the views of all interested parties on this first version of ‘Welsh Water: Our Sustainable Future’, particularly those of our customers, to help us ensure that we are planning to deliver the right outcomes for them in the years ahead.

Lord Burns, Chairman
November 2007
Our business

- 850 wastewater treatment works
- 300,000 water quality tests
- 79 reservoirs
- 82 water treatment works
- 27,000km of water mains
- 19,000km of sewers
- 49 blue flag awards
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- 82 water treatment works
- 300,000 water quality tests
- 27,000km of water mains
- 19,000km of sewers
- 49 blue flag awards
- 850 wastewater treatment works
- 3 million customers

Water resources • Water treatment • Water distribution

Sewage treatment • Sewerage network

Return to the environment
Dŵr Cymru Welsh Water is the sixth largest of the ten regulated water and sewerage companies in England and Wales, representing around 8% of the sector when measured by assets employed. We deliver 900 million litres of drinking water per day to more than 3 million people living in Wales and some adjoining parts of England. Our primary responsibility is to operate, maintain and upgrade our assets so as to ensure a safe and reliable supply of drinking water for customers and to deal effectively with wastewater to protect public health and the natural environment. Welsh Water is Glas Cymru’s only trading subsidiary.

Glas Cymru Cyfyngedig is a single purpose company formed to own, finance and manage Welsh Water. It is a ‘company limited by guarantee’ and, because it has no shareholders, any financial surpluses are retained for the benefit of Welsh Water’s customers. Under Glas Cymru’s ownership, Welsh Water’s assets and capital investment are financed by bonds, loans and retained financial surpluses.

All day-to-day activities are carried out by specialist contract partners employed by Welsh Water following a competitive procurement process. The Glas Cymru business model aims to reduce Welsh Water’s asset financing costs, the water industry’s single biggest cost, and improve service delivery by employing the best enterprises for each distinct activity in the business.

Significant initial progress has already been achieved:
- ‘Customer dividends’ of nearly £100 million to date (with each customer paying £20 less in 2007-08 than the price cap set by Ofwat).
- Overall service standards have been amongst the best in the UK (for example, as measured by Ofwat’s Overall Performance Assessment – OPA).
- Environmental quality has benefited from improved performance and from important new wastewater treatment works around the coast of Wales.
- Investment of some £1,500 million has been delivered — equivalent to more than £1,000 for every customer we serve.
- The business has been placed on a secure financial footing for the long-term, as reflected in improved credit ratings and reduced debt gearing levels.

We intend to build on these early achievements in pursuit of our goal to be recognised by our customers as the best water company in the UK.

Further details about Welsh Water’s business and its plans for the future can be found on our website (www.dwrcymru.com).
Our goal
To be recognised by our customers as being the best water company in the UK.
To achieve our goal, we need a sustainable strategy to deliver the best possible value for money to our customers. We want customers to receive a safe and reliable service which meets all their expectations, at a price which is affordable and below that charged by other equivalent water companies. We believe that a truly sustainable strategy for Welsh Water has to encompass eight dimensions:

**Protecting public health.** Customers can have complete confidence in the safety of their drinking water.

**Safeguarding the environment.** In providing services for our customers, we will protect the environment within which we all live — taking a holistic view of environmental impact at a local, river basin and global level.

**Responding to climate change.** We will adapt our activities to deal with the potential consequences of climate change, while substantially mitigating our own ‘carbon footprint’ as an effective contribution to the wider effort within Wales.

**Meeting customers’ expectations.** We provide services that are essential to customers, public health and the quality of the environment. We will meet customers’ increasing expectations, ensuring they have complete confidence in our service.

**Looking after our assets.** Our long-term asset planning will ensure the continuation of enhanced standards for the benefit of future generations, at the lowest ‘whole life’ asset cost.

**Financing the business.** We will minimise the burden of financing costs on our customers for years to come by offering a high credit quality to long-term investors.

**Employer of choice.** The best people will be proud to work for us because of the quality of service the company provides, the opportunities we offer and the safe environment within which we work.

**Affordability and value for money.** Our customers will regard the services we provide as affordable and good value for money, with a range of help targeting customers who struggle to pay.
Where we are now

What can customers expect in 2035:

- A zero tolerance approach to water quality failures - aiming for 100% compliance.
- Investment in the latest technology to monitor our asset performance. This will include real time automated monitoring of water quality, allowing us to identify and rectify problems before service is affected.
- More than 95% customer satisfaction with drinking water quality, including its taste, odour and clarity.
- Advanced Drinking Water Safety Plans (DWSPs) which are regularly reviewed and updated.
- Appropriate security at all our works to prevent unauthorised access.

Protecting public health

Where we are now

- Bacteriological compliance at water treatment works & service reservoirs

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<th>Compliance 2005</th>
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<tr>
<td>Water treatment works</td>
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<tr>
<td>Total coliforms</td>
<td>99.28%</td>
<td>100%</td>
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<tr>
<td>Faecal coliforms</td>
<td>100%</td>
<td>100%</td>
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<tr>
<td>Service reservoirs</td>
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</tr>
<tr>
<td>Total coliforms</td>
<td>99.94%</td>
<td>99.93%</td>
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<tr>
<td>Faecal coliforms</td>
<td>100%</td>
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- Bacteriological compliance ‘at the tap’

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- Iron compliance ‘at the tap’

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<td>2002</td>
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</table>
Our goal: Customers can have complete confidence in the safety of their drinking water.

