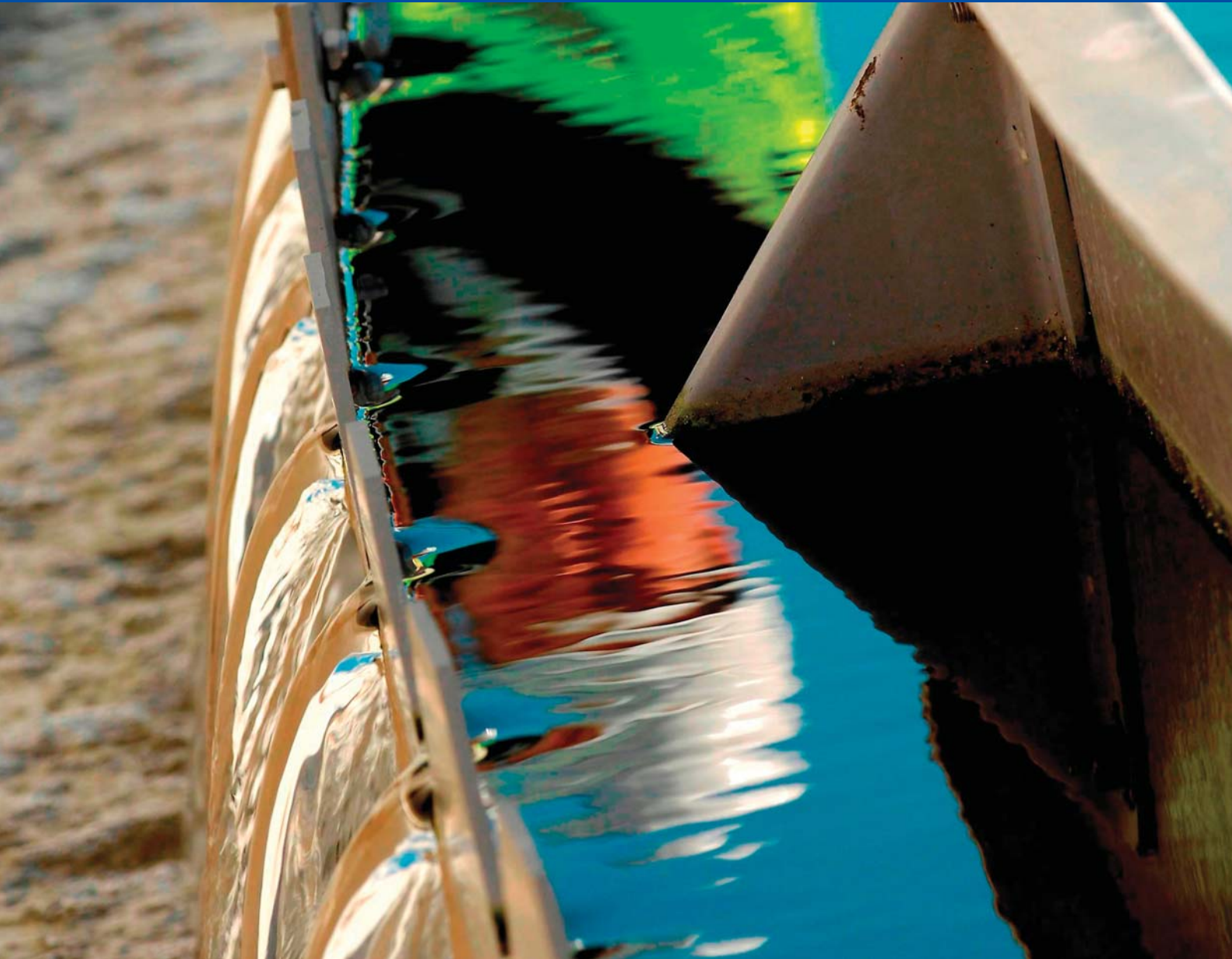


# Water Services, Customers and the Community



A Summary of Southern Water's Draft Business Plan for 2010-15



# At a glance

## What is happening to bills?

On average this Draft Business Plan proposes:

- An initial rise to take account of the higher running costs of the business - energy costs, tax and revenue corrections
- Thereafter prices are broadly stable before accounting for the National Environment Programme to meet European legislation

## For this we will...

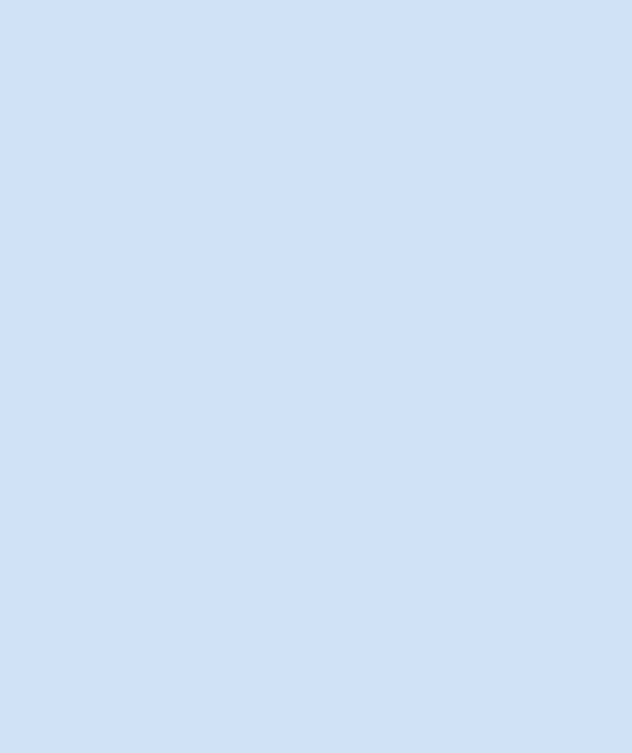
- 1) Enhance our asset base to give you resilient levels of service
- 2) Deliver the portfolio of Environmental Improvement Schemes required by European legislation
- 3) Provide new infrastructure to allow sustainable growth in the Southern and South East regions
- 4) Deliver full metering enabling you to take control of your bill
- 5) Reduce the number of properties at risk of flooding
- 6) Ensure that if you contact us we will resolve queries first time

## Next steps for us...

- Consult widely on this Draft Business Plan
- Provide a Final Business Plan in April 2009 that reflects the feedback from all customers and stakeholders

## Next steps for you...

Give us your feedback to the questions in this document (summarised inside the back cover)



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**Les Dawson**

Chief Executive Officer of **Southern Water**

## Executive summary

In this Draft Business Plan we provide a detailed assessment of what we plan to do to maintain and, where supported, enhance services and deliver the improvements imposed by European legislation under the National Environment Programme. This is for the benefit of customers and the community and will take place from 2010 to 2015.

In our Strategic Direction Statement (SDS), upon which we consulted last year, we set out our strategic plans for the next 25 years and this Draft Business Plan takes us towards the goals set out in that document. This is a draft and we therefore would like your views and feedback so we can listen and build your views into our Final Business Plan which we will submit to Ofwat in April 2009. Throughout this document we provide a series of questions and your feedback on these and on any other areas of our plan is essential.

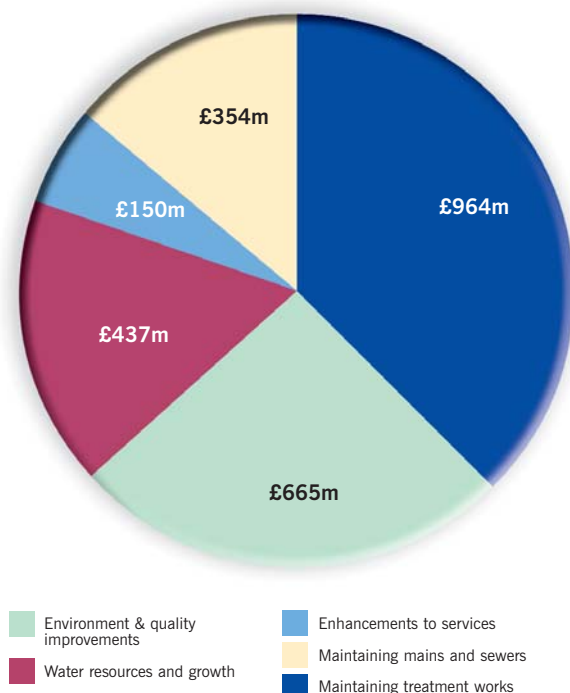
We must deal with several issues that drive the need to invest further in our asset base and we have prioritised our capital investment programme to ensure that:

- We maintain our existing assets properly to ensure that we can provide resilient services in a changing environment
- We provide value to customers by delivering cost beneficial enhancements to service
- We meet the environmental quality improvements driven by European legislation
- We provide infrastructure in a timely manner to enable growth

We said in our SDS that investing efficiently to achieve these goals would require an integrated

plan and this is what we have defined in this Draft Business Plan. Our draft investment plan amounts to £2,742 million at today's prices but, after projected efficiency, we believe we can deliver this for £2,570 million.

**£2,570 million of capital investment 2010 - 2015  
(at 2007-08 prices)**



The investment identified represents an increase of about 25 per cent compared to the previous five-year period from 2005-2010. Wherever possible we have phased our plans to reduce the impact on customers' bills and to provide a steady programme over the 25-year planning horizon. We have profiled investment according to customer needs and where we have deferred it we provide an explanation in the remainder of this consultation.

To finance this programme bills will need to increase above inflation, although these changes to bills are not only driven by investment. Increasing energy prices are a major cost to our business and will also drive bills upwards. On the positive side the cost of financing the business has reduced slightly compared with 2005-2010 and this has helped keep down bills.



| <b>Water</b>                             |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|
| Year                                     | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Average |
| Change to prices excluding inflation (%) | 15.0    | 1.9     | 1.2     | 0.1     | -0.2    | 3.4     |
| Average household bill (£)               | 140.66  | 143.86  | 145.66  | 145.94  | 145.67  |         |

| <b>Wastewater</b>                        |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|
| Year                                     | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | Average |
| Change to prices excluding inflation (%) | 14.7    | 3.0     | 3.3     | 4.5     | -0.3    | 4.9     |
| Average household bill (£)               | 260.57  | 266.79  | 273.24  | 282.80  | 280.65  |         |

We have not opted to smooth the fluctuations in prices because to do so would reduce some key financial ratios and therefore require additional financing resulting in higher overall increases in bills to customers. Is this what customers prefer?

We recognise that some of the investment to make further improvements to the environment is supported by customers. We are currently assessing the costs and benefits of this proposed investment.

We are formally consulting on this Draft Business Plan until 31st October 2008 and your suggestions and responses to the questions asked here, can be e-mailed to PR09@southernwater.co.uk or posted to:

PR09 Consultation  
**Southern Water**  
 Southern House  
 Yeoman Road  
 Worthing  
 BN13 3NX

Thank you for taking the time to do this.

**Les Dawson**  
 Chief Executive Officer  
 Southern Water



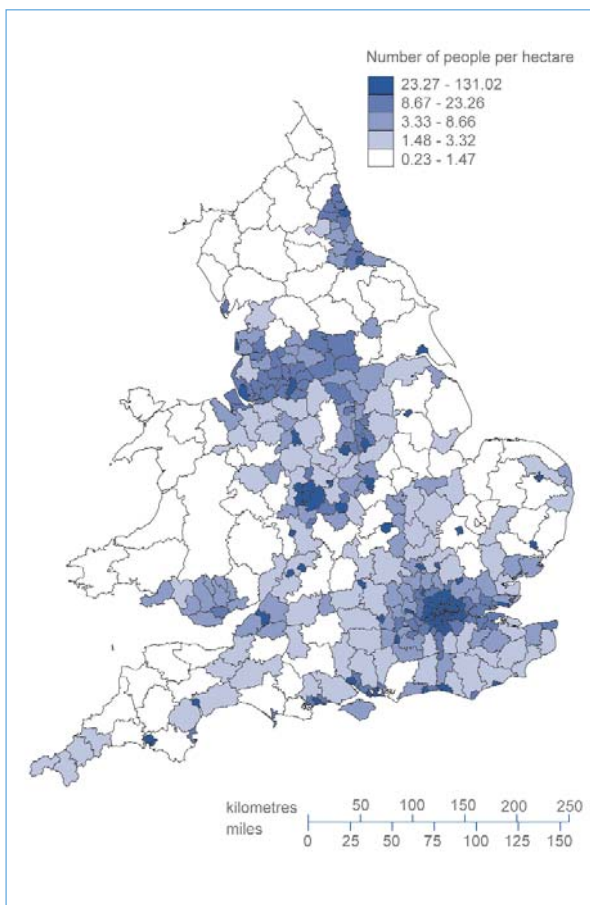
We supply services to a part of the country that has many different issues to manage compared with other areas. We have looked carefully at these now and over the 25-year horizon of our SDS so we can plan to ensure that we are best prepared to meet future challenges.

