Water – planning for the future

Final business plan 2010-2015

Wessex Water
a YTL company

Summary

In December 2007 we published *Water – the way ahead*, our long term strategic vision. It set out how we want to address the challenges that the future holds for the water industry and its customers. This document, our final business plan for the five years starting in April 2010, sets out how we will meet these challenges. In preparing the plan we have:

- established what our customers and other stakeholders want
- considered what priority to give these objectives through a willingness to pay and cost benefit assessment
- published and reviewed a draft plan
- rationalised the draft plan in light of feedback we have received, new obligations we have to meet and the changing economic climate that we and our customers have to face.

What do customers want?

For the majority of customers their priorities are:

- the delivery of basic services in a sustainable way
- that bills should not increase in real terms over the next five years, and
- prices should not be cut if they are to subsequently increase.

They are willing to pay for reductions in leakage, improvements in security of supply and a reduction in our greenhouse gas emissions. Customers are also willing to pay for improvements in drinking water quality and to reduce the risk of sewage flooding. As far as possible we have sought to reflect these views in our plan.

Key elements of our plan

Wessex Water has outperformed the assumptions made during the 2004 price control and all else being equal, this affords the opportunity either to cut bills, improve service or a combination of the two.

Our draft business plan proposed that we maintain average bills in real terms at the 2009 level until 2015 and, in lieu of a price cut, invest £1,140m to make a substantial start to delivering the long term aspirations of customers and other stakeholders.

The draft plan was well received by both customers and stakeholders and research by Ofwat and the Consumer Council for Water (CCW) showed that three quarters of customers who had an opinion supported the plan. In our own follow up research there was strong support both for the balance of improvements and for our commitment not to increase bills faster than inflation.

However, new obligations and taxes, and the worsening economic climate, now make it difficult to deliver all the planned outputs without price increases. In particular:

- revenues are being reduced by the recession
- there are strong indications that bad debt will increase
- the government requires companies to pay higher business rates and take responsibility for private sewers
- the cost of new finance has increased significantly.

We have, therefore, refined our plan in order to constrain price increases while still delivering the improvements that matter to customers. In doing this we have sought to:

- defer maintenance investment and find further efficiencies without taking excessive risk with service or quality
- defer quality and environmental investment where the benefits or customer willingness to pay are low
- ask regulators to pay directly for the costs of environmental investigations
- challenge some of the new costs and accounting changes.

Our final plan proposes an investment of £953m. Average bills will increase by 4.6% above inflation by 2015 and we do not expect average bills to increase in cash terms until 2011. Key deliverables include:

- metering on change of ownership combined with new tariffs designed to encourage a more sustainable use of water and improve affordability
- integration of our water supply assets to improve security of supply, deal with deteriorating raw water quality and improve river flows

- a 5% reduction in leakage
- improvements in drinking water quality
- further reductions in the risk of flooding to properties
- improvements to comply with the Bathing Water, Urban Waste Water and Shellfish Directives
- a further reduction in our carbon footprint by increasing the proportion of sewage sludge used to generate renewable energy.

While average household bills will only increase by 0.9% pa above inflation, a K factor averaging 2.0% pa is needed, largely to make good income lost when sales reduce and customers switch to meters in order to reduce their own bills.

Including the refinancing of existing facilities, we need to raise c£850m of new debt and retained equity over the next five years; more if the capital programme is increased. Around £650m of this will have to come from the capital markets. It is not credible to assume that this can be done if there is a substantial reduction in the returns that companies are allowed to earn.

We recognise that a number of the changes we have made to our draft plan require the approval of regulators – including the Environment Agency (EA) and pensions regulator – as well as the cooperation of government. Should we not reach agreement with these third parties over the next six months, we expect Ofwat to include the deferred items at their full cost when determining price limits. Should this happen investment will be increased by £136m and total expenditure will increase by around £250m necessitating an increase in average bills of 3.1% pa over five years.

The economic regulator, Ofwat, will determine price limits for the next five years in light of the information contained in this plan. If we do not accept those proposals then we can appeal to the Competition Commission.

Contents

Summary	1-2	Carbon	24
Background	3-4	Key modelling and economic assumptions	25-26
Our long term vision	5-6	The cost of capital	27-28
What do customers want?	7-8	Price limits and bills	29-30
Key issues	9-10	Board endorsement	31-35
Our plan	11-22	Appendix	36-45
Summary of investment proposals	23		

Background

In December 2007 we published *Water – the way ahead*, our long term strategic vision. It set out how we want to address the challenges that the future holds for the water industry and its customers. In that document we noted that providing a high quality water and sewerage service is crucially important to the wellbeing of everyone in our society. As there is no substitute for water, we are acutely aware that the consequence of failure greatly outweighs the price paid to ensure continuity of service.

Society considers it unacceptable to exclude people from using water and sewerage services on the grounds of their ability to pay. That said, for most people the price of water remains affordable, although there is a growing number of customers on low or fixed incomes who have difficulty in paying their bills.

Equally, it is important to manage the use of water and sewerage services to protect the environment. Water and sewerage activities have a more direct relationship with the wider environment than many other goods and services. If the environment is under pressure then so are the services we provide. Climate change will have a growing impact on our assets and services and we can expect hotter, drier summers to increase demand and reduce resource availability and more intense storms to increase the frequency of flooding.

Wessex Water is a major investor in the region spending around a third of a billion pounds each year which in turn creates around £1.0bn pa of economic activity in the local economy.

Wessex Water is consistently regarded as one of the most efficient water companies, delivering the highest levels of service. This efficiency has enabled us to deliver the highest returns to investors and subsequently created the opportunity for higher levels of investment for the benefit of customers.

Relative performance	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
Operating efficiency (band)	A	A	A	A	B	A	A	A
Service performance (OPA)	3rd=	8th	2nd=	3rd	3rd=	1st	2nd=	2nd
Returns to investors	1st	1st	1st	1st	1st	1st	1st	1st

Since privatisation in 1989 we have invested £3.6bn in improving and maintaining water and sewerage services. As a consequence customer, quality and environmental standards have improved significantly.

Service to customers	2005-2006	2006-2007	2007-2008	2008-2009 Forecast	AMP4 average
OPA points as % of maximum	95%	92%	96%	97%	95%
Water supply					
Properties at risk of receiving low pressure	0.04%	0.03%	0.03%	0.03%	0.03%
Properties experiencing unplanned supply interruptions over 6 hrs	0.2%	0.1%	0.2%	0.2%	0.2%
Properties experiencing supply restrictions	0.0%	0.0%	0.0%	0.0%	0.0%
Customer complaints on taste/odour/appearance	0.6%	0.5%	0.5%	0.4%	0.5%
Overall water quality performance score	99.9%	99.9%	99.9%	99.9%	99.9%
Sewerage					
Properties at risk of internal flooding more than once in 10 years	0.06%	0.04%	0.03%	0.02%	0.04%
Properties flooded – inadequate capacity	0.00%	0.01%	0.01%	0.00%	0.01%
Properties flooded – other causes	0.01%	0.01%	0.01%	0.01%	0.01%
Customer service					
Customers satisfied/very satisfied with service	94%	96%	98%	96%	96%
Customer complaints (operational)	0.2%	0.2%	0.2%	0.1%	0.2%
Customer complaints (non-operational)	0.3%	0.4%	0.5%	0.6%	0.4%
Billing contacts dealt with in 5 days (DG6)	100%	100%	100%	100%	100%
Written complaints dealt in 10 days (DG7)	100%	100%	100%	100%	100%
Bills based on a meter reading (DG8)	100%	100%	100%	100%	100%
Telephone call handling satisfaction (DG9)	93%	92%	94%	95%	94%
Environmental standards					
Compliance with EA abstraction licences	100%	100%	100%	100%	100%
Total leakage (million litres per day)	73	72	72	72	72
Number of pollution incidents	140	106	110	75	108
Beaches meeting mandatory standards	100%	100%	100%	100%	100%
Satisfactory intermittent discharges to river and the sea	98.5%	98.9%	99.4%	99.7%	99.1%
Population equivalent served by sewage works compliant with EA consent	99.8%	99.6%	100.0%	100.0%	99.8%
Sewage sludge disposed satisfactorily	100%	100%	100%	100%	100%

Our long term vision

Water – the way ahead was guided by the following principles:

- we must invest to ensure water and sewerage services are available to all at all times and at a standard that protects, and where possible enhances, public health and the environment
- people must not be excluded from water and sewerage services on the grounds of ability to pay, but must be presented with bills that encourage them to use water wisely
- we must deliver services in a sustainable way, in particular by minimising our carbon footprint, reducing the adverse impact that our activities have on the environment and biodiversity and helping to deliver good ecological status as required by the Water Framework Directive
- we must respond positively to the challenges posed by climate change, in particular we must plan and invest in our assets for the longer term, using a precautionary approach, taking full account of changing customer demands and the wider environment
- we should respond positively to the wider agenda on sustainability, climate change and social exclusion.

We established six key success factors on which we believe we should be judged.

We will provide first class water and sewerage services by:

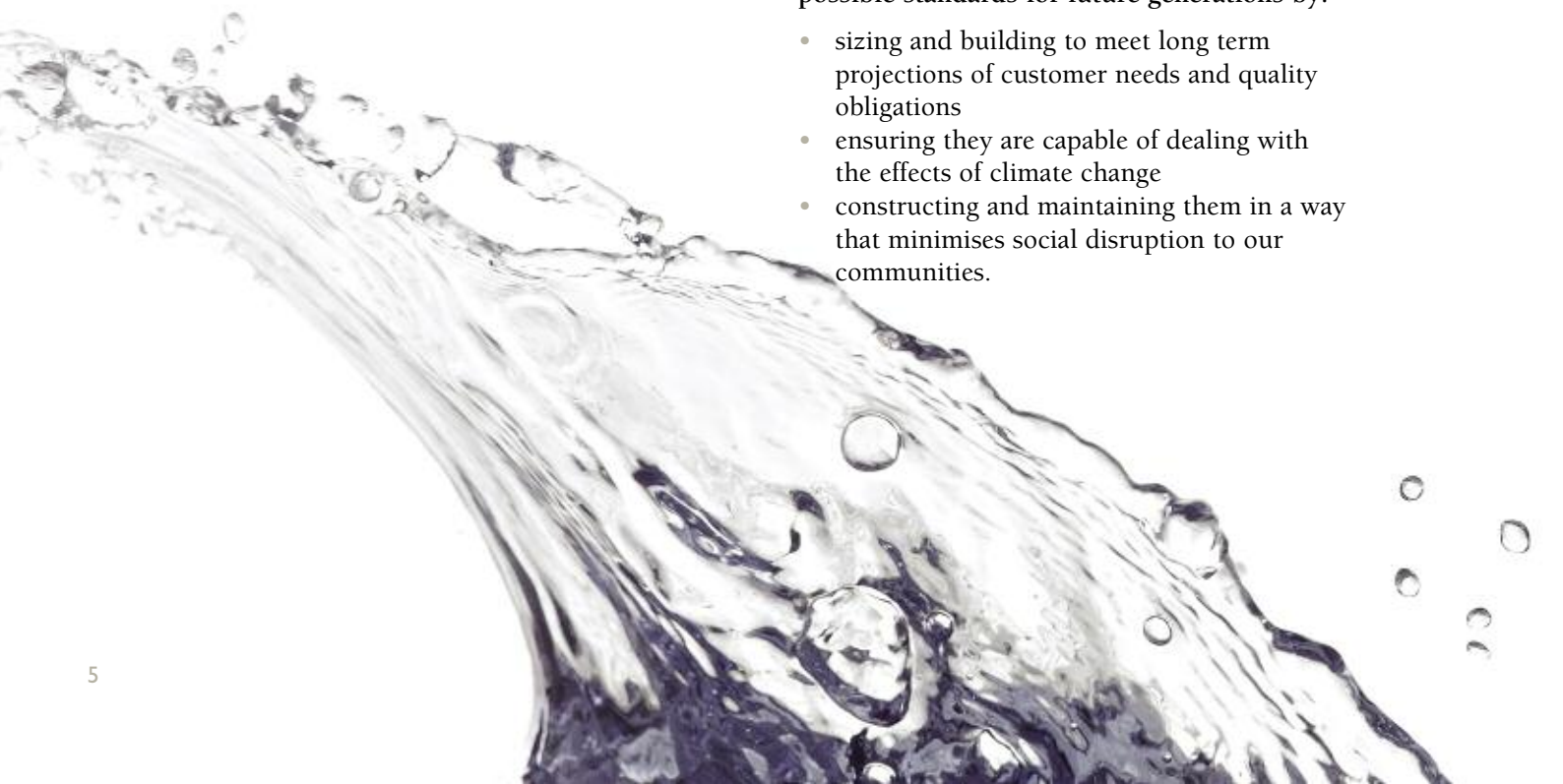
- providing a consistent supply of quality drinking water delivered without harm to the environment
- collecting, treating and returning sewage to the environment without damaging that environment
- ensuring customers are not affected by flooding from our networks
- rectifying any service failures rapidly, within agreed timescales and with minimal disruption
- accommodating all demands for new connections and capacity.