Welsh Water’s principal responsibility is to provide a safe and reliable drinking water supply to our customers at all times. This means that our tap water must be free from harmful chemicals and bacteria and have a good taste. To help ensure this we will be addressing the following key areas:

Water quality: Lead can be present in drinking water from natural sources, but it comes mainly from the metal dissolving in pipes – either from the service pipe linking the property to the water mains or from the internal plumbing in older buildings. We already meet current standards for the amount of lead permitted in drinking water and are working to meet tighter standards which will apply from 2013.

Bacteriological compliance: We currently have a high level of compliance with drinking water quality standards. However, through robust processes and targeted investment in new technologies we will improve our performance still further.

Iron compliance: The standard for iron compliance at customers’ taps is set at a level to ensure that there is no discolouration or metallic taste in their drinking water. This is a major challenge because old unlined iron water mains remain part of our supply network (approximately 8,000km). We will continue with our programme of water mains replacement and refurbishment to address this.

Customer service: We aim to provide a high quality service at all times but there will be times when customers are dissatisfied with the smell, taste or clarity of their drinking water. These situations normally arise when we carry out essential maintenance work. Through targeted investment and the use of the latest technologies we shall minimise the frequency of such events and improve customer satisfaction levels.

Water and health: We will continue to work with stakeholders including the Welsh Assembly Government to support initiatives which promote the health benefits of tap water, for example, through installing water coolers in schools.

Drinking water safety plans: Our Drinking Water Safety Plans provide a risk-based review of our operations to deliver water of the highest quality to our customers. They will cover real time monitoring of the water network and fail safe systems for automated shutdowns. We will also install enhanced treatment processes to further improve water quality and to protect against the impact of changing weather patterns.

Distribution strategies: We will protect water quality in our distribution system through robust maintenance strategies for each water network catchment. These will be updated and reviewed periodically.

Security: Protecting all our assets from malicious interference is a key priority and will continue to be an integral part of our approach to managing risk. Security will be kept under permanent review.

Our priorities to the milestone year 2015 are:

- Reducing contacts from customers regarding water quality by 50% to some 9,000 per year.
- Implementing all Drinking Water Safety Plans with catchment investigations and source protection, to be updated at least every five years.
- Introducing operational best practice and maintenance plans and also identifying the asset investment requirements needed to protect public water supply within the distribution network.
- Investing in the latest technology for monitoring drinking water quality.
- Maintaining a highly skilled workforce to manage our key water supply infrastructure.
- Installing enhanced treatment processes at 16 water treatment works to further improve water quality and reduce the risk of THM (Tri-halomethane) formation due to changing weather patterns.
What can customers expect in 2035:

- Rivers will have sustained 'good ecological status' under the EU Water Framework Directive.
- A zero tolerance approach to pollution incidents caused by failures at our works or sewers.
- Where we abstract water from the environment to supply our customers we will ensure that the good ecological status of the water course is not compromised.
- We will maximise the value of beaches, marinas, rivers and reservoirs for tourism and recreation.
- Sites of Special Scientific Interest and other protected areas will not be adversely affected by our water abstractions or waste water activities.
- We will promote biodiversity at our own works and depots.

Where we are now

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- We will promote biodiversity at our own works and depots.
Our priorities to the milestone year 2015 are:

- Undertaking 120 investigations to evaluate requirements to meet the WFD and other related legislation.
- Undertaking, where appropriate, improvements to the quality of our discharges to meet the requirements of the Habitats Directive.
- Maintaining 100% compliance with consents issued by the EA.
- Targeting zero serious pollution incidents and a significant reduction in the number of minor incidents.
- Ensuring the treatment and subsequent utilisation or disposal of sludge complies with all legal requirements and relevant industry codes of practice.
- Maintaining bathing and shellfish water standards; having undertaken 30 bathing water investigations.
- Working with the Countryside Council for Wales to bring designated sites into favourable or recovering condition to support them in achieving Action 32 of the Environment Strategy Wales.
- Improving preliminary treatment at 15 key wastewater treatment works.

Our goal: In providing services for our customers, we will protect the environment within which we all live – taking a holistic view of environmental impact at a local, river basin and global level.

Welsh Water’s investment has already led to huge environmental improvements. We shall continue to work with the Welsh Assembly Government and the Environment Agency (EA) to deliver the Environment Strategy Wales, targeting priority areas to ensure we achieve maximum value for money for our customers.

The Water Framework Directive (WFD): This very substantial EU water legislation requires all inland and coastal waters to reach ‘good ecological status’. We will work with the EA and other stakeholders to deliver the best value sustainable outcomes to meet such requirements and other proven environmental needs, using integrated catchment planning and environmental management systems. We will focus on understanding what needs to be done by ourselves and other sectors, such as manufacturing industry and agriculture.

Meeting the requirements of the Habitats Directive: The Directive aims to protect the wild plants, animals and habitats of our diverse natural environment. We will play our part in meeting the requirements through a carefully targeted investment programme.

Trialling low-carbon treatment methods: We will trial low carbon treatment methods to ensure that we have a fully developed portfolio of treatment options that take into consideration climate change and carbon emission reductions. We have already started this by using low carbon wastewater treatment systems and reed beds, instead of conventional technology (see page 24).

Pollution prevention strategy: This strategy aims to reduce pollution incidents caused by our assets through utilising a combination of technology and asset management tools. This will involve using telemetry that monitors flows in the sewer network and ensuring that ‘hot spots’ are identified and dealt with (see page 25).

