Severn Trent Water

Final Business Plan

Part A – Company Strategy

April 2009

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Final Business Plan
Part A – Company Strategy

Foreword

In December 2007 we published our Strategic Direction Statement (SDS) setting out our 25-year vision. In August 2008 we published our Draft Business Plan (DBP), setting out the steps we will take over the next five years in working towards delivering the eight Key Strategic Intentions (KSIs) we set out in the SDS. This Final Business Plan (FBP) refines the proposals set out in the DBP, taking into account feedback from Ofwat and other stakeholders and additional work to increase the robustness of our analysis.

This FBP has been put together in a holistic and balanced way. It has been produced directly from our rolling business planning process, whereby each year we produce a five-year forward looking plan. For this year we produced a plan to 2014/15 (the whole of the price-setting period).

Since the DBP was produced, the economic environment has deteriorated significantly and greater volatility has become the norm. This underlines the need to set bills at a level which domestic customers and businesses can afford. It also means that the future costs of financing are more uncertain and that price limits need to be set at a level which allow us to withstand economic fluctuations.

In putting the SDS together we wanted to know what our customers and stakeholders considered to be important and we undertook extensive market research early on to determine customers' priorities and willingness to pay. We have supplemented this for the FBP with further research reviewing the acceptability of our DBP proposals. We believe we have put customers "at the heart" of our plan, by delivering improvements whilst keeping prices as low as possible. We have applied the appropriate risk-based framework, including applying the Capital Maintenance Planning Common Framework.

We support Ofwat's increased emphasis on long-term planning and balancing costs and benefits, and the introduction of the Capital Incentive Scheme (CIS). In order to make the right decisions we need to look ahead to the long-term needs of customers and other stakeholders. The water industry is vital to people's health, to the environment, and to the economy. The SDS set out the complex and demanding challenges we face over the next twenty-five years. These challenges have, however, already begun. For example, in the summer of 2007 we saw unprecedented flooding in the Midlands and Gloucestershire. This highlights the importance of some of the proposals we have put forward in this plan, in particular in terms of the resilience of our network, where our plans are based on a detailed review of risks.

The outcomes of our plan are consistent with our SDS and deliver improvements which all stakeholders want, while ensuring that our plans are affordable. This includes:

- **Lowest possible bills** – average household bills will rise by 4% in real terms by the end of the period (KSI 5 – having the lowest possible charges).

- **Improved services** including increased network resilience (KSI 1 – providing a continuous supply of quality water) and reducing sewer flooding (KSI 2 – dealing effectively with waste water).
- **Environmental improvements** delivered through improving sewage treatment (KSI 2 – dealing effectively with waste water).
- **Increased spending on assets** to ensure that the environmental and drinking water quality improvements achieved since privatisation are maintained (KSI 1 – providing a continuous supply of quality water and KSI 2 – dealing effectively with waste water).
- **Challenging efficiency targets** are proposed (KSI 5 – having the lowest possible charges).
- **A financeable plan** which strikes the right balance in keeping prices low for the long-term and maintaining investor confidence, including delivering a sustainable and progressive dividend policy (KSI 7 – maintaining investor confidence).
- **Sustainable solutions** including promotion of catchment management, sustainable drainage solutions, and taking into account carbon impacts in all the decisions on our programme (KSI 4 – minimising our carbon footprint).

The plan reflects the views of the wider stakeholder groups we have consulted during its preparation. We have engaged with the Consumer Council for Water (CCWater), the Environment Agency (EA), the Drinking Water Inspectorate (DWI) and Natural England through the established quadripartite process sharing the outcomes of our Plan. This has resulted in a broad support for our Plan with, for example:

- CCWater supporting our overall proposals for keeping bills down while delivering service improvements.
- The EA working with us to develop the environmental programme – we have reviewed the programme with them to ensure that improvements are only included if justified by the environmental benefits achieved.
- DWI now supporting our programme for targeted lead pipe replacement.
- Consultation with investors in preparing our cost of capital paper and updating it following their feedback.

We believe that the outcomes are broadly supported by our key stakeholders. We have taken into account feedback from Ofwat and Atkins, our Reporter, and consider that our plan is now more robust. We have made central estimates of the expenditure needed to deliver improvements. Reductions in expenditure by Ofwat (e.g. through the application of the CIS) would put at risk the improvements in services which customers want. If expenditure reductions are made we reserve the right to remove the associated outputs.

In developing the plan to meet our objectives we were faced with a number of significant challenges, in particular:

- Our objective of delivering lowest possible prices is affected by upward pressures on our operating costs such as rates, abstraction charges and Traffic Management Act costs, which outweigh the challenging efficiencies which we have included in the plan.
- Our plans to reduce greenhouse gas emissions are being offset by a number of upward pressures, the most significant of these being new environmental quality standards.

There are a number of key assumptions in the FBP that are currently uncertain and potentially volatile, particularly related to the stability of the economic environment and financing:

- Sustained periods of negative inflation, without proper allowance in price limits, would reduce our income and make financing the plan difficult.
- The future cost of borrowing and availability and source of funds are uncertain.
- The future demand for water is affected by the depth and duration of the economic recession, as is the level of bad debt.
- Operating costs may be significantly affected by changes in energy and other commodity prices.

Our plan sets out approaches for managing such risks where we can, rather than relying on resetting prices during the five-year period. However, the current volatility means that we may well need to submit further information to Ofwat as the economic situation develops, ahead of the Final Determination.

There are other risks in delivering the plan, for example with delivering substantial efficiency savings, but we believe that we are well-placed to manage these, with the exception of private sewer adoption and the introduction of a new competitive regime, which may require resetting price limits in the five-year period.

Price Limits need to be set which enable us, in a time of uncertainty, to finance the plan through a five-year period. A period of negative inflation would reduce our income levels and damage our financial ratios, which could affect our credit rating and our ability to raise finance on reasonable terms. This would ultimately be against customers' interests. Our plan provides for the risk of negative inflation for one year, but it would be problematic if this continued for a second year.

We are discussing with Ofwat options by which this risk, which is beyond our control, can be managed. We have put forward a proposal in this plan whereby Price Limits would be set higher in the second year to allow for the possibility of continued negative inflation (though prices would still be lower in nominal terms than if inflation returns). Any additional revenue arising from higher prices would be returned to customers as and when economic conditions permit. If negative inflation did not occur in 2011/12, we would not use the additional Price Limits.

Our plan makes progress on improving services which customers think are worthwhile, maintains our drive for lowest prices, and delivers environmental improvements. This is possible as a result of the very challenging efficiency targets which we have set. If Ofwat make reductions in the assessment of expenditure needed, we may not be able to deliver the outputs which we are proposing. We will be discussing our plans further with Ofwat, and when final decisions on prices and outputs are made by Ofwat it is essential that the overall balance of the plan is maintained.

Tony Wray – Chief Executive

Severn Trent Water
Final Business Plan
Part A – Company Strategy

Executive Summary

Our approach to the Final Business Plan

In December 2007 we published our Strategic Direction Statement (SDS), which set out our approach to dealing with the challenges we face for the next twenty-five years. Our aim is to be the best water and waste services company, achieving the highest customer service and environmental standards while at the same time offering our customers the lowest possible prices and maintaining investor confidence.

In our Draft Business Plan (DBP) we set out how we proposed to make progress over the next five years (2010/11 to 2014/15) in achieving our long-term objectives, and the price limits needed to enable these plans to be delivered. We have now produced our Final Business Plan (FBP), taking account of:

- Feedback from Ofwat and other stakeholders.
- Further work to improve the robustness of the investment programme.
- The significant deterioration in the economic climate since the DBP was produced.

The FBP has been put together in a holistic and balanced way and has been produced directly from our business planning process. This was initiated in 2006, with the objective of building an integrated planning framework within which a long-term strategy could be developed, and linked to medium-term operating plans and annual budgets through a rolling process. This approach provides consistency between our internal plans and ensures continuity to our Periodic Review submissions. In addition to meeting regulatory requirements, our plan is based on our own Key Performance Indicators by which we measure our performance and set targets.

We have based our plan on customer priorities and have taken into account the views of other stakeholders. Since the DBP was produced, the economic environment has, however, deteriorated significantly. This means that the future costs of financing are more uncertain, and underlines the need to set bills at a level which businesses and domestic customers can afford. We have reduced the scale of our programme to reflect the changed environment and our improved analysis of options to deliver improvements.

We have produced an optimised plan, in that:

- We have reviewed alternative options for delivering improvements and maintaining services to ensure that our programme is cost-effective.
- We have balanced service improvements and bills, taking into account customer research and the need for affordable bills.
- The choice of service improvements is based on customer priorities.

- We have taken into account synergies between different parts of the plan.

In developing the plan to meet our objectives we were faced with a number of significant challenges, in particular:

- Our objective of delivering lowest possible prices is affected by upward pressures on our operating costs such as rates, abstraction charges and Traffic Management Act costs, which outweigh the challenging efficiencies which we have included in the plan.
- Our plans to reduce greenhouse gas emissions are being offset by a number of upward pressures, the most significant of these being new environmental quality standards.

There are a number of key assumptions in the FBP that are currently uncertain and potentially volatile, particularly related to the stability of the economic environment and financing:

- Sustained periods of negative inflation, without proper allowance in price limits, would reduce our income and make financing the plan difficult.
- The future cost of borrowing and availability and source of funds are uncertain.
- The future demand for water is affected by the depth and duration of the economic recession, as is the level of bad debt.
- Operating costs may be significantly affected by changes in energy and other commodity prices.

In December 2008 Ofwat published its initial view (the Capital Incentive Scheme baseline) of the level of capital expenditure we need to spend in AMP5 (the five-year period from 2010/11 to 2014/15). This was significantly lower than in our DBP (£2.4 bn compared with £3.1 bn in our DBP). The work we have carried out to improve the robustness of our plan has reduced the difference between Ofwat's view and our plans, but significant differences remain, in particular in relation to:

- The level of investment needed on mains replacement to sustainably control leakage.
- The amount of action to be taken to address sewer flooding.
- The extent to which additional maintenance is needed to maintain stable serviceability.

We have provided additional information in our plan in support of our proposals and will be discussing these issues further with Ofwat. Should Ofwat not allow expenditure in price limits we reserve the right to remove the associated outputs rather than fund such investment through the CIS mechanism.

Our proposals are underpinned by a sustainable financing plan. We will make progress in improving services, and continue to meet the challenge of climate change – adapting our operations and reducing our carbon footprint. The flooding incident in Gloucestershire in 2007 highlighted that we need to take extra measures to ensure that we meet customer needs for reliable supply. Our plans are directed towards sustainable solutions, contributing to meeting the government's sustainability objectives. Our programme of service improvements is underpinned by cost-benefit analysis, comparing the costs of improvements with the benefits to customers.

Ensuring that maintenance is sufficient to maintain stable serviceability, sustaining the service and environmental improvements made since privatisation, is a key part of our plan. We have invested over £10 billion since 1990 (nearly £3,000 per customer), and some of the assets installed in the early 1990s are now reaching the end of their useful lives. Our capital maintenance programme is largely based on a forward-looking approach to determine the

appropriate level of investment, modelling the future rate of asset deterioration and the resulting risk of impact on service, in line with the UKWIR Capital Maintenance Planning Common Framework.

Our plan is based upon delivering against the eight key strategic intentions (KSIs) set out in our SDS, which reflect our aims for service, the environment and charges. These KSIs reflect what our customers consider important and the views of wider stakeholder groups.

Our proposals under each of these KSIs are summarised below, together with tables showing expenditure proposals. The figures in all the tables are at 2007/08 prices and incorporate estimated efficiency savings. Capex (capital expenditure) is the total spend for the five years; opex (operating costs) is the annual additional spend by 2014/15 over 2009/10 levels.

KSI 1 – Providing a continuous supply of quality water

Ensuring a reliable, safe water supply is the top priority for our customers. Our plans are designed to ensure that we maintain our current high quality standards and increase reliability of supplies.

The key elements of our plan are:

- Increasing the resilience of our assets to reduce the risk of supply failures.
- Reducing interruptions to supply.
- Increasing expenditure on water mains replacement and on maintenance of some of our key assets in order to maintain service levels.
- Balancing supply and demand, principally through:
  - Reducing leakage.
  - Promoting water efficiency through education programmes and the use of more water-efficient equipment.
- Meeting water quality standards through a programme to increase treatment where raw water quality is deteriorating, and working to influence agricultural practice to improve water quality entering treatment works.

Expenditure – Ensuring a continuous supply of quality water		
Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
Ensuring a continuous supply	624	2.0
Providing safe, acceptable drinking water	281	2.1
Having enough water available to meet demand	114	5.2
Resolving low pressure problems	18	0.6
Total - Providing a continuous supply of quality water	**1,037**	**9.9**

KSI 2 – Dealing effectively with waste water

Our proposals are based on making improvements which customers support, in particular reducing sewer flooding, and ensuring that we have a sustainable impact on the environment. As requested by Ofwat, we have not included the costs of adopting private sewers as the timing and scale of asset adoption is uncertain.

The key elements of our plan are:

- Action to reduce the number of sewer flooding incidents.
- Increasing maintenance at sewage treatment works; significant investment in sewage treatment improvements was made between 1990/91 and 1994/95, and many of these assets will need replacement in order that reliable services are maintained.
- Meeting new standards for sewage treatment – delivering environmental improvements through producing higher quality sewage effluents.
- Increasing sewer replacement, and a programme of measures to achieve a further reduction in pollution, including increased sewer cleansing and installation of more telemetry on our network so that we are aware of problems more quickly.
- A programme of measures to reduce odour problems.
- Increasing digester capacity to deal with additional sludge from higher treatment standards and new customers.
- For AMP5, focussing on securing the quality of our product and eliminating our reliance on liquid to land operations by providing more dewatering installations. The sludge to agriculture route is currently considered the best practicable environmental option but has operational risks in terms of the future availability of this route.
- Optimising sludge drying and developing new technology for use of sewage sludge as a renewable energy source.
- Contributing to Local Authorities' surface water management plans and working with them and other stakeholders to develop integrated flooding solutions.

Our expenditure proposals are shown in the table below.

Expenditure – Dealing effectively with waste water		
Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
Dealing with sewer flooding	191	1.6
Meeting new sewage treatment standards	235	7.3
Maintaining the network	722	(0.1)
Controlling pollution	107	1.2
Dealing with problems of odour from sewage treatment works	7	0.0
Dealing with sewage sludge sustainably	14	(0.7)
Total - Dealing effectively with waste water	**1,276**	**9.3**

KSI 3 – Responding to customers' needs

Our customers tell us that, in addition to providing the highest levels of water and waste services, they expect to see higher standards of service in relation to customer contact and billing issues.

The key elements of our plan are:

- Improving our quality and speed of response when customers contact us.
- Making improvements in the way in which we operate our water mains and sewer networks and billing systems to minimise the need for customers to contact us due to service failures.
- Increasing the number of operational problems resolved at the first contact or visit to customers' properties.

- Increasing the range of communication channels which customers can use to contact us.

There is no additional net expenditure included for achieving higher standards – we expect improvements in our processes to enable us to provide better customer service and increase efficiency. The initial investment needed to deliver efficiency savings is included under KSI5.

In this KSI we also include our responsibilities to the local community – we play an important role in the provision of a vital public service to the communities we serve.

Expenditure – Responding to customers' needs		
Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
Conservation, access and recreation	13	0.0

KSI 4 – Minimising our carbon footprint

The UK is taking a leading position to address climate change and in particular action to reduce emissions of greenhouse gases. The UK water industry is responsible for less than 1% of total UK emissions, about 5 million tonnes, but it recognises it has a role to play in seeking to reduce emissions. Our KSI 4 sets out the key actions the company is taking to seek to minimise its own emissions. The main challenge which we face is the increasing quality and environmental standards, which put upward pressure on emissions, primarily through increased energy use.

Our approach in this Business Plan has been an economic one, which takes account of the potential climate change effects by using the Defra "social cost of carbon" in assessing our proposals. This is consistent with the approach required by Ofwat. We believe that this approach strikes the right balance between our intention to seek to minimise our carbon footprint and our other commitments to our customers.

In the FBP we forecast that our net operational greenhouse gas emissions will stay virtually stable until 2015.

The key elements of our plan to reduce our carbon footprint are:

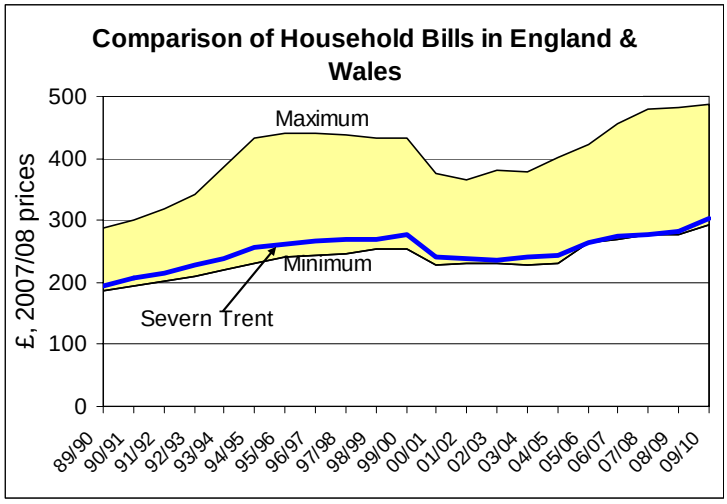
- Measures to achieve significant efficiencies in energy use.
- Taking into account carbon impacts in assessing the case for further quality and environmental improvements.
- Additional electricity generation projects, in particular using sewage sludge as a renewable energy source, to build upon our leadership position in the water sector.

The carbon impact of our operations is projected to remain virtually unchanged between 2009/10 and 2014/15. There are significant increases due to changes in services, with the largest contributor being the waste water quality programme, which we have managed to offset through the reductions which we are making

Our expenditure proposals are shown in the table below (energy cost savings are included in KSI 5).

Expenditure – Minimising our carbon footprint		
Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
Renewable energy generation	6	See KSI5

KSI 5 – Lowest possible charges



Since privatisation in 1989, bills for Severn Trent customers have been amongst the lowest in the country, while at the same time services have been improved. It is our objective to retain this position, while aiming for highest standards, and making improvements where supported by customers.

The key elements of our plan are:

- Limiting bill increases by ensuring that any planned improvements are supported by customers.
- Challenging targets for making continued improvements in efficiency in both capital expenditure and operating costs, enabling us to keep bills down. Examples include our accommodation and Information Technology (IT) strategies.
- Identifying cost-effective solutions to new requirements – in 35 cases we have identified that new sewage treatment standards can be met without additional investment.
- Ensuring proposed service improvements take account of willingness to pay amongst low-income groups.
- Continuing to increase metering - rateable values are now 30 years old and becoming an increasingly outdated basis for charging unmeasured customers.
- Developing payment options and continuing to support our charitable trust which provides help to those in debt – to help the most needy and least able to pay.
- Making sure that those who can pay but won't are pursued effectively.

We have been reinvesting AMP4 efficiency savings to deliver further savings in AMP5. There will be some further 'up front' capital and operating expenditure in early AMP5. These costs have been incorporated in our plan and are included in the table below.

Our objectives to reduce our operating costs are affected by upward pressures on our operating costs such as rates, abstraction charges and Traffic Management Act costs, which outweigh the challenging efficiencies which we have included in the plan.

Expenditure – lowest possible charges		
Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
IT	101	(62.8)
Accommodation strategy	65	
Efficiency Initiatives	39	
Maintaining our transport fleet	28	
Maintaining other assets (small items e.g. mobile emergency pumps)	9	
Total – initiatives to promote lowest possible charges	**242**	

KSI 6 – Having the right skills to deliver

If we are to deliver service improvements and increase efficiency, we need to have the right people and resources available to us. Key aspects of this are attracting and retaining the right skills among our employees and suppliers.

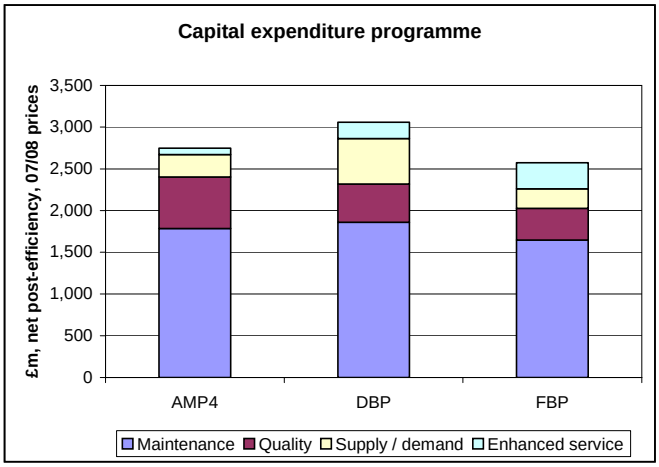
The key elements of our plan are:

- Building a talented, diverse workforce with the right skills, experience and behaviours.
- Ensuring that we retain the right skills, particularly when we consolidate our central Midlands offices.
- Creating an environment where people want to work and can perform at their best, including giving a very high priority to health and safety.
- Championing skills development in the region and engaging with schools and colleges.
- Promoting the economy and the environment of the region for the benefit of our communities and for Severn Trent.

KSI 7 – Maintaining investor confidence

Privatisation has enabled funding of a large investment programme over the last 18 years – about £10 billion in our case. Our plans show that there will be a continuing large capital programme to be financed. Investor confidence needs to be maintained so that finance can be obtained at reasonable cost. The cost of borrowing has increased in recent months as a result of changed financial market conditions.

The financing plan is designed to achieve an appropriate balance between risk and return. We have assumed a cost of capital of 5% but this will need to be reviewed before Ofwat finally sets prices in December 2009 in the light of developments in market conditions.



Net borrowing will increase by around £1bn from 2008 to 2015. Gearing is expected to fall slightly during the period to 63%, slightly below the current industry average. Financial performance is assessed to be

sufficient to maintain a stable credit rating, enabling us to finance the capital programme on reasonable terms.

The key elements of our plan are:

- Setting a cost of capital which ensures water remains attractive to investors in order to secure sufficient financing for our significant planned investment programme.
- Having a financial structure which can absorb the impact of business cycle changes and enables funding of a long-term investment plan.
- Providing long-term reasonable returns to equity investors.
- Setting a capital programme which can be financed on reasonable terms.

There are significant risks affecting our ability to deliver the plan, with the most significant issues arising from uncertainties in financing and the economic situation:

- Negative inflation.
- Interest rates.
- Commercial demand.
- Energy prices.

Our approach, as set out in the plan, is to manage such risks without undue reliance on the mechanism to adjust prices within the five year period. Additional costs arising from private sewer adoption and the introduction of a new competitive regime may, however, require changes in price limits during the period.

In addition, there will be difficulties with financing were we to experience a second year of negative RPI in 2011/12. We believe there is a need for automatic adjustment to price limits, which are set in real terms, to mitigate this risk and avoid adverse investor perception. We consider that there need to be proactive regulatory measures to support companies in the event that RPI falls for a second year. These measures would need to be fair and equitable, with no additional impact on customers over time.

We therefore propose that:

- Price limits are set which allow for a second year of negative price inflation.
- Provision is made within the Determination that we would only utilise price limits in full if a second year of negative inflation occurred.
- In the event that the additional price limit was required, return of the additional amount to customers as and when economic circumstances allowed.

We wish to discuss these proposals further with Ofwat.

KSI 8 – Promoting effective regulation

The regulatory regime for the water industry has played a major role in achieving increased efficiency and service and environmental improvements over the last 20 years. A stable regulatory framework has enabled the very large capital programme to be financed and service improvements to be delivered.

The framework now needs to develop to respond to the new challenges facing the industry, in particular to encourage innovation, long-term sustainable solutions and the development of competition. We continue to work constructively with our regulators on ways in which the regulatory regime could be improved so that it works more effectively in customers' interests. Key issues are:

- Increasing quality standards are increasing borrowing and bills and adding to carbon impacts. A long-term view needs to be taken of the sustainability of current trends.
- The current level of detailed regulatory intervention discourages innovation and increases costs for companies and regulators. New mechanisms need to be considered which will allow higher-level outputs to be set.