The three key characteristics that make managing water services in the South East different, and of which this Draft Business Plan takes account, are:

**Population density + small catchments**

- We have a high number of small drainage catchments, which means we have less flexibility to recycle wastewater to the environment
- We have a high population density, which compounds the demand for scarce water resources during droughts. It also means we need to treat wastewater to a very high standard so as to avoid nuisance and environmental damage.

**Population density**



**Climate change**

- Although this is a global problem, the South East of England faces the biggest impact from climate change in the UK, resulting in more climate variability, both in terms of potential drought periods and flooding from more frequent intense rainfall. This plan ensures our assets remain resilient to these anticipated changes in weather so that we can deliver water on tap – a safe, secure, reliable supply for our customers to use wisely. For wastewater services this plan will reduce the risk of the flooding problems as witnessed in 2007.

**Future growth**

- The South East region faces some of the largest growth projections in the UK, as the government continues to focus on the housing shortage in the area. Although there may be a current economic downturn, the assets in which we need to invest will last a lot longer than any economic cycle. Therefore, we need to ensure that we provide for growth in demand with a sensible view, which incorporates long-term housing projections.

This Draft Business Plan takes into account all known challenges over the next 25 years. By making sure we plan our investment to take place at the right time and to the right extent, we will avert the need for sudden bill increases. We will strive to identify cost savings in every part of our business and share any benefits with customers.

## Calendar of events to price setting

### October 07

**Draft Strategic Direction Statement consultation**  
We looked at the feedback from customers through our day-to-day contact and we carried out some additional research using focus groups to identify our customers' priorities and willingness to pay.

### April 09

**Final Business Plans**  
Taking into account the views you express on this publication, we will then submit our Final Business Plan, an application to Ofwat for prices to be set for the period 2010-2015.

### December 07

**Strategic Direction Statements (SDS)**  
We refined our draft SDS taking into account the views of customers, which resulted in some changes in our approach. Generally, we received widespread support for our strategy.

### July 09

**Draft Determinations**  
Ofwat will publish its views on our Final Business Plan and provide an assessment of future prices for consultation.

### April 08

**Draft Water Resource Management Plan consultation**  
Our Draft Water Resources Plan set out the first detail of how we plan to secure water supplies to customers. It involves correcting an initial imbalance where in some dry years demand can exceed supply necessitating restrictions and then focuses on ensuring that reliable supplies are maintained into the future.

### November 09

**Final Determinations**  
Ofwat will determine how much we can charge our customers for the period 2010-2015. If we feel strongly that our maintenance and improvement plans cannot be delivered within the Ofwat price structure, we can appeal to the Competition Commission.

### August 08

**Draft Business Plan consultation**  
This is where we are now, consulting on the Draft Business Plan that takes into account all aspects of our business. We have undertaken further customer research to identify if customers are willing to pay for further enhancements. This has formed a key part of our cost benefit assessment, which has helped us shape our Draft Business Plan and prioritise proposals. We have suggested a programme to maintain and enhance service levels.





## Where we are now

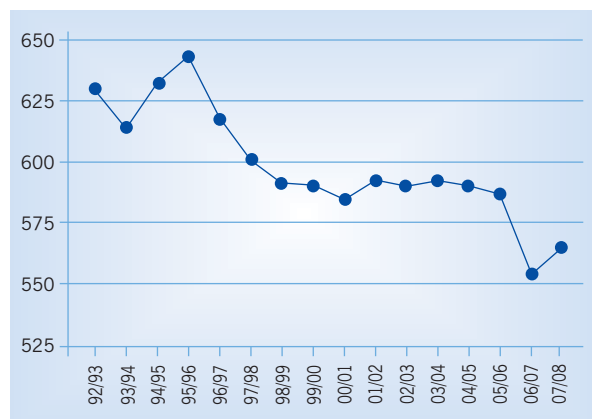
Since privatisation, the water industry in England and Wales as a whole has made substantial improvements to the services it provides, both for customers and for the environment. These changes have been made against the backdrop of an increasingly volatile environment, making the delivery of stable and resilient services more challenging.

### Water

Over the past ten years our efforts to reduce our demands on the environment have clearly been successful, as demonstrated by the reduced amount of water put into supply, charted below.

The reduction has been achieved through reduced leakage and greater water efficiency offsetting the growth in demand from increasing population. It emphasises the effectiveness of our proposal for measures such as full metering, education and leakage control as the initial response for the future.

Water put into the network in millions of litres per day



However, this is just one side of the equation. The supply of water has also been coming under pressure because of reduced abstraction rights to help protect biodiversity and the environment, and by climate change that has rendered some of our supplies less reliable than previously. This creates a risk that demand may rise and exceed supply in dry years, resulting in the need for hosepipe bans more frequently than desired, for example in Kent and Sussex up to four times every ten years.

### Wastewater

There is evidence of emerging changes in climate over the past decade. In 2000 we witnessed floods in the South of England because of the most

sustained wet period since records began. Further catastrophic flooding in Gloucestershire, Oxfordshire and Berkshire in 2007 left 350,000 people without mains water supply for up to 17 days<sup>1</sup>.

The Chief Constable of Gloucestershire at the time said of the floods: “In terms of scale, complexity and duration, this is simply the largest peace-time emergency we’ve seen.”

Flooding of domestic properties is a human disaster for those affected, involving as it usually does contaminated floodwater, significant damage to the fabric of the buildings and loss of property, with extended periods of living in temporary accommodation. Economic damage to commercial and industrial property can also be significant and long-lasting.

We will continue to modify our networks to improve resilience to sewer flooding in the face of increased climate volatility.

Wholesale replacement of sewerage systems is not possible in the short term and would drive huge increases in bills so we are prioritising our efforts. Making the right changes to the asset base over the long-term can make a difference and this plan is the first step.

We also plan to reduce the environmental impact of many of our wastewater treatment works. We have to balance the short-term investment costs against long-term operations costs of new processes, taking a view on future energy prices, carbon emissions and climate change impacts.

We have planned to meet these challenges appropriately and flexibly – not by investing in over-expensive “fail-safe” solutions, but by considering the risks and by actively looking for opportunities to make modifications as needs change in the future.

We are becoming increasingly aware of the potential consequences that serious bad weather events can have on our operations. We have looked at how best to ensure that key assets are resilient

<sup>1</sup> Pitt Report – Lessons Learned from the 2007 floods



Leakage detection methods

to extended periods of wet or dry weather, to help us deliver stable services against a back-drop of climate change.

We will invest to deal with these challenges and achieve a resilient level of service for customers.

**Our performance record – a review since 2005**

We have worked hard to progressively achieve stable services. This has been recognised in our latest serviceability assessment from Ofwat.

Where we have been assessed as “stable”, Ofwat is satisfied that we are managing our assets in an effective and efficient way. Where the assessment is “deteriorating”, Ofwat believes there is evidence that some aspects of the service are not keeping pace with developments and insufficient or ineffective investment has been made. A

“marginal” assessment indicates that there is no firm evidence of deteriorating service but some evidence is available that would make a “stable” assessment doubtful.

This year, for the first time, we achieved a stable service assessment grade for our above-ground sewerage assets. We achieved this by further increasing focus on the front line operations of our business, better understanding of what has been causing works consent failures and targeting significant extra investment in these areas as a priority.

This stable performance is measured against a backdrop of tighter discharge consent standards for our wastewater operation as illustrated opposite. This means that not only have we achieved a stable service to customers but we have delivered real benefits to the environment in terms of cleaner rivers and bathing waters.

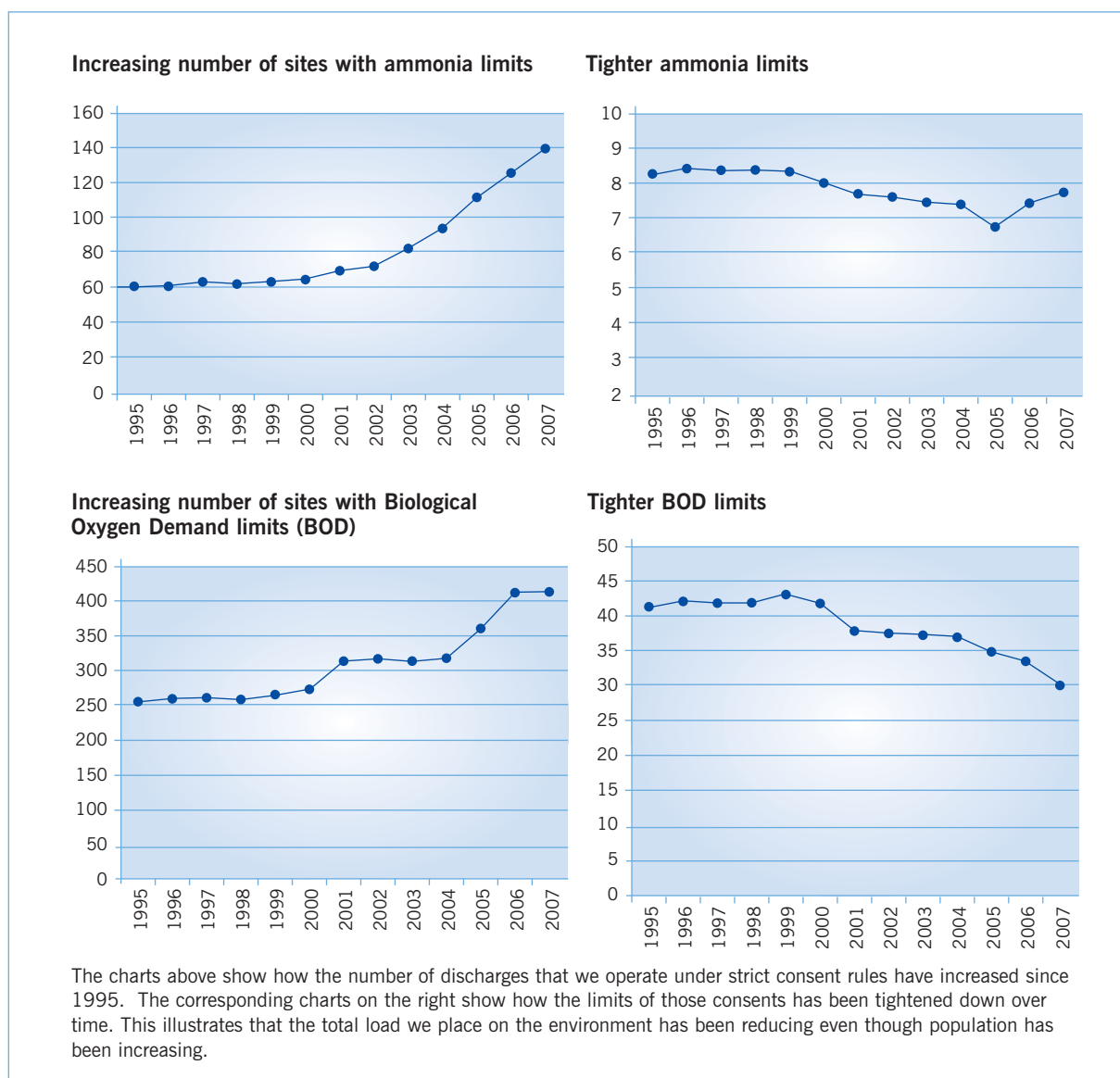
|                              | 2005          | 2008                |
|------------------------------|---------------|---------------------|
| Water underground assets     | Stable        | Stable              |
| Water above ground assets    | Stable        | Stable              |
| Sewerage underground assets  | Marginal      | Stable <sup>2</sup> |
| Sewerage above ground assets | Deteriorating | Stable              |

**Pioneering delivery mechanism**

Improvements have been achieved through an efficient procurement model, which has enabled us to deliver major capital investment to the assets which most need them. We must drive out further efficiencies to offset the real cost pressures of our operations. Between 2005 and 2008 we planned and implemented projects at a faster rate than any other UK water company. At the time of writing this plan we are significantly ahead of our planned schedule of work.