We will deliver our services in a sustainable way:

- without harming the environment and our natural habitats
- by making our activities carbon neutral and delivering them with zero waste
- by relying less on capital intensive, end of pipe solutions for our processes.

We will operate and maintain the condition and capacity of our assets to the highest possible standards for future generations by:

- sizing and building to meet long term projections of customer needs and quality obligations
- ensuring they are capable of dealing with the effects of climate change
- constructing and maintaining them in a way that minimises social disruption to our communities.



We will charge prices which encourage people to pay their bills and use water wisely by:

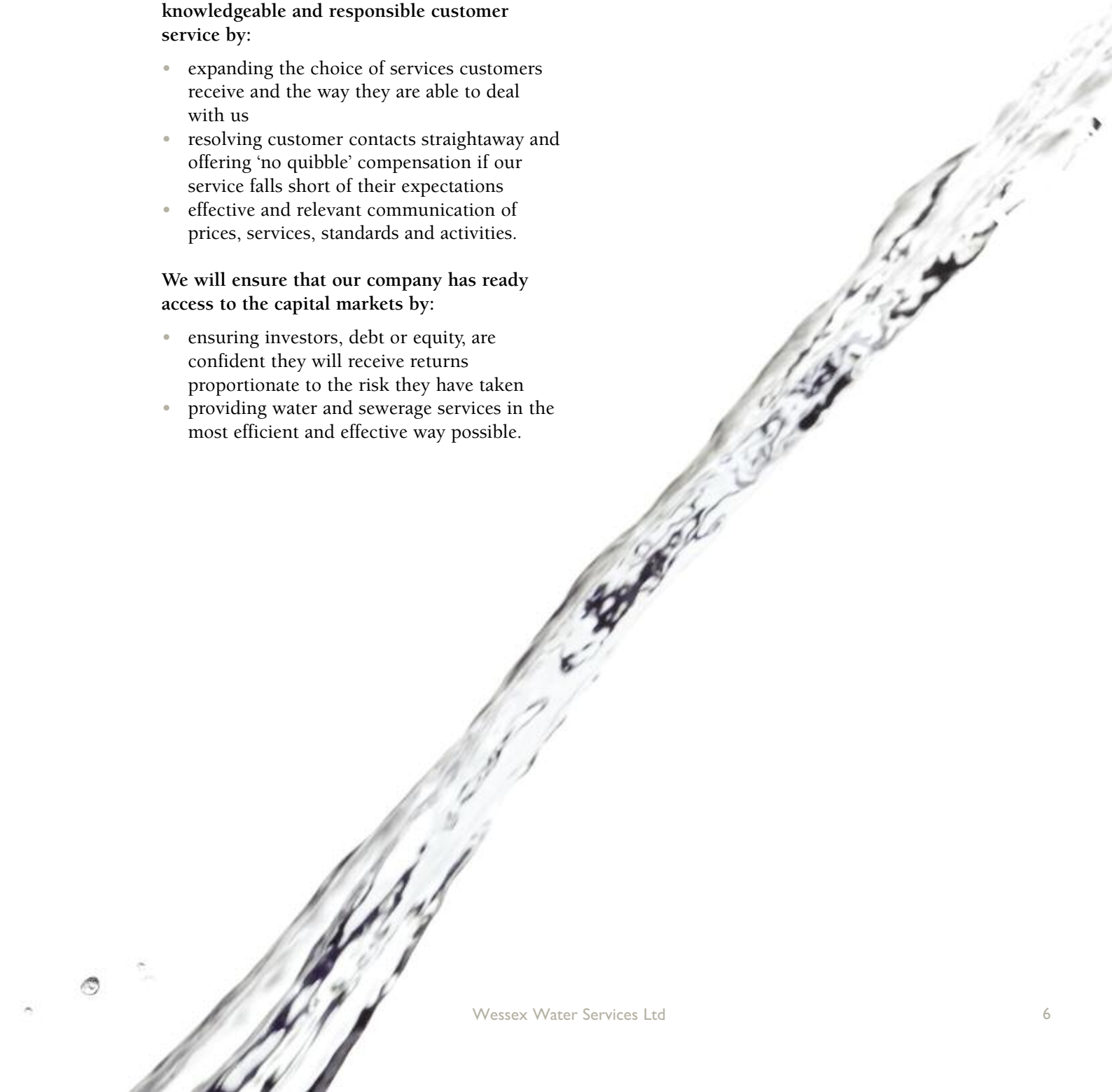
- ensuring bills are affordable for all and are increased at a rate which is acceptable
- ensuring basic household needs for water are not rationed by ability to pay
- ensuring customers receive meaningful price signals which encourage sustainable use.

We will provide high levels of customer satisfaction by providing personal, knowledgeable and responsible customer service by:

- expanding the choice of services customers receive and the way they are able to deal with us
- resolving customer contacts straightaway and offering 'no quibble' compensation if our service falls short of their expectations
- effective and relevant communication of prices, services, standards and activities.

We will ensure that our company has ready access to the capital markets by:

- ensuring investors, debt or equity, are confident they will receive returns proportionate to the risk they have taken
- providing water and sewerage services in the most efficient and effective way possible.



What do customers want?

We have regularly consulted our customers during the development of this business plan. Our research has told us that the majority want:

- high quality, reliable services, delivered without restriction or interruption
- problems fixed quickly, efficiently and first time
- high quality, responsible and proactive customer services
- services delivered in a sustainable way, specifically by
  - reducing our carbon footprint
  - improving environmental standards
  - maintaining assets for future generations.

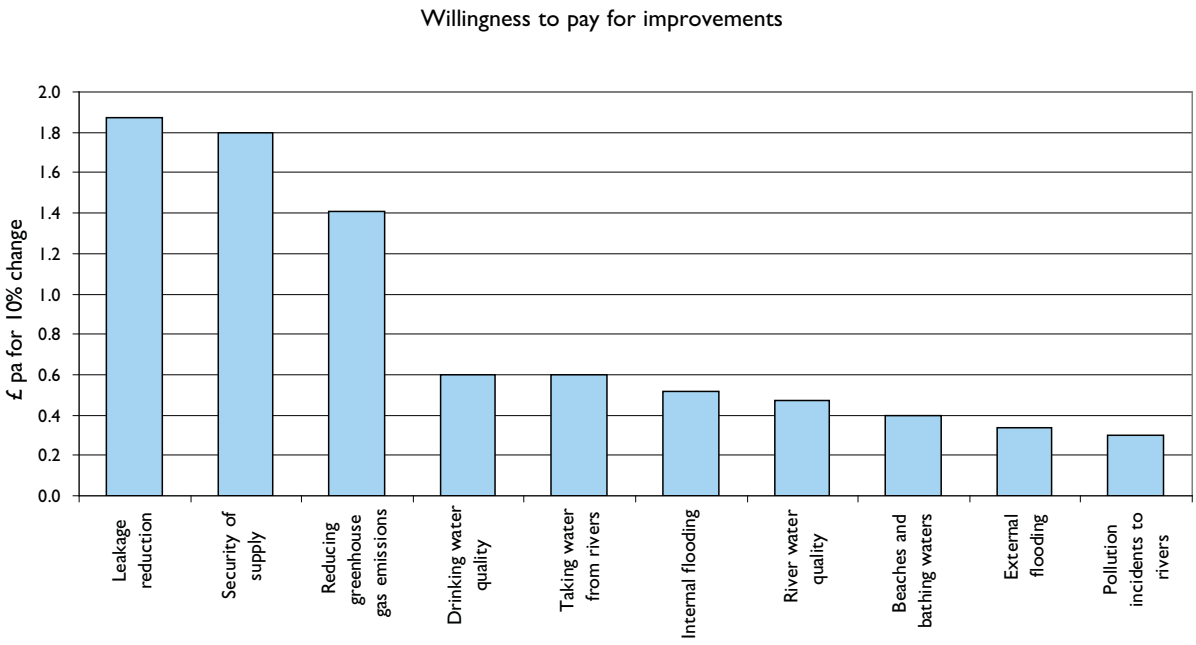
Previous research suggested that the typical customer is willing for bills to rise in line with their incomes – 1-2% per annum above the rate of inflation. However, research for this price control indicates that customers are currently only prepared to see bills rise in line with inflation and this view has hardened over recent months as the economic climate has worsened. The strength of feeling is particularly strong among certain sectors, notably businesses and those on low or fixed incomes.

At the same time, only one in four customers want bills to be cut and then only if they subsequently do not have to increase to meet the costs of new standards and other obligations.

What should happen to price and service?	%age of customers wanting a change	
	Price	Service
Significant reduction	5%	0%
Modest reduction	20%	0%
No change	42%	4%
Modest increase	26%	57%
Significant increase	7%	39%

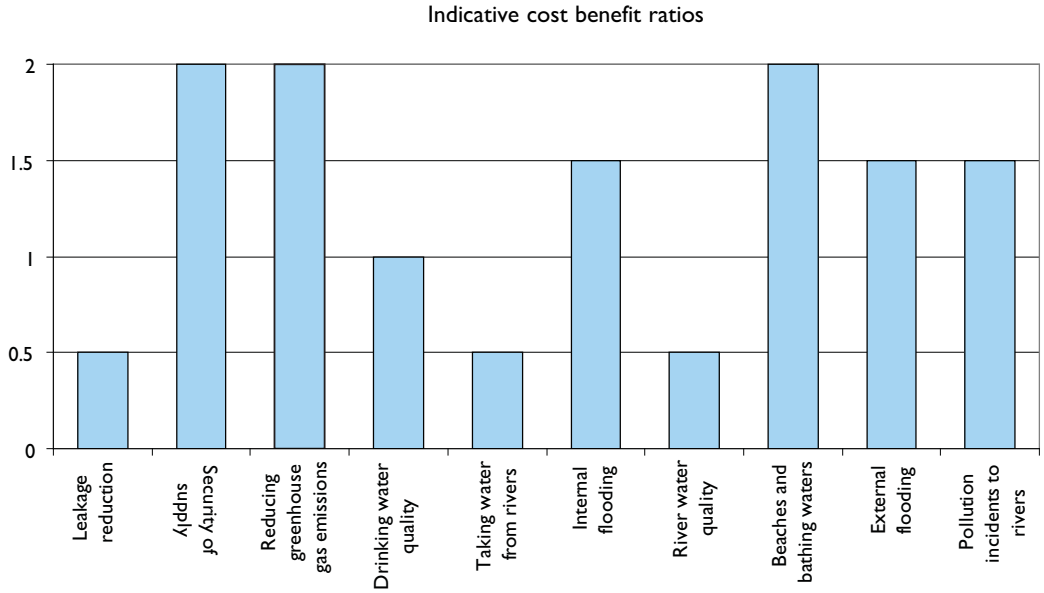
Willingness to pay and cost benefit assessments

As part of our research we determined willingness to pay for specific improvements in service. This indicates that customers are willing to pay most to see reductions in leakage and greenhouse gas emissions and improvements in security of supply.



We subjected these preferences to a cost benefit assessment which indicates that there are four broad areas where willingness to pay exceeds costs:

- improving security of supply
- reducing our greenhouse gas emissions
- improving the quality of beaches and bathing waters
- reducing sewage flooding and pollution incidents.



We do not believe that any single combination of improvements can please all our customers. Rather, there is a need to deliver a balanced package on a wide range of services. We have used cost benefit analysis and willingness to pay to inform judgements on, rather than determine, the improvements that should be prioritised.

Key issues

Charging and affordability

Customers consider metering to be the fairest way to charge for water and sewerage services. Metering is growing rapidly and around 90% of commercial customers and almost half of domestic customers already pay in relation to volume.

The cost of water remains a relatively modest proportion of average household budgets (1.4%), particularly in relation to other utility bills. But bills are increasing in real terms and metering is changing the balance of charges between one group of customers and another. Some customers, particularly those on low or fixed incomes, are increasingly struggling to pay and the consequence is that despite the relatively benign economic conditions of the last 10 years, the proportion of our revenues that is uncollectible has doubled to 2.2%.

Perception

The perception of the water industry among customers and stakeholders is not good. Views tend to range from neutral – "invisible/don't know what to think/does what is supposed to" – to negative – "lack of choice/rising bills/poor service/lack of accountability". Nationally, 20% of customers believe they have had a service failure in the last 12 months.