Biosolids (sewage sludge): Sludge is the residue from waste water treatment. We will continue to recycle it in the most environmentally beneficial way, disposing of it mostly to farmland.

Water abstraction licences: The amount of water we are allowed to abstract from rivers and other sources is stipulated in abstraction licences issued by the EA. We will continue to work to optimise the use of water resources and abstract only what is required through appropriate use of demand management and customer education.

Education: We have a part to play in helping customers to understand how they can help protect the environment. Our four education centres are visited by over 10,000 school children every year, who learn about the efficient use of water and the benefits of good environmental management. This will continue to be an important part of our business. We will also continue to promote water efficiency through our public relations activities and the ‘Be Waterwise’ initiative.
Responding to climate change

What can customers expect in 2035:

- We will have implemented changes to our business activities to cope with extreme weather events arising from climate change, for example, through highly developed Water Resource Plans and enhanced protection of our key assets.
- We will contribute fully to the implementation of Sustainable Urban Drainage (SUDS) across all our catchments with a view to reducing the volume of surface water entering the sewer system and overloading the network.
- We will have invested in low energy technologies, such as wind turbines and small hydro generation units on our sites.
- We will have embedded a low carbon approach across all our activities and the reduction of carbon costs will be a major factor in our business planning and scheme development, particularly when considering increased treatment standards or assessing other carbon intensive investment schemes (e.g. concrete storage tanks).
- We will have reduced our own carbon footprint from the current level by at least 50%.

Where we are now

Supply and demand

Total CO2 emissions

Whole business carbon emissions (2006/07)

Renewable energy capacity

- Waste water (inc. sludge treatment)
- Clean water
- Depots & Transport
Our goal: We will adapt our activities to deal with the potential consequences of climate change, while substantially mitigating our own ‘carbon footprint’ as an effective contribution to the wider effort within Wales.

The water industry is vulnerable to the impacts of climate change, with the potential for more frequent flooding incidents and summer droughts. Although there is uncertainty over the speed and extent of this change over the next 25 years, the potential impacts could be very significant. We are fully committed to playing our part in preparing for the effects of climate change by addressing three areas:

Preparation: We are already preparing the business for the challenges posed by climate change. The removal of surface water and highway drainage from the sewer system will reduce the risk of sewer flooding during heavy rainfall. The impact of climate change will be factored into our water resource plans and flood risk assessments. We will protect key assets that are vulnerable to extreme flooding from rivers, surface water or rising sea levels.

Mitigation: We will minimise our greenhouse gas emissions from operational activities. As one of the top ten energy consumers in Wales, we are committed to limiting our impact on the environment. In recent years, our carbon footprint has increased as we have begun to operate new plants that treat wastewater from coastal communities. However, we are already reducing our carbon footprint through initiatives such as using residual heat from effluent treatment to produce energy to heat offices at our treatment works. Such schemes are intended to save more than 75% of these offices’ heating bills. We will explore additional opportunities to develop further energy saving initiatives. There is also significant potential within our business to develop renewable energy sources – such as from hydro power and methane gas sludge digestion (see page 24).

Where it is cost effective to do so, we will implement clean energy projects. We will consider the possibility of a major wind farm development on our property as part of the Government’s initiative to help Wales achieve its 2020 targets for renewable energy generation.

Communication: We will give employees, customers and stakeholders information on our carbon footprint performance and will continue to promote the most efficient use of water – through the ‘Be Waterwise’ initiative and the industry’s Water Saving Group. We will contribute to industry-wide initiatives and the work of the Carbon Trust to mitigate the impacts of climate change and work with the Welsh Assembly Government and others in formulating a suitable research and development plan.

Our priorities to the milestone year 2015 are:

1. Reducing the amount of surface water entering sewers and drains through sustainable urban drainage, assessing 175 priority catchments and developing model schemes.
2. Investing in key water treatment works to reduce the impact of changes in rainfall patterns on water quality.
3. Providing advanced sludge digestion equipment at five key wastewater treatment works, generating power from the methane gas produced.
4. Expanding our use of low carbon wastewater treatment methods at our sites, such as biological treatment systems and the use of reed beds to aid treatment.
5. We will reduce our total carbon footprint by 25% as against the current level.
6. Protecting our key assets which could be affected by flooding events or coastal erosion.
7. Working with universities and wildlife trusts to understand the potential impact of climate change for us, such as the implications of a possible Severn Barrage scheme.
8. We will make information available to customers and stakeholders on our carbon footprint performance and how they can help reduce our carbon footprint, for example, by using water wisely.
Meeting customers’ expectations

What can customers expect in 2035:

- A zero tolerance approach to water supply failures by maintaining our key assets to a very high standard and using remote monitoring to anticipate problems before they happen.
- Our water resource plans will be based on a hosepipe ban not occurring at a rate of more than once in every 20 years. We will meet our leakage targets and encourage our customers to use water wisely.
- We will have improved the performance of the sewerage network to ensure that no customer’s property is exposed to a significant risk of sewer flooding and that preventable pollution incidents are avoided. Our aim is that there will be no sewer flooding, except in the most extreme rainfall conditions.
- We will have consistently achieved customer satisfaction ratings of above 95%.
- Where customers do need to contact us, there will be a full range of options available and they will always have the opportunity to speak directly to one of our staff based in Wales.
- Customers will continue to have the right to choose whether they wish to conduct their business with us in English or Welsh.