<sup>2</sup> Based on our assessment, Ofwat's preliminary assessment at the time of print was “marginal”

**Reducing environmental impacts whilst managing growth**



We always retain responsibility for our work and we have developed a very positive relationship with contractors in our supply chain. The extent of review and interference in contractors' programmes has been reduced, allowing them to deliver the outputs we set at a lower cost.

We always seek the best market value when we make our investment decisions and, having reviewed our performance against other models, there is no doubt that this procurement model is successful and efficient. We also encourage our contractors to work directly with the community to keep them informed of any work in their neighbourhoods.

**Customer service**

Our focus on customer service during 2005-10 has seen the introduction of a major new billing system. We are now focused on delivering the additional benefits to customers from this system, such as:

- a) access to information to give "right first time" solutions when customers call us
- b) e-business with customers
- c) billing cost reductions

We have continued to gather customer feedback as part of our contact centre operations. Your feedback, along with other customer research, has, therefore, guided our Draft Business Plan.

## How we have developed our plan

In our 25-year Strategic Direction Statement (SDS) we set out how we would prepare this five-year Draft Business Plan in the context of the longer term. We also explained the key principles we would consider when assessing how to prioritise our investment.

We stated that our key objectives were to:

- Provide value to customers
- Deliver resilient services
- Enable sustainable growth

In addition to the customer feedback we receive on a daily basis, we held focus groups with customers to discuss what you preferred and, more importantly, what you disliked. We published our final SDS, which incorporated this valuable information in December 2007.

To provide further detail to develop this Draft Business Plan – the first five years of our 25-year strategy – we also held in-depth interviews with more than 1,500 domestic customers and 300 business customers. This gave us valuable information across a range of areas, including the level of support and willingness to finance a programme of desired improvements.

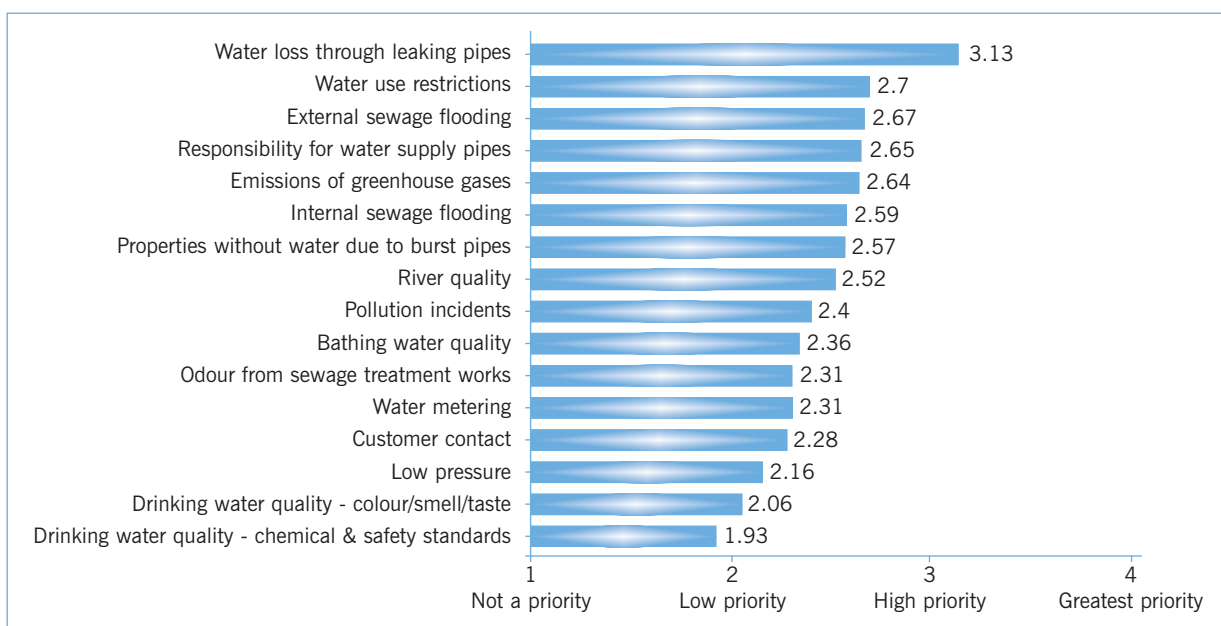
We used this feedback to balance a range of capital investment options for maintaining and enhancing specific service areas. We developed a library of investment options that totalled more

than £7 billion. We looked at the cost of maintaining our current levels of service, and then selected further enhancement schemes against the following criteria:

- To be part of a cost-effective plan to meet growth in the South East region
- To deliver changes to services for which customers are willing to pay
- To improve the resilience of services
- To achieve the compulsory National Environment and Quality Programme in line with European legislation

The feedback we have received so far identifies the priorities that customers place on services we provide. We have also researched the improvements for which customers are willing to pay because once the cost of improvements is understood, priorities can change. We provided customers with an initial estimate of how much improvements in a number of service areas might cost and we let them decide which improvements were value for money.

### Customer priorities for improvements



**Total Capital Investment £m (pre-efficiency)**

|                          | Water      | Wastewater   | Total        |
|--------------------------|------------|--------------|--------------|
| Quality                  | 72         | 639          | 711          |
| Growth                   | 174        | 292          | 466          |
| Enhancements             | -          | 160          | 160          |
| Above ground maintenance | 205        | 824          | 1,029        |
| Below ground maintenance | 168        | 208          | 376          |
| <b>Total</b>             | <b>619</b> | <b>2,123</b> | <b>2,742</b> |

Following the publication of this Draft Business Plan and taking account of your feedback, we will continue to assess service improvements for which customers may be willing to pay. We will look further at:

- Sewer flooding
- Odour control
- The National Environment Programme
- Carbon reduction plans
- Resilience
- Water use restrictions
- Poor pressure
- Pollution incidents

We have included investment to enhance services, in particular in the areas of sewer flooding, odour control and carbon reduction. We think these improvements are supported by customers.

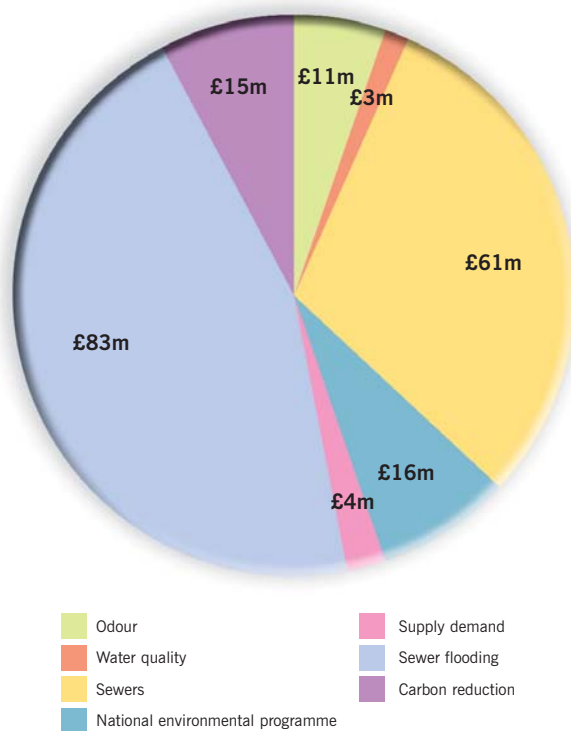
Where we have assessed that feedback from customers justifies the inclusion of schemes in our Draft Business Plan, we have had these assessments independently checked for consistency.

Our draft investment programme is reflective of customer priorities. In most areas we have been able to include projects that will deliver the improvements you want at the price you are prepared to pay. But some improvements exceed your indicated willingness to pay and where this is the case we have removed these projects from our current five-year proposed programme of investment.

**Changes in our plan arising from consultation**

We have made some changes to our plan as we have received feedback from customers. For example, customers and stakeholders asked for more information on what we were doing to serve new developments in the South East. We have explained our approach further in this summary of our Draft Business Plan.

**Investment supported by customers**



**So what do you think of our plan?**

Our Draft Business Plan is our interpretation of the feedback you have given us and we would like to know if we have reflected your priorities correctly. The following pages set out what we propose to deliver from 2010-2015 so please take the time to give us your views via questions at the end of each section.

➔ ➔

# Drinking water quality

Over the past 20 years significant investment has been made to improve drinking water quality. In the future, many of the assets in this area will progressively need replacing to keep the high standards of water quality we currently provide.

**Your feedback from the SDS was:**

- Support for our aim for all our drinking water to meet Drinking Water Inspectorate (DWI) standards
- Agreement with our plans to progressively remove lead pipes from our network, integrated with other activities
- Support for the increase increase in pipe replacement

**Drinking water quality improvements proposed 2010-2015**



The provision of excellent quality drinking water to our customers' homes and businesses is at the very heart of our business. Our customers rightly expect this service on a day-to-day basis. However, in some pockets of our system, we still have more to do to achieve this high standard for all our customers.

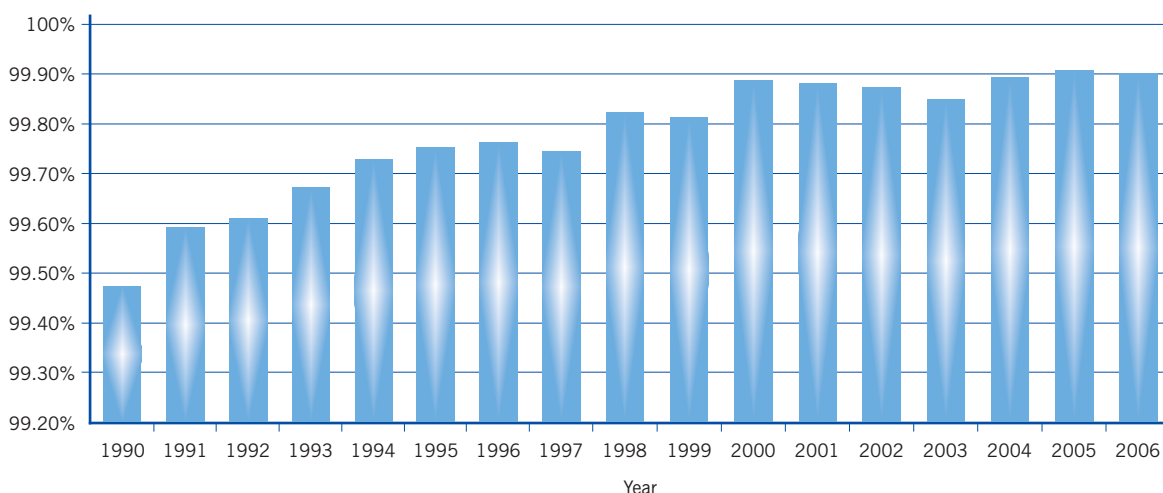
In our SDS we said that lead pipe replacement was the best way to achieve the new standards on the lead content in water which come into effect in 2013. We remain of this view and we will replace lead communication pipes as we find them during mains replacement.

Until we have removed sufficient lead from the system we will continue to treat supplies to ensure that water meets the new standards.

### Improvements to water quality

We have included £26 million of investment to reduce iron levels in water supplies and to reduce discolouration. This requires replacing corroded water mains in a number of supply areas to eliminate iron deposits in the water. We have discussed these schemes with the Drinking Water

### Overall compliance with water quality standards



Inspectorate (DWI) and have received initial support for these solutions.

In a number of areas we face the continuing problem of deteriorating raw water quality in underground water sources. We need to enhance our treatment processes so that we can continue to supply excellent quality drinking water. We have included in our Draft Business Plan £11 million to enhance treatment at four water supply works. The DWI has also provided provisional support for all of these schemes.

In addition to water quality improvements, we include in this section investment required to provide enhanced security and resilience to our critical abstractions and distribution points.

In total this represents £72 million of investment during 2010-2015.