By contrast, last year two thirds of our customers thought the services they receive were good value for money and 98% of customers who had contact with us rated our services as good or very good.

Service product and price differentiation

Despite the fact that water is by its very nature a homogenous product, there remains very limited customer choice or service differentiation. In large part service standards remain driven by the desire to meet regulatory measures rather than individual customer needs. This often leads to cost minimised, rather than service maximised, outcomes. Our customer research tells us that this is not what customers want.

Drinking water quality

Compliance with drinking water quality standards over the last four years averages 99.97% but complaint levels show that taste, discolouration and hardness remain a concern. The majority of complaints result from the transportation of water through old iron distribution mains and algal growth at raw water reservoirs.

Raw water quality

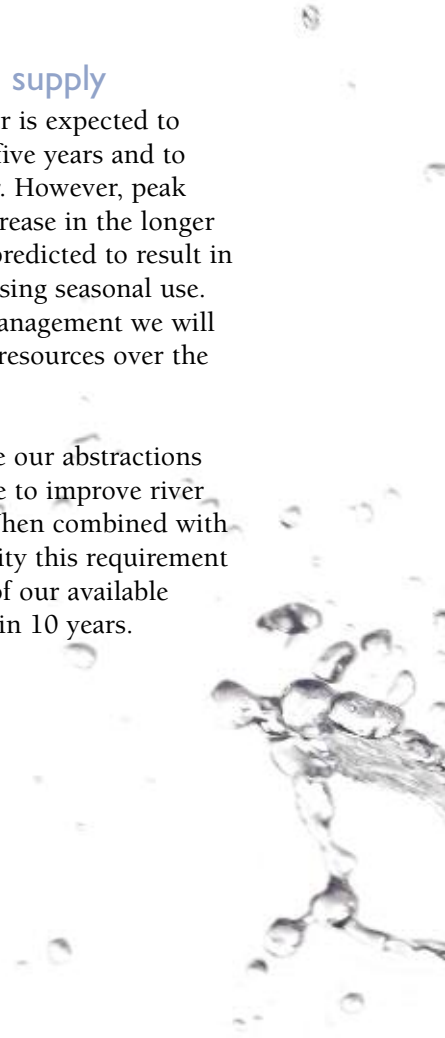
Raw water quality continues to show signs of deterioration largely as a consequence of the use of nitrates and pesticides by farmers. Without action we could lose up to 43Ml/d of water resource – or 8% of our available capacity – by 2015.

Catchment management has proved useful in reducing the chances of resource contamination, but it is an uncertain tool which requires the cooperation and participation of farmers, landowners and the EA. This has not always been forthcoming. So, while catchment management should be pursued, it cannot be completely relied on to solve our raw water quality problems.

Balancing demand and supply

Customers' demand for water is expected to reduce by 2% over the next five years and to stay broadly stable thereafter. However, peak demands are expected to increase in the longer term and climate change is predicted to result in hotter drier summers, increasing seasonal use. In the absence of demand management we will need to invest in new water resources over the next 10 years.

The EA requires us to reduce our abstractions by 24Ml/d (4%) as a measure to improve river flows in certain locations. When combined with deteriorating raw water quality this requirement may result in a loss of 12% of our available water resource capacity within 10 years.



This loss of capacity is made worse by the lack of integration of our water supply assets. One in five consumers is still served by single sources, the failure of which could lead to an extended loss of supply.

Flooding

Climate change is already leading to more extreme weather events and recent national studies consider that what is now classified as a 1:75 year storm will become a 1:50 storm in 75 years time. Without action the growing frequency of intense storms will result in additional flooding of customers' properties, pollution incidents through storm discharges and disruption to our assets.

Environmental standards

Despite the improvements that have been delivered over recent years, environmental standards continue to tighten – largely as a consequence of implementation of the revised Bathing Water, Shellfish and Urban Waste Water Treatment Directives.

Private sewers

The potential transfer of ownership of private sewers and lateral drains could double the length of our sewerage network and, in doing so, add as much as 3-4% to bills. A recent government announcement confirmed the transfer is to happen in 2011, although details are not entirely clear.

Asset stewardship

We have invested heavily in meeting new standards over the last 20 years and much of that investment has been in relatively short life assets which are now approaching the time at which if they are not renewed, there will be an increasing probability of service failure.

Our plan

To deliver our strategic vision we have set ourselves a series of high level goals to begin in April 2010. In outline, these goals are to:

- effectively manage the relationship with our customers so that they consistently consider our service to be excellent quality and value for money
- maintain as a minimum upper quartile levels of performance on all indicators and consistently be the leading company for service
- achieve 100% compliance with legal obligations and standards at all times
- facilitate economic development by providing additional capacity in our networks
- maintain assets in a serviceable condition and improve their resilience to climate change
- continue to reduce our carbon footprint.

We aim to achieve these goals by using single investments to deliver multiple outcomes, employing sustainable solutions which minimise our carbon footprint and working with stakeholders to make best use of existing resources.

Specific objectives for the next five years are:

- keep bill increases as close to inflation as possible
- maintain customer satisfaction ratings at more than 95% and consistently improve customer perceptions of service and value
- encourage a sustainable use of water by metering customers on change of ownership and implementing new tariffs which signal the value of water
- provide customers with innovative ways to minimise their bills and use of water and sewerage services
- reduce leakage where it is economic to do so
- deliver water without restriction or unplanned interruption of more than six hours
- provide all customers with more than one source of supply
- facilitate the EA's objective to reduce abstractions that may be harmful to river flows
- provide protection to properties which are known to be most at risk of flooding
- increase our use and generation of renewable energy.

THE BUSINESS PLAN

Our draft plan proposed a balanced approach which took into account:

- customers' willingness to pay
- a risk based approach to capital maintenance which optimised the balance between service and asset condition over the longer term
- an environmental programme based on sound science
- the ability to raise substantial sums of new capital over short periods at sensible prices.

The plan proposed an investment of £1,140m – our largest ever. Despite this, our ability to pass back the efficiencies we have created meant we did not need to increase customers' bills faster than the rate of inflation.

The plan was well received by customers and stakeholders and research undertaken by Ofwat and the Consumer Council for Water showed that three quarters of customers who had an opinion supported the plan. In our own follow up research there was strong support both for the balance of improvements and for our commitment not to increase bills faster than inflation. However, new obligations and taxes, and the worsening economic climate, now make it difficult to deliver all the planned outputs without price increases. In particular:

- revenues and profits are being reduced by the recession
- lead indicators suggest a worsening in bad debt
- the government requires companies to pay higher business rates and take responsibility for private sewers
- the cost of new finance has increased significantly.

We have therefore refined our plan in order to constrain price increases, by asking the following questions:

- is it possible to defer investment by managing risk to reflect the current economic circumstances?
- is it possible to reduce operating costs further without taking excessive risk with service or quality?
- will quality regulators agree to defer statutory quality investment where:
  - it would create a cross subsidy from existing to new customers
  - the improvement does not represent value for money at times of economic stress
  - the benefits are low?
- should regulators rather than water customers pay for the costs of environmental investigations?
- can we challenge some of the costs, new obligations and accounting changes imposed since the draft business plan was published?

MAINTAINING EXISTING SERVICES

Asset maintenance

We have invested heavily in meeting new standards over the last 20 years, much of it in relatively short life assets which are now approaching the time at which there is an increasing probability of failure. Current levels of maintenance are not sufficient to halt the underlying rate of deterioration – for example, the replacement rate equates to a life of 230 years for water pipes and more than 500 years for sewers.

Wessex Water responded to this challenge by spending 12% more on maintenance than Ofwat assumed at the last determination, but additional investment is still clearly required. Our draft plan used best practice Common Framework principles to determine that maintenance expenditure should increase by 15% in AMP5; with even higher levels for future periods.

While the draft plan remains optimal for normal economic circumstances there is a case that the balance between risk and cost should change at times of economic stress. Therefore, given the current circumstances, we believe that it would be appropriate to halve the proposed increase in investment. We will focus this change solely on below ground assets where the relationship between investment and service is less immediate than for above ground assets. A consequence of the revised plan will be a need to significantly step up investment in future periods.

Our revised maintenance proposals are set out below:

Future maintenance £m 2007-08 prices	1990-1995 (AMP1)	1995-2000 (AMP2)	2000-2005 (AMP3)	2005-2010 (AMP4)	2010-2015 (AMP5)	Change AMP4 to to AMP5
Water						
Below ground	45	45	60	81	81	0%
Above ground	125	110	85	125	140	12%
Total	170	155	145	206	221	7%
Waste						
Below ground	60	55	55	69	59	-14%
Above ground	190	160	150	198	224	13%
Total	250	215	205	267	284	6%
Five year spend	**420**	**370**	**350**	**474**	**505**	**7%**

OPERATING COSTS

Input prices and the scope for future efficiency

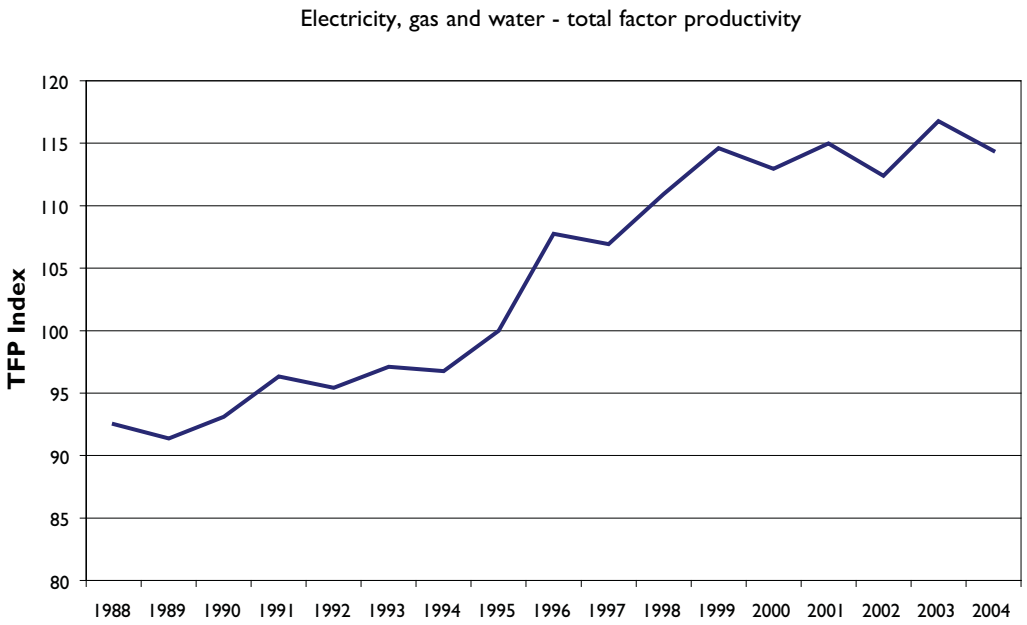
Wessex Water has consistently been a leader in operating efficiency and has been in the leading band for efficiency in all but one year since the mid 1990s. It is widely accepted, including by regulators, that leading companies can no longer make savings relative to RPI.

Expected cost movements relative to RPI Leading companies	%age pa
Competition Commission, Airports Review, 2008	0%
CAA, 2008	0%
OFGEM, Gas Distribution, 2007	-0.1%
ORR, 2008	+0.75%
First Economics for Water UK, 2008	0% to +0.75%
Reckon on behalf of OFWAT 2009	+0.5%

In common with all companies in the sector, we face unit input price inflation well above retail price inflation. Over the last eight years our controllable unit input prices (which account for 75% of operating costs) have risen by 2.3% pa in real terms and this trend will continue.

Real input cost inflation Controllable costs	Historical	Future
Labour	1.8%	1.8%
Power	5.2%	2.5%
Chemicals and materials	0.8%	0.8%
Total	2.3%	1.7%

Historically we have absorbed around 70% of this increase through efficiency. However, in common with trends observed in other utilities, the rate of productivity gain has been slowing.



Our plan *continued*

In light of this evidence our draft business plan suggested that we would make a productivity gain of 1% pa on controllable costs relative to unit input price inflation of 1.7% pa. This implies we could absorb 60% of the increase in costs and we proposed sharing this gain 50/50 between investors and customers.

In reviewing draft business plans, and in light of the current economic circumstances, we concluded that our savings target was not aggressive enough. We propose therefore to assume we can continue to offset 70% of the increase in controllable unit input costs and that we pass on all of this gain immediately to customers. Our target saving is 1.2% pa.