Where we are now

![Graphs showing complaint numbers, customer satisfaction, leakage trend, and sewer flooding over time.](image-url)
Our goal

We provide services that are essential to customers, public health and the quality of the environment. We will meet customers’ increasing expectations, ensuring they have complete confidence in our service.

Welsh Water generally has very high levels of customer service and satisfaction. However, we need to do even better to ensure that all customers can rely on the highest all-round standards.

Water supply: Customers want a reliable, safe drinking water supply delivered at the right pressure. We will ensure that our water resources are adequate, that leakage is kept under control and that interruptions to supply from water mains bursts and maintenance activities are kept to a minimum. Greater use of technology and real time system control will anticipate and prevent interruptions and failures, further enhancing the service to our customers.

Water resources: Our water resource plans help us to assess supply and demand requirements throughout our area. Less than 5% of rainfall in Wales is stored for water supply purposes, so we have to ensure that during prolonged dry periods we have enough water to maintain supplies.

Leakage: With 27,000 kilometres of pipes and more than a million customer connections, some leakage is inevitable. We have sophisticated systems to monitor flows and identify leaks, and we currently repair around 50 every day and have reduced leakage by nearly 50% over the last 10 years. The economic level of leakage is when the cost of fixing leaks equals the value of the water saved, ensuring the lowest cost to customers. As the cost of fixing leaks and the value of water changes (for example through environmental constraints and higher energy costs) we will review the economic level of leakage target and plan our activities accordingly.

Sewer flooding: The performance of the sewer network has improved significantly over the last decade, but remains the least acceptable part of the service we deliver. Our aim is to operate, maintain and invest in our assets to achieve improved performance in the face of emerging challenges such as climate change, population growth, increasing energy costs and higher environmental standards.

Customer contact: We will continue to use advances in information technology to enhance customers’ experience, whenever they have reason to contact us. We will provide more contact options and improve our customer relation management to focus on the resolution of complaints first time, every time. Customers will always retain the option to contact us by speaking directly to one of our trained agents, based in Wales.

Our priorities to the milestone year 2015 are:

- Developing robust 25 year water resource plans based on hosepipe bans occurring no more than once in every 20 years. We will meet leakage targets and encourage customers to use water wisely.
- Improving the performance of the network, with no customer properties being exposed to a significant risk of sewer flooding and no repeated interruptions to a customer’s water supply in any one year.
- Informing catering establishments and others about the problems created by the disposal of fat, oil and grease into the sewer system and offering guidance on preventative measures.
- Using the latest technology, including real time system control, to anticipate and prevent service failures and further minimising customers’ inconvenience through the expansion of ‘no dig’ technologies.
- Renewing 220 kilometres of sewers, 1,200 kilometres of water mains and resolving 1,000 sewer flooding problems.
- Maintaining and refurbishing our assets, including 230 sewage pumping stations and 20 water treatment works.
Looking after our assets

What can customers expect in 2035:

- Our rolling investment plans will cover the next 5 years in detail, in the context of our strategic direction for 25 years into the future. This will enable us to deliver our capital investment programme more efficiently by giving our partners stable workloads.
- Improved asset management information will lead to enhanced planning and decision making capabilities.
- Reactive maintenance costs will have reduced through our greater understanding of when assets need to be maintained. This will allow us to evaluate the economic level of maintenance and make better investment decisions.
- We will have sophisticated equipment across our network, monitoring the performance and reliability of assets that are critical to maintaining service.

Where we are now

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<td>£1.7 billion</td>
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<td>Water treatment works</td>
<td>Coastal waste water treatment</td>
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<td>Refurbishment of water mains</td>
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<td>Other (including growth)</td>
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Our priorities to the milestone year 2015 are:

- Investing more than £75 million through the ITEC programme, delivering improvements throughout the business.
- Developing evidence-based, long-term maintenance regimes for asset groups through the implementation of SIPS.
- Enhancing network rationalisation and network connectivity by improved access to telemetry.
- Demonstrating our excellent asset management competency through accreditation (PAS55).
- Enhancing real time data monitoring and remote control through improved work scheduling and use of mobile working technology.
- Providing robust infrastructure to enable continued economic growth and development in Wales.

Our goal: Our long-term asset planning will ensure the continuation of enhanced standards for the benefit of future generations, at the lowest ‘whole life’ asset cost.

We construct, maintain and manage a huge range of assets on behalf of our customers. Becoming a leading asset management organisation is central to the delivery of the service and value our customers expect.

Our assets: We operate a large network of assets which require regular maintenance. The annual rate of investment (in real terms) since privatisation has been twice that of the years before 1989. However, much of this investment has been for building new assets to meet increasing standards in drinking water and environmental quality. Many of our assets are coming to the end of their useful lives and breakdowns or failures can result in poor service to our customers, such as supply interruptions, low water pressure and high operating and repair costs.

Asset management: Our approach to asset management will be in line with the ‘common framework’, which is a method of assessing and planning capital maintenance investment for water industry assets. We need to deliver the most cost-beneficial investment programmes and a level of service that meets our customers’ expectations. As part of our IT Enabled Change (ITEC) programme, we are implementing a Strategic Investment Planning System (SIPS) that will help us to make more informed asset planning decisions. It will achieve accreditation through the best practice standard for asset management (PAS55), to ensure that asset management is systematic and co-ordinated to a defined standard.

Long-term maintenance plans will lead to a clearer identification of asset problems, allowing investment to be focused and more cost effective. We will continue to pursue innovative waste water and sludge treatment processes that can reduce costs in the long-term.