The key elements of our plan are:

- Preparation of a final business plan which we consider to be realistic and robust.
- Ensuring that our performance meets our regulators' expectations.
- Proactive engagement with other stakeholders to ensure that customers' needs are met in the most sustainable manner, including recommendations from the "Pitt Review: Lessons learned from the 2007 floods".
- Encouraging changes to the legal and regulatory framework where this meets customers' needs, e.g. adoption of customers' water supply pipes and recognition of the need to adopt and maintain Sustainable Urban Drainage Systems.
- Supporting the adoption of Private Sewers (although costs have been excluded from this plan).
- Supporting the promotion of effective competition. We have included the impact of inset appointments in this plan. However, given the uncertainty around timing, costs and whether retail separation will occur within AMP5, we have excluded the set-up costs and any change in ongoing costs. We question whether sufficient financial benefits can be created to make legal separation of retail worthwhile.

Expenditure – Promoting effective regulation		
Preparing for competition	**Capex (£m)**	**Opex (£m/ pa)**
Retail separation	0	0
Accounting separation	0	0.1
Inset appointments	0	(0.2)
Total - preparing for competition	**0**	**(0.1)**

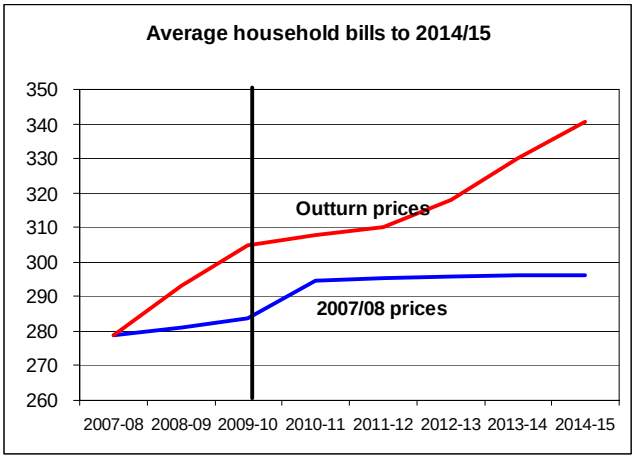
Overall implications

We are planning a range of service improvements but average household bills will only increase by 4.3% over 2009/10 levels in real terms.

The increase in bills will be kept at this relatively low level through efficiency savings and a lower cost of capital than at PR04.

The increase in household bills is slightly lower than the proposed price limits as a result of some customers benefiting from taking up the option to have a meter installed.

Although the increase in real terms (2007/08 prices) in 2010/11 is relatively large, the actual increase in cash terms



will be small, as the graph on the right shows. This is because we are expecting inflation in November 2009, which determines 2010/11 prices, to be negative.

The 2014/15 average bill is only £3 higher than the DBP estimate of £292. However, we have reduced our estimate of the average 2009/10 bill from £289 to £283, which makes the increase from 2009/10 to 2014/15 higher.

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Proposed price limits		3.1%	0.6%	0.6%	0.6%	0.6%
Average household bills (2007/08 prices)	283.8	294.7	295.6	295.7	296.1	296.1

Our plans provide for falling prices in 2009/10 but a second year of negative RPI would present financing difficulties. For this reason we consider it prudent that Ofwat sets higher price limits for 2011/12 based on alternative assumptions on RPI (3.7% rather than 0.6%). We would, however, only utilise the higher price limits if RPI diverges from the FBP track, with a second year of negative inflation.

Our proposed total capital expenditure is lower than the level of expenditure included in the SDS and in our DBP, but similar to that in AMP4 (the five-year period from 2005/06 to 2009/10).

The level of expenditure has been reduced from that in the DBP as a result of further analysis and review of options for delivering improvements and maintaining our assets, and a lower waste water quality programme developed in discussion with the EA.

We believe that we have set out a balanced, optimised plan which:

- Is investing past efficiencies to drive further sustainable improvements in efficiency.
- Meets the needs of customers, in terms of level of bills and service improvements.
- Reflects the concerns of other key stakeholders.
- Will retain the confidence of investors and allow the proposed programme to be financed at reasonable cost.

Next steps

After submission of the FBP to Ofwat, Ofwat will be raising any questions on our plan and setting draft price limits in July 2009. Following further discussion, final price limits will be set in November 2009. We then have to decide whether to appeal to the Competition Commission against the Final Determination of price limits. We will then produce our Monitoring Plan, setting out our outputs and activities for the next five years, and publish a revised SDS. This will set out our plans for the next 25 years in the light of recent economic developments and the price limits and outputs for the next five years.

In order that we can deliver our plans, we need Ofwat to:

- Discuss how price limits can be set which allow for the possibility of continuing negative inflation (falling RPI). Proactive measures are needed to support companies through a period of negative inflation which is beyond companies' control. This needs to be done in a way which is fair and equitable and price-neutral to customers over time. Early public reassurance on this would go a long way to support investor confidence. Our proposal is for a higher price limit to be set in 2011/12 to allow for a second year of negative inflation. If negative inflation was prolonged beyond that there would need to be a more general review of price limits.

- Continue to engage with us to understand the basis of our plan, and the dependencies between the different elements, so that there are no unjustified reductions made to the plan, and the consequences of any reductions for other areas of the plan are understood.
- Implement the new Capital Incentive Scheme in a way which ensures that we can finance our activities.
- Set a cost of capital which enables us to finance our functions with our chosen financial structure, i.e. a structure with a significant equity component.
- Give clarity on our determination obligations and how the enforcement process will work, including how penalties will be set, in order that the risks of non-compliance can be understood.

Our approach to the Final Business Plan

This section sets out our approach to developing the Business Plan, including:

- **How we have determined our plans for 2010 to 2015**
- **Stakeholder views**
- **Determining priorities**
- **Making our contribution to sustainability**
- **Adapting to climate change**

Our strategy is based on eight Key Strategic Intentions and our plans under each of these are set out in the following sections:

KSI 1 – Providing a continuous supply of quality water
KSI 2 – Dealing effectively with waste water
KSI 3 – Responding to customers' needs
KSI 4 – Minimising our carbon footprint
KSI 5 – Having the lowest possible charges
KSI 6 – Having the right skills to deliver
KSI 7 – Maintaining investor confidence
KSI 8 – Promoting an effective regulatory regime

We then show the overall implications of our strategy and how it has changed from the DBP.

How we have determined our plans for 2010 to 2015

In December 2007 we published our SDS, which set out our approach to dealing with the challenges we face for the next twenty-five years. Our aim is to be the best water and waste services company, providing best value for customers by achieving the highest customer service and environmental standards while at the same time offering our customers the lowest possible prices.

In our DBP, published in August 2008, we set out how we proposed to make progress over the five years 2010/11 to 2014/15 in achieving our long-term objectives, and the price limits needed to enable these plans to be delivered. Following feedback from Ofwat and other stakeholders, and further work to improve the robustness of the programme, we have produced our FBP. We have also taken into account developments since producing the DBP, in particular the downturn in the economy. The plan is based on consumer priorities, is consistent with our long-term plans, as set out in our SDS, and is underpinned by a sustainable financing plan under our plan assumptions.

We have set out in the FBP:

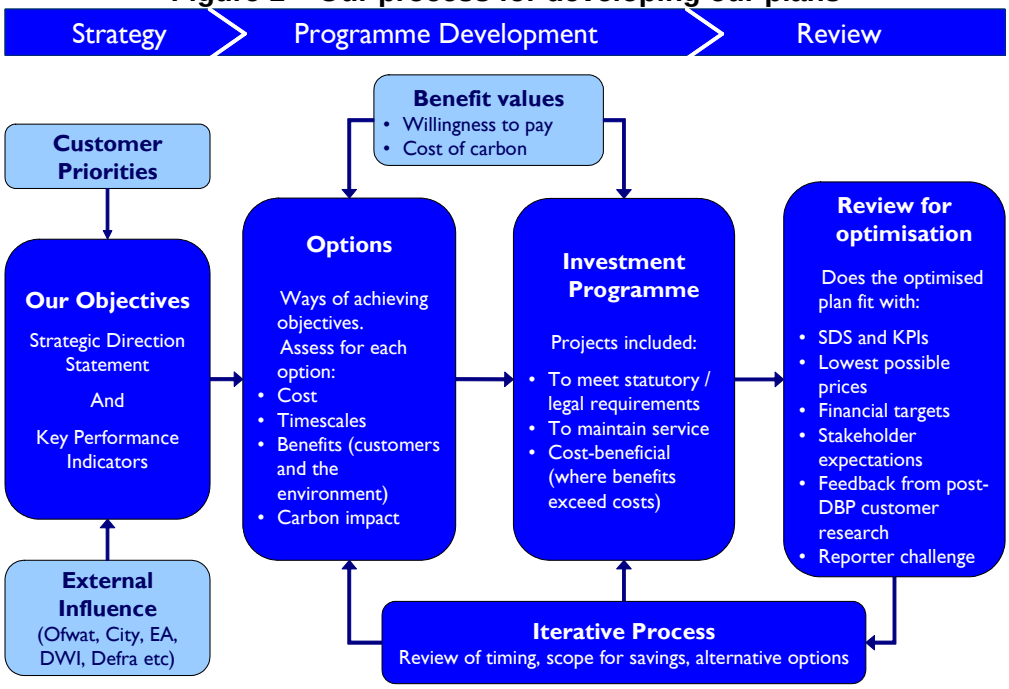
- How we have responded to feedback from Ofwat and from other stakeholders.
- How we have improved the robustness of our plan.
- Where cost estimates have changed.
- Where there are changes in the outputs package.
- What new evidence is provided to support our case.

Developing our plan

Our planning process was initiated in 2006 with the objective of building an integrated planning framework within which a long-term strategy could be developed, and linked to medium-term operating plans and annual budgets through a rolling process. This approach provides consistency between our internal plans and ensures continuity to our Periodic Review submissions. In addition to meeting regulatory requirements, our plan is based on our own Key Performance Indicators by which we measure our performance and set targets.

Our process for developing our plan is shown in Figure 1 below. For the FBP we have carried out further work on reviewing the options, reoptimised the programme, and reassessed whether our plans meet customer and stakeholder expectations.

Figure 1 – Our process for developing our plans



We have produced a balanced, optimised plan:

- We have reviewed alternative options for delivering improvements and maintaining services to ensure that our programme is cost-effective.
- We have built in investment to deliver challenging efficiency targets.
- We have balanced service improvements and bills, taking into account customer research and the need for affordable bills.
- The choice of service improvements is based on customer priorities
- We have taken into account synergies between different parts of the plan – for example, some of our resilience schemes contribute to balancing supply and demand.

Improving our plan

We have made improvements from our draft plan through developments in the following areas:

- **Customers** – ensuring our investment priorities align to customers' preferences and their willingness to pay for improvements – we recognise the need to take increased

account of the customer burden in the current economic climate. We have carried out further customer research to establish customer views on the acceptability of our DBP.

- **A more robust plan** – we have improved the evidence and justification to support our investment proposals. We have, for example, improved asset modelling for assessing maintenance needs, and developed further the risk assessment for proposals to increase the resilience of our network.
- **Stakeholders –** our plan has been developed to take account of responses from stakeholders and further discussions with them. We have had regular quadripartite meetings with EA, DWI and Natural England to discuss our plans. Discussions with the EA have resulted in a smaller sewerage quality programme.
- **Regulatory engagement –** we have taken into account the feedback on our DBP, including two constructive meetings with Ofwat following submission of our DBP, which identified nine critical key issues requiring further discussion and analysis.

Work to increase the robustness of the plan has included:

- Refining the investment plan through an iterative review process based on an analysis of costs and benefits.
- Improving the justification and evidencing through improvements in data quality and asset modelling.
- Undertaking sensitivity analysis to support our key assumptions.
- Considering a wider range of alternative options.
- Taking account of the latest economic and demand trends.

Our proposed programme is significantly smaller than that proposed in the DBP (£2.6 bn in the FBP compared with £3.1 bn in the DBP), as a result of:

- Further analysis of the scope for delivering improvements at lower cost.
- The need to defer some improvements because of a deteriorating economic climate, and other upward pressures on prices.
- An innovative approach to finding solutions which do not require investment.

Our long-term strategy remains unchanged from that set out in the SDS and the total capital programme for AMP5 is similar to that expected in the SDS. There have, however, been some adjustments to the pace of change in the next five years from our expectations at the time of preparing the SDS, in particular:

- The amount of work needed in AMP5 to increase the resilience of our assets is greater than previously understood to be required.
- Discussions with the EA on the waste water quality programme have resulted in a smaller programme than anticipated in the SDS.
- Improved analysis and modelling has shown a lower maintenance requirement at sewage treatment works than expected in the SDS.

Ofwat's view of our Plan

In December 2008 Ofwat published its initial view (the Capital Incentive Scheme baseline) of the level of capital expenditure we need to spend in AMP5. This was significantly lower than in our DBP (£2.4 bn in their baseline, compared with £3.1 bn in our DBP).

As discussed above, we have reduced our programme, which has reduced the difference between Ofwat's view and our plans, but significant differences remain, in particular in relation to:

- The level of investment needed on mains replacement to sustainably control leakage.
- The amount of action to be taken to address sewer flooding.
- The extent to which additional maintenance is needed to maintain stable serviceability.

We have provided additional information in our plan in support of our proposals and will be discussing these issues further with Ofwat. Reductions in expenditure by Ofwat (e.g. through the application of the CIS) would put at risk the improvements in services which customers want. If expenditure reductions are made we reserve the right to remove the associated outputs.

The economic environment

Since we produced our DBP, the economy has gone into recession and uncertainty in the financial markets has increased. The implications of this for our plan are:

- We need to give even greater weight to ensuring that we give good value for money and that bills are affordable for businesses and domestic customers, particularly with rising unemployment.
- Instability in the financial markets has increased since we produced our DBP. This increases the uncertainty about future borrowing costs and makes it even more important that we sustain our credit rating, so that we are seen as low risk and can borrow on reasonable terms.
- The prospect of negative inflation means that our borrowing and interest payments will increase in real terms but the Regulatory Capital Value on which we earn a return will fall in money terms. The price-setting formula means that our prices will be lower if there is negative inflation, but our costs will not fall proportionately. Rising gearing and falling income means that negative inflation would lead to financing difficulties. We have suggested how prices can be set in this price review to allow for the possibility of a second year of negative inflation (see KSI7 and concluding section on overall implications of our strategy). Without this investor confidence would be affected.
- Business demand for water is falling, which affects our income and the need for future supply capacity.

We have taken economic trends into account in preparing our plan. However, the uncertainty is such that trends will need to be kept under review until Ofwat makes its final decisions on prices. We will continue to review our income forecasts and will provide further information to Ofwat on trends before prices are set.

We consider that we are better placed than our customers to bear most risks, for example changes in energy prices, which can be managed by us and not passed on to our customers. However, there needs to be flexibility in price limits to allow for the potential impact of negative inflation.

Customers at the centre of our plan

We have placed customers at the centre of our plan and taken into account customer views through market research, including a major willingness to pay (WTP) survey (involving a representative sample of 991 domestic customers and 443 business customers) carried out in 2007. This established the value which customers put on improvements in the different areas of service provision and we have used this to balance costs and benefits to produce

the best overall plan. There is support from this research for our programme of improvements; it is also designed to have a sustainable impact on the environment.

Our WTP survey involved face-to-face interviews with a representative sample of business and domestic customers to establish their priorities and their willingness to pay for improvements in sixteen different areas of service provision. Customer WTP was established through choice experiments (carried out for us by consultants Accent and RAND) with customers offered choices between different service levels and bills. We consider this to be the most reliable means of establishing customer preferences.

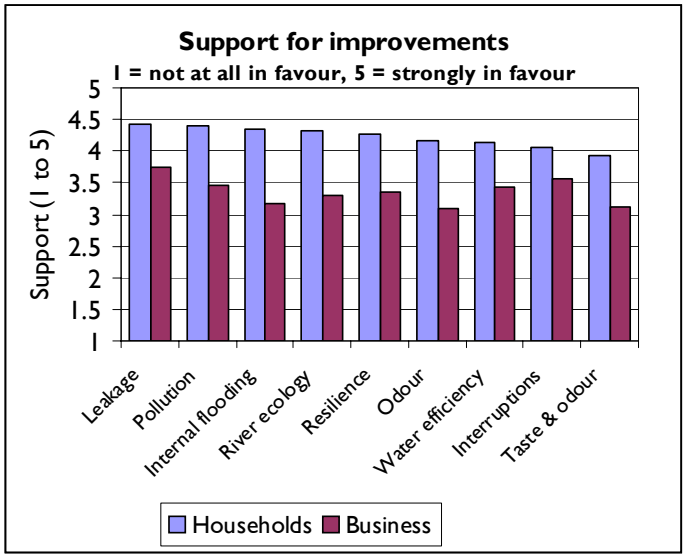
Our analysis of costs and benefits also incorporates carbon impacts and other social and environmental costs such as the impact of our activities on traffic congestion. On aspects of service not covered by our WTP survey we have used the results of other studies to assess benefits, e.g. for pollution incidents and for connecting properties to the sewerage system.

The WTP survey is an important part of determining our programme. In addition, we have taken into account the ability of low-income customers to afford higher bills by reviewing the pace at which improvements are made. Since we produced the DBP we have reviewed the acceptability of our plan to customers by:

- Holding focus groups for domestic customers.
- Carrying out additional surveys of both domestic and business customers.
- Checking alignment between our results and the joint national customer research carried out after the DBPs were published, led by Ofwat and involving water industry stakeholders.

As shown in Figure 2, all the improvements were supported by customers, though business customers showed less strong support than households.

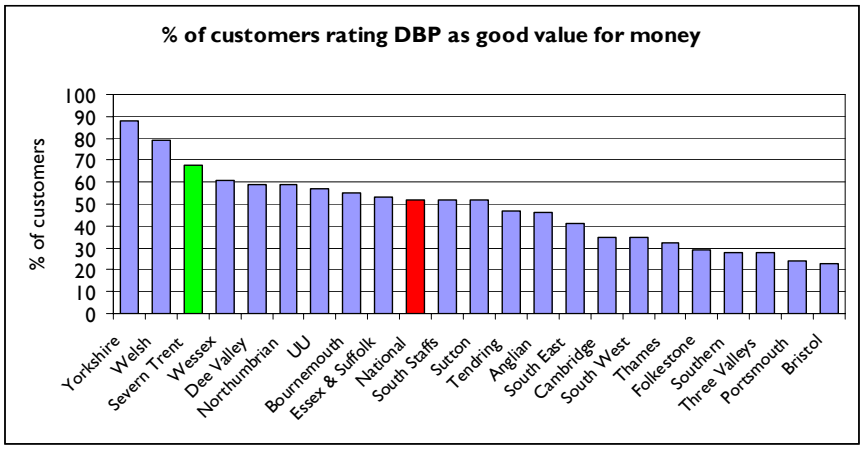
Figure 2 – post-DBP customer research



We have checked affordability by confirming the acceptability of the plan to customers with low incomes. 67% of households with incomes below £20,000 p.a. considered the DBP acceptable, virtually the same as the average for all customers (68%).

We have also reviewed our plan against the results on national research. As the graph below shows, 68% of customers in the national joint research rated our DBP overall as good value for money, and 15% poor value for money; this was the third highest ranking. All service improvements were supported as good value for money, with a range from 71% to 75% support.

Figure 3 – Results of joint national customer research

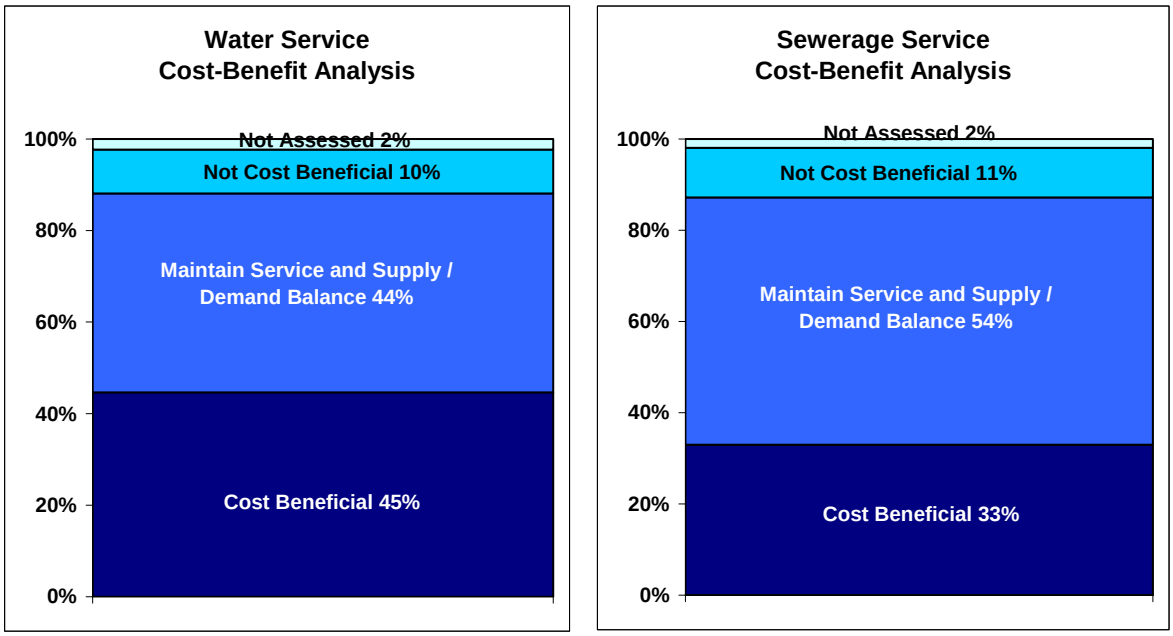


As the graphs below show, most of the programme is included as being cost-beneficial or needed to maintain service. We have not assessed the costs and benefits of reactive maintenance to maintain service, as complete failure to provide a service is not an option. Where cost-benefit analysis has not been applied, we have identified the most cost-effective solution. In addition to projects which are shown to be cost-beneficial, we have included additional projects:

- Proactive maintenance if needed to maintain current service levels; we do not consider that there is sufficiently strong evidence that customers would support a lower level of service.
- The Health and Safety programme, which is based on policy decisions, rather than a cost-benefit analysis – as supported by the Ofwat guidelines.
- Schemes required by government or quality regulators have been included even if they are not cost-beneficial.

Almost all schemes to improve service to customers which have been included in our Plan are cost-beneficial – in a few cases schemes have been included on the basis that some benefits have not been quantified.

Figure 4 – Results of cost-benefit analysis



Our future investment programme

A significant proportion of our investment is in assets which have a very long life – water mains and sewers may be in the ground for over 100 years and some of our sewage treatment and water treatment assets are operational for up to 80 years. In order to make the right decisions we need to look ahead to what the needs of customers and other stakeholders will be over the long term. The water industry is vital to people's health, to the environment, and to the economy, and it is essential that we have robust long-term plans in place to meet society's needs in the future.

We have invested over £10 bn since 1990 (nearly £3,000 per customer) and there have been major improvements since privatisation in both water and sewerage services, which have included:

- Improved sewage treatment, which has contributed to 73% of rivers being assessed as being in a good state in 2007, compared with only 49% in 1990.
- Improved water pressure, which has reduced the number of properties as being at risk of receiving low pressure from over 23,000 fifteen years ago to just over 1,500 now.
- Meeting higher drinking water standards, and at the same time improving our performance against those higher standards. The number of drinking water tests failing to meet required standards has fallen (by 93% over the last fifteen years), with only about one in 5,000 tests failing.
- Reducing the number of serious pollution incidents from 238 in 1994 to only 10 last year.

We need to ensure that:

- Asset maintenance is sufficient to continue to deliver the improvements already achieved.
- Our approach to maintenance and delivering improvements is robust to meet future challenges.

Our capital maintenance programme is largely based on a forward-looking approach to determining the appropriate level of investment, modelling the future rate of asset deterioration and the resulting impact on service, in line with the UKWIR Capital Maintenance Planning Common Framework.