Change in controllable OPEX	Historical	Future
Change in real input prices	2.3%	1.7%
Productivity gain	1.6%	1.2%
Change in controllable OPEX	0.7%	0.5%

We have considered the initiatives that could result in savings to meet this challenging target. We do not see there being scope for major step changes akin to those achieved in AMP3 by, for example, the creation of the joint billing venture with Bristol Water. The input mix is fixed and the ability to reduce costs through merger and acquisition remains hindered by the regulatory process. Consequently, we see a continuation of the gradual, low-level changes that have characterised AMP4. We have identified specific initiatives to reduce costs, including:

- additional energy generation from advanced digestion of sludge
- a target to reduce energy consumption by 3% pa
- moving to defined contribution pensions scheme with lower contribution rates than the defined benefit schemes.

Pensions

Traditionally water companies have offered final salary pension schemes with contribution rates split broadly 2/3rds employer and 1/3rd employee. Pension deficits appeared from the early 2000s as equity markets faltered and real gilt yields fell. In response, Wessex Water closed final salary schemes to new employees and moved a greater proportion of assets into bonds. Despite this, the company remains exposed to the residual deficit and mortality assumptions in the defined benefit schemes.

The pensions regulator requires us to recover deficits over 10 years. This is a relatively short period and one that we believe places an unnecessary burden on customers when they can least afford to pay. Consequently, we propose that a tripartite agreement is reached between the companies, the economic regulator and the pensions regulator where:

- the economic regulator agrees to include 100% of “efficiently incurred” pension deficit costs within this and subsequent price controls
- companies agree to pass on 100% of this sum to the pension scheme trustees
- in return the pension regulator extends deficit recovery periods to 20 years.

The impact of these proposals will be:

- to smooth the impact of the current financial difficulties on prices to customers
- the pension fund (which is a creditor of the company) is kept whole
- to ensure all the benefit of any recovery in the scheme goes to customers.

Should such an arrangement not be agreed by the time of the final determination, Wessex Water expects Ofwat to allow full deficit recovery in line with the actuary's most recent calculations.

Bad debts

Bad debt is primarily a function of prices and the state of the wider economy. Over the last 10 years bad debt has doubled to 2.2% of turnover – an increase of 0.1% pa during a period of relatively benign economic conditions.

Around two thirds of bad debt stems from those who can afford to pay but choose not to do so. With active debt management there is no reason why this cost should not remain a relatively constant percentage of turnover. However, one third of bad debt stems from those who genuinely cannot afford to pay. It is this group that consistently face above average price increases and are most exposed to the effects of an economic downturn.

In light of history and the current economic circumstances we expect bad debts as a proportion of turnover to increase by 0.15% pa – an increase of 50% in comparison to the last 10 years. By 2015 we expect bad debts to be 3.1% of turnover.

We have not proposed bad debts as a notified item on the assumption that Ofwat takes a reasonable and balanced view on the bad debt provision when setting price limits.

BALANCING DEMAND AND SUPPLY

Water supply

The demand for water from households and businesses is expected to reduce by 2% over the next five years and to stay broadly stable thereafter. While use is expected to increase as a consequence of population growth and declining household size, this will be more than offset by a continued decline in commercial volumes and increased domestic metering. Metering will also reduce leakage by facilitating service pipe replacement and repair, in turn deferring the need for future resource developments. After taking account of leakage, the use of water is expected to fall by 3% in the next five years and fall at a more moderate pace thereafter.

Water supply demand forecast	2004-2005	2009-2010	2014-2015	2019-2020	2034-2035
Domestic customers ('000)					
Domestic customers	478	508	532	561	645
%age metered	33%	47%	65%	78%	94%
Commercial customers	52	52	53	54	57
Total demand Ml/d					
Total use by customers	299	277	271	271	272
System leakage	53	52	52	52	52
Customer leakage	20	19	16	13	10
Total use	372	349	339	337	334
Change		-6%	-3%	-1%	-1%

The recession will reduce sales and revenues significantly. In comparison to our draft plan we expect:

- commercial sales will be 6% lower
- new connections will be 10% lower
- meter options will be 10% higher.

Most of this downturn will be felt at the start of the five year period so accelerating the impact on price limits and bills.

Peak demands are expected to increase and climate change is predicted to result in hotter drier summers, pushing up seasonal use. In the absence of demand management we will need to invest in new water resources during the next 10 years.

Local investments will continue to be necessary to service new developments and alleviate local capacity constraints and the potential exists for some of this investment to be undertaken by new entrants. However, efficient entry remains hampered by a lack of clarity on the pricing of the wholesale network and inflexibility on setting cost reflective infrastructure charges. We believe these issues need to be urgently addressed.

The EA requires us to reduce our abstractions by 24Ml/d (4%) to improve river flows in a number of locations. When combined with deteriorating raw water quality, this requirement may result in a loss of 12% of water resource capacity by 2015.

There is adequate licensed water resources and treatment capacity within the region to overcome this loss, provided that it is possible to connect our existing assets. In the absence of connectivity, new resources and treatment facilities would need to be created.

Despite discretionary investment in this five year period there are still 260,000 (21%) consumers served by single sources, the failure of which could lead to an extended loss of

supply. Our market research shows that customers were both surprised and alarmed by this and strongly supported our draft plan proposals to reduce this risk as soon as practical.

The role of metering

Customers believe metering is the fairest way to pay. As around half our customers are already metered we believe that the benefits of pursuing metering further may now be considerable. In addition to continuing to meter new properties and allowing people to opt for a meter, we propose to meter customers on change of ownership. This will enable us to:

- meet our water efficiency targets, including cutting per capita consumption by 5% over 10 years and 10% by 2035
- reduce leakage by 5% by 2015 and 13% by 2035 by replacing or repairing customers' pipes when meters are installed
- reduce demand for water so deferring future resources and network capacity investment, meeting government targets for water use and minimising our carbon footprint
- move towards a sustainable charging system.

The added introduction of smart meters will inform customers in real time about their use and potential leaks on their pipework. It will also create the opportunity to differentiate the low average cost of water from the high marginal cost and in doing so minimise affordability problems for low income, high fixed use, customers.

Metering on change of ownership also:

- ensures customers do not face significant changes to their bills while in existing properties
- masks incidence effects of a move to metered charging, and
- minimises the number of low income customers who will pay by volume so helping alleviate affordability concerns among those who have no choice other than to use large amounts of water.

Investment strategy and costs

Our investment strategy has five elements:

- integrating existing assets to make good the shortfall in resources caused by licence reductions and deteriorating raw water quality, and improving security of supply by eliminating single source supplies
- metering to encourage a sustainable use of water and cut leakage
- continued catchment management to secure resources for the longer term
- continued access to low flow licences to provide headroom in case of severe asset failure during a drought
- local investments to facilitate new development and meet growing peak demands.

Our plan *continued*

Water supply Capacity investment £m 2007-08 prices	Long term average	2005-2010 (AMP4)	2010-2015 (AMP5)	2015-2020 (AMP6)
Underlying growth				
New	26	19	22	25
Existing customers	21	26	19	20
Income	-11	-11	-10	-12
Total	37	34	32	33
Meters				
Change of ownership			28	27
Optants	11	14	15	8
Total	11	14	43	35
The grid			156	150
Net CAPEX	**48**	**48**	**230**	**217**
OPEX £m pa				
Underlying growth			1.3	1.3
Meters			0.8	0.8
The grid			0.4	1.7
Total			2.5	3.8

We propose to invest £230m in balancing demand and supply over five years, two thirds of which will be in integrating our grid. As the grid project will take eight years to complete we anticipate spending broadly the same in the next price control period.

While our water resources and draft business plans evaluated in excess of 100 resource and treatment development options before choosing the grid/metering option, it is doubtful that we could obtain new licences from the Environment Agency without first implementing demand management measures such as metering. Even if we could, the cost of the cheapest resource development solution would cost almost exactly the same as our preferred option. Moreover, the need to treat more water would result in a larger carbon footprint and no reduction in leakage or per capita demand, the delivery of which is important for our stakeholders.

Waste water

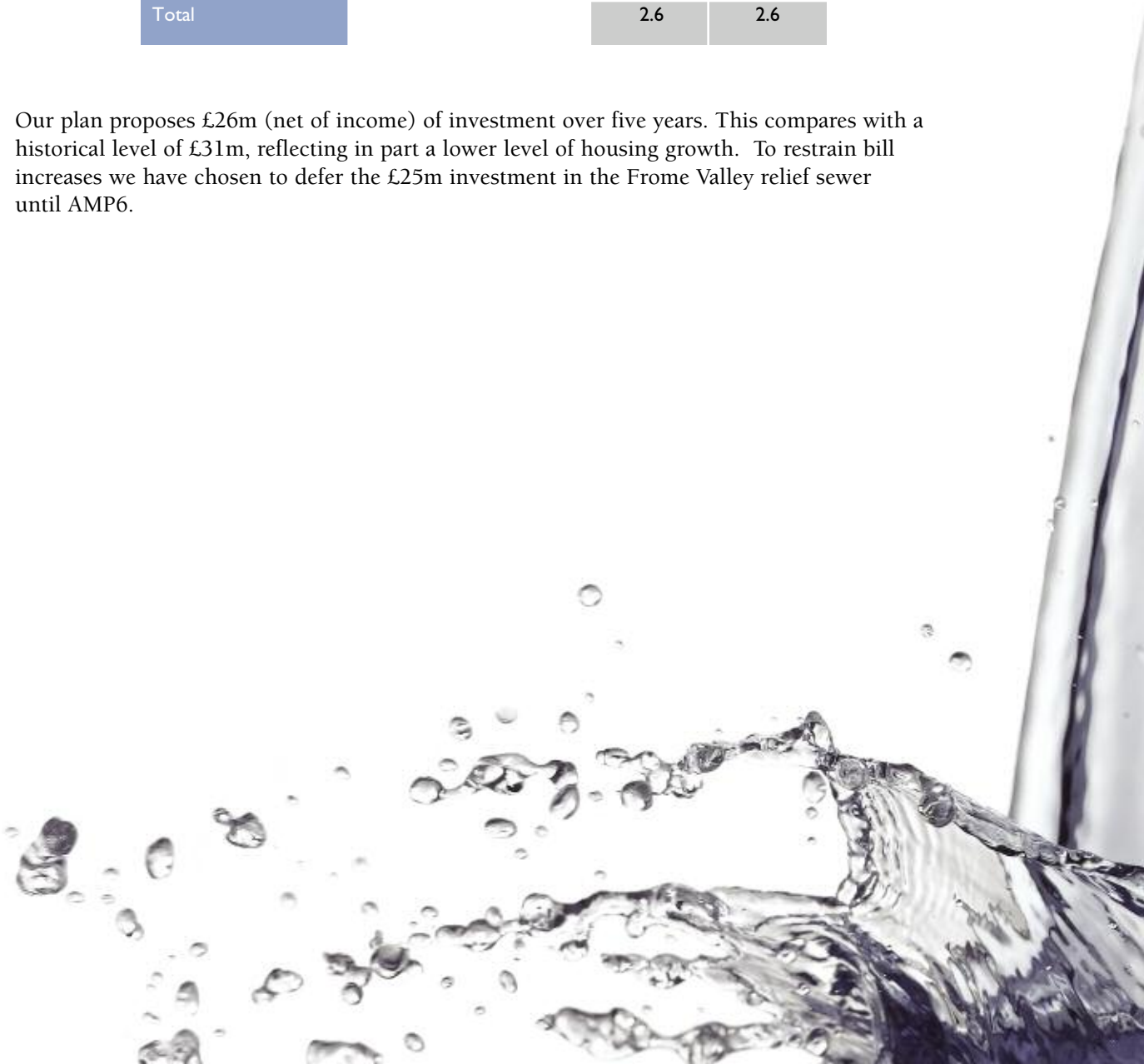
As with water supply we expect the demand for waste water services to decline in the next five years before stabilising. However, waste water assets are less integrated than water supply assets. This leads to lumpy investment driven by specific local needs.

Demand forecast	2004-05	2009-10	2014-15	2019-20	2034-35
Domestic customers ('000)	986	1,050	1,099	1,162	1,339
%age metered	26%	39%	56%	67%	83%
Commercial customers ('000)	84	84	85	86	89
Total sales Ml/d	492	486	477	479	487
%age change		-1.1%	-1.9%	0.4%	1.7%

While being precise about the level of investments in any one period is difficult, there is no reason to suppose that investment levels in the future will be materially different from those in the past. Our plan reflects that assumption.

Investment strategy £m 2007-08 prices	Long term average	2005-2010 (AMP4)	2010-2015 (AMP5)	2015-2020 (AMP6)
Underlying growth				
New	22	8	18	20
Existing customers	30	29	28	29
Income	-21	-20	-20	-24
Total	31	17	26	25
Frome Valley sewer			0	25
Net CAPEX	**31**	**17**	**26**	**50**
OPEX £m pa				
Underlying growth			1.5	1.5
Metering			1.1	1.1
Total			2.6	2.6

Our plan proposes £26m (net of income) of investment over five years. This compares with a historical level of £31m, reflecting in part a lower level of housing growth. To restrain bill increases we have chosen to defer the £25m investment in the Frome Valley relief sewer until AMP6.