Complete asset databases and Network Modelling: The quality of our management information has improved significantly in recent years, allowing us to operate our networks more efficiently. We will continue to adopt robust new technologies which allow us to foresee many equipment problems. We will develop and trial strategies designed to further improve our asset information systems, including a better understanding of maintenance requirements.

Asset investment delivery: We will continue with our progressive partnering arrangements to ensure sustainable and competitive delivery of our investment programme. This will maximise innovation and the cost effective delivery of our asset improvement plan.

Adoption of private sewers: The proposal by Defra and the Welsh Assembly Government that water companies adopt private sewers, drains and associated pumping stations will present significant cost and operational challenges. However, it will also provide an opportunity to manage the network better and offer a single point of contact for our customers. We will plan carefully for this event.
Financing the business

What can customers expect in 2035:

- Long-term investors will have benefited from a sustained improvement in our credit quality. We will have a stable ‘A’ grade corporate credit rating.
- Our excellent credit history and rating will mean that our bonds will be regarded as the benchmark for the sector. The spread between our bonds and government gilts will be the lowest of any utility.
- Our financial structure and gearing will be at an optimum level, allowing ready access to funding at competitive rates, irrespective of market conditions. This will ensure that we will always be able to fund our investment needs. Our gearing level will be stable at around 70%.
- Customers will receive a substantial ‘customer dividend’, built-up over a long period of sustained growth. The long-term return to our customers, via dividends and equity growth, will compare favourably with the returns enjoyed by shareholders in the sector.

Where we are now

Credit rating of debt - as at 31 March 2007

Credit rating of debt - as at 11 May 2001

2007 operating costs

Gearing

- AAA rated
- A rated
- BBB rated
- Non rated
Our goal  We will minimise the burden of financing costs on our customers for years to come by offering a high credit quality to long-term investors.

Under the industry’s regulatory regime, the revenues raised from our customers do not fully meet the cash needs of the business to deliver on-going investment. The shortfall, up to some £100 million a year, is met by raising funds from investors via the capital markets. The cost of servicing this debt, which represents around a quarter of our annual expenditure, is met by customers through their water and sewerage bills.

Credit quality: In 2001, on the acquisition of Welsh Water by Glas Cymru, we issued £1.9 billion of corporate bonds. These included £350 million of junior debt - debt at a lower credit rating that attracted a higher rate of interest. Over the past six years we have bought back £225 million of this debt and replaced it with less expensive debt of a higher credit rating. The remaining £125 million of junior debt is due for repayment in 2011. We plan to repay it by raising new debt with a higher credit rating and at a lower rate of interest. The credit quality of the company is an important factor for investors to decide whether to lend us money and at what rate of interest. Credit quality is assessed by the credit ratings assigned by credit rating agencies - the most important of whom are Moody’s, Standard & Poor’s and Fitch Ratings.

Gearing: One of the most important determinants of our credit rating is our level of gearing – the ratio of debt to the value of the business. Since 2001, our gearing has been reduced from 93% to 73% (at 30 September 2007). We believe that our credit rating and financing costs would benefit from further reductions in gearing and our target is to reduce gearing further to around 70% by 2010 and to maintain it at that level.

‘Customer Dividend’: We are the only company in the water sector not to have shareholders. The equity investment in the business is ‘owned’ by our customers and we effectively pay a ‘customer dividend’ by reducing our charges to a level below that allowed by the regulator. We believe it is important that our customers, as the ‘beneficial owners’ of our equity, earn an appropriate return on their investment. The ‘customer dividend’, introduced in 2001 and rebased in 2005, is currently £20 per customer (at a total annual cost of £27 million). The ‘customer dividend’ will grow in real terms and provide a return on ‘customer equity’ comparable to the returns achieved by shareholders in other companies.

Regulatory factors: Achieving our vision is dependent on a number of factors, the most important of which is stability and transparency in the water industry regulatory regime. Although our business model is unique in the industry, we want to be treated the same as any other water company, with the regulatory approach being consistent across the industry and stable over time.

Our priorities to the milestone year 2015 are:

- Attaining and maintaining a level of gearing of 70% to encourage long-term investor appeal.
- Continuing our focus on achieving value for money for customers through efficient delivery of services and investments.
- Pursuing innovative financial strategies to further reduce our interest costs.
- Continuing a progressive customer dividend policy.
- Continuing to work with stakeholders to promote and recognise the unique features of our business model.
What can customers expect in 2035:

- We will be a progressive and ethical company - an ‘employer of choice’ for highly skilled and talented people.
- A safe working environment with a zero tolerance approach to unsafe behaviours and hazards. We will maintain sector leading performance in terms of reportable accidents and dangerous occurrences.
- We will have a strong technological and scientific competency base, consistent with the use of new technology.
- Employee satisfaction will continue to be tracked through staff opinion surveys. We aim to ensure a satisfaction rating of at least 90%.
- Our people will contribute to the culture, economy and heritage of the communities we serve.

Where we are now

![Staff satisfaction chart](chart1)

![Health and safety - reportable accidents chart](chart2)

- **Business In The Community award** (Living and Learning 2007)
- **Staff take on Monro Challenge for WaterAid**
Our goal The best people will be proud to work for us because of the quality of service the company provides, the opportunities we offer and the safe environment within which we work.

Skilled and highly committed staff are crucial to achieving our objective of being recognised by customers as the best water company in the UK. We must ensure that Welsh Water is an excellent place to work in order to attract and retain the right people through our approach to our business.