**Do you support our proposals to further improve the quality of water?**

**Do you support the need to enhance the resilience of critical abstraction points in our network?**



# Metering, water efficiency, communication and supply pipes

Metering has been included in our Draft Business Plan because it is the most cost-effective way to secure supplies to customers in the longer term and will enable customers to control their bills. Communication and supply pipes carry water from the distribution network to your home as shown opposite.

## Key Facts – what’s in the plan

- Installation of over 500,000 meters by 2015 to achieve full metering
- An integrated communication pipe replacement programme
- Continued water efficiency education/promotion programme
- Total investment £146 million

We have tested different options in our Draft Water Resources Management Plan. Our conclusions are soundly based, with a range of cost assessments made to underline the robustness of the outcome.

People pay more attention to their water consumption when they pay only for the water they use.

Full metering will be backed by the development of appropriate additional water resources. Such developments are planned for later in our 25-year forecast once full metering has been achieved. If we had prioritised the development of resources before metering, not only would we have a more costly plan, driving higher customer bills, but we could possibly have unintentionally encouraged increased consumption of water.

## Key benefits

- Metering allows customers to take control of their bill
- It helps to balance supply and demand for water
- It improves water efficiency

## Feedback

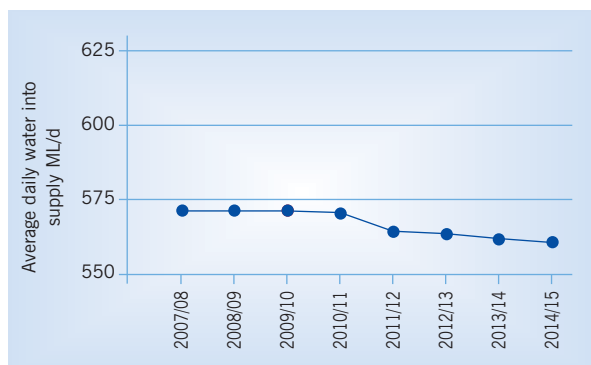
- Over 75% of customers supported our proposals to achieve full metering by 2015

We are, therefore, looking at the two issues of supply and demand but with the emphasis on demand measures in the first five-years.

By structuring our programme in this way, we can be confident of delivering secure supplies at the lowest cost, while minimising the amount of water we take from the environment.

Metering is a good example of how we are working hard to integrate our investment plans and take account of environmental issues to deliver better services to our customers.

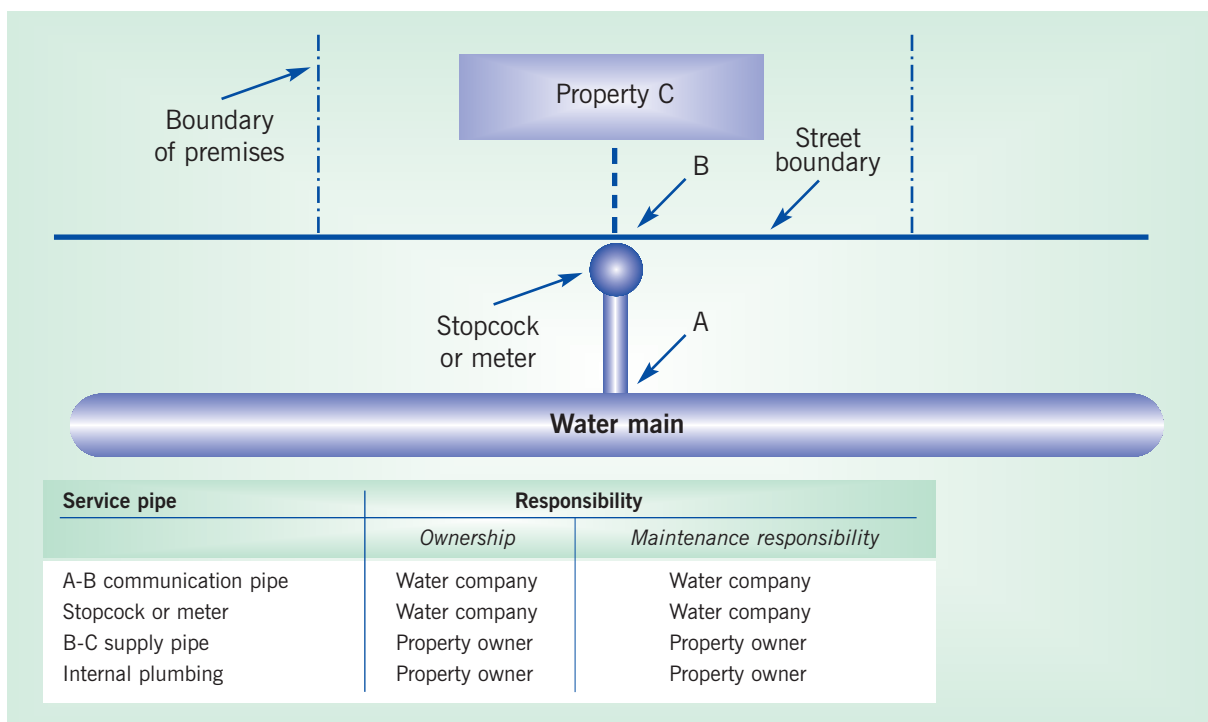
## Average daily demand for water



Future Water, a consultation paper recently issued by the Government, refers to the need for all stakeholders to properly value water. Metering is essential to this aim. The metering programme will provide us with the opportunity to assess the condition of over 500,000 water pipes belonging to our customers. If these pipes, called supply pipes, are in a poor state, we will repair them free of charge while on site.



**Ownership and responsibility for supply pipe maintenance**



Metering will also drive up the amount of replacement of communication pipes (from the main to the customer’s boundary) and we have made allowances for this in our Draft Business Plan. By collecting data on the condition of these pipes while installing meters, we can model and predict the rate at which pipes deteriorate. This will help guide our future replacement programme and help us replace “at risk” pipes and drive down leakage.

We stated in our Strategic Direction Statement that we think it would be better for customers if we took on the ownership of supply pipes and that we would promote this to Government. Our metering

programme will give us a better understanding of the condition of many of the supply pipes and allows us to assess the likely financial impact of taking on responsibility. Customers were very supportive of this proposal and we will pursue this in line with our Strategic Direction Statement.

We will provide water efficiency education and awareness to support our metering programme. As we move progressively towards paying on the basis of the amount of water used it is important to provide more information and education on water efficiency.

We will be reviewing our metered tariffs to ensure that customers can influence their bills. We will consider rising block and seasonal tariffs to ensure that essential and discretionary use of water is appropriately priced.

**Our water efficiency awareness programme will have three main themes:**

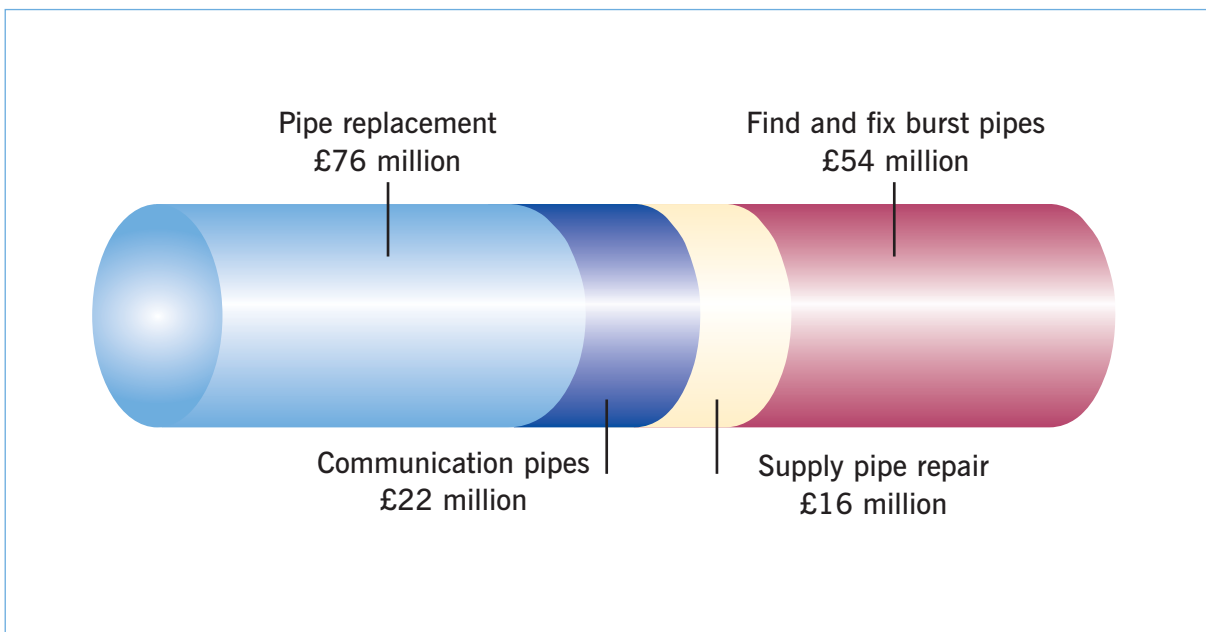
- Target schools - children can get the water efficiency message back into the home and encourage good practice
- Support and promote water efficiency in the home and garden through events and advice
- Provide free water efficiency audits to business customers to help advise them on how to cut water consumption

**Do you support our efficient pace of metering to achieve full coverage by 2015?**

## Leakage and underground assets

Continued and proactive maintenance of the underground network is critical to the success of delivering reliable services to your home. Our network requires increased investment to maintain the current levels of service.

### What's in our plan



#### You said

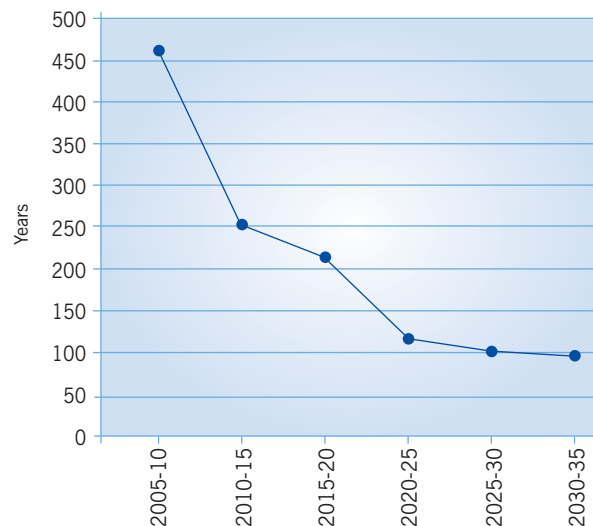
- Leakage is a waste and should be reduced
- Southern Water should prioritise investment in water pipes

Throughout our customer research we have asked for customers' views on our approach to leakage. We have the lowest leakage rate per property of all the UK water and sewerage companies, yet there was an overwhelming view that leakage could and should be reduced further.

We will make further reductions in leakage during the period 2010-2015. Reductions will arise from our metering programme, which allows us to detect and repair leaking pipes during the installation process. With full metering we will be able to quickly detect and repair leaks as they occur and this will make leakage reduction more efficient.

Our Strategic Direction Statement highlighted that our current renewal programme for the network

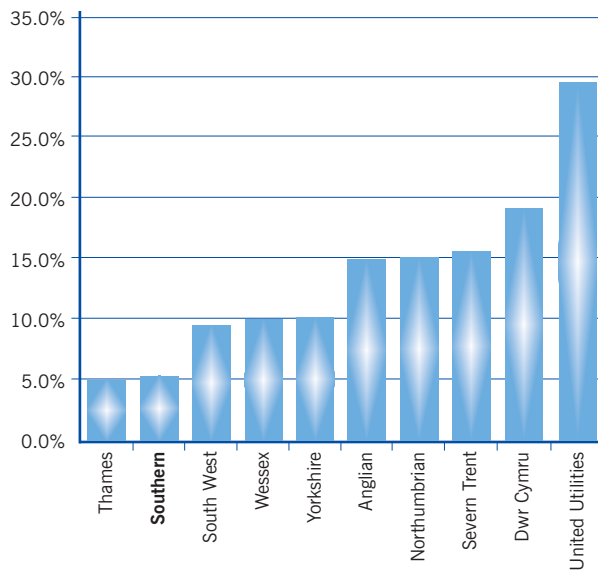
#### Implied life of pipes



(pipes and sewers) is one of the lowest in the UK and our Draft Business Plan allows for improvements here. Low rates of renewal per year are not sustainable.