Our plan *continued*

QUALITY AND ENVIRONMENTAL IMPROVEMENTS

Our draft business plan proposed a total investment of c£263m which would have added more than 5% to customers' bills. We are concerned that not all the proposed outputs can be justified during a period of economic stress. We have therefore critically examined the draft plan with a view to deferring outputs where:

- the investment would create a cross subsidy from existing to new customers
- the improvement does not represent value for money at times of economic stress
- the benefits are clearly outweighed by the costs.

We have also suggested that the EA should pay directly for the cost of the investigations it requires.

Water supply

We propose to implement all the proposals contained within our draft plan with the exception of environmental studies and stream support work. A detailed assessment of outputs follows:

Aspect of service	Benefits and outputs	Reason to include/exclude
Enhanced service		
Flood protection	Flood protection at two water treatment sites	Include as high customer priority
Drinking water quality	Mains rehabilitation to improve the appearance of drinking water to 100,000 consumers	Include as high customer priority
Environmental and water quality		
Deteriorating raw water quality	Improvements at two surface water sources serving 103,000 consumers to reduce taste and odour complaints and reduce the risk of contamination by pesticides	Include as high customer priority
Lead pipe replacement	Replacement of lead pipes to meet the new standard for lead	Include as customer priority
Investigations	Investigations of sites potentially failing good ecological status	EA to pay for the investigations
Environment	Improvements in biodiversity Stream support on the River Bourne and Wylye	Excluded as not a high customer priority Defer until grid implemented

Our plans result in an investment of £49m over five years which will increase bills by c1%. Should we not reach agreement with the regulators we expect Ofwat to reinstate £11m of investment through a two sided adjustment to the final determination. This will add c0.25% to customers' bills.

Waste water

We propose to implement the proposals contained in our draft plan with the principal exceptions of:

- improvements to storm discharges
- uncommitted first time rural sewerage schemes
- investigations.

A detailed assessment of outputs is as follows:

Aspect of service	Benefits and outputs	Reason to include/exclude
Enhanced service		
Flooding of properties	Reduce risk of internal flooding at 338 properties and external flooding at 170 properties	Include as high customer priority and cost beneficial
Flood protection of existing assets	Improvements at two critical pumping stations to avoid customer flooding	Include as high customer priority
Sludge digestion	Reduce carbon footprint and energy costs	Include as high customer priority and cost beneficial
Environmental and water quality		
Shellfish Waters Directive	Improvements in Poole Harbour to protect shellfisheries	Include as cost beneficial and customer priority
Bathing Water Directive	Compliance with the Bathing Water Directive at Weston-super-Mare	Include as high customer priority
Misconnections	Work to eliminate 700 sewer misconnections to reduce pollution	Include as significant pollution risk
Sludge regulations	Tighter regulations aimed at safeguarding sludge to land	Exclude as regulations not yet made
IPPC	Improvements to comply with Environmental Permitting Regulations	Exclude as technical issue with no clear environmental benefit
Investigations	NEP investigations into bathing waters, nutrient enrichment and chemicals	EA to pay for the investigations
First time sewerage	Connecting 560 properties which have unsatisfactory drainage to the public sewer to reduce risks to public health and the environment	Defer schemes which are not yet committed to avoid further cross subsidy
UWWTD	Phosphorus removal at seven sites to reduce the risk of eutrophication in the Somerset Levels	Include to avoid infraction proceedings even though not cost beneficial
Dry weather flow exceedence	Improvements at five sites to meet volumetric consents	Defer if EA issues temporary consents, as limited impact on environmental standards
Unsatisfactory intermittent discharges	Improvements at 63 storm overflows in Bristol	Defer if EA issues temporary consents, as limited impact on environmental standards

We will invest £136m over five years which will increase bills by c2.7%. Should we not reach agreement with the regulators we expect Ofwat to reinstate £76m of investment through a two sided adjustment to the final determination – this will add a further c1.4% to customer bills.

Summary of investment proposals

Our proposed investment programme of £953m for the next five years is our largest ever – we will be investing c17% more than the current five years.

Investment plan £m 2007-08 prices	Current period	Included CAPEX	Bill impact	Excluded CAPEX	Bill impact
Base service	474	505	3.1%	25	0.4%
Capacity	99	286	5.9%	24	0.4%
Standards	69	99	1.6%	0	0.0%
Quality	205	86	2.0%	87	1.6%
CAPEX	847	976	12.6%	136	2.4%
Income	-30	-30	-0.5%	0	0.0%
Contribution	0	7	0.1%	0	0.0%
Net CAPEX	817	953	12.2%	136	2.4%

Our programme splits into three segments:

- just over half is on maintenance
- just over 25% is on providing capacity
- c20% on quality and environmental improvements.

We have deferred or asked others to pay for £136m of improvements which we do not consider are a high customer priority during a recession, including £25m of capital maintenance.

Carbon

Climate change is expected to cause drier summers, wetter winters and more frequent high-intensity rainfall events in our operating region. To minimise effects on service delivery requires investment in greater infrastructure capacity as well as improved partnership working between agencies to improve spatial planning and the management of surface water. The 2009 UK Climate Projections will be too late to inform our final business plan but will be properly integrated into future planning activity.

We are already working closely and collaboratively with local authorities to implement recommendations from the Pitt Review and propose to continue this work through AMP5.

With the implementation of the Climate Change Act and the Carbon Reduction Commitment we anticipate increased scrutiny of the sector's carbon management. We wish to contribute to national reduction targets en route to our ultimate aim of being a carbon neutral company. We aim to maximise renewable energy generation from our land and assets and keep process emissions to a minimum. In our reporting we will give a full account of this work, in parallel with the more rigid government rules on greenhouse gas emissions reporting.

As a consequence of having to meet higher environmental standards and additional volumes, our carbon footprint over the 15 years from privatisation increased by a quarter. We aim to deliver a 12kt pa reduction during AMP5, with the combined effects of ending liming of sewage sludge and increasing energy efficiency. We propose to cut energy use by 3% pa and increase sludge digestion to 100% of our production.

If we were allowed to count the biogas energy that we generate and use ourselves as zero CO_2, as well as the additional 7% of our energy needs that we plan to procure from renewable sources, our overall reduction would be 32Kt pa CO_2e (from 186 Kt pa to 154Kt pa) during AMP5.

CO_2e '000 tonnes pa	1990	2005	2010	2015	
Total (including lime embedded carbon; all electricity at grid emissions factor)	163	205	209	197	
		1990-2005	2005-2010	2010-2015	1990-2015
Increase due to standards and volume		72	24	14	110
Savings (greener grid + WW action)		-30	-20	-26	-76
Net change		42	4	-12	34
Increase due to standards and volume		44%	12%	6%	62%
Savings (greener grid + WW action)		-18%	-10%	-12%	-40%
Net change		26%	2%	-6%	22%

Key modelling and economic assumptions

Macroeconomics

We have taken macroeconomic forecasts from a range of published sources with particular reliance on Treasury consensus forecasts (February 2009) and those from the National Institute of Economic and Social Research (NIESR) (January 2009). Together we believe these indicate that the UK economy will be in recession until midway through 2010 before gradually recovering back to trend from 2012.

Macroeconomics	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
RPI	2.7%	-1.0%	1.0%	2.0%	2.8%	2.8%	2.8%
Capital prices	-3.0%	-2.0%	2.5%	3.5%	4.3%	4.3%	4.3%
GDP	0.0%	-2.8%	0.0%	2.3%	2.5%	2.5%	2.5%
Energy prices	67%	-25%	3.5%	4.5%	5.3%	5.3%	5.3%
LIBOR	4.8%	2.0%	2.7%	3.5%	5.5%	5.5%	5.5%
10 year gilts	4.5%	3.5%	4.5%	4.8%	5.0%	5.0%	5.0%
Tariff basket RPI	4.3%	3.0%	-2.0%	1.0%	2.0%	2.8%	2.8%
March RPI	-0.5%	0.0%	1.0%	2.0%	2.8%	2.8%	2.8%

We believe retail price inflation will be negative during 2009, before returning to trend (2.75%) in 2012. While keeping bills down, the potential for volatile or persistent low or negative retail price inflation represents a significant risk to the financeability of our investment plans.

Real capital price inflation is extremely volatile and during non recessionary periods it has averaged 1.5% pa above RPI. While we assume that continues to be the case over the medium term, in the short term we would expect capital prices to be below RPI.

Excluded items

There are a number of items outside our control which will not be resolved before we submit this business plan. These include transfer of private sewers, business rates and new tax legislation. These items have a potentially significant impact on customer bills.

Private sewers

The potential transfer of ownership of private sewers and lateral drains may double the length of our sewerage network and, in doing so, add as much as 3-4% to bills. A recent government announcement confirmed the transfer is to happen in 2011 although details are not entirely clear. Consequently, Ofwat has asked companies to exclude these proposals from the final business plan. We propose that the transfer of private sewers becomes a notified item.

Business rates

The Valuation Office has informed us that the rateable value of our water supply assets is to be increased by 170% to £44m. While history suggests that the associated poundage rate will fall, and that there will be some transitional relief, it is still possible that the rates bill will increase by £10-11m in real terms, so adding around 3% to bills.

We have already appealed against this increase and the Valuation Office has yet to finalise the valuation in light of these representations, but has confirmed that its work will not be complete until May of this year.

We believe that the industry, and its stakeholders, should make representations to government to reduce this tax on water customers. In light of the uncertainty and the representations we have made, we have chosen to exclude the impact of business rates in this

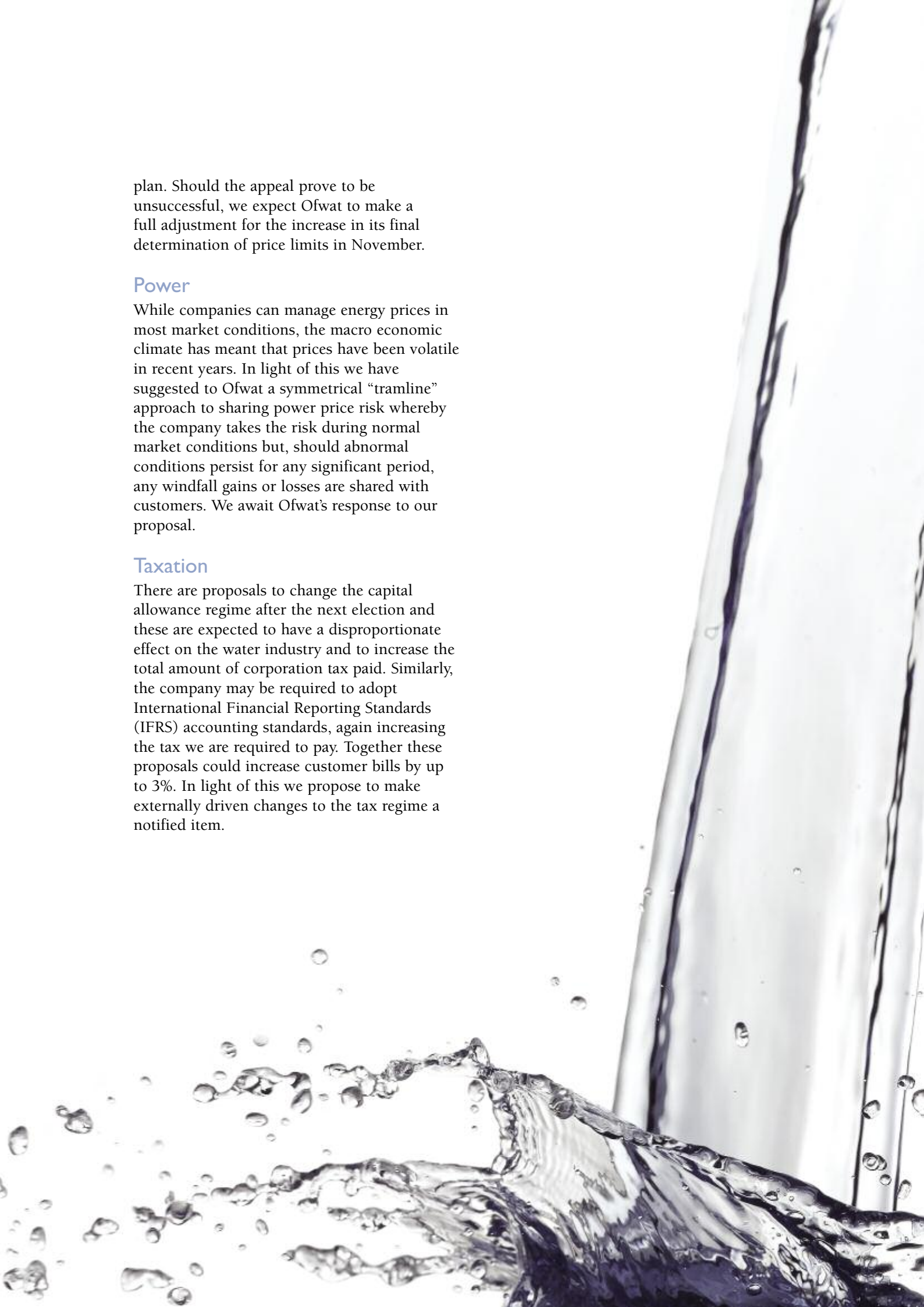
plan. Should the appeal prove to be unsuccessful, we expect Ofwat to make a full adjustment for the increase in its final determination of price limits in November.