Outsourcing to expert partners: We will continue with our unique business model of working in alliance with ‘best in class’ partners. At present our 15 partners employ 3,000 people, with only 170 people being directly employed by Welsh Water. We place great emphasis on ‘partnering’ and will continue to develop this approach in our dealings with our service providers and other similar organisations.

People: We will have the right people in all jobs. Technical competencies will be enhanced, with particular emphasis on apprentice and graduate development programmes - ensuring that this involves all our partners. We will have an effective succession planning process to mitigate the loss of key skills through our demographic profile. Staff secondments will provide further opportunities to develop the skills and experience needed to take the business forward.

This will help to ensure that we are able to:

- Easily fill job vacancies, with motivated, talented people.
- Retain a stable age profile and staff with scarce skills.
- Motivate our employees so that we are the clear ‘employer of choice’ in every respect.

Change management: In order to deliver and improve customer service and increase our operational efficiency, we will ensure that our people have the skills to adapt to technological change. Our employees will be encouraged to adapt to necessary changes to further improve our overall standard of performance. Advances in technology and innovation require new skills and through progressive recruitment strategies and staff development programmes, we will make sure that we have the right skill base to meet these changes. In particular, we will ensure that the scientific skills and knowledge in the business remain at a consistently high level.

Health and safety: This will remain of paramount importance and we will achieve sector-leading performance by having the least number of reportable accidents and consequent working days lost. We will continue initiatives such as introducing an externally accredited occupational health and safety management system (OHSAS 18001) and effective and continuous training for staff.

Our priorities to the milestone year 2015 are:

- Investing in health and safety with an externally accredited management system (OHSAS 18001).
- Providing equality of opportunities.
- Developing innovative recruitment programmes with graduate and apprenticeship opportunities.
- Supporting our people through a major process of change in IT skills and working practices.
- Developing our partnering methods with our long-term service providers.
- Improving our scientific skill base.
- Working with our partners to ensure our mutual objectives are achieved.
- Maintaining the skills and capabilities of our people through targeted development programmes.
Affordability and value for money

What can customers expect in 2035:

- We will continue a long-term ‘progressive’ customer dividend policy, so that our customers’ bills will be lower than those of equivalent water companies in England.
- We will have kept water bills stable in real terms. As we plan significant service improvements over the period, we will deliver much enhanced customer value.
- We will achieve a minimum of 95% customer satisfaction with the value for money of the services we provide.
- We will have a low proportion of customers who have debt problems, with fewer than 5% having significant arrears.
- We will have a range of tariffs and collection options that are acceptable to customers and administered efficiently.
- We will be recognised as one of the most efficient water and sewerage companies in the sector.

Where we are now

<table>
<thead>
<tr>
<th>Customer debt - % of turnover</th>
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</thead>
<tbody>
<tr>
<td>Welsh Water Average</td>
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<table>
<thead>
<tr>
<th>Change in operating costs</th>
</tr>
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<tbody>
<tr>
<td>WSH SRN ANG NNE UU YK SVT WSS WST TMS</td>
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<table>
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<tr>
<th>Water bills 2006-07</th>
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<tr>
<td>SHN NNE YK SVT ANG UU WSS TWS WST</td>
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<tr>
<th>Sewerage bills 2006-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMS SVT YK NNE UU WSS ANG WSH SRN WST</td>
</tr>
</tbody>
</table>
Our priorities to the milestone year 2015 are:

- Keeping bills stable in real terms.
- Lobbying Government to ensure that the impact of legislative changes on customers’ bills are fully understood.
- Measuring domestic and business customer satisfaction with value for money, through customer research, and seeking their views when formulating bill payment strategies.
- Reducing the cost of customer debt by innovative collection initiatives.
- Liaising with social housing landlords and other organisations to create alternative collection facilities.
- Continuing to rigorously pursue internal cost efficiencies across all areas of our operations.

Our goal: Our customers will regard the services we provide as affordable and good value for money, with a range of help targeting customers who struggle to pay.

Customer debt: Our priority is to find ways of reducing the overall level of debt, including the cost of recovering arrears, which is a cost borne by all our customers. This will be achieved by helping customers manage payment more easily. For example, we will work with local authorities and social housing landlords to develop partnership arrangements in which they manage the process of collecting water bill payments from customers.

Disadvantaged customers: We will provide practical advice to disadvantaged customers and will work closely with local authorities and the Citizens’ Advice Bureau. Where appropriate, we will ensure that customers have access to our hardship fund.

Metering: A significant majority of our domestic customers’ bills are unmeasured and based on the rateable value of their homes. Although all customers will continue to have the free option to be metered, we intend taking a cautious approach to the promotion of metering as we do not believe that universal metering is a cost effective billing method or the optimal response to any water shortages that could occur in our area.

Internal cost efficiencies: We shall constantly pursue internal cost efficiencies whilst delivering our capital programme. These will be achieved through process improvements, IT change, enabling investment, peer review and delivery of innovative approaches to challenge our cost base.

Customer bills: Increases should not exceed general inflation after 2010, although this may depend on factors outside our control, such as:
- The proposed transfer of responsibility for private sewers, drains and pumping stations to water and sewerage companies.
- Charging for use of highways under the provisions of the Traffic Management Act (TMA).
- The implementation of known legislation such as the Water Framework Directive.
- The potential impact of further unexpected European environmental requirements.
- Tax changes such as the abolition of the Industrial Buildings Allowance.
- Climate change commitments.