We will need to be flexible in our response to challenges, where future requirements or the impact of major influences on our business, such as the need to adapt to climate change, are uncertain. We have included provision for pilot projects and investigations in our plans to assess the effectiveness of innovative solutions.

We will contribute to climate change mitigation by managing our carbon footprint, and have assessed the carbon impact of all of our proposals. We have reviewed options to identify sustainable solutions, for example:

- We have considered blending or treatment options to maintain drinking water standards where raw water quality is deteriorating.
- We will work with Natural England to manage catchments to reduce the need for higher levels of water treatment in future.
- At 44 sewage treatment works we have identified that we will be able to meet tighter discharge standards without further investment.

Stakeholder views

We have also taken into account the views of other stakeholders. Responses to our DBP have generally been favourable. Some of our stakeholders' key concerns, and how we have responded to them, are set out below.

Stakeholder	Key Concerns	Our Response
Ofwat	All improvements must be justified using cost benefit analysis and grounded in consumer priorities. "Companies must provide safe and reliable water services" ('Ofwat's strategy: taking a forward look' April 2008)	These requirements are integral to both the Strategic Direction Statement (SDS) and the FBP.
Consumer Council for Water (CCWater)	Affordability (rising levels of water poverty). Internal sewer flooding is unacceptable in the 21st Century.	Our FBP reflects our strategic intent for lowest possible bills. Our programme includes action to deal with sewer flooding. We will resolve nearly 1,200 internal flooding problems and 800 external flooding problems.
Consumer Council for Water (CCWater)	"The number one priority for customers is that they have a safe, uninterrupted supply of water" (Sir James Perowne, CCWater) "Customers expect their water quality to be of a high standard consistently" (CCWater Wales)	We have included investment to: • increase network resilience (1.4 million people will benefit from an alternative source if their normal source of water fails) • reduce interruptions to supply • maintain a high standard of water quality.

Stakeholder	Key Concerns	Our Response
Defra	Issues included in "Future Water" (February 2008): "We emphasise the importance of ensuring that water companies carry out essential works to ensure resilience against natural hazards and the predicted effects of climate change" "We must continue to manage demand, especially through increased water efficiency and reduced water wastage" "It is essential that good quality drinking water, and the investment by companies necessary to achieve it, is maintained into the future"	Our FBP includes a significant programme to increase resilience and to reduce risk of water quality failures. Our programme to balance supply and demand includes: • Leakage reduction from a current target of 496 Ml/d to 453 Ml/d by 2014/15 • Management of demand through increased metering (up from 33% of customers in 2009/10 to 42% in 2014/15) • Water efficiency measures to reduce demand by 16 Ml/d.. Our plan includes provision for higher maintenance to replace assets where there would otherwise be a risk of deteriorating water quality.
Environment Agency (EA)	There is a need to achieve good ecological status for rivers to meet the Water Framework Directive. Water resources – metering, leakage and water efficiency should be pursued ahead of new resource development The EA wishes to see a zero target for pollutions "The EA have also identified the need for key utilities to put better protection of critical infrastructure higher on their list of priorities in the face of climate change" (Paul Leinster, EA)	We have included the EA's full environmental programme and have worked with them to reduce the programme where not justified by the environmental benefits achieved. Our FBP proposals are based on balancing supply and demand through leakage control, water efficiency and metering. Our FBP includes improvements to reduce the number of pollution incidents by nearly 100 per year. Our programme includes improvements in the resilience of our assets to reduce current risks – we will review the potential impact of climate change when new scenarios are published.
Drinking Water Inspectorate (DWI)	Standards must be met 100% of the time – there needs to be a reduction in the level of risk.	We have included a significant programme to reduce risk of water quality failures.
Customers – National Deliberative Research (June 2008)	Resistance to paying higher bills. Strongest support for reducing leakage and maintaining water quality.	We are proposing a balanced programme of improvements, with broadly stable prices. Our FBP includes leakage reductions, based on achieving a sustainable economic level of leakage – we recognise that this may not fully meet the expectations of all stakeholders.

Stakeholder	Key Concerns	Our Response
Customer Research	Customers support a wide range of improvements. Top priorities are interruptions and water quality.	The results of our willingness to pay survey and customer response to our DBP have been used to determine the programme of improvements included within the FBP.
Investors	Investors need returns commensurate with the level of risk – the perception is that risk is higher than at PR04.	We have set a cost of capital which is lower than at PR04 but which we believe will allow us to maintain a strong credit rating. Our proposals provide for a sustainable and progressive dividend policy.

Making our contribution to sustainability

The UK Government has defined the goal of sustainable development as: "to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations".

We recognise our responsibility to contribute to sustainable development by taking full account of our impact on the local community and environment in everything we do. We have a major impact on our communities and regional economy:

- Through the services we deliver.
- As a major employer.
- As a purchaser of goods and services.
- Through our impact on the local environment through abstraction of water and discharge of waste water.
- Through our management of our public access recreational sites and through education of children at visitor centres.

The government has established five guiding principles to achieve the sustainable development goal. Our plan is targeted at contributing to sustainable development, through the economic, social and environmental impact of our proposals. Our contribution to sustainability is discussed further below.

Living within environmental limits	We will achieve environmental improvements through improved sewage treatment, fewer pollution incidents, and reducing water abstraction where river flow is too low. We will encourage efficient use of water through action such as education programmes, increased metering, and fitting water-efficient devices. We will reduce leakage to reduce the amount of water abstracted from the environment. We will work with others to deal more effectively with surface water, which will reduce flooding, and will also reduce the volume of sewage for pumping and treatment, which will lead to a lower carbon footprint. We will work with others to ensure effective catchment management plans which recognise all stakeholders' contribution to improving the environment. We will contribute to climate change mitigation through increased generation of renewable electricity and increasing the energy efficiency of our activities.

Ensuring a strong, healthy and just society	We give the highest priority to health and safety. We have ensured that proposed service improvements take account of willingness to pay amongst low-income groups. We apply cost-benefit analysis to determine which potential improvements in service meet customer needs. We will continue to increase metering, as the only fair means of charging for the services which we provide. This will be done through optional metering, metering new properties and a trial of metering on change of occupier in selected areas. We will develop payment options and continue to support our charitable trust which provides help to those in debt – to help those least able to pay – while making sure that those who can pay but won't are pursued effectively. We are building a skilled and diverse workforce and ensuring that we retain key skills and experience. We will champion skills development in the region and engage with schools and colleges. We will promote the economy and the environment of the Midlands and the parts of Wales which we serve.
Achieving a sustainable economy	We will continuously improve our efficiency, so that water bills remain amongst the lowest in the country. We will encourage charging mechanisms which ensure that environmental and social costs fall on those who impose them (Polluter Pays principle). We will adapt to climate change so that we can continue to provide a reliable service in a changing environment. We will increase the resilience of our services so that we can continue to maintain service when there is a failure in one part of our water network. We will encourage development of competition to improve the efficiency of resource allocation.
Promoting good governance	Ensuring that our plans take full account of the views of our customers and other stakeholders. Working with Ofwat, government and other regulators, to help develop: • A regulatory regime which takes a long-term approach and facilitates continued investment. • New approaches to price-setting, encouraging accurate business planning and "menu regulation", to encourage companies to reveal accurate forecasts. • Regulation which is fair and equitable and implemented on a transparent basis. • A new framework for competition to promote competition where it will deliver benefits to customers, including a new approach to access pricing.
Using sound science responsibly	Ensuring that our policy on climate change adaptation and mitigation takes account of the latest scientific evidence on climate change. Developing new approaches to generation of renewable energy.

	Innovating to make our activities more efficient and sustainable, including: • Developing treatment processes which are more energy-efficient and use less chemicals. • New developments in catchment management to improve the quality of water and waste water entering treatment works, so reducing the cost of treatment.

The future challenges we face

There will be a wide range of challenges which we will need to address in future, including:

- Increasing customer expectations on standards of service – some aspects of service fall short of what customers believe that they are already paying for and have every right to receive.
- There is a need to adapt to, and help mitigate the effects of, climate change.
- We need to plan for growing population.
- Legal requirements will result in further new investment increasing our costs, in particular the Water Framework Directive requirements to achieve good river quality and the adoption of private sewers.
- We will need to ensure that we can continue to access finance for the requirements of our operations and investment programme through the current recession.

Some of these challenges are discussed further below.

Adapting to climate change

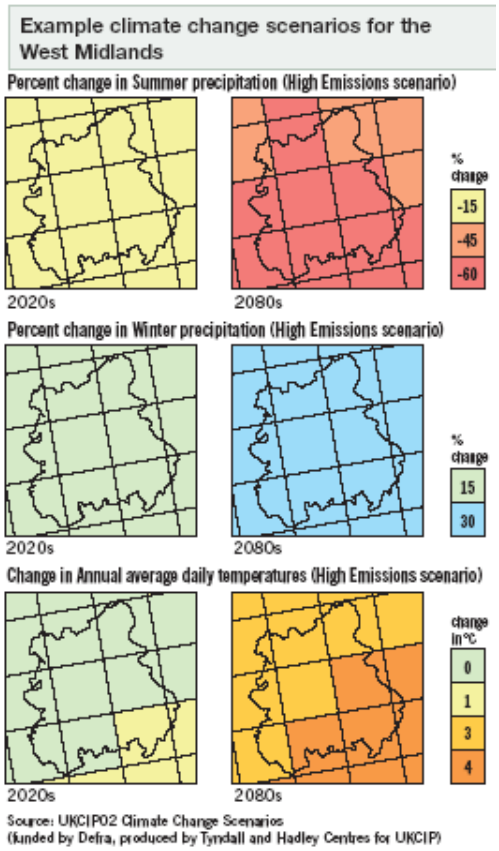
Adapting to climate change represents a significant challenge in the long term. It is already occurring and is expected to accelerate over the coming century. As the diagram below shows, there will be a significant increase in summer temperatures and lower rainfall in summer.

There are likely to be more extremes of weather, with more frequent periods of intense rainfall, and we have already seen evidence of this, in terms of increased flooding. We will need to adapt our assets and our operations to deal with the changes which this will bring.

The impacts on Severn Trent can be split into the following categories:

- **Drought** – including the effects of: lower levels of rainfall, reduced levels of groundwater and soil moisture, lower levels of infiltration.
- **Temperature rise** – including the effects of: higher peak and average temperatures, increased evaporation and evapotranspiration.
- **Flooding** – including the effects of: greater storm intensities and higher winter rainfall.

Figure 5 – potential impact of climate change



Impacts may involve three different kinds of risk – higher or lower averages, more extremes, and a wider range of variability.

We will work closely with other bodies affecting our operations, including local authorities, the Environment Agency and developers, to ensure sustainable solutions are identified for problems created by the changing climate. For example, we support plans to make sure that new developments are water-efficient, and we will encourage development of the discharge consent regime in order that it remains appropriate for new climate conditions.

Because the impacts are uncertain, small, incremental adaptation measures are generally preferable to large one-off changes. In addition, changes which contribute to climate change mitigation are likely to be preferred to those which add to our carbon impact. We will continue to review solutions in the light of the latest climate change research. We have reviewed the effects of climate change using the following categories for assessment:

- **Severity** – e.g. events which have a significant impact on reliability of water supply are more significant than changes which affect costs of water treatment.
- **Uncertainty** – how certain is the change in climate, and the resulting impacts on water industry
- **Urgency** – how soon does action need to be taken e.g. is action urgent because:
  - the impact of climate change is already being felt;
  - there is a long time-lag from planning to implementation; or
  - decisions are being made now on long-life investments where adding to capacity later to accommodate climate change would be costly.

The most immediate need for action is in the areas:

- Increasing water supply capacity and managing demand in order to adapt to hotter, drier summers.
- Increasing our ability to deal with surface water in response to more frequent and intense storms. We support a change in the law to allow us to adopt Sustainable Drainage Systems, which deal with surface water close to the point where rain falls, by local storage of the rain water or providing the ability for the water to soak away.

In line with Ofwat requirements, we have not included any schemes in our programme which are driven by climate change, apart from some preparatory work for AMP6. We will be continuing to monitor information on climate change and its impacts. We recognise that we need to work closely with other stakeholders to achieve the best solutions.

Population and demand changes

The population is growing, with smaller households, and shifts in population. This will require us to plan changes in our infrastructure networks and treatment works capacity for both water and sewerage. There is currently a drive from national government to dramatically increase the supply of new housing. Many towns and cities in the Midlands have been identified as growth points.

There is, however, some uncertainty as to whether this projected growth will occur, particularly in the short term given the downturn in the housing market. We will continue to monitor trends and our plans will need to be flexible to respond to changing trends.

We are also facing a significant reduction in industrial demand as a result of the recession. It is uncertain how long this will continue and the extent to which demand will recover when economic growth resumes.

KSI 1 Providing a continuous supply of quality water

Our research shows that ensuring a safe, reliable water supply is the top priority for our customers.

The key challenges facing us are:

- **Our existing water supply system is unable to meet customers' increasing expectations of service in terms of continuity of supply, pressure and quality.**
- **Some of the water treatment assets installed as part of our large improvement programme in the early 1990s are reaching the end of their useful lives and will need replacement.**
- **Some of our major assets need replacement in order to maintain reliable supplies.**
- **Some of the water mains installed in the 1970s are showing faster deterioration than our older cast iron mains.**
- **With increasing population and deteriorating water quality, we do not have sufficient water available to meet long-term demand.**

The key elements of our plan to address these challenges are:

- **Improving the resilience of our assets to reduce the risk of supply failures.**
- **Reducing interruptions to supply from current levels.**
- **Meeting water quality standards, through a programme agreed with DWI, to increase treatment where water quality is deteriorating.**
- **Increasing maintenance expenditure on water treatment works and distribution assets to maintain serviceability.**
- **Replacement of some of our largest pumping stations and service reservoir assets.**
- **Balancing supply and demand through:**
  - **Reducing leakage through increased mains replacement and leak detection.**
  - **Accelerating the installation of customer metering through customers opting for a meter and a trial of compulsory metering on change of occupier status in selected areas.**
  - **Promoting water efficiency through the use of more water-efficient equipment and education programmes.**
  - **Maximising the sustainable use of our existing water resources through new technologies and a more integrated network.**

Each of the key elements of our plan to provide a safe, reliable water supply, and the expenditure necessary to deliver the plan, is described below. At the end of this section expenditure is summarised using Ofwat categories of expenditure, in order to show how this summary of our plan relates to the more detailed submission in Part B of the FBP.

Ensuring a continuous supply of water

Increasing resilience

The flooding incident in Gloucestershire in 2007 highlighted that we have inherent risks in our network which are not acceptable to the company or our customers. We identified in our SDS the need to improve the resilience of our strategic network to reduce the risk of customers losing their water supply from all potential causes including flooding. The improvements we are proposing in this plan will commence provision of an alternative piped source of water to all communities larger than 20,000 people, as part of a prioritised programme of

improvements over the next ten years. Our analysis shows that 20,000 people is the maximum number that can be reliably supplied with bottles and bowsers in the event of an interruption to supply. This threshold is based upon our experiences during the Gloucestershire flooding incident. We have received considerable support for these proposals from CCWater and our customer surveys.


Flooding at Mythe

- 1.4 million people who are currently dependent on a single source (nearly 20% of customers) will benefit from an alternative source if their normal source of water fails.
- A further 0.6 million people (8% of customers) who are currently dependent on a single pipe will be provided with an alternative piped supply. This programme is designed to comply with the Security and Emergency Measures Direction, which requires us to maintain supplies in the event of a serious emergency. Further analysis of options has enabled us to deliver improvements at £29m less than the DBP estimate.
- We will reduce the likelihood of failure by:
  - Protecting ten treatment works at risk of flooding from a 1 in 200 year flood event.
  - Removing a single point of failure from one critical site.
  - Providing resilient power supplies at 20 sites.

Customers indicated strong support for reducing interruptions to supply in our WTP survey and the improvements we propose are justified by the benefits they deliver. Our cost-benefit analysis showed benefits to be about 20 times the cost. The survey was carried out before the loss of supplies in Gloucestershire from Mythe water treatment works; support for continuous service might now be greater. Research carried out by CCWater in the Gloucester area after the incident showed the importance to customers of ensuring that there was no repeat incident.

Reducing interruptions

In addition to the proposals to reduce the risk of major failure, we will reduce the number of short-term interruptions. Even excluding the Mythe incident, our current performance on interruptions to supply is not satisfactory. Nearly 71,000 customers experienced an interruption of over six hours in 2007/08, compared with 23,000 in 2006/07 and 13,000 in 2005/06.

Our analysis indicates that the increase was not, in the main, due to asset deterioration, but showed a need for operational improvements. We began to take action to improve performance in 2007/08 and 2008/09, and we are carrying out a comprehensive review of the Company's supply interruption business processes across all functional departments.

Further improvements are planned for AMP5 (the five-year period from 2010/11 to 2014/15). We will increase levels of investment in ancillary assets such as air valves and isolation valves as failure of these assets is contributing to unplanned interruptions. We propose to invest more in trunk main ancillaries to offset future deterioration of these assets, which have a significant impact on unplanned interruptions to supply. We will also increase the resilience of our aqueducts by increasing maintenance on these key assets.

We will improve the monitoring and control of our network to reduce unplanned interruptions by installing more real time monitoring of our network, with the installation of over 1,000 real time flow and pressure monitors. Review of options has resulted in a lower estimated cost, £4m less than in the DBP.

Maintaining the network

Serviceability of the water mains network is stable, with the number of mains bursts steady over time. This has been achieved with a level of mains renewal in AMP4 which is significantly greater than that implicit in the 2004 Final Determination. Our assessment is that this level of renewal needs to be further increased in AMP5 in order to avoid deterioration in our network and the consequential impacts on leakage. Improvements in modelling have shown a higher required rate of replacement than our DBP estimate.

Our investment in maintenance activity to provide stable serviceability is summarised below:

Mains renewal	Renew 1,600 km of our network over five years (0.8% of our network per year)
Trunk main renewal	Renew 63 km of our trunk main network over five years (0.13% per year)
Distribution ancillaries	Replace £12m worth of ancillary assets
Aqueduct maintenance	Renew 20 km of our aqueduct network over five years (0.9% per year)

Total expenditure on ensuring a continuous supply of water is summarised in Table 1.

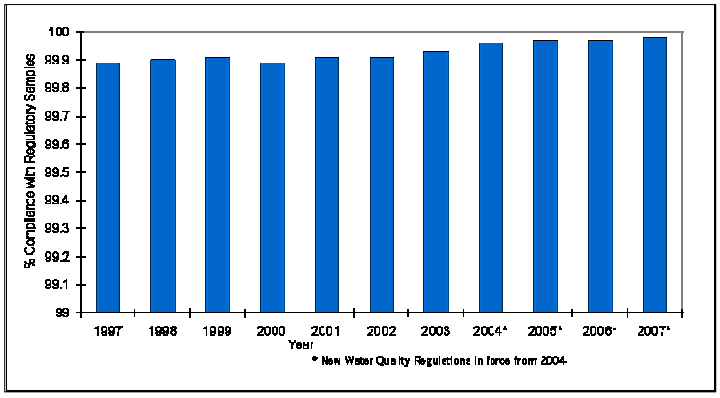
Table 1 – Ensuring a continuous supply – expenditure

Area of expenditure	Capex (£m)	Opex (£m pa)
Resilience - Water Treatment Works / Network	112	0.2
Removing dependency on a single pipe	37	0.0
Resilience by maintaining borehole assets	17	0.0
Flood Protection	6	0.0
Power supply enhancements	12	0.0
Security and emergency measures direction	36	0.1
Sub-total - Resilience	**219**	**0.4**
Improved network monitoring	40	0.9
Renewal of trunk mains and valves	7	0.4
Sub Total - Reducing Interruptions	**47**	**1.3**
Aqueduct Maintenance	33	0.0
Distribution mains and communication pipes	291	0.2
Hydraulic modelling	8	0.0
Meter Maintenance	24	0.0
Other (cathodic protection and pipe bridges)	2	0.2
Sub Total - Maintaining the network	**358**	**0.4**
Total - ensuring a continuous supply	**624**	**2.0**

Providing safe, acceptable drinking water

The Water Quality programme

Figure 6 - Compliance with water quality standards from 1997 to 2007



Our performance in meeting drinking water standards is very good, having consistently achieved over 99.8% compliance with water quality standards every year since 1997. Management of water quality issues and targeted investment to reduce the risks of failure have led to improved compliance. The number of failures of water quality standards from 1993 to 2007 is shown in the graph on the right.

Our commitment to the DWI's Drinking Water Safety Plan approach is identifying opportunities for further improvement and we have identified some specific expenditure in our maintenance programme to reduce further the risk of compliance failure.

In the AMP4 period we are investing over £140m in improving water treatment and distribution processes. Programmes of work were agreed with DWI, mainly to tackle raw water deterioration and to comply with the tightening lead standard.

Our research shows that ensuring a reliable, safe water supply is the top priority for our customers and that they are willing to pay for improvements. Our plan builds on and reflects the priorities in our SDS and we intend to:

- Improve our treatment processes where raw water quality is deteriorating to maintain compliance with quality standards. We have made the assumption that, with the exception of the new lead standard, there will be no significant changes in drinking water quality standards.
- Improve the acceptability of drinking water.
- Continue to implement a comprehensive risk assessment and management approach, as recommended by the DWI, including catchment management.
- Improve our water quality monitoring at treatment works and in distribution to measure performance improvements.

Our proposed programme schemes fall into four main categories:

- A continuation of our integrated strategy to deal with the continuing deterioration in nitrate levels in our groundwater catchments.
- Localised schemes to maintain compliance in areas affected by raw water quality deterioration in respect of solvents, pesticides, cryptosporidium and pH.
- A plan to deliver 95% compliance with the 2013 lead standard of 10μg/l.
- A plan for the management of quality risk through Drinking Water Safety Plans and the enhanced management of catchments. This includes review of whether change in farming practices could avoid the need for additional treatment, e.g. to remove nitrates or pesticides.

There may be a future need for treatment to remove metaldehyde but we are not currently in a position to estimate the need or cost, should catchment solutions not prove successful

A report by Natural England, the EA and DWI concludes that “the progress made since the publication of draft business plans has been extremely encouraging and reflects the extent of the positive approach to developing catchment proposals by both companies and regulators”. Nationally, there are 104 proposals; 46 of these are in our area.

Our strategy for nitrates in AMP5 continues the approach implemented in AMP4, of investment in measures to maintain compliance in response to predicted failure. Predicted failure is based on statistical trending of nitrate levels and assessment of distribution arrangements. The schemes we have included within our plan are for sites where we predict maximum nitrate levels in supply will be in excess of 50 mg/l by 2017, unless nitrate reduction measures are introduced. Review of the options has enabled the programme to be delivered at £12m lower cost than the DBP estimate.

Two water quality zones have been identified as requiring targeted lead pipe replacement solutions to maintain compliance with the new standard for lead. This approach would be part of a multi-layered approach that includes the development of customer protection measures and would minimise the risk of lead in water for customers . We expect to replace around 10,000 lead pipes (both the supply pipe owned by the customer and our own part of the pipe). This will remove the risk to customers from lead in drinking water. A pilot lead pipe replacement trial has contributed to the development of our proposals. Due to the large numbers of customers involved we plan to deliver this programme across the AMP5 and AMP6 periods. At the time of the DBP DWI did not support our proposed programme but they have now completed their final assessment and now support our proposals.