Our risk-based approach to planning maintenance to our network indicates that we need to be

**Percentage of network replacement since 1991 compared to other companies**



replacing about 125km of mains per year which implies an average life of water pipes to be about 100 years. Our replacement rates to date are closer to 30km per year which implies an average life of 450 years.

We recognise that the scale of the increased pace of replacement is significant and that a step change could drive up bills. We have, therefore, included an increase to 70km per year that enables us to move progressively towards a more appropriate renewal rate. We plan our review and replacement programme in an integrated way with the other enhancement programmes.

**Do you support the continuing drive to reduce leakage from today's level of 15% towards the SDS target of 10%?**

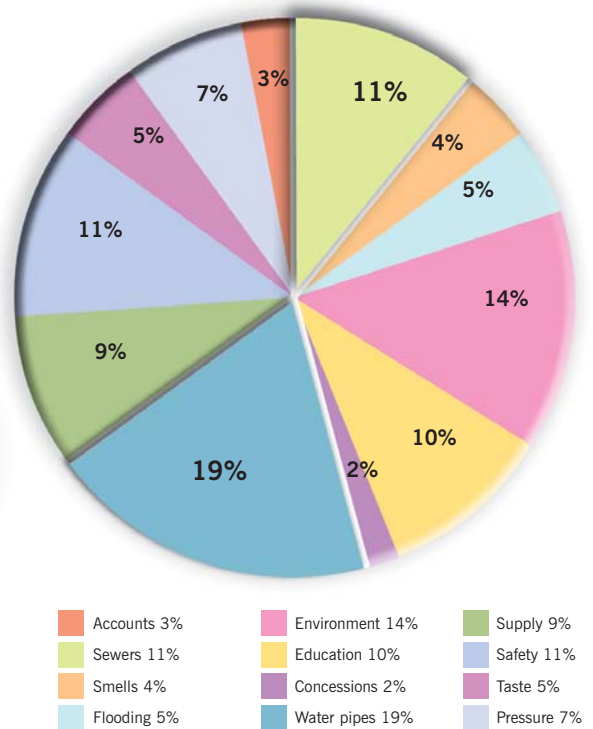
**Are we right to increase the speed of our network renewal programme?**

### Brighton and Hove Mains Renewal

*“The North Laine Traders would like to thank Southern Water for the brilliant liaison work carried out in the city centre of Brighton. You have made what could have been a very difficult couple of years into a bearable event. It was never going to be easy digging up most of the commercial streets in the city centre to lay the mains, but your good communications and accommodating workforce have smoothed the way wonderfully.”*

Peter Stocker, Co-ordinator, North Laine Traders

**Customers prioritise water pipes and sewers for future investment**



# Water resource development

Customers expect our water supply system to be robust and resilient, whether during drought or in times of flood. We aim to deliver this service.

Our Draft Water Resources Management Plan was published in April this year setting out plans for managing the balance between supply and demand. The investment required to deliver that plan is included in this Draft Business Plan.

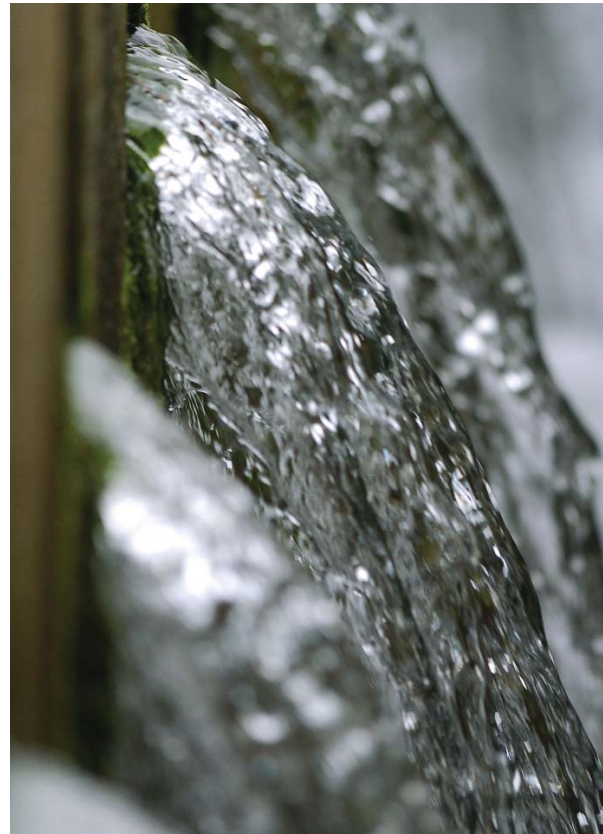
The Draft Water Resources Management Plan provides the optimum solution to balancing supply and demand.

Actions to correct the deficit include:

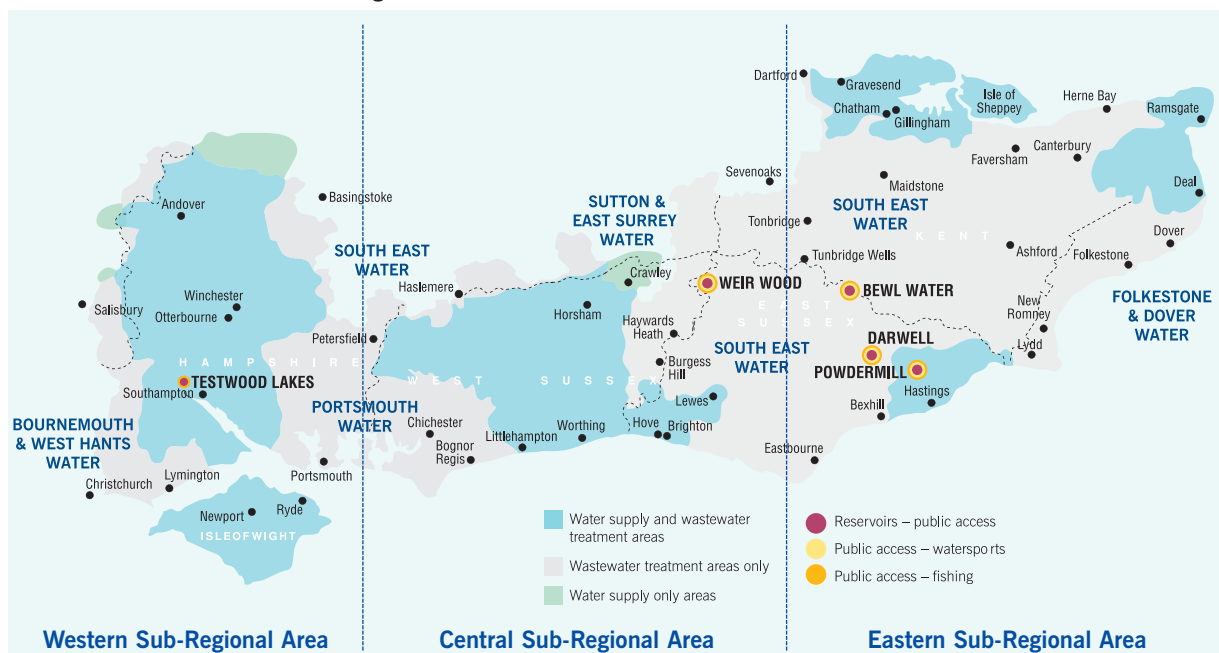
**Managing demands** - the metering and water efficiency programme will have a marked impact on demand not only through reduced household consumption but through reduced leakage too.

**Transfers** - we have ensured that we have made the most of available resources and we have utilised transfer options where they are more cost effective than building a new resource.

We have consulted other water companies within the region to understand both where water is available for our use or where we have supplies that can be offered without reducing the service delivered to our customers.



## Water Resource Zones and Sub-Regional Areas



**Additional resources** - in some areas the optimal solution includes the need to build additional resources such as abstractions from underground and, where necessary, we have included these in our plan improving our ability to transfer water from areas in surplus to areas in need.

### Population growth

The population in the South East is forecast to grow by as much as 13% over the next 25 years. If we and our customers adopt careless water use practice and consumption of water per head is not contained, this level of growth will put a significant strain on both water resources and our supply infrastructure. We predict that in such circumstances demand for water could increase by 49 million litres a day.

With the introduction of our metering programme and a major focus on helping our customers to adopt more water efficient practices, we expect to limit this increase to 29 million litres a day, whilst still providing plentiful and wholesome water supplies.

We may be going through a period of climate change with a pattern of warmer and drier years which would have a significant impact on our surface water supplies. Using the latest climate change scenarios from experts in this field, we

could lose an average of 33 million litres a day of supply capacity between now and 2035. These figures have been incorporated into our Draft Water Resources Management Plan published earlier this year. The climate change challenge requires mitigation and adaptation. We adapt to climate change by supporting water efficiency and managing consumption through the development of water efficient products. We will mitigate the impacts of climate change by ensuring that supplies are provided to match forecast growth in demand.

Our investment programme to develop additional water supplies or make use of transfers for 2010 – 2015 is budgeted at £26 million with a further £161m proposed between 2015 and 2035.

#### In summary in our Draft Business Plan we propose to:

- Maintain target levels of service to our customers i.e. a hosepipe ban on average, no more than once every ten years
- Combine on going maintenance work and new initiatives to reduce abstractions and preserve existing water supplies
- Focus on our ability to move water around the region and into areas at risk of shortages, by improving pipeline link between separate systems
- Provide more than 30 million litres of water per day (Ml/d) to areas which are most at risk from water shortages
- Implement a £26.2 million investment programme to develop additional resources in the more water-stressed areas

### Kent Water Pipeline to Supply Thanet

*"...it is great that Southern Water has taken action to improve water supplies in the Thanet area. While schemes like this are expected to bring about real improvements, it is also important we all remember the water efficient tips we learnt over the last two summers and continue to use water wisely."*

Dr Stephen Ladyman, MP for Thanet South

## Sewer flooding

Between 2005 and 2010 we are spending more than £90 million on alleviating the devastating effects of floods to properties. We are currently ahead of our target to remove 259 properties from our “At risk” register and to eliminate 402 instances of flooding directly outside properties. We propose a plan for 2010-2015 that continues this significant improvement.

### Feedback from you:

- Support for a continued sewer flooding prevention programme
- A strong willingness to pay for investment to reduce sewer flooding

We maintain registers of properties at risk of flooding over 1 in 10 years, 2 in 10 years and 1 in 20 years frequency.

We expect by 2010, we will have reduced the number of homes on our 1 in 10 years, and 2 in 10 years “At Risk” register from 500 to 200. Where new properties are added to the register because of changing circumstances, we off-set this with additional reductions.

We acknowledge that internal flooding has a huge impact in terms of damage to property and the stress and anxiety caused to residents and neighbours. A balance must be struck between addressing isolated instances of internal flooding and the more widespread external flooding, such as gardens, outbuildings, open spaces and public parks and our consultation with customers has confirmed that belief.

### What's in our plan

- Enhancing the network to be more resilient to heavy rainfall and resulting surface water
- Continued focus on reducing the risk of sewer flooding, with an investment of £160 million during 2010-2015
- A targeted programme, agreed with the Customer Watchdog (Consumer Council for Water)
- A major sewer flood defence system for Eastney in Portsmouth

We have spoken with the Consumer Council for Water and with customers about the priorities we give to flooding. We recognise that we must do more to reduce the risk of flooding to properties and our surveys show that customers are prepared to pay to see a genuine reduction in the number of properties affected and not only those properties recognised by the tight definition of the “At Risk” registers.

In response to our customers' wishes, we are proposing to increase the money we spend on sewer flooding prevention schemes in 2010-2015.

In a small number of cases, usually because of the landform and network issues, it may be uneconomic, or impractical, to provide a solution to some ongoing problems.

### New Romney and Greatstone First Times Mains Drainage Scheme

*“I’m delighted to see the completion of this environmental improvement scheme. This was never going to be an easy scheme to deliver and it hasn’t been without its issues, but Southern Water and 4Delivery have provided mains drainage with less disruption than might have been expected and I’d like to thank them for that.”*

Michael Howard, MP for Folkestone and Hythe

We have included in our business plan an allowance to provide mitigation and temporary solutions to some properties at risk. This may provide some relief while a sustainable solution is found.