Although the impact of these risks is not yet known, individual items such as the TMA, the adoption of private sewers and tax changes could each add £5 - £10 every year to the average customer’s bill.
Prospects for our 2010 - 2015 Asset Management Plan (AMP5)

We believe that our high-level priorities for investment and improvements in the period 2010 to 2015 will include:

- Development and implementation of long-term asset strategies for all parts of the business. These will include prioritised, risk based asset maintenance regimes to deliver customers' service expectations at lowest whole-life cost.
- Installing enhanced treatment processes at 16 water treatment works to further protect water quality.
- Targeted asset improvements to address current service and environmental performance deficiencies – particularly for sewer flooding and pollution incidents.
- Improved energy efficiency and carbon reduction measures, particularly through investment in advanced sewage sludge digestion.
- Investigation of environmental impacts and possible mitigation measures for example arising from the Water Framework Directive.
- Additional protection for key assets against the risk of flooding.
- Continued investment in new IT systems, operational processes and staff training to improve customer service and efficiency.
- Customer bills rising at most in line with general price inflation (RPI).
- Gearing at around 70% and an ‘A grade’ corporate credit rating.
- Continuation of our progressive policy for ‘customer dividends’.

Outline investment plan 2010 - 2015

<table>
<thead>
<tr>
<th>Key deliverables</th>
<th>Service aspirations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water supply</strong></td>
<td><strong>Water supply</strong></td>
</tr>
<tr>
<td>1200km water mains renewed.</td>
<td>&lt; 150 bursts per 1000km.</td>
</tr>
<tr>
<td>Substantial maintenance at 20 Water Treatment Works.</td>
<td>No repeated interruptions to same property in same year.</td>
</tr>
<tr>
<td>Planned maintenance at 82 Water Treatment Works.</td>
<td>Security of Supply Index of 100%.</td>
</tr>
<tr>
<td><strong>Drinking water quality</strong></td>
<td><strong>Drinking water quality</strong></td>
</tr>
<tr>
<td>New coagulation at 9 Water Treatment Works.</td>
<td>100% bacteriological compliance.</td>
</tr>
<tr>
<td>New membrane/UV treatment at 7 sites.</td>
<td>Iron compliance &gt; 99.5%.</td>
</tr>
<tr>
<td>Drinking water safety plans completed for all sites.</td>
<td>Water quality customer complaints, upper quartile performance.</td>
</tr>
<tr>
<td><strong>Sewerage</strong></td>
<td><strong>Sewerage</strong></td>
</tr>
<tr>
<td>Tackle 1,000 sewer flooding problems.</td>
<td>Sewer flooding reduced to 110 properties per year excluding severe weather.</td>
</tr>
<tr>
<td>Renew some 220km of sewers.</td>
<td>Collapse rate at 25 incidents per 1,000km.</td>
</tr>
<tr>
<td>Major refurbishment of 230 Pumping Stations.</td>
<td>Targeting zero significant pollution incidents and reduced minor incidents.</td>
</tr>
<tr>
<td>Investigate the condition of private sewers.</td>
<td><strong>Wastewater treatment</strong></td>
</tr>
<tr>
<td><strong>Wastewater treatment</strong></td>
<td><strong>Wastewater treatment</strong></td>
</tr>
<tr>
<td>Advanced sludge digestion at 5 key sites.</td>
<td>Reduce our carbon footprint by 25%.</td>
</tr>
<tr>
<td>Improve treatment at 15 key sites.</td>
<td>Maintain leading bathing water and river standards.</td>
</tr>
<tr>
<td>120 environmental impact investigations.</td>
<td></td>
</tr>
<tr>
<td>30 bathing water investigations.</td>
<td></td>
</tr>
<tr>
<td>10 endocrine investigations.</td>
<td></td>
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</tbody>
</table>
Our goal

Our plans for the AMP5 period to 2015 will reflect our long-term objectives, as set out in this document, and the priorities of our customers, which we will continue to investigate with the Consumer Council for Water Wales.

Consulting with customers: We have recently carried out a significant customer research exercise, to find out what are our customers’ views for the long-term and their priorities for the next five years. This exercise demonstrated strong support for our proposed strategy of protecting public health, protecting the environment and anticipating the effect of climate change, all within a framework of customer bills not needing to increase in real terms.

Illustrative impact on customer bills: Our preliminary views of priorities for the period 2010 - 2015 (AMP5) suggests an investment programme similar in magnitude to that in the current period 2005 - 2010 (AMP4). This is costing approximately £1.3 billion, equivalent to £1,000 for every household we serve. Our initial financial modelling using the same methodology and assumptions as that used by Ofwat at the 2004 Price Review suggests that this would result in customers’ bills not needing to rise above general price inflation. This would mean that the general problems of affordability should not get worse and, with environmental quality, service and reliability improving at the same time, customer value for money should improve significantly. This would be a very positive outcome for Welsh Water and its customers.

Major risk factors: At this early stage, these projections need to be treated with caution. Major uncertainties could result in cost increases or significant additional pressures for investment and, consequently, put at risk the delivery of a stable profile for customers’ bills. Some particular uncertainties outside our direct control were highlighted on page 21. We intend to lobby Government to ensure that future decisions on such matters are taken in full knowledge of the resulting impact on the industry and water customers’ bills.
Innovation

To deliver the long-term objectives set out in this document, we will need to change profoundly the way we operate, demonstrating continuing innovation right across our business. This is nothing new. In recent years, we have demonstrated our position at the forefront of innovation by having:

- A unique corporate structure.
- Innovative financing techniques.
- A long-term outsourced service model.
- A major IT enabled change programme (ITEC).
- Research and trials of low carbon treatment and renewable energy.