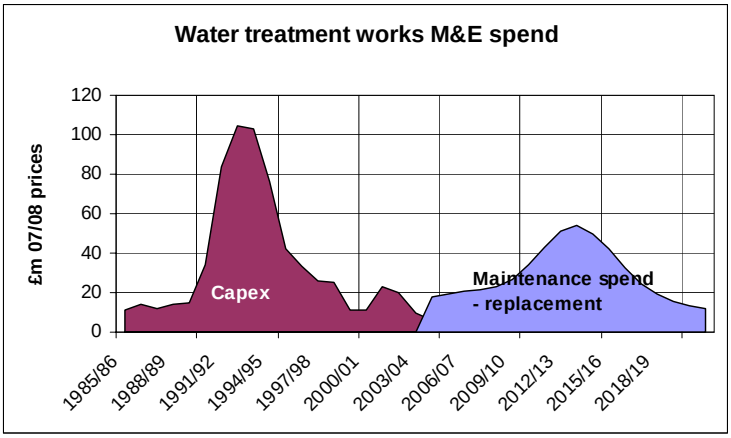
Drinking water acceptability

In the DBP we proposed a programme of three schemes to increase acceptability of drinking water, improving taste by reducing the Total Organic Carbon content of the treated water. Our AMP4 plan already includes three schemes to improve the taste and odour of drinking water. We are carrying out chemical and biological quality sampling surveys and customer surveys. Since survey results are not yet available and we need to limit increases in bills, we have removed these schemes from our plan. If the results of our surveys justify it we intend to include further schemes in later plans.

Maintaining assets

Serviceability of water treatment assets is stable, in terms of maintaining performance on water compliance measures. However, our models for forecasting asset deterioration and service impacts indicate that an increase in maintenance spend at water treatment works will be needed in AMP5 in order to maintain our current high performance of compliance against standards. This results mainly from the high level of expenditure in AMP1 (1990/91 to 1994/95); the mechanical and

Figure 7 – potential impact on maintenance of early 1990s expenditure



electrical elements of this expenditure are coming towards the end of their economic life. The effect is shown in the graph above.

In addition to the AMP1 maintenance effect we will increase our levels of maintenance to:

- Maintain boreholes approaching the end of their life, which would otherwise have to be abandoned.
- Remove bulk chlorine from our sites to reduce the risk to the public and our employees.
- Invest in several large projects such as Frankley pumping station and Ambergate Reservoir, which are amongst the largest assets which we have.
- Automate a number of our water treatment works as part of our strategy to deliver efficiency through process improvement.
- Increase the rate of mains replacement in order to control leakage.

Summary of expenditure

The expenditure on the programme to provide safe, acceptable drinking water is summarised below.

Table 2 – Providing safe, acceptable drinking water – expenditure

Area of expenditure	Capex (£m)	Opex (£m pa)
Raw water deterioration - nitrate removal	29	0.2
Raw water deterioration – other	8	0.1
Lead - pipe replacement	8	0.8
Lead - phosphate dosing	0	0.0
Catchment Management	0	0.3
Sub Total - The Water Quality Programme	**45**	**1.3**
EA - Habitats Directive	1	0.0
Sub Total - EA Habitats Directive	**1**	**0.0**
Improving drinking water acceptability – taste and odour	0	0.0
Sub Total - Taste and Odour	**0**	**0.0**
Water treatment works	116	0.5
Pumping Stations	36	(0.1)
Service Reservoirs	31	0.1
Dams and Impounding Reservoirs	9	0.0
Disinfection management	20	0.1
Other (inc fluoride and turbidity)	22	0.2
Sub Total - maintaining assets	**235**	**0.8**
Total - Providing safe, acceptable drinking water	**281**	**2.1**

Having enough water available to meet demand

We are currently implementing a programme of schemes to increase supply capacity. We have given an undertaking to Ofwat to achieve a Security of Supply Index of 97 by 2009/10 and are on target to achieve this (an index of 100 means that no water resource zones have a supply deficit). In 2007/08 the index was at 95 (when measured against the agreed AMP4 targets).

However, without action to increase supply or to manage demand, the current relatively small deficit will widen. This is due mainly to our assessment of the impacts of climate change, and the rate of rise in leakage arising from network deterioration. Even if we maintained AMP5 leakage at 2009-10 levels, we face a shortfall of water of 32 million litres per day (Ml/d) by 2014/15 (about 1.5% of our current supply of 1,900 million litres per day).

Our proposed strategy is based on an assessment of which options would maintain the future supply / demand balance at the least cost to customers and to the environment. We do not propose to develop any new sources of water in the 2010 to 2015 period, while our AMP6 strategy is to maximise the sustainable use of our existing supplies. We have not included any proposals required to address climate change impacts in our programme in view of:

- The latest climate change scenarios from the UK Climate Change Impacts Programme not yet being available; we will review the impact of these scenarios when they are published.
- Ofwat's indication that it will not include proposals needed to address climate change in the Determination if they are not based on the latest scenarios.

Our programme includes:

- Reducing leakage to a new economic level of 453 Ml/d by 2015. This will be achieved mainly through additional detection and repair and pressure management, with some savings also achieved through District Meter Area restructuring to enable us to target leakage control more effectively. The reduced level of leakage will provide an additional 43 Ml/d of water to meet demand.
- Additional mains replacement which is needed to offset the natural rate of rise in leakage from customers' supply pipes. This growth in leakage will remain even with our capital maintenance led mains renewal programme. Our modelling has demonstrated that further AMP5 and AMP6 mains renewal is a crucial component of our long run Sustainable Economic Level of Leakage. Without it, future leakage reduction through ever increasing active leakage control will become unsustainable and a more expensive option.
- Increasing domestic customer metering through further promotion of our free meter option and, in three of our water resource zones, through a trial of compulsory metering when a property changes occupier. This is expected to reduce demand by around 1.5 Ml/d (in addition to the benefits gained from current levels of take-up of the free meter option).
- To increase water efficiency through working with our domestic and commercial customers to install more water efficient equipment and to promote water conserving behaviour. We expect these activities to reduce demand by around 16 Ml/d.

Short-term demand trends are currently highly uncertain, in terms of the impact of the recession on new housing development and commercial demand. We have chosen flexible options to balance supply and demand, which can be adjusted to reflect economic

developments. Recession continuing beyond 2009/10 would, however, have an adverse effect on income, greater than the cost savings resulting from lower demand.

In the longer term, our strategy is based around maximising the sustainable use of our existing resources by using new technologies and a better integrated network rather than develop new water resources schemes. Our 25 year strategy will deliver around 125 Ml/d of new supply capability. We will review the need for these schemes when the new UKCIP09 climate change scenarios are available.

In addition to increasing the amount of water available, we will need to increase distribution system capacity to maintain supply of sufficient water at times of peak demand. This investment is required as a result of changing demand patterns and more frequent hot summers.

The total proposed expenditure is summarised below:

Table 3 – Having enough water available – expenditure

Area of expenditure	Capex (£m)	Opex (£m/ pa)
Water transfers/additional resources	0	0.0
Low flow river investigations	3	0.0
Water consumption reduction	3	0.1
Sub Total - making additional water available	**6**	**0.1**
Reducing leakage (active leakage control, pressure management and mains renewal)	45	1.3
Sub Total – reducing leakage	**45**	**1.3**
Increasing distribution capacity	7	0.0
Sub Total - increasing distribution capacity	**7**	**0.0**
Mains diversions	20	0.0
New Development	67	2.0
Developer Contributions and New Connection Charges	(68)	0.0
Sub Total - responding to regional development	**19**	**2.0**
Responding to customer demand for meters	37	1.8
Sub Total - Responding to customer demand for meters	**37**	**1.8**
Total - having enough water available to meet demand	**114**	**5.2**

Ensuring water is at an adequate pressure

We have improved the extent of pressure monitoring and increased our ability to manage pressure in the mains network by installing permanent pressure monitoring devices in all our District Metered Areas. Previously we only permanently monitored areas that had been identified as potentially at risk, principally through the investigation of customer complaints. This better information has led to a temporary increase in the number of properties at risk of low pressure, to 1,546 properties at the end of 2007/08, compared with a Monitoring Plan target of 1,100. We expect to meet the monitoring plan target of 1,100 properties during 2009/10, through operational changes and a number of capital schemes. These additional

pressure monitors are also likely to benefit our leakage programme by identifying further opportunities for pressure management.

Low pressure problems will continue to arise, due to changing demand patterns, population growth and new development. Our plan provides for dealing with 1,397 new problems per year.

A large number of remaining low pressure problems relate to properties with joint supplies, where a single pipe leading from the water mains supplies several properties (typically four to six). We get around 2,000 complaints a year about low pressure where a customer is on a joint supply. We believe that joint supply pipes will become increasingly unsatisfactory for customers. Modern appliances demand a higher and more consistent pressure.

Our SDS proposed that we should take over responsibility for customers' supply pipes, up to the internal stop-tap. Our survey of willingness to pay shows significant support for taking over supply pipes (£5.55 per domestic customer) and for reducing low pressure problems (£3.57 per domestic customer to resolve 5,000 problems). Supply pipe adoption would also have benefits in terms of reducing leakage and reducing the number of customers with lead supply pipes. A programme of supply pipe separation is included in the FBP as a step towards our objectives in this area.

As in the DBP, our common supply pipe separation programme comprises three parts:

- Responding to customer dissatisfaction with water pressure by separating supply pipes on customer request, regardless of DG2 levels of service.
- Carrying out a survey to establish the extent of common supply pipes.
- Resolving DG2 levels of service issues attributable to common supply pipes identified through our survey.

We do not know how many joint supplies there are but we have commenced work to improve the estimate and our AMP5 proposals include a full-scale survey, covering around 1 million properties, to establish the extent of the problem.

We currently have a limited programme for the separation of shared communication pipes to improve pressure and flow. A likely outturn for the whole AMP4 period is 1,500 separations compared with 7,500 assumed in the 2004 Final Determination. We have found that customers were unwilling or unable to finance the works on their own pipework. Therefore our plans for AMP5 include a lower rate of take-up on customer request.

Our proposals include separating 1,500 supply pipes on customer request and 2,600 where problems are identified as a result of our survey. Results from a pilot study and review of cost estimates have resulted in expenditure proposed being £17m lower than in the DBP.

Table 4 – Dealing with low pressure problems – expenditure

Area of expenditure	Capex (£m)	Opex (£m/ pa)
Resolving new low pressure problems	10	0.1
Customer supply pipe separation	8	0.5
Total - dealing with low pressure problems	**18**	**0.6**

The total programme for ensuring a continuous supply of quality water is shown in Table 5.

Table 5 – KSI 1 – Ensuring a continuous supply of quality water - expenditure								
Area of Expenditure	**Ofwat cost category**							
	Capex (£m)				Opex (£m pa)			
	Maintenance	Quality	Supply Demand	Enhanced Service	Maintenance	Quality	Supply Demand	Enhanced Service
Resilience	0	69	0	150	0.0	0.1	0.0	0.2
Reducing Interruptions	47	0	0	0	1.3	0.0	0.0	0.0
Maintaining the network	358	0	0	0	0.4	0.0	0.0	0.0
Total - ensuring a continuous supply	**624**				**2.0**			
The Water Quality Programme	0	45	0	0	0.0	1.3	0.0	0.0
EA Habitats Directive	0	1	0	0	0.0	0.0	0.0	0.0
Taste and Odour	0	0	0	0	0.0	0.0	0.0	0.0
Maintaining assets	235	0	0	0	0.8	0.0	0.0	0.0
Total - Providing safe, acceptable drinking water	**281**				**2.1**			
Making additional water available	0	3	3	0	0.0	0.0	0.1	0.0
Reducing leakage	0	0	45	0	0.0	0.0	1.3	0.0
Increasing distribution capacity	0	0	7	0	0	0	0	0
Responding to regional development	1	0	17	0	0.0	0.0	2.0	0.0
Responding to customer demand for meters	0	0	37	0	0.0	0.0	1.8	0.0
Total - having enough water available to meet demand	**114**				**5.2**			
Resolving low pressure problems	0	0	10	8	0.0	0.0	0.1	0.5
Total - dealing with low pressure problems	**18**				**0.6**			
Total investment by cost category	641	119	119	158	2.5	1.5	5.2	0.8
Total investment	**1,037**				**9.9**			

Table 6 compares FBP expenditure with the DBP. The overall reduction in expenditure compared with the DBP is nearly £200m, with the main changes being:

- Expenditure on making additional water available reduced as a result of removing schemes dependent on climate change assumptions.
- Reduced expenditure on maintaining assets, following further analysis of asset deterioration and service impacts.
- Reduced expenditure on resilience as a result of further analysis of the options available.

Table 6 – KSI 1 – Ensuring a continuous supply of quality water - expenditure			
Area of Expenditure	**Capex (£m)**		
	FBP	**DBP**	**Change**
Resilience	219	237	(18)
Reducing Interruptions	47	64	(16)
Maintaining the network	358	381	(23)
Total - ensuring a continuous supply	**624**	**682**	**(57)**
The Water Quality Programme	45	58	(13)
EA Habitats Directive	1	0	1
Taste and Odour	0	5	(5)
Maintaining assets	235	294	(60)
Total – Providing safe, acceptable drinking water	**281**	**357**	**(77)**
Making additional water available	6	77	(71)
Reducing leakage	45	19	26
Increasing distribution capacity	7	9	(2)
Responding to regional development	19	7	12
Responding to customer demand for meters	37	42	(4)
Total - having enough water available to meet demand	**114**	**153**	**(39)**
Resolving low pressure problems	18	39	(21)
Total - dealing with low pressure problems	**18**	**39**	**(21)**
Total investment	**1,037**	**1,231**	**(194)**

KSI 2 Dealing effectively with waste water

Our customers should have confidence that we will take away their waste and treat it to the highest environmental standards before returning it to our region's rivers.

The key challenges facing us are:

- **Dealing with known sewer flooding problems and with new problems which continue to arise, e.g. due to new housing development.**
- **Increasing expectations for good environmental performance – the Water Framework Directive requires rivers to be brought up to good ecological and chemical standard, and we need to reduce the number of pollution incidents.**
- **The need to reduce our carbon footprint.**
- **More of the sewage treatment assets installed as part of our large improvement programme in the early 1990s are going to need replacement.**
- **Privately owned sewers and laterals are to transfer to us. The full details of this, and the extent and condition of them, are unknown.**
- **Long term uncertainty regarding risks to the agricultural route for sludge recycling.**
- **Decreasing tolerance of odour, while housing development close to treatment works increases the potential for odour problems.**

The key elements of our plan to address these challenges are:

- **Action to reduce the number of sewer flooding problems and making a start on taking action to prevent new ones arising.**
- **Meeting new standards for sewage treatment, but new requirements have been challenged where we do not think they are justified.**
- **Increasing maintenance of mechanical and electrical assets.**
- **Increasing sewer replacement, and a programme of measures to achieve a further reduction in pollution.**
- **A programme of measures to reduce odour problems.**
- **Increasing digester capacity in AMP5 to deal with the additional sludge from higher quality standards and new customers.**
- **Optimising sludge drying and developing new technology for use of sewage sludge as a renewable energy source.**
- **Preparing for the transfer of private sewers & laterals.**

Our proposals are based on meeting statutory standards, making improvements which customers support and ensuring that we have a sustainable impact on the environment. In line with Ofwat's requirement, we have not at this stage included the costs of maintaining private sewers and laterals.

Each of the key elements of our plan to deal effectively with waste water, and the expenditure necessary to deliver the plan, is described below. At the end of this section expenditure is summarised using Ofwat categories of expenditure, in order to show how this summary of our plan relates to the more detailed submission in Part B of the FBP.

Addressing flooding from sewers

Flooding of customers' homes and businesses is extremely distressing and affects customers' quality of life dramatically. It is the worst service failure our customers can experience and we regard sewer flooding as being unacceptable. Our Willingness to Pay

survey showed significant support for reducing sewer flooding. In our SDS we stated that "Our aim will be to eliminate flooding of properties from sewers, except as a result of exceptionally high rainfall which exceeds the design standards for our system".

To achieve that long term vision we have produced a plan which balances service performance and customer affordability to:

- Deal with existing hydraulic inadequacies in our sewerage system.
- To the extent that it is practicable, progressively remove surface water drainage connections to foul combined systems.
- As necessary, reinforce the capacity of our sewerage system to prevent future flooding problems.

Our proposals were supported by CCWater at a quadripartite meeting on 30th January 2009.

We have taken into account Ofwat's letter PR09/13 on sewerage system design and climate change. We have also taken account of the Mott MacDonald's report "External Review of Sewer Flooding Risk Registers – October 2008".

Since submitting our DBP we have reviewed our sewer flooding methodology and restated the AMP4 additions to our "At Risk" registers. We have shared the results of this review with Ofwat and our Reporter, who have supported our approach. Following this work, we have made significant changes to our plans.

In the medium term, sewer flooding problems will continue to emerge. Our early work into predictive modelling shows that this is likely to remain the case in the foreseeable future. The Mott MacDonald report acknowledged that the existing register is not a true "at risk register" but a "flooding incident register". The register takes no account of the likelihood of future flooding. Our view is that it is time the industry moved towards a risk-based approach. We have led the industry by trialling new modelling techniques which can identify properties which are at risk of flooding but have not yet flooded. We plan to build this into the next reviews of our Drainage Area Plans.

The 1 in 20 year flooding register is still relatively new and it is not yet possible to accurately predict additions across our whole region. The flooding registers are currently based on the number of flooding events, and properties are added only if there is clear evidence of previous flooding. There will be properties which are actually at risk of flooding more frequently. Where it is cost beneficial, we plan to protect those properties at higher risk of flooding before they suffer a second event. We plan to remove 485 stand-alone high-risk 1 in 20 properties plus a further 75 linked to other internal problems. We also intend to address 37 other properties on the 1 in 20 register.

We forecast that on 31st March 2010 there will be 445 properties on the internal 1 in 10 and 2 in 10 flooding registers. This is sensitive to changes in additions rate for the final year of AMP4.

Our proposals for AMP5 include dealing with 1,235 internal flooding problems (including high risk 1 in 20s) and 890 external areas such as gardens (mainly linked to solutions dealing with internal problems). Our WTP survey and a specific sewer flooding survey both identified internal flooding as being the highest priority. This is forecast to leave around 400 problems on the internal 1 in 10 and 2 in 10 registers but this is dependent on the rate of new additions.

Mitigation Plan

Our aim is to ensure that around 90% of future additions to the 1 in 10 and 2 in 10 flooding register are protected from flooding until a permanent solution can be completed. We additionally plan to protect higher risk properties on our 1 in 20 register. In total we aim to protect 795 properties using mitigation. We also plan to protect 365 properties which are at the highest risk of external flooding.

Preventive work

We plan to commence work on developing our proactive approach to alleviate flooding problems before actual flooding occurs. This approach will be complemented by projects to undertake foul/surface water separation projects to remove surface water from combined sewerage systems, to free up sewer capacity.

This approach is new and in AMP5 we propose to develop pilot projects to evaluate their effectiveness in reducing future flooding problems. We have allowed £5m in our plan for the proactive approach for AMP5 and a further £10m to pilot the foul/surface water separation. Again, this approach is supported by CCWater.

Working with other stakeholders

We note that it is the Government's intention that upper tier local authorities should lead on the management of local flood risk, with the support of other relevant organisations. We will work effectively with these local authorities and others to play our proper role in resolving flooding. Where our assets need upgrading, as part of the most cost beneficial holistic solution to a flooding problem, then we will take the necessary action. We will also work with them to reduce surface water inputs to our systems.

We have contributed to the Defra-led urban drainage pilot work in Birmingham and Telford and are now working with Gloucestershire County Council on their first edition Surface Water Management Plan. We are also working with many other local authorities at a local level.

Our planned AMP5 sewer flooding programme is set out in Tables 7 and 8.

Table 7 – Dealing with sewer flooding – expenditure

Area of expenditure	Capex (£m)	Opex (£m pa)
Resolving internal sewer flooding problems	177	1.6
Resolving external sewer flooding problems	3	0.0
Proactive approach to prevent future sewer flooding problems	5	0.0
Measures to mitigate internal sewer flooding	6	0.0
Total - Dealing with sewer flooding	**191**	**1.6**

Table 8 – Number of flooding problems resolved

Internal (including high risk 1 in 20s)	1,236
External only	44
External linked to internal problems (excluding roads)	750

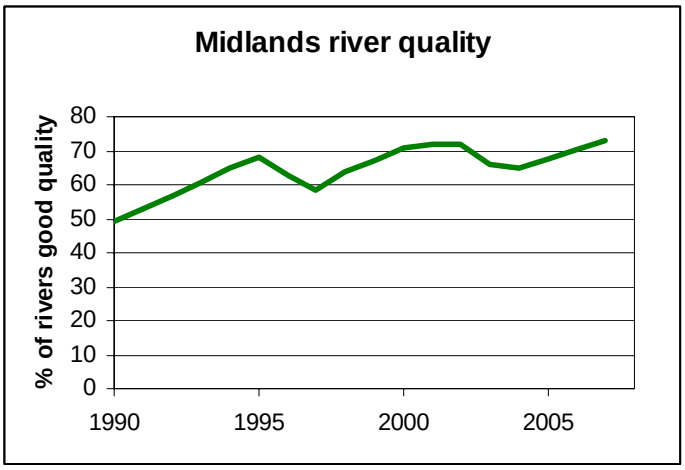
Meeting standards for sewage treatment

Maintaining current performance

River water quality in the Severn Trent area has improved significantly, with an increase in the proportion of rivers of good standard from 49% to 73% over the last 17 years. As noted by the EA, much of this improvement is due to changes in sewage treatment standards.

We have a very good record on meeting the required standards for sewage treatment discharges, failures are rare, and we show stable performance on Ofwat's serviceability measures.

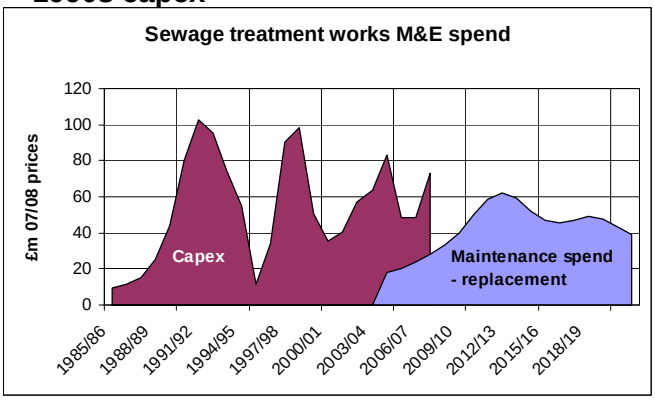
Figure 8 – EA measurement of river quality



We aim to maintain performance against current standards. In order to achieve this, the amount of maintenance work needed on assets will increase over time. Our sewage treatment asset base has expanded significantly over the last fifteen years, to meet higher treatment standards.

Our models for forecasting asset deterioration and service impacts indicate that an increase in maintenance spend will be needed in order to maintain our current high performance of compliance against standards. This results mainly from the high level of expenditure in AMP1 (1990-95); the mechanical and electrical elements of this expenditure are coming towards the end of their useful life. The effect is shown in the graph above. However, the effect is offset by a reduction in expenditure on longer life assets.

Figure 9 – potential maintenance impact of 1990s capex



Meeting new standards

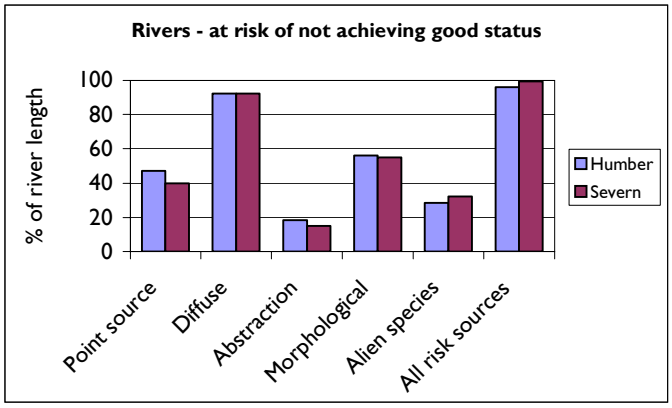
There will be further tightening of discharge standards in AMP5. The largest element of the programme is phosphorus removal under the Urban Waste Water Treatment Regulations (UWWTR), accounting for over half of the improvement programme, following the designation of the River Trent as a Sensitive Area.

We have based our investment programme on the National Environmental Programme (NEP) for our area as notified to us by the EA. We have contributed to the development of this programme and have enjoyed an open communication process with both the EA and Natural England. Our open and constructive challenge to the Draft NEP has led to a significant reduction in the programme to ensure that only the essential obligations are provided. This is particularly in the areas of UWWTR phosphorus removal and the WFD programme.