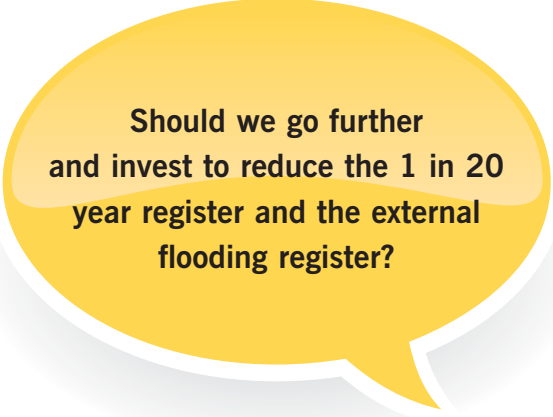
There are currently no proposals in this Draft Business Plan to reduce the number of properties on either the 1 in 20 year flooding register or the new external flooding register.

In addition to resolving flooding caused by insufficient capacity in our sewer network, we will aim to reduce flooding because of other causes. We will particularly target mechanical breakdowns and blockages.

#### **Responsibility for surface water and flooding**

We recognise that the causes and responsibilities for flooding are varied e.g. inadequate sewer capacity, poor highway drainage, river and groundwater inundation etc. Many different

agencies are responsible for different elements under current legislation including the Environment Agency, Highways Agency, District Councils and Water Companies. We want to play our part in helping to simplify this through integrating surface water management plans.



**Should we go further  
and invest to reduce the 1 in 20  
year register and the external  
flooding register?**



# Pollution incidents and compliance

Pollution incidents that occur when raw sewage, partially-treated sewage or storm-water escape into the environment in an uncontrolled way, have to be minimised.

**You said:**

- Pollution events should be minimised
- This was a medium priority for improvement in this area

**In our Draft Business Plan we propose to:**

- Increase our programme of investment to provide more resilient assets
- Increase our sewer renewal rates
- Invest more in pumping stations to manage the risk of pollution

In 2008 we reported a single category one pollution incident<sup>3</sup>. This represented the third year in succession in which we had reduced serious pollution events. We have achieved this reduction by improving the response time to front-line operations and balancing investment and operational training. We are determined to achieve no category one pollution incidents and then to

Ofwat, our economic regulator, requires us to maintain “stable” serviceability of our underground and above ground assets.

Serviceability assessments consider a range of condition and performance measures, such as blockages, sewer collapses, flooding incidents and bursts.

Our Draft Business Plan focuses on maintaining our assets so that we can continue to deliver a stable and resilient service despite the additional volumes of wastewater.

Our asset base has grown significantly in the last 20 years reflecting both housing growth and quality standard enhancement programmes. Many of these assets will now, or shortly, require maintenance and this will drive the increased investment required to maintain service for 2010-2015.

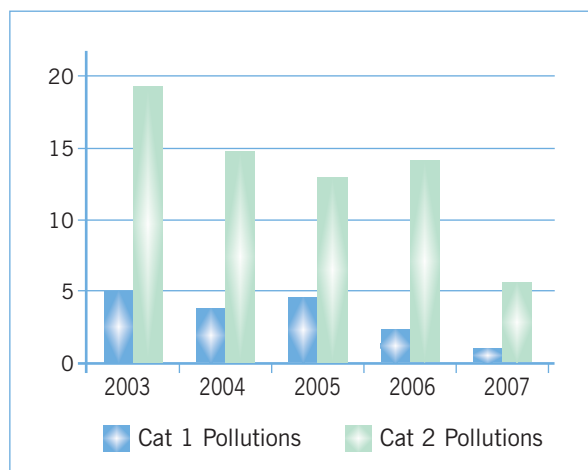
| Investment maintenance                     |       |
|--|-------|
| <b>Above ground maintenance investment</b> |       |
| Pumping Stations                           | £79m  |
| Treatment works                            | £374m |
| <b>Below ground investment</b>             |       |
| Rising mains                               | £18m  |
| Sewers                                     | £43m  |

maintain that improved performance. Sustained investment coupled with continual training is the most cost-effective way to achieve this.

To do this we need to ensure that the sewer network is resilient, both to changing flows resulting from storms and to increased flows from growth in house numbers and population. We have a very detailed modelling approach to assessing and prioritising our investments in this area and we have a programme that delivers the best value.

We intend to increase our renewal rates of pipes made of materials that cause a problem and of mains that have a risk of environmental damage if they burst.

**Pollution incidents**



<sup>3</sup> Category incidents are defined by the Environment Agency with 1 having the biggest environmental impact and 4 being an incident without environmental impact.





Our approach takes into account expected deterioration of our assets and assesses the cost and benefits of the various types of investment (such as replacement, rehabilitation, increase in capacity etc). We also consider the timing of options which enables us to arrive at a programme of optimal cost. By making this sustainable investment with the longer term in mind and by taking careful steps to ensure optimum performance from the assets, we can deliver a sustainable performance of reduced category one and two pollution incidents by 2015.

#### **Wastewater works compliance**

Earlier we explained that, this year, we have achieved stable compliance of our wastewater treatment works for the first time. We need to now

sustain this performance to make our ageing asset base more resilient to the changing environment.

**Do you agree that we should increase sewer renewal rates?**

**Do you support our target for sustainable improvements in compliance?**

# Managing growth in demand for wastewater services

Here we explain the investment required to maintain levels of wastewater service to our existing customers and meet the demand from new housing and commercial development 2010 to 2015.

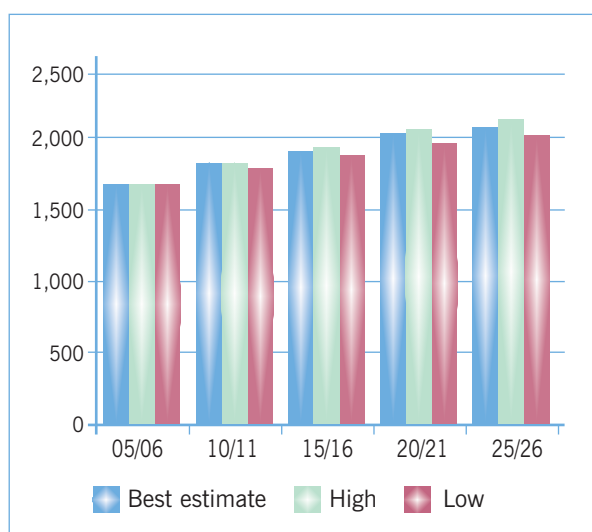
### In our Draft Business Plan we propose to:

- Deliver £291 million of investment in sewers and pumping stations to provide for additional growth in the South East
- Deliver £44 million of investment to increase treatment capacity at wastewater treatment works
- Install 317 km of new or larger sewer

Customers and stakeholders told us that we had not explained enough about managing growth and new development when we consulted on our Strategic Direction Statement. Customers particularly wanted to know if our planning made adequate allowances for possible new eco-towns in the South East and for major development in areas like Ashford.

In response, we have used data from several independent sources to assess the location, size and timing of new development. We track the accuracy of our consultants' forecasts against

### Household projections



independent sources, including data published by the Office for National Statistics. To date, we have found them to be robust.

Our plan is built on a catchment by catchment basis and reflects our assessment of known housing developments which are well defined and, therefore, reasonably certain to go ahead. We have also made an allowance for new development which is likely to progress but the location of which is not yet sufficiently defined to develop detailed proposals.

We have included plans for the major development areas including Ashford, Thameside, Maidstone and South Hampshire. We have deferred investment where we consider that progression of development lacks certainty. For example we have not included provision for eco-towns proposed in our area because the Government has not yet decided on their location.

We have taken account of the Government's housing targets for the South East.

Our investment plans are made to meet our statutory duty to provide wastewater services to new development. We do not have the option to refuse infrastructure provision and if we fail to keep pace with infrastructure requirements for new development, levels of service to existing customers are at risk. This includes an increased risk of flooding or the failure to meet discharge consent standards which protect environmental quality.

Our plan, therefore, is to invest so that levels of service are maintained while enabling projected new development and growth without impacting on existing customers. We have adopted a new UK Water Industry Research (UKWIR) methodology, which has been developed specifically to provide a robust base on which to plan for growth and new development.



We are conscious of the current downturn in the housing and construction market, but we need to take a longer term view when forecasting our investment programme.

**Our plan is based on a risk assessment of the latest forecast and assumes less growth than government projections.**

**Do you agree with our stance?**

### **Hartfield Wastewater Treatment Works Environmental Improvements**

*“Schemes such as this at Hartfield make a vital contribution to protect our rivers and streams. Improving the quality of the water recycled back to the environment is an important responsibility for water companies and it is wonderful to see that Southern Water is continuing to improve its sites across the region.”*

Charles Hendry, MP for Wealden

# Recycling waste, energy management and carbon

We currently spend £25 million a year on energy to run our pumping stations and treatment processes. It is a major operating cost and is a serious issue with the current increases in power costs.

### Investment in 2010-2015:

- £50 million to increase power generation from waste
- £40 million to treat an additional 7,000 tonnes of dry sludge per year
- £91 million to maintain our existing sludge treatment work energy prices

We have managed to mitigate the impact of high energy costs during this price period (to 2010) but we will need to return to the market in 2010 to buy power for our future operations and at current prices this will increase our power costs by some £10 million per year.

### Forecast carbon emissions

|   | Thousand tonnes of CO <sub>2</sub> equivalent |
|---|---|
| 2007/08 data                                | 305   |
| 2008/09 base line                           | 309   |
| 2014/15 business as usual                   | 338   |
| 2014/15 target                              | 278   |
| <b>Carbon reduction required by 2014/15</b> | <b>60</b>                                     |

During talks with customers we asked about the importance of reducing our carbon footprint. Customers saw this as a high priority and said they were willing to see changes in their bills if reductions were economically delivered.

In response, we looked at a number of ways of reducing our carbon footprint including Combined Heat and Power (CHP) generation on our wastewater treatment works and wind power to reduce our demands on the national grid.

Owat has indicated that they will not allow the development of wind power generation to be

financed through charges to customers. We agree, but would be prepared to work with wind power developers to supply electricity to our sites in appropriate areas.

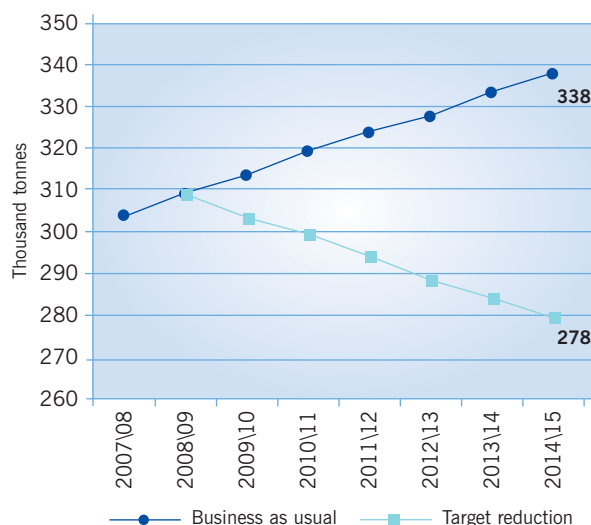
We have looked at generating hydro power by putting turbines on some of our key wastewater pipes and we have budgeted to expand our CHP programme at Brighton and Hove which has just received planning approval in principle.

As well as these more innovative solutions, we have maintained a focus on the basics. We have made provision for careful monitoring of our power consumption across our sites to help us run a power efficient operation on a day-to-day basis.

Although there is a significant upward pressure on our carbon emissions, driven by growth and the higher quality of treatment standards required by legislation, we have set ourselves a target of cutting CO<sub>2</sub> emissions by nearly 60,000 tonnes each year during the period 2010-2015.

The table below shows how we intend to meet this target.