We foresee several key areas where innovation in the coming years will make a significant difference to our ability to deliver for our customers:

Harnessing competition: We support competition where it delivers better outcomes for customers as a whole, e.g. lower prices and new or improved services. We consider that the greatest level of competition in the water industry is currently provided by our unique outsourcing approach through our asset management alliance. This strategy makes us an international leader in the creation of a competitive value chain in the water sector. We have continued to develop a programme of relationship management with long-term service partners improving the service to customers. All outsourced appointments were made following competitive tendering processes. We will continue to develop best practice in our procurement and partnering activities.

Low-carbon technologies: The use of reed beds as an alternative means of biological treatment is being tested at specific sites and, as part of a carbon management strategy, we will be assessing the effectiveness and cost-benefits of replicating this at other sites. We will also continue to seek benefits from the introduction of renewable energy schemes and investment in low energy technologies and assets. For example, we will expand the use of advanced sludge digestion at key sites and use the methane gas produced to generate power. We recently created our first carbon neutral water treatment works near Harlech, using small-scale hydropower and we will continue to look for similar opportunities to reduce our carbon footprint.
Developing our IT and remote monitoring: Current developments in IT systems and communications are enabling us to change dramatically our core business processes, with a view to achieving improved operating efficiency and customer service. For example, our SIPS (Strategic Investment Planning System) will support our asset management decision-making in the future. This approach will help us to make robust investment decisions, and optimise the efficiency of long-term asset maintenance expenditure. We also intend to extend the use of fully integrated measurement and telemetry systems such as Hawkeye units, specifically designed to monitor the performance of our sewer network. It will provide us with significant operational and cost advantages and will benefit customers through improved pollution prevention.

Zero tolerance approach to service failures: Our zero tolerance approach to service failures will be achieved through the development of comprehensive maintenance programmes which ensure that key assets are maintained to a very high standard. We will use remote monitoring to anticipate problems before they happen, and the use of real time system control will allow us to deal with incidents swiftly and efficiently. Where service failures do occur in exceptional circumstances, we will be able to target appropriate mitigation to prevent a recurrence, providing reassurance and appropriate compensation to the customers affected.

Sustainable urban drainage systems: Storm water discharging from roads, roofs and concrete surfaces such as car parks and entering our sewerage network can overload the system and cause acute flooding problems. The cost of pumping the excess water can also be expensive in terms of energy consumption and can increase our carbon footprint. We are looking at long-term integrated solutions and the promotion of Sustainable Urban Drainage will be a key element of our business strategy over the next 25 years. As part of this strategy we will be adopting the most innovative techniques and will be investigating such areas as rainwater harvesting, bio-vegetative treatment, flow monitoring and permeable paving. Pilot studies investigating sustainable solutions are already underway at Llanelli, Pwllheli, Coedpoeth and in the Llyfn Valley and flooding forums have also been established in certain areas to help raise awareness of the issues. We will be working closely with the Welsh Assembly Government, the Highways Agency, local authorities, developers and the Environment Agency to find ways of mitigating the effects of storm water entering our sewerage system.
Customer research:

Our customers comprise a diverse group; ranging from the urban centres to the very rural locations across Wales. The purpose of the research was to ensure that our long-term sustainable strategy reflected the aspirations of customers and was grounded in customer priorities. Our approach involved undertaking a series of facilitated discussions with a representative selection of customers from different socio-economic strata, different age groups and mixed gender. This is known as ‘deliberative research’. We also involved the Consumer Council for Water Wales and the Environment Agency as observers during our research.

During our research, we sought views from our customers on the strategy contained within this document. Our proposed aims and objectives were all endorsed by customers and no higher priorities were suggested.

Customers were generally satisfied with the service they received and had a high degree of confidence in the quality of their tap water. There was general consistency across the groups as to the underlying priorities, with ‘supplying safe clean drinking water’ being ranked the most important followed by ‘affordability’ and meeting customers’ expectations of service. The removal of sewage and keeping the beaches, seas and rivers clean were also recognised as being important. Customer service was praised and customers indicated that they liked speaking in person to a company representative from a UK Call centre.

All of the groups were aware of the challenges posed by climate change but, whilst they felt that water companies had a part to play, they considered that the main focus should be on running the business well.

Affordability was a key consideration and many commented that their bills were more expensive than in adjacent parts of England, which take part of their water from sources in Wales. In terms of paying more for certain enhanced service, e.g. an even cleaner environment or helping those having genuine difficulties in paying their bills, there was no great appetite to pay any more. For example a minority of customers were prepared to pay a small sum (typically £1 or £2 per household, per year) for an even cleaner environment or to help those worst served customers affected by sewage flooding.

Stakeholder engagement: We have engaged a wide range of stakeholders during the formulation of this document and have sought their views on our key strategies and priorities. These have included the Drinking Water Inspectorate, Ofwat, Welsh Assembly Government (WAG), Consumer Council for Water Wales, Countryside Council for Wales, Environment Agency Wales and Natural England. This has been achieved through the WAG forum and bilateral meetings with the relevant stakeholders at different stages. This process will continue as we move forward and it is our intention to engage further with AMs, MPs and other elected representatives. We will also continue to have regular contact with our business customers to ensure their specific needs and priorities are fully understood.