In addition to UWWTR requirements, further tightening of standards for AMP5 is being driven by the Water Framework Directive (WFD). The WFD is designed to ensure that all water bodies achieve good status and a high proportion of rivers within the Severn and Humber river basins are at risk of not achieving this (see graph below).

The WFD provides for river quality objectives to be achieved by the most cost-effective means. Objectives can be modified if they can only be achieved at disproportionate cost. We note that the EA has adopted an approach to minimum standard in respect of both Biological Oxygen Demand and Ammonia that enable current technology to be used without disproportionate cost. The interventions necessary will still deliver the benefits in the receiving water.

Figure 10 – rivers at risk of not achieving good status



We support further sewage treatment changes if justified by benefits to river quality relative to costs, and if this is the most cost-effective way of improving rivers. The additional power costs and resulting carbon impact need to be taken into account in this assessment and we have built carbon impacts into our own optimisation process. We have been introducing more biological nutrient removal, rather than chemical dosing, which reduces power and chemical use and means there are no metals in the effluent. We will continue to investigate new sustainable solutions.

Removal of phosphates from detergents and reducing run-off from agriculture should also make a contribution. In relation to some other substances, such as certain metals and endocrine disrupters, standards would be very costly or impossible to achieve through sewage treatment. Prevention of such substances entering the sewerage system, and therefore addressing the original source of pollution, is likely to be a more cost-effective and sustainable approach.

We are seeking to achieve WFD objectives over three six-year cycles through to 2027. This will give the maximum opportunity to develop holistically cost-effective solutions, timed to coincide with schemes to maintain assets or increase capacity to meet demand. Discussions with the EA indicate that there is potential for very large numbers of obligations for future AMP cycles. This would lead to significant increases in bills, which would be unlikely to be supported by customers.

To address these issues we are embarking on a proactive and complementary programme of modelling and investigations in partnership with the EA and other stakeholders. We will also seek to carry out benefit assessment to review whether costs are disproportionate to benefits. We consider that modelling of appropriate scenarios may enable more cost effective planning of investment across the wider river basin. We will continue discussions with the EA. However, the future programme will also be dependent on national decisions.

We have reviewed the implications of new standards and have been able to plan to deliver 35 of 96 obligations without capital expenditure yet maintaining an acceptable risk to sewage treatment compliance.

Table 9 – Meeting new sewage treatment standards – expenditure		
Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
Dry Weather Flow Compliance (12 sites)	11	0.1
Groundwater Directive (8 sites)	2	0.0
Countryside Rights of Way Act Investigations (3 sites and 4 investigations)	3	0.0
Habitats Directive (9 sites)	9	0.3
Fisheries Directive (2 sites)	13	0.2
Urban Waste Water Treatment Directive Phosphorus Removal (26 sites)	117	6.0
Security and Emergency Measures Direction (1 investigation)	0	0.0
Sub-Total - Improvements to meet existing directives	**157**	**6.6**
WFD - BOD Removal (3 sites)	7	0.1
WFD - Ammonia Removal (6 sites)	15	0.4
WFD – Other (1 site)	2	0.0
WFD - Chemical Investigation (43 investigations)	6	0.0
WFD - Preparation for AMP6	10	0.0
Sub Total - improvements to meet Water Framework Directive	**41**	**0.5**
Total - Additional sludge treatment	**37**	**0.2**
Total - Meeting new sewage treatment standards	**235**	**7.3**

Maintaining the sewer network

Overall in our 2008 June Return Ofwat assessed our sewerage infrastructure serviceability as marginal. Whilst we believe that it is broadly stable we have seen some deterioration in some performance indicators and so we have recently increased our investment.

We see the greatest number of problems, in terms of pollution or flooding, on our network of non-critical sewers. Until AMP4, our approach was to fix these on failure but in AMP4 we started a programme of CCTV surveys on non-critical sewers. This has allowed us to establish the condition of the network, and target those areas where we are more likely to experience serviceability issues.

We have modelled the optimum mix of measures to maintain serviceability at least cost. Our models show that we need to increase investment over the long run. This is a natural trend as the asset stock becomes older. As part of this investment we plan to increase investment in proactive sewer cleansing to improve our performance on flooding and pollution.

Our programme provides for increased proactive investment in gravity sewers, continuing to deal with reactive problems effectively and continuing to invest in rising mains and critical sewers.

There is currently a drive from national government to dramatically increase the supply of new housing over the next 25 years. Many towns and cities in the Midlands have been

identified as growth points. Our overall objective is to ensure that we balance supply and demand so that:

- The sewerage system has sufficient capacity so that sewer flooding and pollution incidents are minimised.
- Sewage treatment works and sludge treatment facilities have sufficient capacity to meet compliance standards, to prevent damaging effects on the environment.

We need to achieve this in a way which is at least cost, has an acceptable impact on the environment and on our carbon footprint, and can be achieved at risk levels which reflect customer priorities.

We have followed the principles of the UKWIR Long Term Least Cost Planning for Supply Demand methodology. We have taken a balanced view on Regional Spatial Strategy, population and historical data to balance cost with risk in an area of considerable uncertainty.

The programme to maintain our network and meet future demands is summarised in the table below.

Table 10 – Maintaining the network – expenditure

Area of expenditure	Capex (£m)	Opex (£m pa)
Sewer diversions	14	0.0
New development – sewerage	38	0.0
New development - sludge treatment	5	0.0
New development – sewage treatment	56	0.7
Developer contributions and new connection charges	(70)	0.0
Sub-total - responding to regional development	**41**	**0.7**
Sewage treatment works	349	0.0
Sewerage pumping stations	91	0.0
Sludge treatment works	72	(0.1)
Sewerage assets	14	0.0
Sub-total - maintaining our above ground assets	**526**	**(0.1)**
Rehabilitation of the critical sewer network	37	0.0
Rising mains	19	0.0
Rehabilitation of the sewer network (other)	98	(0.7)
Sub-total - maintaining our sewerage network	**154**	**(0.7)**
Total - Maintaining the network	**722**	**(0.1)**

Private Sewers and Lateral Drains

On 15 December 2008 Defra announced that ownership of private drains and sewers would transfer to water and sewerage companies from 2011. We fully support this, as it will remove responsibilities from individual customers who find it difficult to resolve drainage problems outside their property boundary. Some of the details of the transfer have not yet been announced. We understand that Defra intend to publish draft regulations for consultation in Spring 2009.

In their letter PR09/26 dated 12 February 2009 Ofwat stated that the costs involved should not be included in companies' plans but each company should set out its estimates of costs and levels of activity associated with the transfer and set out a series of assumptions.

We have followed Ofwat's guidance, but recognise that there are still considerable uncertainties over the estimates. We currently estimate that the transfer will add £12 to customers' bills.

Controlling pollution

Over a number of years we have had one of the best records in the industry in terms of number of serious pollution incidents (Categories 1 and 2). However, the number of Category 3 (less severe) pollution incidents showed an increase in 2006, and rose above the national average.

We agreed an action plan with the EA and Ofwat to reduce Category 3 pollution incidents, including thirteen areas of improvement, with actions and performance measures identified for each area. Since then, the number of pollution incidents has decreased significantly. We are targeting a further improvement in pollution incidents in AMP5, with a programme including:

- Increasing further our sewer cleansing programme (increased in the last two years) to reduce pollution incidents caused by blockages and siltation.
- Ensuring that pollution incidents arising from sewer collapses do not increase, by replacing or renovating sewers where the need is identified by our deterioration modelling and CCTV survey programme.
- Installing telemetry at key sites.
- Making some progress with separating foul and surface water separation.
- Increased resilience of our assets to reduce the risk of pollution problems.

Our proposed programme is summarised in Table 11.

Table 11 – Controlling Pollution – expenditure

Area of expenditure	Capex (£m)	Opex (£m pa)
Continuation of our network survey programme	47	0.0
Sub-Total - network investigations	**47**	**0.0**
S101a first time rural sewerage connection	17	0.2
Resolving Unsatisfactory Intermittent Discharges	7	0.0
Sub-Total - improvements in quality	**24**	**0.2**
Investigations into misconnections onto our network	0	1.1
Separation of foul and surface water network	10	0.0
Separation of dual manholes	4	0.0
Installation of telemetry / increased monitoring	9	0.0
Maintaining Sewer Overflows	4	0.0
Sustainable Drainage Systems	0	0.6

Table 11 – Controlling Pollution – expenditure		
Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
Sub-total - Pollution Strategy	**26**	**1.8**
Flood prevention and power supplies	10	-0.8
Sub-Total – Resilience	**10**	**-0.8**
Total - Controlling pollution	**107**	**1.2**

Dealing with problems of odour from sewage treatment works

Odour from sewage treatment works and from the sewerage system can have a detrimental impact on the quality of the environment for those living close by. Sewage treatment and sewerage systems will never be completely odour-free but our programme aims to reduce the potential for this to be a significant nuisance.

The costs of odour control need to be balanced against the benefits. There is a range of options available, with differing costs and impacts on odour. We have not adopted solutions which involve completely covering sewage treatment works and we do not believe that this is the most sustainable solution because of the impact on operating costs and energy use. Customers support reducing sewage odour, but not to the extent that very high-cost improvements would be justified. The programme which we have put forward is supported by cost-benefit analysis.

We plan to implement a programme of odour control measures based on new standards, detailed in a Defra Code of Practice, that will reduce odour at the sites concerned. We have currently identified 16 sites requiring intervention in AMP5 and are continuing our investigation programme to identify new risk areas. We are proposing to increase the rate of dealing with problems by 50% in AMP5 to:

- Provide better odour reduction to resolve existing problems.
- Resolve new issues arising as a result of decreasing tolerance of sewage treatment odour.
- Resolve new problems arising from new developments near treatment works.

Table 12 – Dealing with problems of odour – expenditure		
Area of expenditure	**Capex (£m)**	**Opex (£m/ pa)**
Dealing with problems of odour	7	0.0
Total - dealing with problems of odour	**7**	**0.0**

Dealing with sewage sludge sustainably

Our sludge strategy is underpinned by the need to provide secure, sustainable routes for all sludge disposal. Our approach seeks to mitigate risks associated with the sludge to land route, which is currently seen as environmentally the best route, whilst offering good value to our customers. We have also been significantly increasing our electricity generation from sludge and are leaders in the industry in this area – this is discussed in KSI4.

Our SDS states that we will:

- Increase the use of sewage sludge as a renewable energy source.

- Open other outlets including energy recovery from combustion and use as a carbon-neutral fuel in industrial processes. Ultimately we expect that all sewage sludge will be used for energy generation and residues from these processes will also be beneficially reused.
- Deal with sludge sustainably.

We remain committed to these strategic intentions and still see sludge drying as a key technology to provide flexibility of outlets and move us towards energy recovery. This development requires introduction of new technology and we have encountered operational problems with our new dryer at Finham. We have concluded that further expansion of our drying capacity does not at present offer a good balance of cost and risk to our customers. Our FBP does not include additional sludge dryers, but concentrates on improving the design of the current plants at Finham and Netheridge. With the exception of £1.6m capital maintenance, we have not included any investment in our FBP for drying.

The reduction in contamination of sludge has enabled us to move more of our sludge to the more cost-effective and sustainable agriculture route during AMP4 under current sludge guidelines. There is currently a high level of demand for this resource from farmers but sludge recycling to agriculture is one of our top ten Company risks. To assess this further we commissioned ADAS consultants to quantify the effect of known restrictions and the most likely “exclusion clauses” on our sludge landbank availability. Their report concluded that we currently only require 11.1% of our available landbank after all current exclusion clauses are taken into account and this gives us confidence in continuing to have agriculture at the heart of our AMP5 plan. Our AMP5 strategy will focus on securing the quality of our product and eliminating our reliance on liquid to land operations by providing more dewatering installations.

In the longer term, we aim to reduce reliance on recycling to agricultural land, particularly where associated with food crops, and to increase our sludge to energy capability. The reason for this is reduction in operational risk. Although the sludge to agriculture route is currently considered the best practicable environmental option, customer reaction to use of sludge on agricultural land could potentially lead to a sudden loss of this route. The longer term reduction of reliance on this route will help to reduce our overall risk position.

There is considerable uncertainty about forthcoming legislation relating to EU Sludge Directive and the UK Sludge Use in Agriculture Regulations and Codes of Practice. With the exception of some minor investment relating to Pollution Prevention and Control Regulations, we have not included any investment relating to changes in sludge-related legislation.

By the end of AMP5 we anticipate having an additional 22,000 tonnes of dried solids per year to deal with at our sludge treatment facilities, as a result of higher treatment standards and growth in demand. A key part of our strategy is to ensure that we build enough additional capacity to effectively deal with this increase, whilst maintaining the quality of product and minimising travelling (and hence carbon) impact.

In summary, our strategy for AMP5 is to:

- Have an asset base of digesters which are correctly sized and in the right locations to enable us to dispose of all sludge satisfactorily and to optimise vehicle movements.
- Optimise our drying processes at Finham and Netheridge to inform investment decisions for PR14.
- Build a dried sludge demonstration pyrolysis plant in conjunction with a partner organisation, in order to develop our understanding of this emerging technology at little financial risk.

- Implement schemes to increase biogas generation and therefore generate more energy.
- Continue to mitigate the risks associated with losing the sludge to agriculture route, by working collaboratively across the sector to lobby stakeholders and by refining sludge contingency plans.
- Optimise our current asset base and increase pre-digestion sludge thickness to reduce the need for increased digestion capacity.
- Cease our liquid sludge to land operation.
- Await clarity regarding potential further legislation before investing – but remain committed to complying with the Safe Sludge Matrix.

Investment associated with sludge is split amongst other parts of Part A. A specific element of expenditure relating to sludge strategy is detailed below and relates to the installation of centrifuges at 5 locations to remove our reliance on liquid sludge to agriculture.

Table 13 - Dealing with sewage sludge sustainably – expenditure		
Area of expenditure	**Capex (£m)**	**Opex (£m/ pa)**
Sludge disposal route security investment strategies	14	-0.7
Installation of an additional sludge drier	0	0.0
Total - dealing with sewage sludge sustainably	**14**	**-0.7**

Expenditure summary

The total programme for dealing effectively with waste water is shown in the table below, which shows how the expenditure is split between Ofwat cost categories.

Table 14 – KSI 2 – Dealing effectively with waste water - expenditure								
Area of Expenditure	**Ofwat cost category**							
	Capex (£m)				Opex (£m pa)			
	Mainten-ance	Quality	Supply Demand	Enhanced Service	Mainten-ance	Quality	Supply Demand	Enhanced Service
Dealing with sewer flooding problems	0	0	67	124	0.0	0.0	1.4	0.1
Total - dealing with sewer flooding	**191**				**1.6**			
Improvements to meet existing directives	0	157	0	0	0.0	6.6	0.0	0.0
Improvements to meet Water Framework Directive	0	41	0	0	0.0	0.5	0.0	0.0
Additional sludge treatment	0	37	0	0	0.0	0.2	0.0	0.0
Total - Meeting new sewage treatment standards	**235**				**7.3**			
Responding to regional development	1	0	40	0	0.0	0.0	0.7	0.0
Maintaining our above ground assets	526	0	0	0	(0.1)	0.0	0.0	0.0

Table 14 – KSI 2 – Dealing effectively with waste water - expenditure								
Area of Expenditure	**Ofwat cost category**							
	Capex (£m)				Opex (£m pa)			
	Mainten-ance	Quality	Supply Demand	Enhanced Service	Mainten-ance	Quality	Supply Demand	Enhanced Service
Maintaining our sewerage network	154	0	0	0	(1.0)	0.0	0.0	0.0
Total - Maintaining the network	**722**				**-0.1**			
Network investigations	47	0	0	0	0.0	0.0	0.0	0.0
Improvements in quality	0	24	0	0	0.0	0.2	0.0	0.0
Pollution Strategy	4	0	10	12	1.1	0.0	0.6	0.0
Resilience	0	0	0	10	0.0	0.0	0.0	-0.8
Total - Controlling pollution	**107**				**1.2**			
Dealing with problems of odour	0	0	0	7	0.0	0.0	0.0	0.0
Total - dealing with problems of odour	**7**				**0.0**			
Dealing with sewage sludge sustainably	14	0	0	0	(0.7)	0.0	0.0	0.0
Total - dealing with sewage sludge sustainably	**14**				**(0.7)**			
Total investment by cost category	753	258	117	147	-0.4	7.5	2.8	-0.7
Total investment	**1,276**				**9.3**			

Table 15 compares FBP expenditure with our DBP proposals. The expenditure is over £200m lower, with the main reductions being on sewer flooding and the programme to meet new sewage treatment standards.

Table 15 – KSI 2 – Dealing effectively with waste water – expenditure			
Area of Expenditure	**Capex (£m)**		
	FBP	**DBP**	**Change**
Dealing with sewer flooding problems	191	310	(120)
Total - dealing with sewer flooding	**191**	**310**	**(120)**
Improvements to meet existing directives	157	224	(68)
Improvements to meet Water Framework Directive	41	39	2
Additional sludge treatment	37	32	5
Total - Meeting new sewage treatment standards	**235**	**295**	**(61)**
Responding to regional development	41	44	(2)
Maintaining our above ground assets	526	543	(17)
Maintaining our sewerage network	154	178	(24)
Total - Maintaining the network	**722**	**765**	**(43)**
Network investigations	47	37	10
Improvements in quality	24	15	9
Pollution Strategy	26	33	(7)
Resilience	10	10	(0)
Total - Controlling pollution	**107**	**95**	**11**
Dealing with problems of odour	7	10	(3)
Total - dealing with problems of odour	**7**	**10**	**(3)**
Dealing with sewage sludge sustainably	14	27	(13)
Total - dealing with sewage sludge sustainably	**14**	**27**	**(13)**
Total investment	**1,276**	**1,503**	**(227)**

KSI 3 Responding to customers' needs

Our customers tell us that, in addition to providing the highest levels of water and waste services, they expect to see higher standards of service in relation to customer contact and billing issues. We also play an important role in the provision of a vital public service to the communities we serve – this KSI reviews our role in the community, including our programme relating to Corporate Social Responsibility, as well as services to customers.

The key challenges facing us are:

- **Rising customer expectations on service.**
- **Changes in ways which customers want to communicate with us.**
- **Customer contact performance has recently been below expectations.**
- **Retail competition is likely to develop and apply to all customers – we are concerned that the costs to customers are likely to exceed the benefits but we will need to prepare for its implementation.**

The key elements of our plan to address these challenges are:

- **We are improving our quality and speed of response when customers contact us.**
- **We are making improvements in the way in which we run our networks and billing systems to minimise the need for customers to contact us due to service failures.**
- **When customers need to contact us to report an operational issue, we have made changes which will increase the number of problems resolved at the first visit.**
- **We are increasing the range of channels for contact to meet customer needs.**

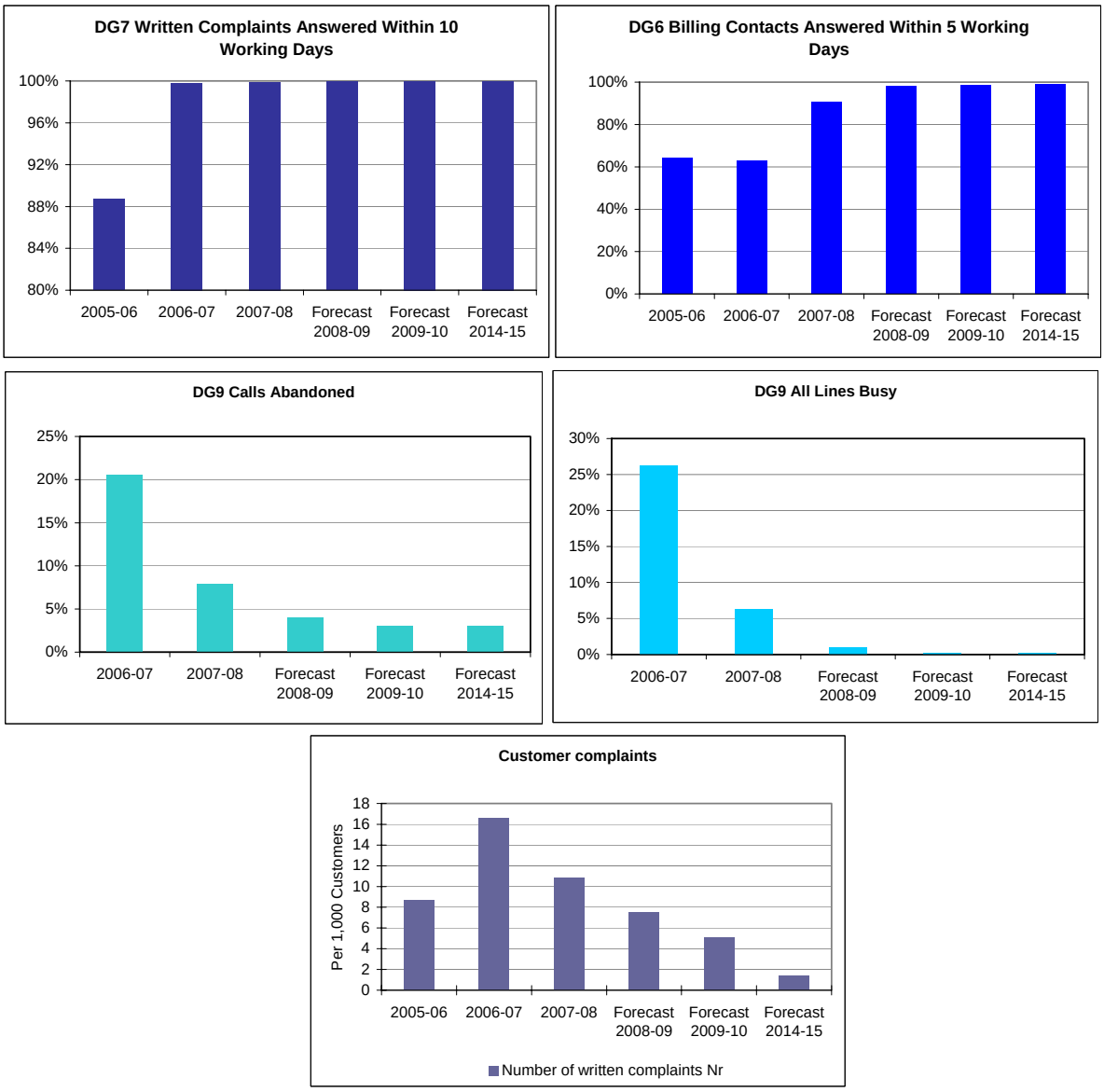
Getting customer contact performance right

The service we provide to our customers is at the forefront of our strategy but our performance on customer contact was not acceptable two years ago. This has been linked with implementation of measures to ensure accurate reporting of performance and with the introduction of a new billing system. We have invested heavily in our call handling service and implemented new processes and controls – as a result, during 2007/08 our customer contact performance improved considerably:

- The number of complaints received was down by a third – to 45,710 from 68,874 in 2006/07.
- The speed of responding to complaints and queries was much improved. Our DG6 performance (responding to billing contacts) increased to 92.9% from 90.7%, and our DG7 performance (responding to written complaints) increased by 0.1% to 99.9%.
- The proportion of calls abandoned reduced to 7.9% from 20.5%, and calls where all lines were busy reduced to 6.3% from 26.2%.
- Customer satisfaction with call handling increased to 4.39 from 4.1 in 2006-07 (out of a maximum of 5).

The graphs below illustrate the extent of improvement to date and further improvements projected to be achieved, both in standards for customer service set by Ofwat and our own Key Performance Indicator of number of complaints received.

Figure 11 – customer service performance



The improved performance we saw through 2007/08, and which we expect to show further improvement into the future, has been the result of a number of business initiatives. These changes in the last year are in addition to the changes we have made to manage customer contact:

- Better staff scheduling to ensure their availability to answer calls from customers.
- Increasing the number of telephone lines, which has virtually eliminated engaged calls.
- Reorganising some departments within the Customer Relations team and linking our telephony network across contact centres. This has created a larger flexible pool of resource to be available for phone calls, reducing queues during peak demand.