### CO<sub>2</sub> emissions





**Business Plan deliverables to achieve target reduction**

| Carbon mitigation activity  | Predicted savings<br>Thousand Tonnes<br>of CO <sub>2</sub> equivalent | Capex<br>£m | Cost/tCO <sub>2</sub><br>saved |
|---|---|-------------|--------------------------------|
| Pump performance monitoring   | 17  | 5           | 280                            |
| Optimisation of sludge transportation<br>and treatment                        | 15  | -           | -                              |
| General energy savings across the<br>company (assume 5% of total consumption) | 12  | -           | -                              |
| Enhanced power consumption monitoring   | 8   | 1           | 121                            |
| Water meter – demand reduction  | 3   | -           | -                              |
| Hydro recovery  | 3   | 4           | 1,297                          |
| Real time process control   | 2   | 3           | 1,452                          |
| <b>Total</b>  | <b>60</b>   | <b>13</b>   |                                |

Other options which we are continuing to investigate include alternatives such as co-digestion and possible partnerships with local authorities which are investigating recovery of energy from waste or Combined Heat Power (CHP) options.

We have taken on board our customers' views and we have included cost beneficial schemes to reduce our carbon footprint. We welcome your views on our plan.

**Do you support our  
commitment to reduce our  
carbon footprint?**

**Should we do more or less?**

**Are there any other areas where  
we should look to cut our  
carbon emissions?**

**Margate and Broadstairs  
Wastewater Treatment Works  
and Recycling Centre**

*"I have been really impressed that since the work began two years ago, I have not had a single letter of complaint from any of my constituents, which is a wonderful endorsement to the professionalism and dedication of Southern Water and their contractors on this project."*

Roger Gale MP for Thanet North

## The environmental quality programme

The National Environment Programme (NEP) is a set of projects, defined by the Environment Agency in response to the requirements of European legislation. For 2010-2015 the NEP remains a key challenge. Our proposed investment is based upon the draft NEP. We will revise our Final Business Plan to incorporate the Final NEP which is published later this year.

### What's in our plan?

- 329 environmental schemes
- £639 million of investment (inclusive of additional sludge treatment)
- A programme driven by European legislation
- The largest quality improvement programme in the UK

summarised opposite. Investment driven by European legislation amounts to 23 pence of every pound of investment proposed in this Draft Business Plan. We have no option but to comply with these requirements.

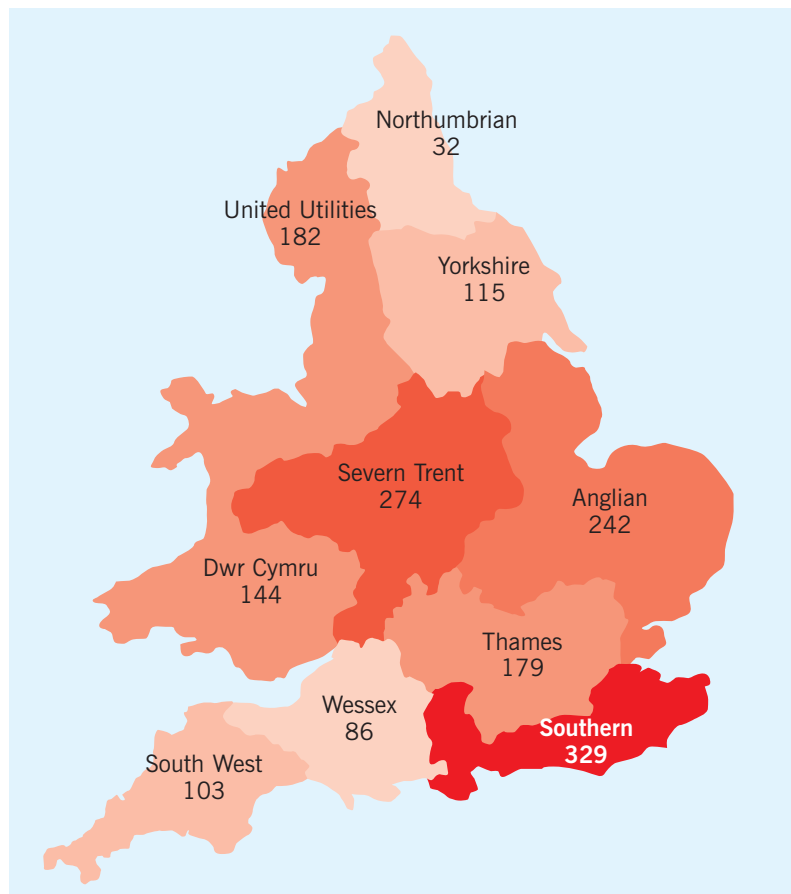
We have had lengthy discussions with the Environment Agency, to gain a better understanding of the National Environment Programme (NEP) and how we can play our part in delivering that programme. These discussions have been helpful and we have made allowances in this Draft Business Plan to deliver all the schemes expected of us with the exception of a proposed reduction in water abstraction on the River Itchen in Hampshire.

The South East of England is relatively densely populated and there are many environmental, ecological and other protection designations at many sites. These include Ramsar sites designated for wildfowl, Sites of Special Scientific Interest, freshwater fisheries, Areas of Outstanding Natural Beauty, marine sites and the like. Many of our activities inevitably have the potential to affect the quality of designated sites.

The environmental regulator, the Environment Agency, has a duty to ensure that designated and other sites are appropriately protected. We, therefore, have duties imposed on us in support of such protection, for which we have to plan cost effective or cost beneficial investments.

Many of the duties to protect sites are driven by EU Directives which have been or will be enacted into UK legislation. These Directives drive significant additional investment into our programme and this is

**National environment programme - total number of actions for each water company**



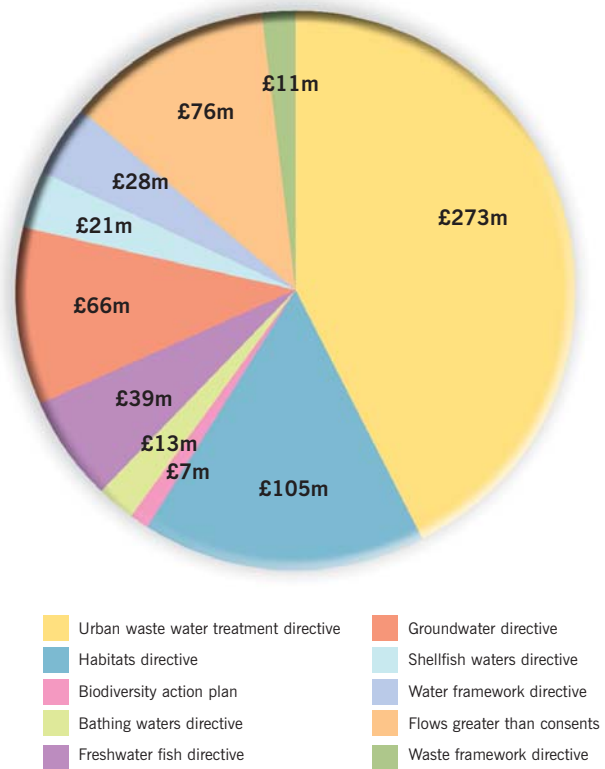
With the proposed reductions we have doubts about whether the significant additional cost (£63 million) to customers is matched by the limited environmental benefits. We have made more appropriate suggestions to the Agency to provide more sustainable protection for the environment. We are still in discussions with the Agency on this specific scheme and we will report in our Final Business Plan in April 2009, our latest thinking on the matter.

Our plan for meeting the requirements of the NEP is to ensure our investment decisions are based upon sound science and that the schemes deliver the anticipated improvements. This has resulted in a number of investigations in the period 2010-2015.

Our Strategic Direction Statement (SDS) prompted a useful debate on the additional carbon cost of introducing additional stages of treatment to achieve higher quality wastewater.

We illustrated where further increases in the treatment processes meant very high carbon emissions whilst more marginal benefits to the water environment.

Investment driven by legislation



### Ham Hill Wastewater Treatment Works Environmental Improvements

*"I welcome the investment to improve the treatment works capacity in Snodland. It is clear that the environmental improvements will be beneficial to the local community and I congratulate Southern Water and their contractors on the way that they have gone about this complex and challenging construction."*

Jonathan Shaw MP for Chatham and Aylesford

## What this means for bills

We have aimed to contain the increase in bills while managing the upward pressures on costs, such as energy and the increased investment required to maintain and enhance services while also meeting the requirements of European legislation. Below, we outline the investment per property that we will make in 2010-2015.

| Forecast changes in prices (real) |             |            |            |            |             |            |
|-----------------------------------|-------------|------------|------------|------------|-------------|------------|
| Year                              | 2010/11     | 2011/12    | 2012/13    | 2013/14    | 2014/15     | Average    |
| Water (%)                         | 15.0        | 1.9        | 1.2        | 0.1        | -0.2        | 3.4        |
| Wastewater (%)                    | 14.7        | 3.0        | 3.3        | 4.5        | -0.3        | 4.9        |
| <b>Totals</b>                     | <b>14.8</b> | <b>2.7</b> | <b>2.8</b> | <b>3.4</b> | <b>-0.3</b> | <b>4.5</b> |

### Key Information

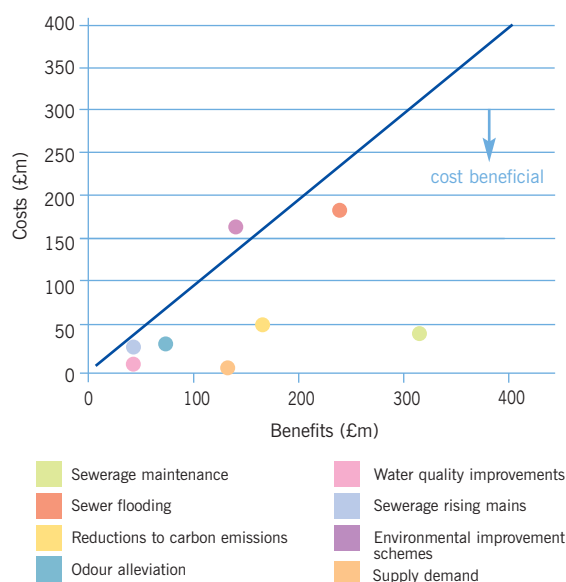
- Increased operational costs, such as power, are putting pressure on customer charges in the first year
- Bills would thereafter be broadly stable were it not for the required investment arising from the National Environment Programme

In our SDS we said that we would develop our Draft Business Plan with the intention of holding prices in line with inflation before considering the investment driven by the National Environment Programme. Having developed the detail of our Draft Business Plan there are a number of factors that have combined to counter this aim as follows:

- On the basis of the current market, the cost of energy will increase our operating costs by some £10 million per year
- Bills are significantly lower in 2009-10 than we forecast at the last price review which makes the increase in 2010-11 look larger than it otherwise would have been
- The investment programme, represents an increase of some 25% on the previous five-year period. A large part of the programme is driven by legislative improvements in which we have little choice.

Where assessed, our investment plan is “cost beneficial”, that is to say, for the programmes we have included in this Draft Business Plan, the benefits that customers receive from service improvements out-weigh the costs of delivering that service.

### Costs ‘v’ benefits



We are now a very lean company having delivered continued operational efficiencies in 2008. We will always seek out further efficiencies but not at the risk of service levels to customers.

**Do you agree with our proposed package and pace of improvements?**

**Overall, having read this summary, do you support this plan?**



## Competition

Ofwat is currently consulting on its review of competition for the water industry. It is evident that the approach of introducing competition to the large customer retail market has not succeeded because no eligible consumers have yet switched suppliers.

We think that the vertically integrated model for organisations with large capital costs and significant shared costs, for example billing for water and wastewater services together, is the most efficient approach.

A single network in the South East, controlled by one water company would efficiently allow surplus water to be moved around the region to assist water stressed areas.

We see this as a sensible way forward, putting the needs of customers at the heart of the operation. We support competition in all areas of the supply chain and we have explained that to some extent in this document.