Power

While companies can manage energy prices in most market conditions, the macro economic climate has meant that prices have been volatile in recent years. In light of this we have suggested to Ofwat a symmetrical "tramline" approach to sharing power price risk whereby the company takes the risk during normal market conditions but, should abnormal conditions persist for any significant period, any windfall gains or losses are shared with customers. We await Ofwat's response to our proposal.

Taxation

There are proposals to change the capital allowance regime after the next election and these are expected to have a disproportionate effect on the water industry and to increase the total amount of corporation tax paid. Similarly, the company may be required to adopt International Financial Reporting Standards (IFRS) accounting standards, again increasing the tax we are required to pay. Together these proposals could increase customer bills by up to 3%. In light of this we propose to make externally driven changes to the tax regime a notified item.



The cost of capital

The cost of capital is arguably the most important building block in determining price limits and should be set in a way which:

- maintains ready access to the capital markets to ensure efficient financing of the business
- encourages the retention of equity to promote risk taking and innovation to the benefit of customers and investors
- rewards companies for putting in place efficient financing structures
- is transparent, stable and predictable through time.

In assessing the appropriate cost of capital for the next price control we have taken evidence from recent regulatory submissions and findings, and NERA Economic Consulting's report for Water UK. We have cross checked that evidence with the results from the investor survey on behalf of Water UK and market transactions.

We consider that academic and other studies can, at best, only indicate the plausible range for the cost of capital and that judgement must be used to ensure the companies can fulfil their statutory duties. Given the nature of the industry these judgements should err on the side of caution, particularly at times of economic turbulence.

The cost of equity

In coming to a view on the market cost of equity we have considered both the risk free rate and the equity risk premium. While there is much controversy over both we were mindful of the view of the Competition Commission that it is the overall cost of equity that we are trying to establish rather than the component parts. The Competition Commission recently indicated that it felt the market cost of equity was in the range of 5-7%. This was a slightly more conservative range than suggested, for example, by NERA.

Our corresponding range is 6-8% which is reasonably consistent with that produced by BAA in its submission in the recent Stansted Airport price control.

Setting the cost of equity too low will result in a withdrawal of equity similar to that observed after the 2000 price control and the precautionary principle suggests that the allowed return should be set towards the upper end of the plausible range.

Investor views of relative risk	Water is less risky	Water is on a par	Water is more risky	No view
Average of the UK market	100%	0%	0%	0%
BT	89%	0%	0%	11%
UK electricity generation	89%	5%	5%	0%
UK energy retail	84%	5%	11%	0%
BAA	74%	11%	5%	11%
EU utilities	74%	5%	5%	16%
National Grid	37%	37%	26%	0%
UK gas distribution	30%	40%	30%	0%
UK electricity distribution	30%	50%	20%	0%
UK gas transmission	16%	53%	32%	0%

Water UK's investor survey indicates that water is a lower risk investment than the majority of other utilities and is seen on a par with gas or electricity distribution.

This is recognised by both NERA and the Competition Commission, who have estimated that asset betas are in the range of 0.35-0.45. Given this evidence we have chosen to adopt an asset beta of 0.4 which is in the middle of the expected range.

The cost of debt

Over the last 10 years the yield on normal gilts has averaged 4.5%-5.0% and with long term inflation of 2.5%-3.0% this suggests a real cost of around 1.5%-2.5%. However, the investor survey indicated that the market expects gilt yields to rise as a consequence of the large government issuance. This would suggest an estimate towards the upper part of the range. We assume a rate of 2.25%.

Historic gilt spreads for an A- corporate credit are 110-120bp, but in the last 12 months spreads have been 2-3 times that level and since the collapse of Lehman Brothers have increased to c325bp. We assume that spreads will come in a little from current levels but there is little at present to suggest that they will dip significantly below 275bp.

Given the significant difference between new and embedded debt costs we suggest setting a weighted average cost of debt. In doing so we believe it is important to retain incentives to efficiently finance the business over the longer term. We suggest setting the cost of embedded debt on the basis of the long term norm for an A- rated utility, while the cost of new debt is based on the current rate.

Assuming that the elements are weighted to reflect the balance of capital market needs over the next five years – which in our case is a 33/67 split of new and historic debt – suggests setting a cost of debt of 4.1% including fees.

The weighted average cost of capital for water companies (WACC)

In determining the target WACC we assume a notional capital structure which reflects the industry average gearing of 67%. On this basis we would estimate that a plausible range for the WACC is 4.7% to 5.9%. The board considers that it is appropriate to target the upper part of this range and proposes a return of 5.5%. The increase of 20bp since our draft plan is consistent with that proposed by the Civil Aviation Authority (CAA) in respect of Stansted Airport. Our estimate is also consistent with NERA's estimate of 5.2%-5.8% and the views expressed in the Water UK investor survey.

Weighted average cost of capital	Low	High	Estimate
Asset beta	0.40	0.40	0.40
Gearing	67%	67%	67%
Equity beta	1.2	1.2	1.2
Market cost of equity	6.0%	7.9%	7.5%
Allowed cost of equity	6.8%	9.0%	8.5%
Cost of debt			
Embedded	3.2%	3.9%	3.6%
New	4.6%	5.6%	5.1%
Allowed cost of debt	3.7%	4.4%	4.1%
WACC (post tax equity pre tax debt)	4.7%	5.9%	5.5%

Price limits and bills

Price limits and bills

We have assessed the price limits required to fulfil our statutory duties over the next five years, they are as follows.

Year	2010-11	2011-12	2012-13	2013-14	2014-15
Price limit	3.25%	2.75%	2.75%	1.5%	0%
Average bills (2009-10 prices)	£420	£429	£435	£436	£431

The K factor in large part recoups income lost as sales fall and some customers choose to switch to meters in order to save money. These price limits will result in the weighted average domestic bill increasing by 4.6% in real terms to £431 by 2015. We have profiled the price limit to keep bills flat in cash terms until 2011 and to yield smoothed increases in cash terms thereafter.

All else being equal, the savings and efficiencies we have made would allow bills to fall. However, these changes are offset by the cost of meeting new environmental standards and the improvements in service that our plan proposes. The changes in average customer bills can be explained as follows:

Drivers of changes to average bills	Change
Maintaining existing service	-4.4%
Balancing demand and supply	5.4%
New quality and environmental standards	2.0%
New customer service standards	1.6%
Total change	4.6%

The impact on customers will vary between the type of customer. Customers who are already paying metered charges will see annual bill increases of one percent above inflation. Other customers, in particular those who are able to benefit from switching to metered charges during the next five years, will see significant bill reductions.

The following chart gives an indication of the expected bill changes to particular customer groups:

Category of customer	Proportion of customers	Bill change	Typical annualised change in bill
Customers newly eligible for Wessex Water social tariff (Assist)	1%	Reduction	-8.0%
Customers switching to meters (low consumption and/or high rateable value)	12%	Reduction	-8.0%
Customers already paying Wessex Water social tariff (Assist)	1%	Stable	0.0%
Customers paying metered charges	51%	Increase	+1.0%
Customers paying un-metered charges	31%	Increase	+4.1%
Households switching to meters (high consumption and/or low rateable value)	4%	Increase	+8.0%

As a result of the way Ofwat requires companies to balance charges between customer groups some customers, notably those unmetered customers who do not switch to metered charges during the period, will see increases above inflation. We are aware that this will increase affordability problems for some.

During this AMP period Wessex Water has led the industry in the development and trialling of innovative tariffs and schemes to help customers who cannot afford their full water charges.

Now, as we move into the next price control, Wessex Water is the only water company to have a fully approved social tariff (Assist) already in place that can reduce bills to customers who despite their best efforts are unable to pay their full charges. This will continue to be available to customers whose water charges become unaffordable during the next five years. In addition, for customers on metered charges our free water efficiency audits will help customers reduce their charges by helping them cut the volumes used.

Board endorsement

We have reviewed the Ofwat requirements regarding the role of the company's board of directors in the preparation and endorsement of the final business plan (the Plan). These require:

- a statement from the board signed by the chairman and one non-executive director that confirms the board has endorsed the Plan as a whole
- in its explanation of company strategy a confirmation from the board that it continues to have sufficient processes and internal systems of control to fully meet its obligations for the provision of information to Ofwat
- a statement explaining how the board has satisfied itself that it has submitted an integrated Plan which as a whole:

1. sets out in a consistent and fair way the company's application for price limits
2. confirms that the Plan takes account of all material issues that the company has already identified will arise, or has reasonable grounds to expect will arise in 2010-15 or might impact beyond that period
3. confirms that the Plan informs Ofwat of all relevant factors that the board reasonably believes based on Ofwat's reporting requirements are needed to review the challenges facing the company and determine fair and reasonable price limits for the customer and the company consistent with statutory duties
4. confirms the long term strategy underpinning the Plan is consistent with the strategic direction statement
5. provides a high level description of the company's processes for completing the Plan
6. provides a description of the company's internal quality assurance processes
7. provides an explanation of the role and involvement of the board as a whole (including non-executive directors) in the Plan process
8. provides an explanation of how the board has satisfied itself that the processes and systems of internal control summarised above are operating as expected
9. provides an explanation of how the board has satisfied itself that projections set out in the Plan are as robust as possible and that all material assumptions and judgements have been set out in commentary to accompany each table
10. provides a description of how the board has engaged with the Reporter and Auditor
11. confirms all directors have made due inquiry and have disclosed all relevant information to the Auditor and Reporter.

The process and quality assurances procedures applied in producing the Plan are as follows:

- production of a quality assurance process (the Process) for the Plan setting out the obligations, requirements and the processes for ensuring compliance

- all staff contributing to the Plan are reminded of their obligation to provide information for historic data that is reliable, accurate and complete in accordance with MD209, as well as the criminal penalties in s206 Water Industry Act 1991

- source historical data is compiled by a named individual and verified by either a relevant director, general manager or head of business unit

- these individuals certify that the information has where appropriate been obtained from a recognised data source and has been accurately compiled

- projections and estimates are reasonable and all material assumptions and judgements upon which they are made have been set out in the commentary to each table

- the projections and estimates have been challenged by the relevant director, general manager or head of regulation depending upon where the data or projection originates

Board endorsement *continued*

- where challenge leads to concern or where there are outstanding issues we consider whether the matter should be reviewed by internal audit.

The Process was considered and approved by the audit committee on 2nd June 2008.

The final plan was reviewed by the audit committee and by the full board on 25 March 2009. The Auditor and Reporter were present at both meetings.

The audit committee addressed four questions:

- whether the Processes as described above had been followed?

- whether all relevant information, as defined by the Companies (Audit, Investigation and Community Enterprises) Act 2004, had been disclosed to the team preparing the Plan and to the Auditor and Reporter?

- whether the executive directors and managers involved had any concerns over whether the Plan met the Ofwat requirements as summarised above, including the material assumptions and judgements set out in the commentary accompanying each table and any confidence grade assigned to them?

- whether the Auditor and Reporter had any concerns about the process and quality assurance systems used by the company, or about the integrity, reliability or completeness of the information contained in the Plan?

The committee reported to the board as follows:

- the committee was satisfied that the processes and internal systems of control as summarised above had been applied and were effective in meeting Ofwat's requirements as described above

- the executive management present had confirmed that to the best of their knowledge all relevant information that they reasonably believed was required based on Ofwat's recording requirements had been made available to those preparing the Plan and to the audit staff

- the Auditor John Luke of KPMG and the Reporter Jon Bateman of Halcrow had both confirmed that they had been provided with all the information they had asked for and believed they needed

- each of David Barclay, Lesley Bennett, Peter Costain, Keith Harris and Dave Elliott (being the directors present at the meeting) confirmed that they had complied with their obligations under the Companies (Audit, Investigation and Community Enterprise) Act 2004.