Our initiatives are managed through a business improvement programme to ensure a co-ordinated approach is followed and we can track the benefits we are delivering to our customers, now and into AMP5. Current improvements include:

Improved point of contact resolution. A programme is underway to increase the skills of our front-line agents to improve point of contact resolution. This will reduce the need to pass the call into an activity queue for later resolution, which will reduce back office work.

Self-serve. Customers can contact us via mail, telephone, email and through our current self-serve options (e.g. our automated payment service). We are investing in web and voice self-serve solutions to increase the number of integrated transactions we are able to offer customers, and expect this to be live during 2009.

Reducing operational failures and speeding up response times

We have created a root cause analysis team which is looking at the reasons why we receive written complaints, and are improving management information on the causes of contacts. Over time, this will enable us to reduce or eliminate the operational activities that affect customer contacts such as sending customers incorrect bills/reminders or shutting off supply. This will both improve service and reduce costs.

We are changing operational customer service processes to deliver better service. This initially applied in Sewerage, with the key objectives to improve our speed of response to customer contact, increase productivity of our field teams, improve customer satisfaction, and improve first time job resolution.

Response times to issues such as flooding, blockages and pollution are much improved – ranging from a 73% reduction for pollution incidents to a 97% reduction for internal sewer flooding. The improvements resulted from changes including improved scheduling of jobs, training, ensuring the right equipment is available to resolve the problem first time.

The following benefits are expected after extending the approach throughout our operations.

- Reduced flooding numbers through a more accurate and speedier assessment process.
- Reduced written complaints through keeping customer promises and delivering service level agreements.
- Reduced abandonment of customer calls by reducing customer chase calls driven by not meeting promises.
- Reduced costs by increasing “Right 1st Time” volumes.
- Reduced leakage through correct prioritisation and reducing lead times.

Future improvements

Getting through first time. To enable us to better deal with the peak in contact, created by main billing and subsequent reminder periods, we are looking at outsourcing solutions for some back office activity which can be flexed during peak periods. This will release more of our staff to cover the phones at these times.

Measuring customer satisfaction. We are currently investigating asking customers for a customer satisfaction score after each call. This will enable us to quickly identify and resolve any customer satisfaction issues.

Customer segmentation. In the future we need to tailor the service we provide to different groups of customers making it more personalised. This will make services more effective and ultimately reduce costs. We have started a project looking at customer segmentation, initially concentrating on billing and meter read frequency and ways in which our customers wish to

communicate with us. This will enable us to tailor billing and reading frequencies and communication with different customer groups.

Extending opening hours. Currently the Contact Centre is open from 8am to 8pm Monday to Friday and 8am to 1pm on Saturday; we are looking at options to improve the back-up process and therefore extend our opening hours.

Support to our customers

The effective collection of our charges will benefit all our customers by keeping bills low. We recognise that whilst the majority of our customers can afford to pay their water bill, there are customers who have trouble in settling their accounts. We provide support in a number of ways to help customers manage their accounts, and will continue to do so throughout AMP5.

Our customer support strategy is focused around speaking to our customers, finding out their particular circumstances and tailoring our debt management approach. Through this approach we will identify our most vulnerable customers, who will be offered a number of options:

- Payment plan options – for customers who are unemployed, we are working with the Department of Work and Pensions to arrange an affordable deduction from their benefit payments.
- Help and support in customers' applications to the Severn Trent Trust Fund. We currently pay around £3.5m per year towards this fund.
- Making contact with the Citizens Advice Bureau for debt counselling and additional support. We are looking to fund a debt worker to provide additional resources.

For those customers who we identify as being able to pay, but choose not to, we will take a harder approach that will include taking them to Court to recover the outstanding debt. This is in the interests of all our customers.

In the current economic climate we will need to further refine our approach, so improvements we have planned include:

- The use of multi-media technology (such as text and automated voice messages) to help us keep in touch with our customers who need additional debt management support.
- Segmentation of our customer database to help identify our more vulnerable customers and so offer help earlier in our collection process.
- An upgrade to our credit management systems to help us be more efficient.

Increasing efficiency and providing better service

In our willingness to pay survey we included a potential improvement in customer contact performance – our survey included potential improvement in calls getting through (not abandoned or line engaged) from 90% to 95% or 98%. We have not, however, used the results of the WTP survey in determining improvements as we are aiming to achieve improved performance without any impact on customers' bills. Our projected improvements will take us close to the top of the range of performance on which we consulted in the WTP survey. Potential IT improvements include the upgrade of our billing system and the introduction of remote meter-reading technology. Expenditure on upgrading our systems is included in KSI 5.

We will deliver efficiency improvements by further streamlining of our processes and procedures. We will improve our credit management processes by working closer with credit reference agencies and local authorities to share data, ensuring alignment of our recovery processes with best practice.

We will also review our use of third party service providers, increasing their use if they can provide the required level of service more efficiently. We have made use of third party Debt Collection agencies for several years. More recently elements of our back office activity have been outsourced overseas.

Our aim for the future is a Customer Relations organisation which has highly competent and motivated staff supported by excellent core systems, processes and third party service providers. Unnecessary customer contacts will be reduced to a minimum. Where customers do need to contact us, they will receive a prompt high-quality response using the communication channel of their choice.

The actions we have already taken will achieve a high standard against Ofwat's service measures by 2009/10. Our plans for AMP5 will enable us to make further progress in achieving our objectives of reducing the need for customer contact by reducing service failures, and offering a high speed of response and standard of service to those customers who do need to contact us. The improvements in customer contact performance will be achieved without any impact on customers' bills.

Allowance for expenditure of £10m on continued development of customer service systems to improve service and reduce operating costs has been included within maintenance costs.

Community programmes

We provide a vital service to the communities in which we live and work. We are involved in our communities not only through our economic impact on our region but also through water education, preserving the natural environment, and supporting local projects and employee volunteering.

Conservation, access, recreation and education are enjoyed at our public access sites by up to 3 million visitors a year. Our network of five custom-built education centres is visited by more than 20,000 children a year and we provide a range of education resources which link into the National Curriculum. Our plans include expenditure at our recreational sites to maintain and develop our public access sites and the provision of additional educational activities to promote the efficient and appropriate use of water and sewerage resources and the environment.

Owning almost 22,000 hectares of land puts us in a unique position to protect, and often enhance, the biodiversity of our region, particularly its aquatic ecosystems. We are continuing to work with Natural England to improve Sites of Special Scientific Interest (SSSIs) on our land holdings, with the aim of meeting the UK target for 95% of SSSI to be in 'favourable' or 'recovering' condition. In January 2007 60.2% were in a favourable or recovering condition.

Table 16 – KSI3 – Responding to customers' needs – expenditure

Area of expenditure	Capex (£m)	Opex (£m/ pa)
Conservation, access and recreation	13	0.0

KSI 4 Minimising our carbon footprint

The need to minimise greenhouse gas emissions (and particularly carbon dioxide) because of climate change has become a major issue for society. The water industry will need to play a significant role in reducing its carbon footprint. We believe we can deliver a leading position in sustainable operations thereby minimising our carbon footprint, provided it does not compromise standards or increase bills beyond levels which customers are willing to pay.

The key challenges facing us are:

- **We will need to make our contribution to reducing carbon dioxide emissions – we are seeking to make carbon reductions in line with government targets.**
- **We are faced with requirements to increase sewage treatment which will add to energy use.**

The key elements of our plan to address these challenges are:

- **A programme of renewable energy generation to build on our leadership position in the sector.**
- **Assessment of how our processes can be changed to achieve significant efficiencies in energy use and therefore carbon impact.**
- **Taking into account carbon impacts in assessing the case for further quality and environmental improvements.**

The UK is taking a leading position to address climate change and in particular action to reduce emissions of greenhouse gases. The UK water industry is responsible for less than 1% of total UK emissions, about 5 million tonnes, but it recognises it has a role to play in seeking to reduce emissions. Our KSI 4 sets out the key actions the company is taking to seek to minimise its own emissions. The main challenge which we face is the increasing quality and environmental standards, which put upward pressure on emissions, primarily through increased energy use.

Our approach in this Business Plan has been an economic one, which takes account of the potential climate change effects by using the Defra “social cost of carbon” in assessing our proposals. This is consistent with the approach required by Ofwat. We believe that this approach strikes the right balance between our intention to seek to minimise our carbon footprint and our other commitments to our customers. Some renewable energy schemes are included as a result of taking carbon impacts into our assessment.

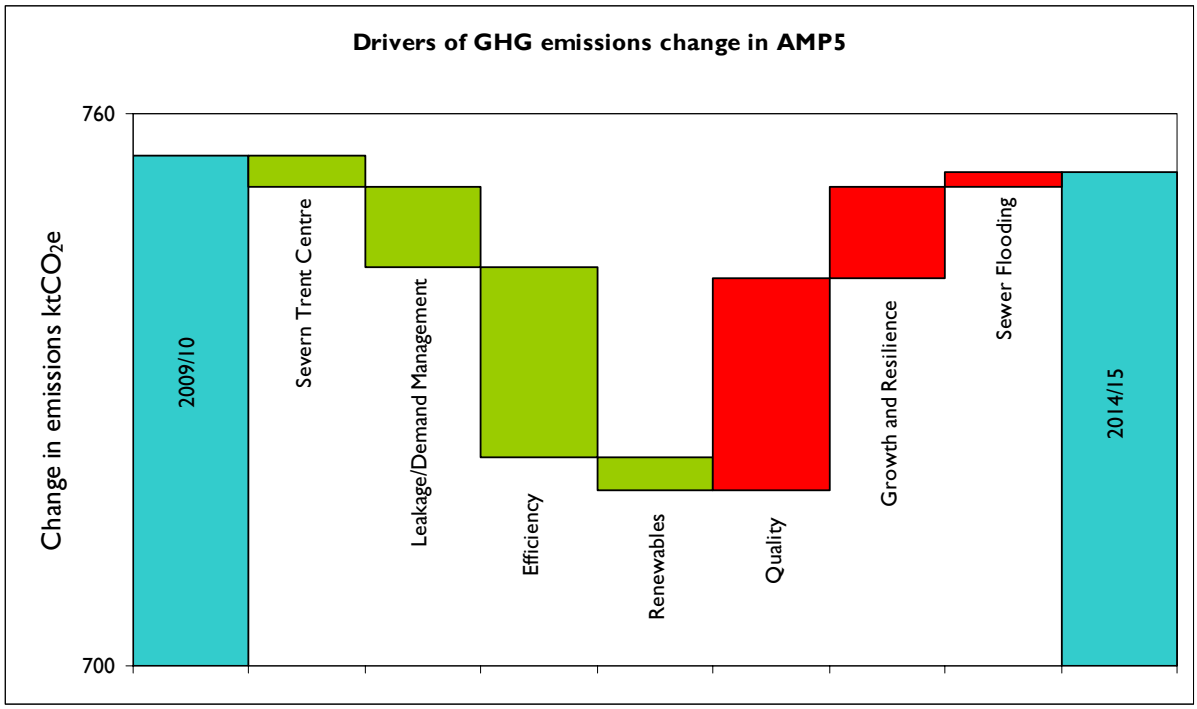
The graph below shows that in this plan the net greenhouse gas emissions from our operations are forecast to remain virtually unchanged between 2009/10 and 2014/15. Reductions we will achieve are offset by increases due to required changes in services, with the largest contributor being the waste water quality programme and if it were not for our renewable energy programme we would see a net increase in emissions. Regulators need to recognise the impact on companies’ carbon footprint of raising quality standards.

Reduction in emissions comes from:

- Energy efficiency measures, such as pump efficiency and real time pump optimisation and control.
- Reduced water into supply as a result of the action we are taking to reduce leakage and encourage more efficient use of water.

- Closure of offices, with employees relocating to a new, energy-efficient office in Coventry.
- Increased renewable electricity generation.

Figure 12 – drivers of changes in greenhouse gas emissions



The UK Government has a number of targets for reducing UK greenhouse gas emissions. Whilst these targets are not requirements upon us they are a good way to put our progress in minimising our carbon footprint into context. The UK target is to reduce greenhouse gas emissions by 12.5% by 2012 (against a 1990 baseline). This plan shows a 21% reduction over the period since 1990.

The Climate Change Act 2008 introduced new targets for the UK to reduce greenhouse gas emissions against the 1990 baseline: reduction of 26% by 2020 and a reduction of 80% by 2050. These are beyond the time frame of AMP5 but by 2020 we currently forecast a net reduction of 18% (i.e. a smaller reduction than the 2012 position) due to the predicted increase in quality and environmental standards. This shows the importance of seeking to resolve the tensions between the requirements for increased quality and environmental standards and the need for us to reduce our greenhouse gas emissions. We will continue to work with regulators on this issue. We are taking measures in AMP5, including catchment management and improved management of surface water drainage, to reduce the need for further increases in pumping and water and waste water treatment in future.

In evaluating projects proposed for AMP5, we have for the first time evaluated the “embodied” carbon i.e. the carbon involved in the construction of assets. We will work with our supply chain partners to meet or improve upon these predicted levels and from scheme evaluation inform future embodied carbon assessments. Some projects are included as a result of taking the cost of carbon into account in our economic assessments.

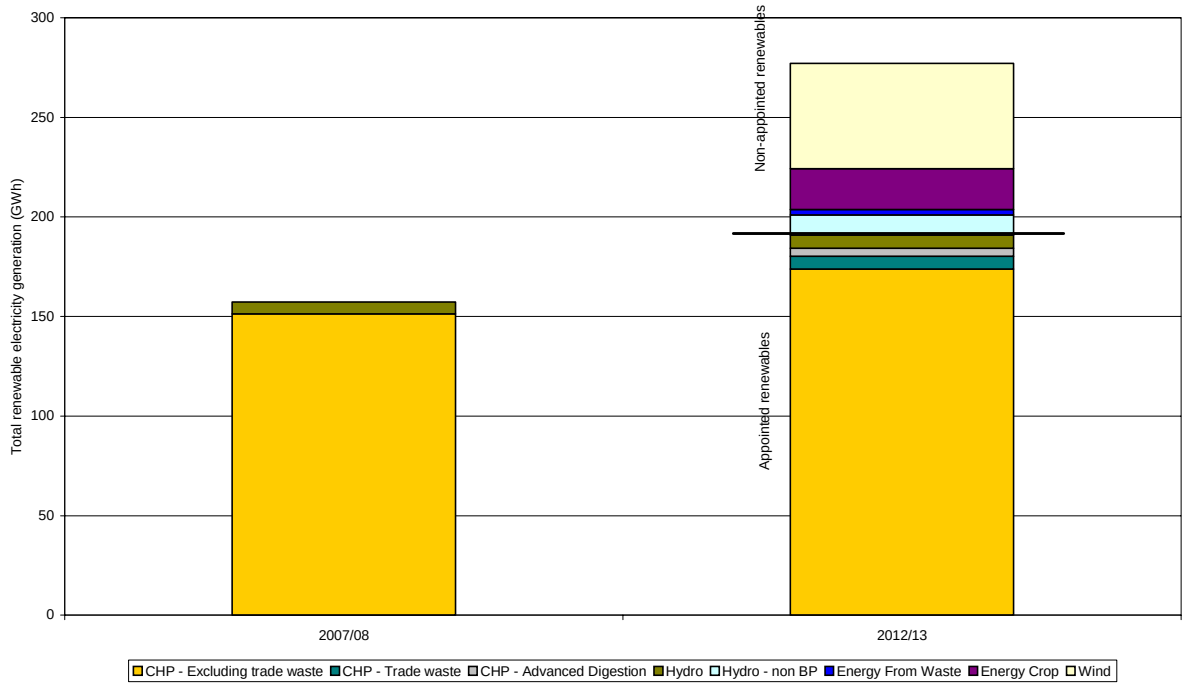
We are sector leaders on renewable energy generation and currently produce 17% of our gross electricity usage, largely utilising this to supply our own operations. The UK Government target is for 20% renewable energy by 2020. Our current annual electricity generation of 157 GWh per year comes primarily from our combined heat and power plant,

operating on biogas from sludge digestion. This self-supply of electricity not only reduces our carbon footprint but lowers operating costs and provides an effective economic hedge against the volatile energy market. We are seeking to pursue opportunities to expand our renewable generation in AMP5 which will mean our regulated business will generate 21% of its annual electricity usage by 2013.

The graph below shows how we intend to increase our renewable energy generation by increasing the CHP capacity on existing sites, installing new CHP on sludge digestion sites currently without energy production facilities, using enhanced digestion technologies to increase biogas production at sludge treatment centres and by an increase in hydro power capacity.

We see other opportunities for increasing our renewable energy generation and have a target to generate a total of 30% of electricity from renewable sources by 2013. The graph below shows how this can be done primarily from wind, energy crops and further increasing hydro power. This additional investment will be outside the regulated business so is not part of this plan.

Figure 13 – renewable electricity generation



Projected expenditure on renewable energy generation within the appointed business is shown below. This has all been included within maintenance expenditure. The operating cost savings are included within KSI 5 – having the lowest possible charges.

Table 17 – Expenditure – Minimising our carbon footprint

Area of expenditure	Capex (£m)	Opex (£m pa)
Renewable energy generation	6	See KSI 5

KSI 5 Having the lowest possible charges

Throughout the period since privatisation in 1989, bills for our customers have been amongst the lowest in the country, and it is our objective to maintain this position.

The key challenges facing us are:

- **Rising bills, with affordability becoming an increasing issue for some customers.**
- **Upward pressures on costs, including: rising electricity prices; increases in rates bills and EA charges; the impact of the traffic management act; and additional costs as a result of service improvements.**
- **Ofwat's proposed regional pricing adjustments which will affect our final CIS baseline.**
- **Pressure from competition on existing cross-subsidies.**
- **Rateable values (now 30 years old) becoming an increasingly outdated basis for charging unmeasured customers.**

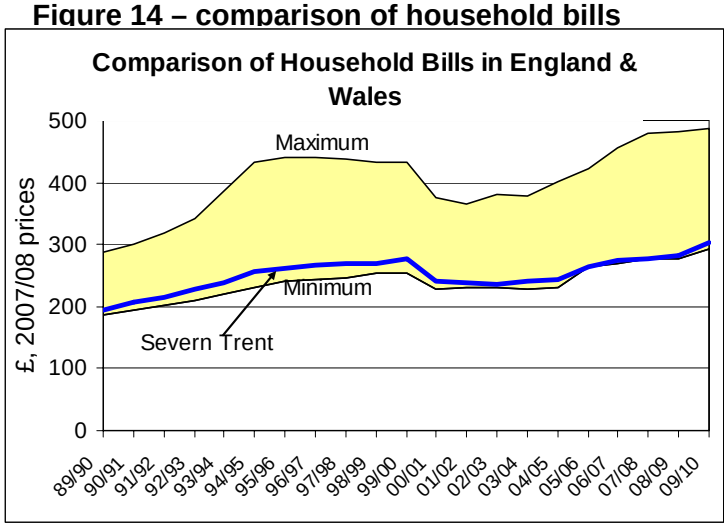
The key elements of our plan to address these challenges are:

- **Limit bill increases by ensuring improvements are supported by customers.**
- **Delivery of continued improvements in efficiency, for both operating costs and capital expenditure, to keep bills down.**
- **Proposed service improvements which take account of willingness to pay amongst low-income groups.**
- **Continuation of increased metering.**
- **Development of payment options and continued support for our charitable trust which provides help to those in debt – to help the most needy and least able to pay.**
- **Making sure that those who can pay but won't are pursued effectively.**

The average Severn Trent household bill is £153 for water and £151 for sewerage – or 84p per day. This is amongst the lowest in the country.

Water bills have, however, been rising in all company areas since privatisation. This is as a result of investment in major drinking water and environmental improvements. This has led to higher bills, despite substantial improvements in efficiency.

Figure 14 – comparison of household bills



Due to these increases in bills, water bills have been rising as a proportion of income. Therefore, in deciding on service improvements, we give attention to the extent of support amongst the lowest income groups who can least afford rising water bills.

Developing our charges

Our objective, as set out in the SDS, is that all customers should be metered, as the only fair means of charging for the services which we provide. In addition to normal growth of metering through new properties being metered and customers taking up a meter option, we

will be carrying out trials of installing meters on change of occupancy in a water-stressed area.

We recognise that there might be affordability consequences of extending metering which we will aim to address through developing tariff structures. We are developing options for assistance to be given to vulnerable customers. In addition, where a meter cannot be fitted we intend to extend our assessed tariff, to give a discount where there is single person occupancy.

Keeping bills down by becoming more efficient

In order to meet our objectives of lowest bills and highest standards we will make significant improvements in efficiency. We are currently putting changes in place to take the complexity and costs out of our operation and improve quality of service at the same time. We are planning a step change in our organisation, with the foundations for efficiency savings established during the last two years of AMP4.

We have been reinvesting AMP4 efficiency savings to deliver further savings in AMP5. There will be some further 'up front' capital and operating expenditure in early AMP5. These costs have been incorporated in our plan and need to be recognised in the Final Determination. They include investment in:

- Our processes, to eliminate waste and drive performance.
- Our technology to support renewed processes and higher standards.
- Our people, with higher skills to increase ability to use new processes and technologies.

We have set ourselves challenging efficiency targets. We have made reference to Ofwat's potential efficiency assumptions for benchmarking purposes, but our plans reflect what we believe we can achieve for operating costs and capital expenditure. The efficiencies included in our plan are as follows:

- A reduction in controllable operating costs of £63m p.a. by 2014/15 (about 17% of controllable costs).
- Capital efficiency of 7% on a £2.6 bn programme equating to over £200m over AMP5.

Against the challenging efficiency targets we have set ourselves, we face a number of key risks:

- failure to recognise our **'investment to save'** in the Final Determination (without which we cannot deliver our planned efficiencies).
- 'non-controllable' costs increasing from c. £80m to £110m by 2014/15, a 37% increase as a result of rising costs in a number of areas including rates, traffic management act, EA abstraction charges and the carbon reduction commitment.
- pressures created by **negative/low price indexation** (RPI, COPI, IOPI) due to impact lags or limited 'elasticity' of our base costs to changes in the indices.

Operating cost efficiencies

Our operating cost efficiency proposals will deliver an average efficiency of around 1.7% p.a. over AMP5 – marginally greater than Ofwat's potential efficiency target (1.5% p.a.) based on our current relative efficiency ranking. Our planned operating efficiencies are summarised below:

Table 18 – Operating costs – efficiency savings (£m)							
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Efficiencies (pre-adjusted)	18.5	17.2	21.4	41.3	54.1	63.6	73.9
Risk adjustment	0.0	0.0	-0.9	-4.8	-7.3	-9.1	-11.1
Efficiencies (post-adjusted)	**18.5**	**17.2**	**20.5**	**36.4**	**46.8**	**54.5**	**62.8**
Cost of change	-15.1	-20.5	-14.0	-4.3	-1.6	-0.4	-0.4
Net efficiencies	**3.4**	**-3.4**	**6.5**	**32.1**	**45.2**	**54.1**	**62.5**

Strategy – Investment in people, processes and technology will deliver our planned efficiencies over the AMP5 period and beyond. Key sources of future efficiency include:

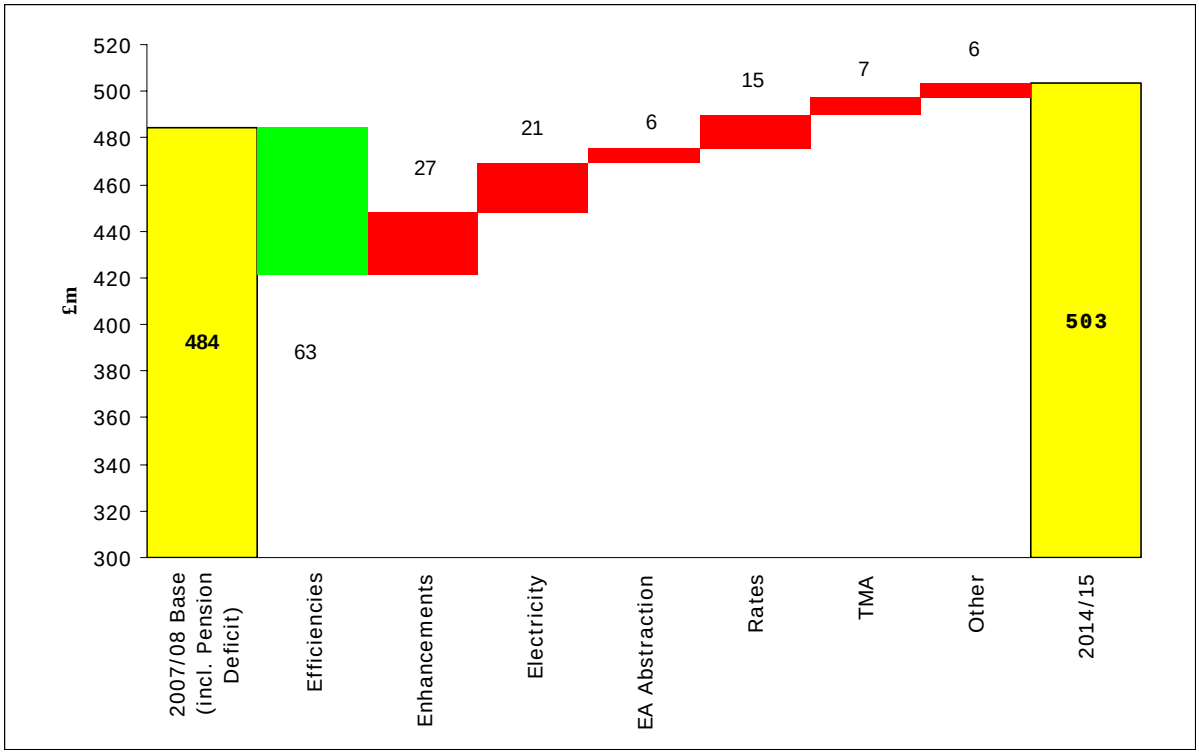
- Our 'safer, better, faster' initiative aimed at reducing the complexity of processes and increasing standardisation of working practices.
- Our strategic accommodation review which will involve the consolidation of central Midlands offices, bringing together 1,700 staff on a single site, with significant operating cost reductions through reduced facilities costs, IT savings and productivity savings.
- The implementation of a new IT system to provide a common platform, consistent processes and the reduction of interfaces across disparate systems which will enable us to drive consistency and process compliance throughout the organisation. This will replace a high proportion of IT systems and will drive down costs, leading to improved process and service performance.
- Reducing costs through our procurement strategy, including reducing materials costs and improved supply chain management.

Investment to save - in order to deliver operating cost savings, we will need to incur 'up front' expenditure on third party support, capital enablers, and training, and will incur severance costs. This will total approximately £56m change-enabling operating costs (in addition to £7m already incurred in 2007/08) with over 60% (c. £36m) of this included in the remainder of AMP4. This expenditure is essential to the delivery of our challenging efficiency plans and should be recognised accordingly in the Final Determination.

Risk adjustment – in assessing our scope for future efficiency, we have considered risk in terms of both delivery and potential upward pressures in the form of increasing input prices, additional costs of change and the impact of new legislation and obligations. We have therefore included 80% of our estimate of potential efficiencies from 2010/11 onwards, to provide some margin to account for these inherent uncertainties and reflect what we consider to be a 'central estimate' in terms of achievable efficiencies.

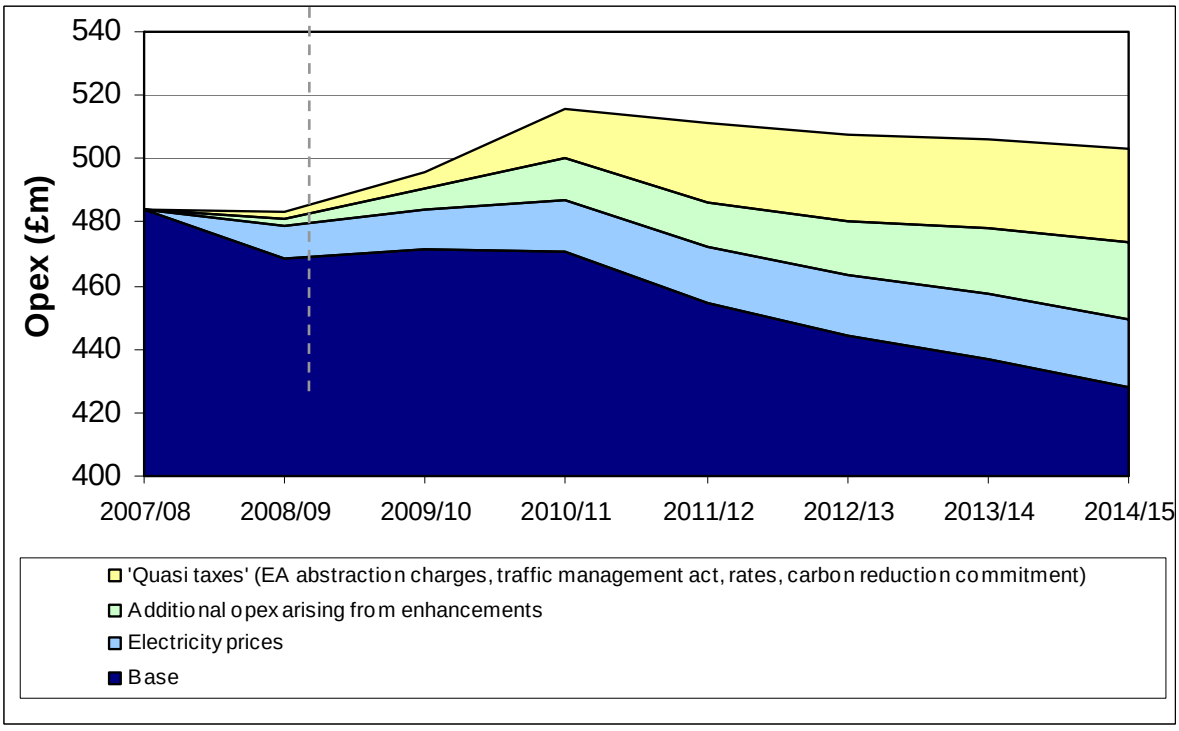
Despite our challenging efficiency targets, we are faced with a number of non-controllable external factors which will ultimately increase our costs from the current level, as demonstrated in the chart below.

Figure 15 – changes in operating costs



The graph below shows the impact of efficiency savings over the period, and how they are offset by growing upward pressures on costs.

Figure 16 – Operating Cost Profile (excluding change investment)

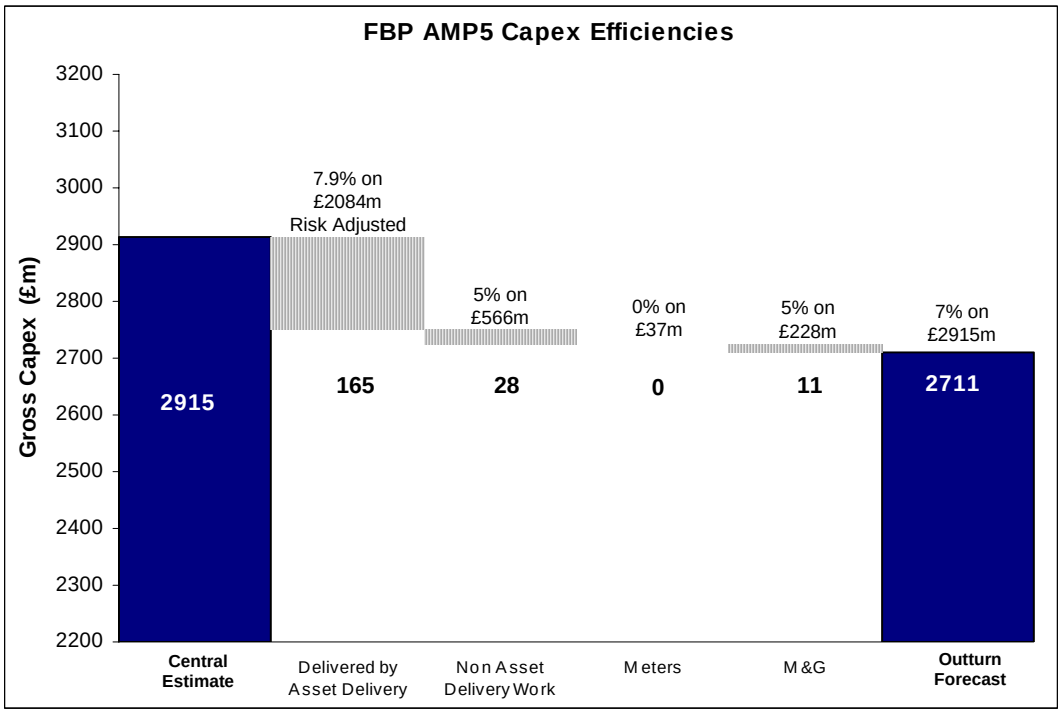


NB pension deficit included in 2007/08 base position

Capital efficiencies

Our capital efficiencies are based on a robust risk adjusted plan which aims to deliver 7% capital efficiency over the AMP5 period. Over the last two years, we have been identifying and developing opportunities and initiatives which will provide this level of efficiency. The graph below summarises the planned cost reductions for the key delivery areas within our capital investment programme.

Figure 17 – forecast capital expenditure efficiency savings



A detailed model has been developed and utilised for determining the scope for efficiencies on each of the 100 plus strands that make up our proposed investment programme. In arriving at our scope for efficiency we have considered delivery risks and the short to medium term economic volatility which will have an impact on costs. Our 7% efficiency projections take account of these increases in arriving at a central estimate.

A key efficiency initiative is the development of our AMP5 capital procurement strategy. Two key elements of the strategy are:

- **The 'expert client' approach:** Severn Trent will lead, define and deliver sustainable solutions to drive the business performance we need. These solutions will be aligned with the performance objectives and strategic direction of the business and will secure regulatory compliance. This will be achieved by developing a high performance, progressive supply chain and intelligently linking asset performance to the investment planning process.

- **Flattening the 'roller coaster':** A number of the opportunities are centred on a progression towards a rolling capital investment programme. For example we have already promoted AMP5 projects and commenced feasibility work with the intention of engaging the AMP5 supply chain in April 2009 to begin the design and build phases. Within the AMP4 programme over £40m is allocated to this.

A key part of the price review is Ofwat's own assessment of the scope for efficiency savings. In comparing companies' costs Ofwat intends to make adjustments for differences in construction costs between regions. We consider that Ofwat's proposed regional pricing adjustments, which will be used to assess scope for future efficiency savings, may result in an unrealistic assessment of our level of efficiency relative to other companies. We estimate that the use of this index will reduce the baseline expenditure set by Ofwat by £136m. The source of the adjustments, the Building Cost Information Service Index, is flawed as it is derived from costs which are not representative of the water industry. We have provided evidence to support our view.

The table below summarises expenditure necessary to deliver efficiency savings and general investment for continuation of service provision.

Table 19 – Expenditure – lowest possible charges

Area of expenditure	**Capex (£m)**	**Opex (£m pa)**
IT	101	(62.8)
Accommodation strategy	65	
Efficiency initiatives	39	
Maintaining our transport fleet	28	
Maintaining other assets e.g. office equipment	9	
Total – initiatives to promote lowest possible charges	**242**	

KSI 6 Having the right skills to deliver

In order to deliver the service improvements we are aiming for and improve efficiency, we need to have the right people and resources available to us. Key aspects of this are attracting and retaining the right skills among our employees and suppliers.

The key challenges facing us are:

- **A significant number of people approaching retirement and increasing competition for the skills that we need, particularly once economic growth resumes.**
- **Ensuring we have the right skills and technical ability to deliver regulatory and legislative requirements and service improvements.**
- **Driving efficiency into our business and managing our headcount, whilst ensuring we invest in the recruitment and development of apprentices to fill future skills requirements.**
- **Maximising the benefits of our process, technology, workplace and structural changes, whilst retaining and upskilling the talent within our workforce.**
- **The increasing challenge of recruiting in some of our key fields, e.g. engineering and sciences.**

Our key strategic responses are:

- **We are aiming to build a skilled, motivated, diverse workforce which is effectively led, appropriately rewarded and proud to be part of Severn Trent.**
- **We are providing our teams with the tools and techniques to identify and remove waste and inefficiency from their processes.**
- **The design of our new technology platform has begun and our implementation of this will be supported by a comprehensive training programme for all employees.**
- **A new pay framework is being introduced with a robust link to market pay.**
- **A detailed engagement plan is being delivered that aims to ensure every employee has a clear picture of the way in which the business is transforming, the role they play in that transformation and the benefits it will deliver.**
- **We will offer a high quality environment to our employees, contractors, and visitors to our sites by giving a very high priority to health and safety.**

Key issues in our FBP are:

- Our plan includes further efficiency savings through changing processes and working practices, and investing in new systems. We will need to invest in training to ensure that we have the right skills for new ways of working. We are reviewing our current levels of skills and closing any gaps. In order to reduce costs and improve service we need to create an environment where employees feel valued, resulting in them delivering great results through greater flexibility, reduced absenteeism and increased job satisfaction.
- Consolidation of central Midlands offices, bringing together 1,700 staff on a single site, will also result in efficiency savings. In making the move, we will need to ensure that we retain key skills and experience, or train staff to take over from those who choose to leave.

Our vision for Severn Trent employees is that they will be flexible, commercially aware and paid in line with market rates. We are aiming to build a skilled, motivated, diverse workforce that is effectively led, appropriately rewarded and proud to be part of Severn Trent. A detailed engagement plan aims to ensure that every employee has a clear picture of the way

in which the business is transforming, the role they play in that transformation and the benefits it will deliver.

“Lean change” thinking has been introduced into operational areas, providing our teams with the tools and techniques to identify and remove waste and inefficiency from their processes. There are around 70 people developing their skills and expertise, on the way to becoming lean change champions. By the end of 2008/09, over 1,500 of our staff will have been introduced to these new ways of working and they are already making a significant contribution to improving our standards and lowering our costs. Managers in these operational areas have been upskilled to lead change such that we can modernise our working practices and create a consistent way of working.

This “lean change” capability will be built across the rest of the organisation and will be sustained by investing in an appropriate learning infrastructure. We have been exploring how other organisations use learning academies and knowledge sharing to sustain a culture of continuous improvement. The design of our new technology platform has begun and our implementation of our new IT system will be supported by a comprehensive training programme for all employees.

A new pay framework is being introduced with a robust link to market pay, removing inconsistencies in our pay structure and enabling us to compete more effectively to recruit talented people.

A learning and development strategy is in place with a strong focus on closing the skills gap in team manager and leadership populations and providing the right technical development activities in order to create a focused, confident, engaged and capable organisation.

We are building both technical and leadership talent, with structured programmes to support development at all levels. We work closely with awarding bodies, universities and funding organisations to ensure that we are providing the right levels and standards of development programmes for our teams. Key activities in this area include:

- Working with EU Skills and other organisations in our industry, including Ofwat and Water UK, to conduct a detailed analysis of our skills requirements and the impact of the profile of our workforce over the next 15 years. This analysis has been used to support the development of technical development frameworks and a detailed five year technical development plan.
- The number of employees receiving technical development support in 09/10 has doubled. There are 49 current apprentices in operational and customer service functions and another 555 people are being supported to achieve City and Guilds, BTEC or NVQ qualifications. This year Severn Trent has been approved as a City and Guilds centre and had our CABWI licence to run NVQ programmes successfully renewed.
- Provision of professional development support through a Learning Support Scheme to a range of employees, enabling them to achieve qualifications that support their ability to deliver their roles. These include CIMA, CIPD, CIPS, ACCA and AAT awards.
- A technical development programme has been designed that will provide accredited Customer Services qualifications, which will help retention and also support those people moving to Coventry. 55 people will go through this programme in 09/10.
- Running a DMS course on supply chain management, working with Nottingham Trent University. This involves our employees, contractors and suppliers, and is a first in the utility sector.

Health and safety

A key part of offering a high quality environment to our employees, contractors, and visitors to our sites is giving the highest priority to health and safety. We intend to continue reducing the number of accidents and Lost Time Incidents is one of our Key Performance Indicators. Our target is to deliver upper quartile performance, and our ultimate vision is to achieve the lowest accident rate in the industry.

High health and safety standards are important in terms of the personal impact of accidents on our employees. In addition, the skills and attention to detail which achieve higher safety standards are the same as those that achieve higher operational and environmental standards and productivity. Therefore, as our operations achieve higher safety standards, they will also achieve greater operational efficiency.

A comprehensive health and safety process review of all our water and waste water sites, commenced in 2006/07, was completed in 2007/08. We consider that the management of safety risk is integral to the delivery of our capital maintenance obligations and we have not separately identified specific Health & Safety driven investment in our Water, Sewerage or M&G programmes, with the exception of additional expenditure required at visitor sites and removal of bulk chlorine at treatment works.

Our Health and Safety policy has been developed around a set of Key Strategic Objectives. The objectives incorporate a method of risk control for assessment of hazards, assessing risks, designing control measures and communication across the business. Accident investigations ensure root causes are identified to allow change through learning and ensure the company is health & safety compliant through policies, data and independent audit.

At the beginning of 2008/9 we introduced a 10 Point Safety Strategy, which will facilitate the delivery of the key Strategic Objectives:

1. Simple site safety rules to be introduced
2. Compulsory use of Personal Protective Equipment to be introduced for both STW and our contactors
3. Common briefing site induction to be prepared & introduced
4. Audit programme to focus on hazard & risk priority ratings – hit the big risks first
5. Hazard & risk workshops to involve senior managers in defining risk priorities
6. Improve use of employee representatives & increase effectiveness of business forums for safety issues
7. Promote safe use of tools & equipment based on revised new site rules
8. Introduce / emphasise “tool-box talks” by Supervisors
9. Management Safety Tours to be programmed whilst people are engaged in work; they are to include environmental issues & completion monitoring
10. For all incident investigations:
    - Have defined & committed action plans for each recommendation
    - Action plan tracking to be introduced
    - Monthly reviews to be introduced to follow up non-compliances.

KSI 7 Maintaining investor confidence

The interests of our customers and our investors are inextricably linked – we need access to financing to maintain and improve our services to customers; and lower financing costs mean lower bills. In the current economic environment both customers and investors are placing increased value on stability.

Our borrowing requirements, both over the plan period and longer term, are substantial. Our plan contains a borrowing requirement averaging £200m per year over AMP5 and, as we set out in our SDS, we anticipate significant further borrowing needs in the decades ahead.

The future visibility of returns and cash flow are an important element in sustaining investor confidence in these markets both for the five years of AMP 5 and beyond. We welcome the opportunity to work proactively with all stakeholders to assure fair and equitable solutions to these challenges.

The key challenges facing us are:

- **To maintain investor confidence, in order to access finance as required at reasonable cost, and thereby provide the lowest possible charges for customers.**
- **Financing costs have been volatile in recent months as a result of dramatic changes in financial market conditions.**
- **These conditions demand greater visibility of future returns and cash flows**
- **We are susceptible to macro-economic factors which have knock-on effects through RPI, commercial demand, bad debts, and the differential between RPI and other price indices, notably IOPI (the index used to estimate capital price inflation).**
- **The Business Plan is vulnerable to the impact of continuing negative inflation.**

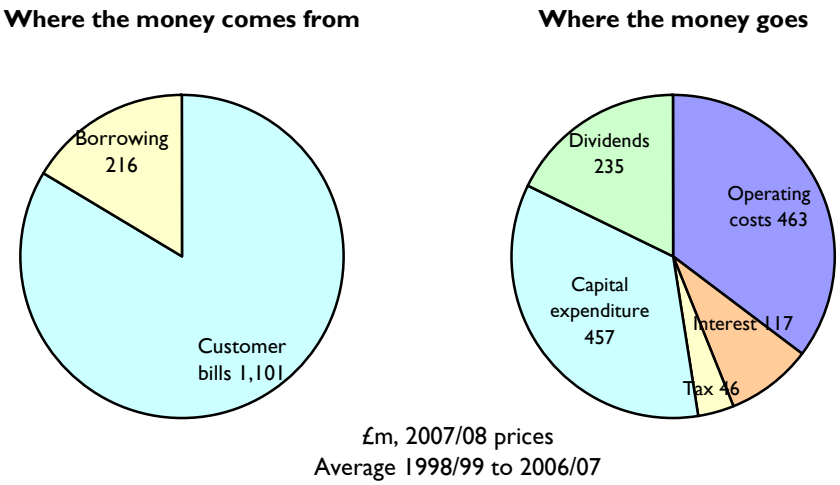
The key elements of our plan which address these challenges are:

- **Setting a capital programme which can be financed on reasonable terms.**
- **Setting a cost of capital which ensures water remains sufficiently attractive over the long term to debt and equity investors to secure financing for our planned and future investment programmes.**
- **Providing for a sustainable and progressive dividend policy.**
- **Having a financial structure, including sustaining a strong investment grade credit rating, which can absorb the impact of business cycle changes and enables funding of a long-term investment plan.**
- **Proposing a fair and equitable solution which provides a buffer against the problems caused by negative inflation.**

Financing requirements

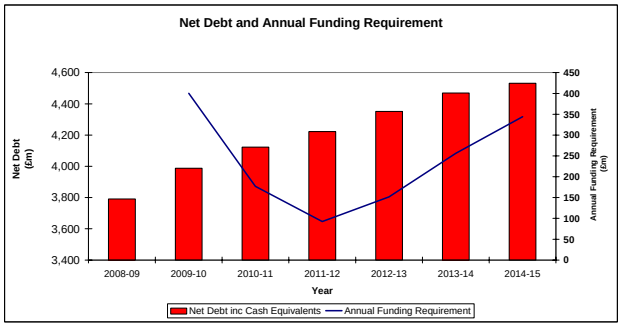
As the diagram below shows, there has historically been a large capital expenditure programme, which has required borrowing to finance it. This will continue in AMP5 – the projected capital programme is £2.6 bn (net), compared with £2.8 bn in AMP4.

Figure 18 – analysis of average annual cash flows



The annual funding required to finance the AMP5 capital programme and growth in net debt are shown in the graph below.

Figure 19 – projected borrowing



We contend that long-term sustainability and the interests of our customers are best served by:

- Maintaining a good credit rating, which enables us to access finance as required on reasonable terms – we expect total new borrowings of £1 bn over the five years to 2014/15.
- Having a financial structure which continues to include a significant component financed by shareholders, which increases our ability to absorb unforeseen shocks to income or costs, compared with a company largely financed by borrowing.

Developments since the DBP underline the validity of our approach. Uncertainty in financial markets has increased, which has emphasised the need for us to maintain a strong credit rating in order to be able to access debt markets in uncertain times.

In respect of corporation tax, recent government changes, in particular the abolition of Industrial Buildings Allowances, lead to our estimated tax charge (and cash payments) rising from 2007/08 levels, with an increase of around £55m in total over the AMP5 period.

The cost of capital

Our projections are based on a cost of capital which we expect to be sufficient to retain our present credit rating. Our projected financial structure includes a significant equity component (around 40% equity as a proportion of the Regulatory Capital Value).

There are significant risks in the plan, including:

- Downturn in the economy affecting:
  - future commercial demand.
  - bad debt levels.
  - the differential between RPI and IOPI – affecting construction costs.