The audit committee noted that some of the Plan's content was based on projections and estimates. These projections and estimates had been made in good faith with the usual transparent and challengeable assumptions, but as with any projection or estimate accuracy could not be guaranteed. Projections and estimates were based on reasonable assumptions and all material assumptions and judgements had been set out in the commentary to each table in the Plan. It was noted that the financial projections made to Ofwat used Ofwat's own financial model rather than the one relied upon by the company.

The audit committee noted that the Plan as required by Ofwat utilised its Aquarius model to determine price limits. The company had been informed by Ofwat that the cash flow part of their model does not reflect the company's anticipated expenditure. Consequently, in recommending price limits the company has had regard to anticipated cash flows produced from the company's own internal models.

Overall, the audit committee considered that the Plan had been prepared in accordance with the company's processes/procedures and without material inaccuracy in accordance with Ofwat's requirements as described above. Appropriate independent checks had been carried out by the director of asset management and the head of regulation as well as by senior management, internal audit, the Auditor and Reporter.

The Auditor and Reporter both confirmed that they had no concerns over the processes used or the information contained in the Plan.

The Plan was presented to the board on 25 March 2009 following consideration and comment by the audit committee earlier the same day. At the board meeting the directors were able to consider the Plan, a verbal report by the committee chairman from the audit committee and to question the executive directors and the Auditor and Reporter. After due discussion the board noted and accepted the findings of the audit committee and the observations of the Auditor and Reporter as set out above which were confirmed at the board meeting. Those directors present who had not attended the audit committee meeting each confirmed that they had complied with their obligations under the Companies (Audit, Investigations and Community Enterprise) Act 2004. The board was satisfied that the endorsement appearing below could be given subject to the caveats therein referred. It resolved that Colin Skellett and David Barclay were authorised to sign the endorsement on behalf of the board.

Board endorsement *continued*

BOARD ENDORSEMENT

Ofwat's requirements of the role of the board in preparation of the Plan as reproduced above are noted.

The board notes and endorses the findings of the audit committee.

All directors who held office at the date the Plan was submitted have confirmed, so far as they are each aware, there is no relevant information of which the Auditor or Reporter are unaware and needed for the preparation of their report. All directors have taken all the steps that they ought to take as directors in order to make themselves aware of any relevant information and to establish that the company's Auditor and Reporter are aware of the information.

Having considered the content of the Plan and the processes and procedures employed in its preparation (including the roles of the board, audit committee, the Auditor and Reporter) and having considered the report from the audit committee and the comments of the Auditor and Reporter, the board considers Ofwat's requirements as described above have in all material respects been met.

Signed .....
Colin Skellett
Chairman

Signed .....
David Barclay
Independent non-executive director and chairman of the audit committee

Table A1 **Price limits, bills, water sales and supply/demand balance**

	Units	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
A Price limits and infrastructure charge limit									
1 Proposed price limit "K" (including U)	nr	5.6	4.0	2.9	3.25	2.75	2.75	1.50	0.00
2 Water service indicative "K"	nr	10.7	4.6	1.8	3.3	2.7	2.8	1.5	0.0
3 Sewerage service indicative "K"	nr	3.3	3.7	3.5	3.2	2.8	2.7	1.5	0.0
4 Proposed infrastructure charge limit – water service	£	277			277				
5 Proposed infrastructure charge limit – sewerage service	£	277			277				
6 RPI – year by year assumption	%	3.9%	4.3%	3.0%	-2.0%	1.0%	2.0%	2.8%	2.8%
B Projected household bills – water service									
7 Typical unmeasured household bill – 2007-08 prices	£	200	213	217	227	241	252	262	267
8 Typical measured household bill – 2007-08 prices	£	151	156	160	165	165	168	169	168
9 Average household bills – 2007-08 prices	£	180	186	187	191	194	196	197	194
10 Average household bills – cash out-turn prices	£	180	193	202	202	208	214	220	223
C Projected household bills – sewerage service									
11 Typical unmeasured household bill – 2007-08 prices	£	198	209	217	226	239	250	259	264
12 Typical measured household bill – 2007-08 prices	£	161	164	170	177	177	180	181	180
13 Average household bills – 2007-08 prices	£	185	189	194	198	202	206	207	205
14 Average household bills – cash out-turn prices	£	185	197	210	210	217	225	232	236
D Water sales and supply/demand balance									
15 Billed water delivered	Ml/d	291	285	287	284	283	281	279	278
16 Total volume of sewage collected	Ml/d	489	482	486	483	481	480	478	477
17 Total water available for use baseline (dry year annual average)	Ml/d	433	433	433	433	432	432	432	432
18 Distribution input (dry year annual average)	Ml/d	346	359	361	359	359	359	358	358
19 Total leakage	Ml/d	72	72	71	71	70	69	68	68
20 Total water savings from company's water efficiency strategy	Ml/d	0	0	0	1	1	2	2	3

Note: figures in line 18 are for a dry year and are therefore higher than the corresponding figures on page 17.

Table A2 **Water service – current performance and planned outputs**

		Units	2002-03	2007-08	by 2009-10	by 2014-15	by 2019-20
A	**Service performance**						
1	DG2 properties at risk of receiving low pressure	nr	336	157		250	
2	DG3 Supply interruptions (overall performance score)	nr	0.97	0.22		0.10	
3	DG6 % billing contacts dealt with within 5 days	%	100	100		100	
4	DG7 % written complaints dealt with within 10 days	%	99.9	100		100	
5	DG8 % metered customers receiving bill based on a meter reading	%	100	100		100	
6	DG9 % calls abandoned	%		1.1		1.1	
7	DG9 % calls receiving engaged tone	%		0.4		0.4	
8	Security of supply index (dry year annual average planned levels of service)	nr	100	100		100	
9	Security of supply index (critical index)	nr		100		100	
B	**Quality and environmental compliance**						
10	% distribution input covered by section 19 undertakings at water treatment works	%		21.4		0.0	
11	% distribution input not affected by section 19 undertakings or temporary relaxations or authorised departures	%	97.7	78.6		100.0	
12	% of properties in water supply zones affected by section 19 undertakings in distribution or authorised departures	%		0.0		0.0	
13	% mean zonal compliance with drinking water regulations	%		100.0		100.0	
C	**Serviceability to customers (maintaining asset systems fit for purpose)**						
14	Below ground assets assessment – infrastructure pipelines	Text	MARGINAL	STABLE		STABLE	STABLE
15	Surface assets assessment (non-infrastructure)	Text	STABLE	STABLE		STABLE	STABLE
D	**Carbon accounting**						
16	Carbon emissions produced in providing the service	ktonnes/yr			47.2	45.6	
17	Other GHG emissions (as CO_2e) produced in providing the service	ktonnes/yr			2.3	2.4	

Table A3 **Sewerage service – current performance and planned outputs**

		Units	2002-03	2007-08	by 2009-10	by 2014-15	by 2019-20
A	**Service performance**						
1	DG5 properties at risk of flooding (2 in 10 years)	nr	341	126		40	35
2	DG5 properties at risk of flooding (1 in 10 years)	nr	510	217		70	75
3	DG5 properties at risk of internal flooding (1 in 20 years)	nr		72		68	93
4	Properties internally flooded due to overloaded sewers excl. severe weather	nr		54		42	49
5	DG5 properties internally flooded in year due to other causes	nr	85	104		84	86
6	Areas flooded externally due to overloaded sewers, excl. severe weather	nr		174		171	179
7	Areas externally flooded in year due to other causes	nr		1,270		1,589	1,327
B	**Quality and environmental compliance**						
8	% intermittent discharges satisfactory	%	89.0	99.4		100.0	
9	% bathing waters not meeting "excellent" quality	%		10.6		6.4	
10	% bathing waters not meeting "good" quality	%		8.5		4.3	
11	% bathing waters not meeting "sufficient" quality	%		6.4		2.1	
12	% of sewage treatment works non compliant (Water Resources Act)	%		2.4		1.3	
13	% of sewage treatment works non compliant (UWWTD)	%		0.0		0.0	
14	% of total pe served by sewage treatment works in breach of Water Resources Act consent (LUT)	%		0.0		0.5	
15	% of total pe served by sewage treatment works in breach of Urban Waste Water Treatment Directive consents (LUT)	%		0.0		0.0	
C	**Serviceability to customers (maintaining asset systems fit for purpose)**						
16	Below ground assets assessment (infrastructure)	Text	STABLE	STABLE		STABLE	STABLE
17	Surface assets assessment (non infra)	Text	STABLE	STABLE		STABLE	STABLE
D	**Carbon accounting**						
18	Carbon emissions produced in providing the service	ktonnes/yr			99.0	93.5	
19	Other GHG emissions (as CO_2e) produced in providing the service	ktonnes/yr			60.5	55.0	

Table A4 Water service – key activity projections

		Units	Activity in AMP5 period relating to base service	Activity in AMP5 period relating to enhancements	Total planned activity in AMP5 period	Profile of activity	Total planned activity in AMP6 period
A	**Key activity projections – water resources**						
1	Length of raw water aqueducts refurbished	km	0	0	0	Stable	0
2	Work on dams and impounding reservoirs	nr	1	1	2	Peak in yr 5	0
3	Capital investment in aqueducts, dams and impounding reservoirs	£m	6	7	14		11
B	**Key activity projections – water treatment**						
4	Number of refurbished or new treatment works	nr	16	3	19	Stable	19
5	Ml/day of refurbished or new treatment works	Ml/d	152	71	223	Stable	223
6	Capital investment in refurbished or new treatment works	£m	51	55	107		48
C	**Key activity projections – water distribution**						
7	Length of mains renewed	km	271	26	297	Stable	371
8	Length of mains relined	km	39	63	102	Stable	39
9	Length of new mains	km	0	177	177	Stable	218
10	Refurbished or new district meters and pressure control valves	nr	45	190	235	Stable	257
11	Capital investment in underground water distribution activity	£m	115	161	276		198
12	Refurbished or new pumping stations	nr	4	24	28	Stable	27
13	Capital investment in refurbished or new pumping stations	£m	5	32	37		16
14	Refurbished or new service reservoirs	nr	12	9	21	Stable	29
15	Capital investment in refurbished or new service reservoirs	£m	26	39	65		29
D	**Key activity projections – management & general**						
16	Offices, labs, depots, workshops	m^2	0	0	0		0
17	Capital investment in offices, labs, depots, workshops and vehicles	£m	11	0	11		5
18	Capital investment in instrumentation, control and automation (ICA), telemetry and computers	£m	6	0	6		3
E	**Key activity projections – metering performance**						
19	Number of household meters renewed	nr			96,796	Peak in yr 2 to 3	82,215
20	Optional meters: households	nr			46,787	Falling	20,694
21	Selective meters: households	nr			116,360	Peak in yr 2 to 4	101,388
22	Percentage of households metered (at the end of the period)	%			67	Rising	79
F	**Total – water service**						
23	Total capital investment in the water service	£m	221	295	516		310

Note: line 23 includes £7m contribution for Wimbleball dam.