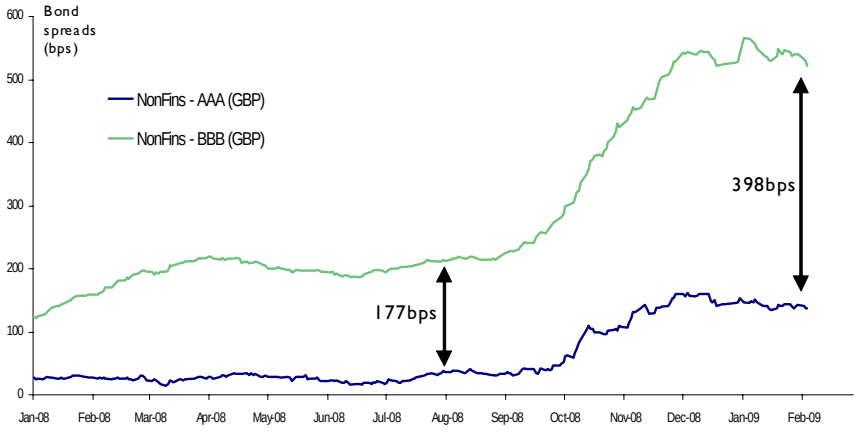
- The risk of a continuation of negative price inflation in the economy as a whole, which would lead to debt rising in real terms, income falling, and the Regulatory Capital Value falling – this would have a negative impact on our key financial ratios and hence credit ratings unless the regulatory regime proactively addresses this issue.
- The costs of the adoption of private sewers have not yet been taken into account, and these costs are highly uncertain.
- The impact of future competition on revenue is uncertain.

The future visibility of returns and cash flow are an important element in sustaining investor confidence in these markets both for the five years of AMP 5 and beyond. We welcome the opportunity to work proactively with all stakeholders to assure fair and equitable solutions to these challenges. The financing plan is designed to achieve an appropriate balance between risk and return, fairness and equity.

The Water UK / Ofwat Investor Survey shows that investors' perception of water industry risk has increased since the last price review. Given the scale of borrowing that is likely to be required, we believe that Ofwat should take a long-term view in estimating the cost of capital. The adverse consequences for consumers of overestimating the cost of capital are less than the consequences of underestimating it.

The debt markets have changed significantly since mid-2007. Investors are now more risk-averse, as shown in the graph below, which shows the increase in costs of borrowing, and how the increase has been much greater for companies rated as less safe investments (BBB) than for AAA-rated companies.

Figure 20 – cost of borrowing



Source: IBoxx, BNP Paribas, 4 February 2009

There is a risk that costs of borrowing will rise as a result of increases in the risk-free rate (the rate at which the Government can borrow), due to:

- the UK Government's increasing borrowing requirement.
- the level of demand for Government securities from overseas investors.

Taking into account the macro-economic uncertainties, the present cost of raising debt, and the large borrowing requirement of the next 25 years, we believe that it is reasonable to use a real, post-tax cost of capital estimate of 5%, similar to that which we used in the DBP, based on a real post-tax cost of equity of 7.7%, a real post-tax cost of debt of 3.3%, and 60% gearing.

There is a link between the cost of capital, the resulting assumed returns, and the capital programme. The cost of capital assumed in the price determination may affect our ability to raise the funds necessary to finance our capital programme. As such, we will need to consider at the appropriate time whether to adjust our programme in the light of the cost of capital which has been set.

Financial outcomes

Money will be raised in a variety of different debt markets, to mitigate the very real risk of funds not being available from individual markets at any time. As a long term capital investment led business, we will also manage our debt to ensure that an average debt maturity in excess of 10 years (currently 20 years) is maintained and that there is no more than 30% of the debt maturing in any five-year period. We will continue to raise finance using a mixture of different types of debt.

Our plan ensures we can maintain on an ongoing basis sufficient of the key ratios within the parameters required to sustain our single A / A2 credit rating:

Gearing (Debt:RCV)	=	60%
Retained cash flow to net debt	=	10%
Cash (FFO) interest cover	=	3.5 x
Adjusted cash (FFO) cover	=	1.8 x

These parameters are consistent with the expectations of both debt and equity investors.

Setting price limits that allow for economic uncertainty

While most of the analysis in the Business Plan is framed in real terms, the plan must also work on a nominal and cash basis. This is for two reasons: firstly, the bills that customers ultimately pay are in nominal terms; and secondly the financial ratios which determine our rating and hence the availability and cost of debt, and thereby a part of the costs that customers support, are in nominal terms.

We stress-tested our financial model to check the robustness of our business case – this work identified negative inflation as an inherent weakness in our plan. The risks of negative inflation are significant: the single year of negative RPI which appears to be currently underway is damaging our key financial ratios. Our plan is designed to withstand this first-year impact.

However, we know from the stress-testing work that a second year of negative RPI would present financing difficulties. For this reason we have submitted a suggested set of alternative assumptions to Ofwat, in addition to our FBP, which would protect the financing of the plan in the short term while being fair and equitable to all stakeholders in the longer term.

Prices would need to be set in a way which allows our key financial ratios to be sustained through a second year of negative RPI. We consider it prudent that Ofwat:

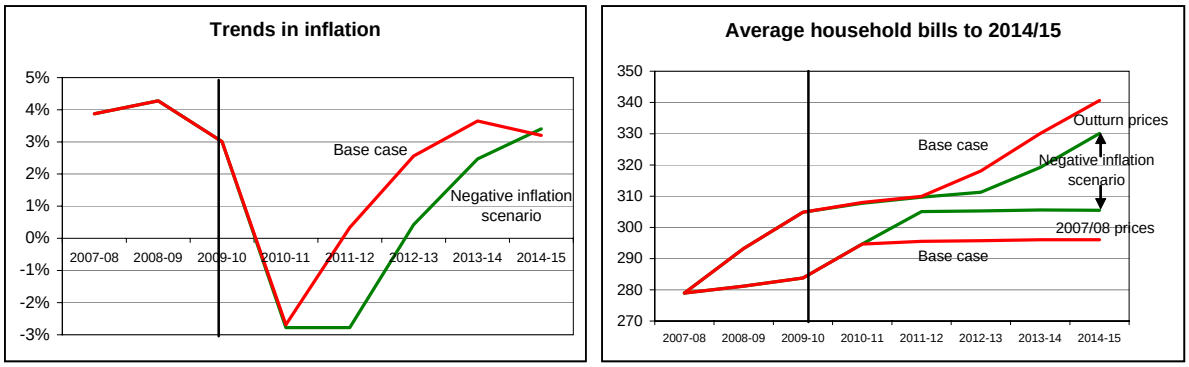
- Sets our price limits based on the alternative assumptions on RPI, with a second year of negative inflation.
- Requires, within the price determination, that we set prices based on the FBP values unless RPI diverges from the FBP track.
- Provides for corresponding movement in prices to compensate for the lower RPI if there is a second year of negative inflation.

- Provides for any addition to prices to be returned to customers later, if and when economic conditions permit.

An alternative approach would be to set prices based on our central assumptions but have provision for price changes built into the Final Determination if negative inflation continues. In either case, any addition to price limits would be returned to customers at a later date if economic conditions allowed, rendering such a move neutral to customers over time.

The following chart illustrates the path of real and nominal average household bills were the period of negative RPI prolonged for a further year, compared with our base case. In the negative inflation scenario, we are proposing a higher price limit in real terms for 2011/12, but bills would actually be lower in nominal terms over the period.

Figure 21– projected bills – continued negative inflation scenario



This approach reduces the risk to our business of being overwhelmed by deflationary forces worse than those anticipated in our base case. It uses the existing price limits mechanism to achieve this without increasing real prices to customers, unless these are necessary in the face of deflationary pressures beyond those anticipated in our base case. The additional revenue would be returned to customers if and when economic conditions had improved sufficiently. By making this mechanism explicit up front, rather than relying solely on other regulatory tools to correct any problems after the event, it assures our investors and the rating agencies that our business plan can withstand a degree of variance from the base assumptions. In turn, this additional stability benefits our customers by reducing the risk of financeability problems which drive up both our costs and ultimately our customers' bills.

KSI 8 Promoting an effective regulatory regime

The regulatory regime for the water industry has played a major role in ensuring increased efficiency and service and environmental improvements over the last 20 years. We believe, however, that the framework needs to develop to respond to the new challenges facing the industry going forward, in particular to encourage innovation and long-term sustainable solutions.

The key challenges facing us are:

- **Persuading our regulators of the need to change – to deal effectively with today's and the future agenda, which has changed significantly since privatisation – given the regulatory regime on the whole has performed well.**
- **Gaining the trust of our regulators given well-documented misreporting and performance issues we have faced in recent times.**
- **There is increasing momentum behind development of competition in the water industry. New approaches need to be introduced.**

Our key strategic responses are:

- **Preparing a final business plan which we consider to be realistic and robust.**
- **Continuing to work constructively with our regulators and government on ways in which the regulatory regime could be improved so that it works more effectively in the interest of our customers and the environment.**
- **Ensuring that our performance meets our regulators' expectations.**

Competition

We support the extension of competition, by increasing the number of eligible customers and changing the competition framework. However, the costs of legal separation of retail alone may exceed the benefits. It needs to be coupled with other competitive developments, particularly in the development and allocation of water resources, and should therefore not be pursued as an end in itself. We have had regular discussions with Ofwat's competition team and the Cave review of competition (commissioned by Defra) on how competition can best be promoted.

In the FBP we have made allowance for the impact of some new developments being served by inset appointments and accounting separation costs. We have not, however, included the costs of legal separation of the retail business for competition, as it is not yet certain whether this will take place and the costs and timings are also uncertain. These costs would be significant and could require a later adjustment to price limits.

Developing the regulatory framework

The framework for economic regulation has:

- Provided a major stimulus for significant improvements in efficiency.
- Driven service improvements through a comparative competition regime.
- Helped ensure investor confidence through ensuring investors earn a return on their investment.

There are, however, a number of limitations of the framework for economic regulation:

- It can encourage short-term efficiency savings at the potential cost of ensuring that vital infrastructure is maintained and improved to meet future requirements.
- Focus on the short term has led to a lack of appreciation of the potential financial and carbon impacts of the continuing increase in quality standards.
- It provides incentives for meeting specific targets and carrying out defined activities, rather than providing best overall outcomes to customers and the environment.
- The price setting process has previously led to over-estimation of costs by some companies in preparing business plans, which are then subject to cut-backs by the regulator with the risk of the regulator "getting it wrong".
- The regulatory framework can result in an excessive regulatory burden in terms of the amount of information required by Ofwat. The scope for increased role for reporters should be reviewed.

We have supported the introduction of Strategic Direction Statements and the new Capital Incentive Scheme at this price review, as they encourage taking a long-term approach and accurate business planning. We will continue to work with Ofwat to develop the regime to ensure that it delivers the right outcomes for customers, and that regulation is implemented in a way which is fair, equitable and transparent.

We have commenced work on a project to put forward positive suggestions to improve the regulatory framework, in order to encourage innovation and sustainable solutions, provide better services reflecting customer needs and reduce regulatory costs.

We believe that we have set out a balanced, holistic plan with optimised investment which:

- Meets the needs of customers, in terms of service improvements and lowest possible bills.
- Reflects the concerns of other key stakeholders.
- Will retain the confidence of investors and allow the proposed programme to be financed.

In order that we can deliver our plans, we need Ofwat to:

- Engage with us to understand the basis of our plan and the interrelationships between the different elements, so that there are no unjustified reductions made to the plan. Reductions in one area are likely to have knock-on effects to delivery of improvements and efficiencies in other areas.
- Implement the new Capital Incentive Scheme in a way which ensures that we can finance our activities.
- Set a cost of capital which enables us to finance our functions with our chosen financial structure, i.e. a structure which benefits from a significant equity component.
- Consider whether financeability adjustments are necessary and whether a uniform gearing assumption should be applied across the industry.
- Give clarity on our compliance obligations and how the enforcement process will work, including how penalties will be set, in order that the risks of non-compliance can be understood.

Overall implications of our strategy

We are planning a range of service improvements but are only proposing an increase in bills of around 4% in real terms over 2009/10 levels. Our customer research indicates that customers would support the improvements proposed with this level of increase.

The bill increase is kept down to 4% as a result of efficiency savings and a lower cost of capital than at PR04.

Our proposed total capital expenditure is less than that in the Strategic Direction Statement and in our DBP and is similar to AMP4 levels.

Our plans provide for bills to increase by 4.3% by 2015 in real terms (after adjusting for inflation), as shown in the graph on the right. Without upward pressures from legislative changes or government pricing policies (e.g. rates and Traffic Management Act costs) bills could be held stable in real terms. In addition, without any improvements, bills could fall by around £18. However, with the programme of improvements in our plan, which we consider to be necessary and to be supported by customers, bills rise by around 1% per year. The average bill proposed for 2014/15 is very similar to that in the DBP but we have reduced our estimate for the 2009/10 average bill.

Figure 22– projected household bills

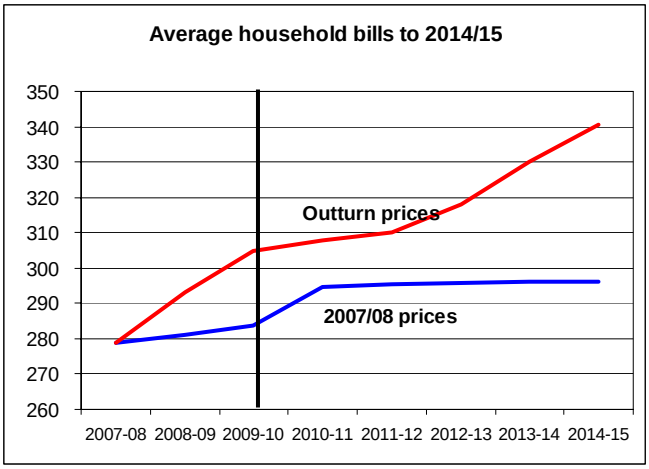


Table 20 – average household bills

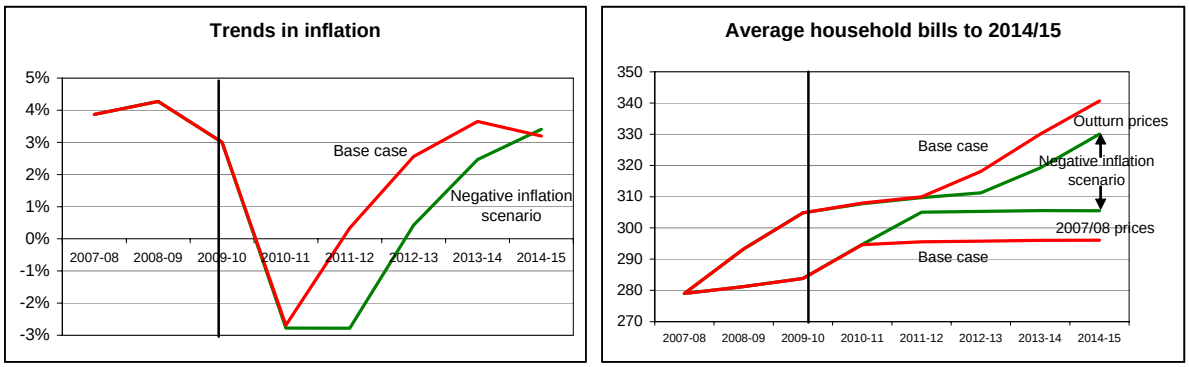
		2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Proposed price limits			3.1%	0.6% to 3.7%*	0.6%	0.6%	0.6%
Average household bills (2007/08 prices)	**£ per year**	283.8	294.7	295.6	295.7	296.1	296.1
	Pence per day	78	81	81	81	81	81

* 3.7% if there is a second year of negative inflation – bills are based on a 0.6% limit in 2011/12

Our plans provide for falling prices in 2009/10 but a second year of negative RPI would present financing difficulties. For this reason we have submitted a suggested set of alternative assumptions to Ofwat, in addition to our FBP, which would protect the financing of the plan. We consider it prudent that Ofwat sets higher price limits based on the alternative assumptions on RPI, with a second year of negative inflation. We would, however, only utilise the higher price limits if RPI diverges from the FBP track. Any addition to prices would be returned to customers later, as and when economic conditions permit (i.e. if inflation exceeds the FBP base case assumption).

The following chart illustrates the path of real and nominal average household bills were the period of negative RPI prolonged for a further year, compared with our base case. Although bills would be higher in real terms if there is a second year of negative inflation, they would be lower in nominal terms (£341 by 2014/15 in our base case, and £330 with a second year of negative inflation).

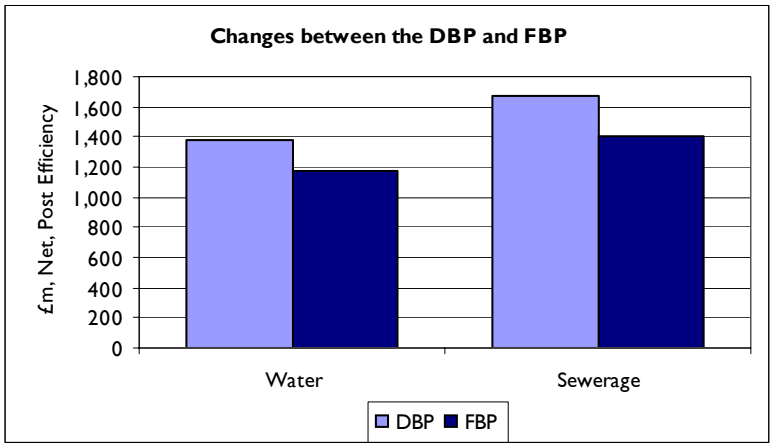
Figure 23 – projected bills – continued negative inflation scenario



The planned capital expenditure of £2.6bn is similar to that in AMP4, and lower than the £3.1bn programme in the DBP. Changes include:

- A smaller sewer flooding programme, due to reassessment of the extent of new problems to be addressed.
- A reduced waste water quality programme.
- Reduced expenditure on maintaining treatment works and pumping stations.
- Increased replacement of water mains.

Figure 24 – changes in proposed capex



The table below compares our current plan with the proposals in our DBP. Upward pressures on bills from the FBP investment programme are broadly consistent with the DBP.

Table 21 – impact of proposed service changes

		DBP	FBP
Average Bill 2009/2010		**£289**	**£283.8**
	Changes in operating expenditure	(£6.60)	£0.01
	Changes in base maintenance	(£0.58)	(£3.34)
	Sewer Flooding Programme	£5.08	£3.05
	Resilience	£2.90	£2.71
	Taste and Odour / Odour Nuisance	£0.62	£0.17
	Uninterrupted supply of water	£1.35	£1.13
	Supply Demand Balance	£7.12	£4.74
	Quality: environmental programme (EA)	£7.15	£6.73
	Quality: Defra (Security & Emergency Measures Direction, Isolated Communities)	£1.17	£1.22
	Quality: DWI	£1.42	£1.19
	Changes in tax	(£9.33)	(£5.68)
	Flow through of past efficiencies and other	(£7.55)	£0.32
Average Bill 2014/2015		**£292**	**£296.1**

Borrowing will increase by around £550m from 2008 to 2015. Gearing will be around 63% by 2015. Financial performance is assessed to be sufficient to maintain an A-grade credit rating. There are significant risks in the plan, including great uncertainty about future energy prices, and the financing plan is designed to achieve an appropriate balance between risk and return.

We consider that we can bear most risks, such as changes in energy prices, without the need for adjustment in prices during the next five years. However, sensitivity analysis shows that our plan is not financeable if there is a second year of negative RPI. For this reason we have submitted a suggested set of alternative assumptions to Ofwat, in addition to our FBP, which would protect the financing of the plan. Prices would need to be set in a way which allows our key financial ratios to be sustained through a second year of negative RPI.

We propose that this should be done by setting price limits above FBP proposed levels to allow for a second year of negative inflation, but the additional amount would only be taken up if RPI diverges from the FBP level. If negative inflation continued beyond that there would need to be a more general review of price limits.

Alternatively, prices could be based on our central assumptions but have provision for price changes built into the Final Determination if negative inflation continues. In either case, any addition to price limits would be returned to customers at a later date, rendering such a move neutral to stakeholders over time.

Target improvements in service levels are shown below – we expect to achieve significant improvements.

Table 22 – projected changes in service levels

Ofwat service measure		07/08	09/10	14/15
Security of Supply Index		95	97	100
DG2 – at risk of low water pressure	No. of properties	1,546	1,100	680
DG3 – no of interruptions to supply	Ofwat performance measure	18.4	0.8	0.25
DG5 – internal sewer flooding	Number of properties flooded	938	820	693
DG6 – billing contacts answered within 5 days	%	90.7%	98.5%	99%
DG7 – complaints answered within 10 days	%	99.9%	99.98%	99.98%
DG8 – bills based on actual meter reading	%	99.6%	99.95%	99.95%
DG9 – phone calls not engaged	%	93.7%	99.8%	99.8%
DG9 – phone calls not abandoned	%	92.1%	97%	97%
DG9 – customer satisfaction	Score	4.39	4.5	4.7

Review against stakeholder comments

We have taken into account views of stakeholders on our DBP – the tables below show where our plan meets their objectives.

Stakeholder	Key Issues	Response
Consumer Council for Water (CCW)	• Overall number of properties that remain at risk of internal sewer flooding by the end of 2015 • Mains renewal at 0.63% per annum (1,300km of mains) around half the level of 2005-10 • Estimated water shortfall by 2015, despite proposals to improve water efficiency • Real term reduction in bills at the start of the period followed by a relatively large real terms increase.	• The size of our sewer flooding programme remains a key issue • This is part of our Water Supply Demand Balance and is a key issue in terms of determining the means by which we should balance demand and supply. The plan includes proposals for 1,810km mains renewal (a 45% increase on the DBP) • End of AMP5 deficit has been removed. • The price profile in the FBP has changed.

Stakeholder	Key Issues	Response
Drinking Water Inspectorate (DWI)	• Companies propose significant increase in maintenance expenditure for Security and Emergency measures, metering, energy costs, water resources and resilience. • Companies should confirm appropriate provisions have been made for water supply assets • Our proposals to ensure compliance with the lead standard were not supported at DBP stage.	• We have a balanced plan which includes our metering strategy and increased resilience of our assets whilst reflecting the price impacts of falling energy costs. • The means by which we balance supply and demand remains a key issue • We have followed the Capital Maintenance Planning Common Framework to identify the appropriate level of maintenance investment to maintain serviceability. • The extent to which Ofwat accept an increase in maintenance related to exceptionally large investment projects in AMP5 is a key issue. • Our plan now includes the agreed programme on lead.
Environment Agency (EA)	• Concerned that over half NEP schemes shown as not cost beneficial • Further clarity required on WTP and cost benefit assessment • Concerns raised about the extent of leakage reduction, meter penetration and water efficiency, relative to resource development.	• We have worked with the EA to remove projects with no significant benefits, and have included the full NEP in our plans (31 without additional capex) • We met the EA to discuss our approach to CBA, and further discussions will take place. • Our AMP5 plans now balance supply and demand only through leakage control, water efficiency and metering.
Natural England	• More detail required on natural environment contribution and biodiversity, landscape and recreation objectives • Review CBA environment benefits • Clarify catchment management proposals by issues, actions and timeframes	• Our FBP includes further detail on our contribution to the natural environment. • We have discussed CBA with EA and Natural England and will arrange further discussions. • Our plan includes proposals for catchment investigations (forming part of the EA's PR09 NEP) and catchment management trials

We believe that we have set out a robust, optimised plan which:

- Meets the needs of customers, in terms of level of bills and service improvements.
- Reflects the concerns of other key stakeholders.
- Will retain the confidence of investors and allow the proposed programme to be financed.

Next steps

After submission of the FBP to Ofwat, Ofwat will be raising any questions on our plan and setting draft price limits in July. Following further discussion, final price limits will be set in November 2009. We then have to decide whether to appeal to the Competition Commission against the Final Determination of price limits. We will then produce our Monitoring Plan, setting out our outputs and activities for the next five years, and publish a revised SDS. This will set out our plans for the next 25 years in the light of recent economic developments and the price limits and outputs for the next five years.

In order that we can deliver our plans, we need Ofwat to:

- Engage with us to understand the basis of our plan, and interrelationships between the different elements, so that there are no unjustified reductions made to the plan.
- Implement the new Capital Incentive Scheme in a way which ensures that we can finance our activities.
- Set a cost of capital which enables us to finance our functions with our chosen financial structure, i.e. a structure with a significant equity component.
- Consider whether financeability adjustments are necessary and whether a uniform gearing assumption should be applied across the industry.
- Give clarity on our determination obligations and how the enforcement process will work, including how penalties will be set, in order that the risks of non-compliance can be understood.
- Discuss how price limits can be set to allow for the possibility of continuing negative inflation.