Table A5 **Sewerage service – key activity projections**

		Units	Activity in AMP5 period relating to base service	Activity in AMP5 period relating to enhancements	Total planned activity in AMP5 period	Profile of activity	Total planned activity in AMP6 period
A	Key activity projections – sewers						
1	Length of critical sewers renewed	km	12	1	13	Stable	13
2	Length of critical sewers renovated	km	55	1	56	Stable	86
3	New critical sewers	km	65	12	77	Stable	93
4	Length of non-critical sewers renewed	km	6	1	6	Stable	7
5	Length of non-critical sewers renovated	km	36	4	40	Stable	63
6	New non-critical sewers	km	136	13	150	Stable	150
7	Capital investment in critical and non-critical sewers	£m	59	63	122		131
8	Number of refurbished or new intermittent discharges	nr	7	2	9	Stable	63
9	Capital investment in refurbished or new intermittent discharges	£m	2	3	5		15
B	Key activity projections – sewage treatment and disposal						
10	Number of refurbished or new treatment works	nr	34	18	45	Stable	42
11	Population equivalent of refurbished or new treatment works	000	2,256	432	2,541	Stable	2,503
12	Capital investment in refurbished or new treatment works	£m	131	87	218		79
13	Number of refurbished or new sludge treatment works	nr	9	8	9	Stable	13
14	Capital investment in refurbished or new sludge treatment works	£m	28	18	46		15
C	Key activity projections – sewerage service						
15	Number of refurbished or new pumping stations	nr	8	2	10	Stable	14
16	Capital investment in refurbished or new pumping stations	£m	34	12	46		8
17	Number of refurbished or new sea outfalls	nr	0	0	0	Stable	0
18	Capital investment in refurbished or new sea outfalls	£m	0	0	0		1
D	Key activity projections – management and general						
19	Offices, labs, depots, workshops	m^2	0	0	0		0
20	Capital investment in offices, labs, depots, workshops and vehicles	£m	19	0	19		3
21	Capital investment in instrumentation, control and automation (ICA), telemetry and computers	£m	10	0	10		2
E	Total – sewerage service						
22	Capital investment in the sewerage service	£m	284	183	467		254

Table A6 **Efficiency improvements**

		Units	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
A	**Operating expenditure outperformance since PR04**												
1	Water operating expenditure outperformance	£m	2	1	0	3	2						
2	Water outperformance as a % of regulatory expectations	%	5	3	0	6	4						
3	Total adjusted water opex incentive revenue allowance	£m							2	1	1	1	1
4	Sewerage operating expenditure outperformance	£m	4	7	6	8	5						
5	Sewerage outperformance as a % of regulatory expectations	%	5	9	8	9	6						
6	Total adjusted sewerage opex incentive revenue allowance	£m							5	2	2	2	2
B	**Capital expenditure outperformance since PR04**												
7	Water service capex outperformance	£m	0	44	38	-7	-6	5					
8	Water service capex outperformance as % of regulatory expectations	%	-1	57	45	-10	-15	15					
9	Sewerage service capex outperformance	£m	-25	39	29	-1	14	23					
10	Sewerage service capex outperformance as a % of regulatory expectations	%	-25	35	29	-1	12	23					
C	**Water service – overall compounded efficiency improvements**												
11	Operating expenditure (base service)	%					0	0	0	-1	-2	-2	-3
12	Operating expenditure (enhancements)	%					0	0	0	-1	-2	-2	-3
13	Capital maintenance expenditure – infrastructure	%					0	0	0	0	0	0	0
14	Capital maintenance expenditure – non-infrastructure	%					0	0	0	0	0	0	0
15	Capital enhancement expenditure – infrastructure	%					0	0	0	0	0	0	0
16	Capital enhancement expenditure – non-infrastructure	%					0	0	0	0	0	0	0
17	Capital enhancement expenditure – meters	%					0	0	0	0	0	0	0
D	**Sewerage service – overall compounded efficiency improvements**												
18	Operating expenditure (base service)	%					0	0	0	-1	-2	-2	-3
19	Operating expenditure (enhancements)	%					0	0	0	-1	-2	-2	-3
20	Capital maintenance expenditure – infrastructure	%					0	0	0	0	0	0	0
21	Capital maintenance expenditure – non-infrastructure	%					0	0	0	0	0	0	0
22	Capital enhancement expenditure – infrastructure	%					0	0	0	0	0	0	0
23	Capital enhancement expenditure – non-infrastructure	%					0	0	0	0	0	0	0

Table A7 **Water service – expenditure projections**

	Units	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
A Base service levels (£/property served)									
1 Operating expenditure to maintain current services to consumers	£/prop	77	85	87	85	83	79	73	66
2 Expenditure on pipelines, dams and aqueducts to maintain current services to consumers – infrastructure	£/prop	47	31	20	30	30	25	25	30
3 Expenditure on surface assets (includes abstraction, treatment, pumping and service storage) to maintain current services to consumers – non-infrastructure	£/prop	76	53	32	47	49	59	48	43
B Enhanced service levels (£/property served)									
4 Additional operating expenditure for improving services to consumers	£/prop	0	0	0	0	0	0	0	0
5 Additional capital expenditure for improving services to consumers	£/prop	0	0	0	9	12	11	11	8
C Supply/demand balance (£/property served)									
6 Additional operating expenditure to continue to maintain and improve the balance between the water available and the demand from consumers	£/prop	0	0	1	4	4	5	5	5
7 Additional capital expenditure to continue to maintain and improve the balance between the water available and the demand from consumers	£/prop	25	21	7	16	20	35	30	29
D Quality enhancements (£/property served)									
8 Additional operating expenditure to meet new environmental and water quality standards	£/prop	0	0	1	2	2	2	2	2
9 Additional capital expenditure to meet new environmental and water quality standards	£/prop	27	17	13	3	10	18	12	3
E Enhancements – large projects (£/property served)									
10 Additional operating expenditure for large projects	£/prop	0	0	0	0	0	0	0	1
11 Additional capital expenditure for large projects	£/prop	0	0	0	9	38	61	81	81
F Water service totals (£/property served)									
12 Total operating expenditure	£/prop	77	85	88	91	89	86	81	74
13 Total capital expenditure excluding grants and contributions	£/prop	175	122	72	114	158	207	207	194
14 Average connected properties - water (excluding empty properties)	000	551	557	561	565	569	574	579	585
G Water service totals (£m)									
15 Total operating expenditure	£m	42	47	50	51	51	49	47	43
16 Total capital expenditure excluding grants and contributions	£m	96	68	40	64	90	119	120	114
17 Total capital grants, contributions and compensation for abstractions.	£m	2	2	1	2	2	2	2	2

Table A8 **Sewerage service – expenditure projections**

		Units	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
A	Base service levels (£/property served)									
1	Operating expenditure to maintain current services to consumers	£/prop	63	70	71	73	76	78	81	84
2	Expenditure on below ground assets (includes sewers and storm overflows) to maintain current services to consumers – infrastructure	£/prop	16	14	12	11	10	10	10	10
3	Expenditure on surface assets (includes sewage treatment & disposal and pumping) to maintain current services to consumers – non-infrastructure	£/prop	51	47	20	42	41	35	37	39
B	Enhanced service levels (£/property served)									
4	Additional operating expenditure for improving services to consumers	£/prop	0	0	0	0	0	0	0	0
5	Additional capital expenditure on improving services to consumers	£/prop	18	15	6	12	12	16	11	9
C	Supply/demand balance (£/property served)									
6	Additional operating expenditure to continue to accommodate and deal with increased waste water from consumers	£/prop	0	0	0	1	1	2	2	3
7	Additional capital expenditure to continue to accommodate and deal with increased waste water from consumers	£/prop	5	7	9	4	5	6	5	3
D	Quality enhancements (£/property served)									
8	Additional operating expenditure to meet new environmental standards	£/prop	0	1	2	3	3	3	4	5
9	Additional capital expenditure to meet new environmental standards	£/prop	27	44	22	9	15	23	10	2
E	Enhancements – large projects (£/property served)									
10	Additional operating expenditure for large projects	£/prop	0	0	0	0	0	0	0	0
11	Additional capital expenditure for large projects	£prop	0	0	0	0	0	0	0	0
F	Sewerage service totals (£/property served)									
12	Total operating expenditure	£/prop	63	71	74	77	80	83	87	92
13	Total capital expenditure excluding grants and contributions	£/prop	117	127	68	78	83	90	73	62
14	Average connected properties (excluding empty properties)	000	1,114	1,125	1,133	1,141	1,150	1,160	1,172	1,183
G	Sewerage service totals (£m)									
15	Total operating expenditure	£m	71	80	83	88	92	96	102	109
16	Total capital expenditure excluding grants and contributions	£m	131	143	77	89	95	104	85	74
17	Total grants and contributions received by companies from third parties	£m	5	3	3	3	3	4	4	4

Table A9 **Financial projections – public domain**

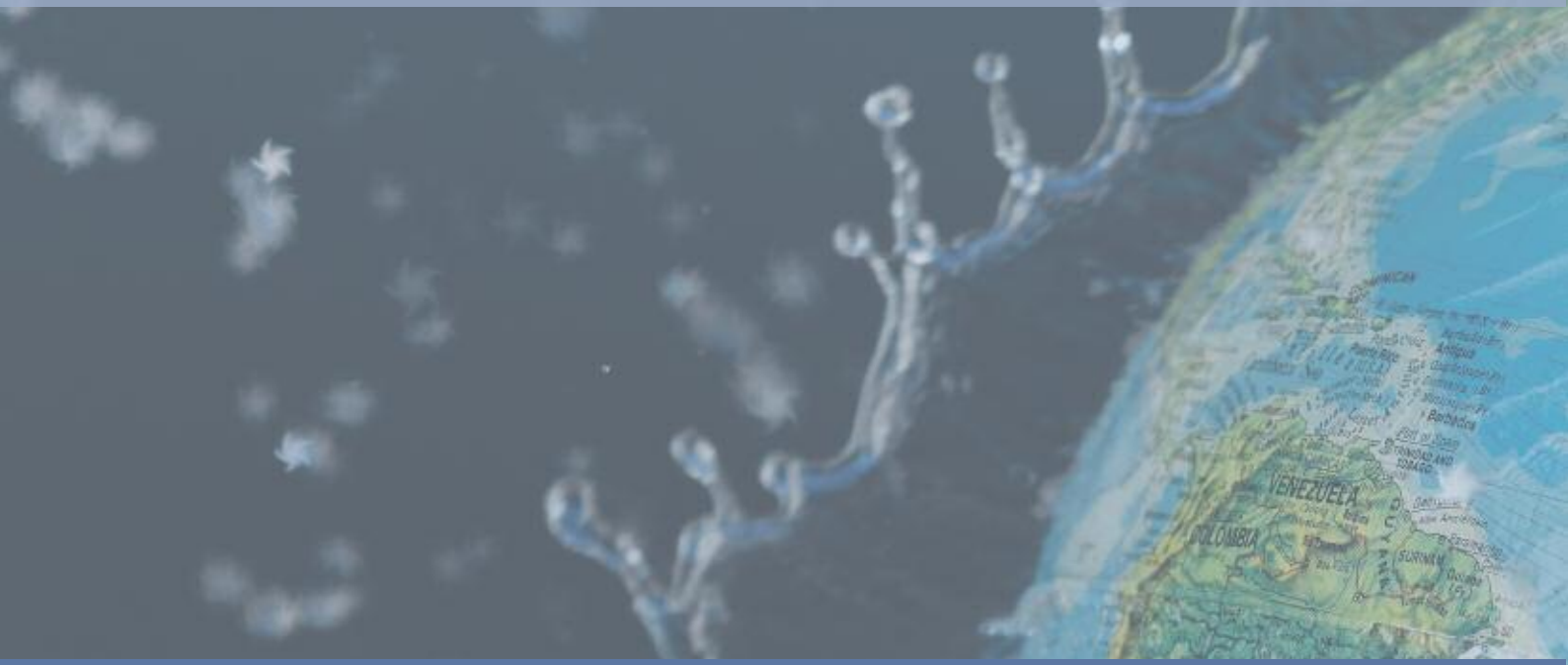
		Units	2007-08	2010-11	2014-15
A	Current cost profit and loss and financial indicators				
1	Turnover	£m	391	425	438
2	Operating costs	£m	113	139	152
3	Capital charges	£m	109	119	127
4	Operating profit	£m	168	166	159
5	Regulatory capital value-year end	£m	2,147	2,168	2,446
6a	Pre tax return on regulatory capital value	%	7.8%	7.7%	6.6%
6b	Underlying assumed cost of capital	%	5.8%	5.5%	5.5%

Table A10 **Water and sewerage services – summary of justification of company investment proposals**

		Contribution to annual average household bill in 2014-15 £/year	Net present value of costs arising from investment proposals in 2010-15 £m	Net present value of benefits arising from investment proposals in 2010-15 £m	Capital expenditure proposed for 2010-15 £m	Operating expenditure in 2014-15 £m/year
A	Water service					
1	The total plan for the water service 2010-2015	36	395	868	516	1
2	Investment proposals demonstrated to be cost-beneficial	26	395	868	238	1
3	Investment proposals shown to be non-cost-beneficial	0	0	0	0	0
4	Investment proposals not assessed	0	0	0	0	0
5a	Base service – no planned changes to service	4	N/A	N/A	222	0
5b	Supply/demand balance – no planned changes to service	6	N/A	N/A	57	0
B	Sewerage service					
6	The total plan for the sewerage service 2010-2015	19	273	599	467	4
7	Investment proposals demonstrated to be cost-beneficial	7	207	587	112	1
8	Investment proposals shown to be non-cost-beneficial	2	67	12	25	1
9	Investment proposals not assessed	0	0	0	0	0
10a	Base service – no planned changes to service	3	N/A	N/A	283	0
10b	Supply/demand balance – no planned changes to service	7	N/A	N/A	47	2

THE QUEEN'S AWARDS
FOR ENTERPRISE:
SUSTAINABLE DEVELOPMENT
2008

Designed by Wessex Water design services 1262
April 2009 Printed on recycled paper



Wessex Water
a YTL company

Registered office: Wessex Water, Claverton Down, Bath BA2 7WW
Telephone: 01225 526 000 Fax: 01225 528 000
Registered in England No 2366648

www.wessexwater.co.uk