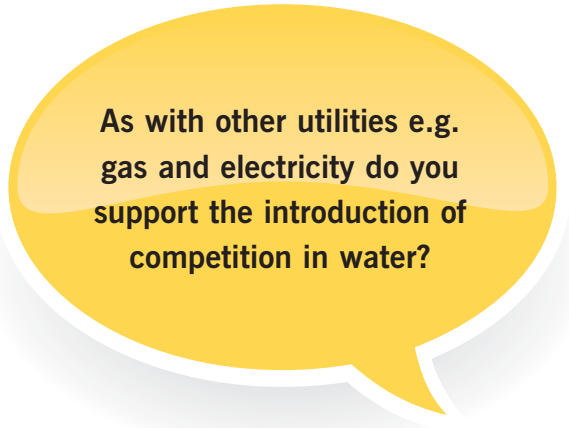
We recognise the core skills we have but we also go to the market to procure a range of skills that it is not efficient to keep in house. We believe this provides effective competition in the supply chain.

Our customers want to have reliable water supplies at an efficient price. Competition needs to offer customers choice of service and price.

Competition represents a significant opportunity for the industry and offers the potential for delivering greater innovation and choice for customers. However, it is important that the risks associated with its introduction are carefully managed so that the costs of competition do not outweigh the benefits. We note that:

- In difficult market conditions, continued uncertainty about the direction and scope for competition in the industry may increase financing costs for water services
- The proposals for accounting separation and splitting of price limits from 2015 represent potential risks to investors, for which they may require remuneration.

A review of the recent Water Industry Commissions report presented by the Regulatory Policy Institute suggested that competition will provide opportunity for innovation but this innovation may come at a cost which would need to be recovered from customers.



**As with other utilities e.g. gas and electricity do you support the introduction of competition in water?**

### So what do you think of our plan?

Thank you for taking the time to read this document. The following pages provide the summary data tables as submitted to Ofwat to support our Draft Business Plan submission. Please refer to the inside back cover where we have a summary of the key questions on which we would like your feedback.



# Appendices

**Table 1: Price limits, bills, water sales and supply/demand balance**

| Line description  | Units | AMP4    |         |         | AMP5    |         |         |         |         |
|---|-------|---------|---------|---------|---------|---------|---------|---------|---------|
|   |       | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
| <b>A Price limits &amp; infrastructure charge limit</b>                             |       |         |         |         |         |         |         |         |         |
| 1 Proposed price limit "K" (including U)  | nr    | 2.9     | 4.9     | 2.8     | 14.8    | 2.7     | 2.8     | 3.4     | -0.3    |
| 2 Water service indicative "K"  | nr    | 2.9     | 1.7     | 0.2     | 15.0    | 1.9     | 1.2     | 0.1     | -0.2    |
| 3 Sewerage service indicative "K"   | nr    | 2.9     | 6.0     | 3.7     | 14.7    | 3.0     | 3.3     | 4.5     | -0.3    |
| 4 Proposed infrastructure charge limit - water service                              | £     | 276.81  | 276.81  |         |         |         |         |         |         |
| 5 Proposed infrastructure charge limit - sewerage service                           | £     | 276.81  | 276.81  |         |         |         |         |         |         |
| 6 RPI year by year assumption   | %     | 3.9     | 4.3     | 4.1     | 2.6     | 2.5     | 2.5     | 2.5     | 2.5     |
| <b>B Projected household bills - water service</b>                                  |       |         |         |         |         |         |         |         |         |
| 7 Typical unmeasured h'hold bill (base yr avg chg) - real terms                     | £     | 122.14  | 124.94  | 130.08  | 152.69  | 155.93  | 158.24  | 158.94  | 158.74  |
| 8 Typical measured h'hold bill (base yr avg chg) - real terms                       | £     | 109.80  | 113.09  | 111.17  | 124.27  | 126.42  | 127.76  | 127.74  | 127.40  |
| 9 Average household bills - real terms  | £     | 117.60  | 119.55  | 121.83  | 140.66  | 143.86  | 145.66  | 145.94  | 145.67  |
| 10 Average household bills - nominal terms  | £     | 117.60  | 124.66  | 132.25  | 156.66  | 164.23  | 170.44  | 175.04  | 179.09  |
| <b>C Projected household bills - sewerage service</b>                               |       |         |         |         |         |         |         |         |         |
| 11 Typical unmeasured h'hold bill (base yr avg chg) - real terms                    | £     | 227.88  | 240.77  | 256.03  | 290.76  | 300.07  | 311.58  | 327.72  | 319.97  |
| 12 Typical measured h'hold bill (base yr avg chg) - real terms                      | £     | 176.14  | 190.52  | 189.86  | 217.56  | 223.29  | 229.30  | 237.69  | 239.92  |
| 13 Average h'hold bills - real terms  | £     | 210.05  | 222.48  | 230.30  | 260.57  | 266.79  | 273.24  | 282.80  | 280.65  |
| 14 Average h'hold bills - nominal terms   | £     | 210.05  | 231.99  | 249.99  | 290.20  | 304.56  | 319.73  | 339.18  | 345.03  |
| <b>D Water sales &amp; supply/demand balance</b>                                    |       |         |         |         |         |         |         |         |         |
| 15 Billed water delivered   | MI/d  | 483.85  | 487.22  | 487.83  | 485.40  | 483.06  | 480.77  | 478.58  | 476.45  |
| 16 Total volume of sewage collected   | MI/d  | 798.30  | 781.60  | 779.91  | 776.64  | 774.10  | 757.10  | 755.10  | 751.80  |
| 17 Total water available for use baseline (dry year annual average)                 | MI/d  | 724.81  | 718.84  | 718.40  | 721.43  | 727.70  | 735.11  | 737.51  | 744.07  |
| 18 Distribution input (dry year annual average)                                     | MI/d  | 620.14  | 620.57  | 621.13  | 618.50  | 614.95  | 611.15  | 607.09  | 603.45  |
| 19 Total leakage  | MI/d  | 83.01   | 83.14   | 83.14   | 83.14   | 82.13   | 80.79   | 79.11   | 77.77   |
| 20 Total water savings achieved or assumed from company's water efficiency strategy | MI/d  | 5.28    | 5.28    | 5.28    | 1.00    | 1.00    | 1.00    | 1.00    | 1.00    |

**Table 2: Water service - Current performance & planned outputs**

| Line description  | Units        | Level of performance |         | Level of performance<br>by 2014-15 | Level of performance<br>by 2019-20 |
|---|--------------|----------------------|---------|------------------------------------|------------------------------------|
|   |              | 2002-03              | 2007-08 |                                    |                                    |
| <b>A Service performance</b>  |              |                      |         |                                    |                                    |
| 1 DG2 Properties at risk of receiving low pressure  | nr           | 548                  | 386     | 385                                |                                    |
| 2 DG3 Supply interruptions (overall performance score)  | nr           | 0.3                  | 0.2     | 0.2                                |                                    |
| 3 DG6 % billing contacts dealt with within 5 days   | %            | 98.3                 | 96.7    | 99.5                               |                                    |
| 4 DG7 % written complaints dealt with within 10 days  | %            | 99.9                 | 64.8    | 99.5                               |                                    |
| 5 DG8 % metered customers receiving bill based on a meter reading   | %            | 99.7                 | 99.5    | 99.9                               |                                    |
| 6 DG9 % calls abandoned   | %            |                      | 19.9    | 4.0                                |                                    |
| 7 DG9 % calls receiving the engaged tone  | %            |                      | 21.4    | 1.0                                |                                    |
| 8 Security of supply index (dry year annual average - planned levels of service)                                      | %            | 55                   | 96      | 100                                |                                    |
| 9 Security of supply index (critical index)   | %            |                      | 99      | 100                                |                                    |
| <b>B Quality &amp; environmental compliance</b>   |              |                      |         |                                    |                                    |
| 10 % distribution input covered by section 19 undertakings at water treatment works                                   | %            |                      | 0.00    | 0.00                               |                                    |
| 11 % distribution input not affected by section 19 undertakings or temporary relaxations or Authorised Departures     | %            | 97.58                | 100.00  | 100.00                             |                                    |
| 12 % of properties in water supply zones affected by section 19 undertakings in distribution or Authorised Departures | %            |                      | 0.00    | 0.00                               |                                    |
| 13 % mean zonal compliance with drinking water regulations  | %            |                      | 99.95   | 99.98                              |                                    |
| <b>C Serviceability to customers (maintaining asset systems fit for purpose)</b>                                      |              |                      |         |                                    |                                    |
| 14 Below ground assets assessment - infrastructure pipelines  | text         | STABLE               | STABLE  | STABLE                             | STABLE                             |
| 15 Surface assets assessment (non infrastructure)   | text         | STABLE               | STABLE  | STABLE                             | STABLE                             |
| <b>D Carbon Accounting</b>  |              |                      |         |                                    |                                    |
| 16 Carbon emissions produced in providing the service in 2014-15  | ktonnes/year |                      |         | 71.0                               |                                    |
| 17 Other GHG emissions ( as CO2e) produced in providing the service in 2014-15  | ktonnes/year |                      |         | 2.7                                |                                    |

**Table 3: Sewerage service - Current performance & planned outputs**

| Line description  | Units        | Level of performance<br>2002-03 | Level of performance<br>2007-08 | Level of performance<br>by 2014-15 | Level of performance<br>by 2019-20 |
|---|--------------|---------------------------------|---------------------------------|------------------------------------|------------------------------------|
| <b>A Service performance</b>  |              |                                 |                                 |                                    |                                    |
| 1 DG5 properties at risk of flooding (2 in 10 years)  | nr           | 139                             | 77                              | 47                                 | 25                                 |
| 2 DG5 properties at risk of flooding (1 in 10 years)  | nr           | 373                             | 174                             | 94                                 | 83                                 |
| 3 D5 properties at risk of internal flooding (1 in 20 years)  | nr           |                                 | 133                             | 203                                | 286                                |
| 4 Properties internally flooded in year due to overloaded sewers excluding severe weather                             | nr           |                                 | 52                              | 35                                 | 35                                 |
| 5 DG5 properties internally flooded in year due to other causes   | nr           | 299                             | 259                             | 210                                | 210                                |
| 6 Areas flooded externally due to overloaded sewers, excluding severe weather   | nr           |                                 | 617                             | 470                                | 470                                |
| 7 Areas externally flooded in year due to other causes  | nr           |                                 | 3,455                           | 4,500                              | 4,500                              |
| <b>B Quality &amp; environmental compliance</b>   |              |                                 |                                 |                                    |                                    |
| 8 % Intermittent discharges unsatisfactory  | %            | 87.5                            | 99.4                            | 100.0                              |                                    |
| 9 % Bathing waters not meeting "excellent" quality  | %            |                                 | 43.9                            | 43.9                               |                                    |
| 10 % Bathing waters not meeting "good" quality  | %            |                                 | 17.0                            | 17.0                               |                                    |
| 11 % Bathing waters not meeting "sufficient" quality  | %            |                                 | 7.3                             | 4.8                                |                                    |
| 12 % of sewage treatment works non compliant (Water Resources Act numeric consents)                                   | %            |                                 | 0.60                            | 0.20                               |                                    |
| 13 % of sewage treatment works non compliant (Urban Waste Water Treatment Directive consents)                         | %            |                                 | 0.70                            | 0.20                               |                                    |
| 14 % of total p.e. served by sewage treatment works in breach of Water Resources Act consent (LUT)                    | %            |                                 | 0.00                            | 0.00                               |                                    |
| 15 % of total p.e. served by sewage treatment works in breach of Urban Waste Water Treatment Directive consents (LUT) | %            |                                 | 0.00                            | 0.00                               |                                    |
| <b>C Serviceability to customers (maintaining asset systems fit for purpose)</b>                                      |              |                                 |                                 |                                    |                                    |
| 16 Below ground assets assessment (infrastructure)  | text         | STABLE                          | STABLE                          | STABLE                             | STABLE                             |
| 17 Surface assets assessment (non-infra)  | text         | STABLE                          | STABLE                          | STABLE                             | STABLE                             |
| <b>D Carbon Accounting</b>  |              |                                 |                                 |                                    |                                    |
| 18 Carbon emissions produced in providing the service in 2014-15  | ktonnes/year |                                 |                                 | 124.8                              |                                    |
| 19 Other GHG emissions (as CO2e) produced in providing the service in 2014-15   | ktonnes/year |                                 |                                 | 78.8                               |                                    |

**Table 4: Water service - Key activity projections**

| Line description   | 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 |
|--|----------------|--|--|---------------------------------------|---------------------|---------------------------------------|
| <b>A Key activity projections - water resources</b>  |                |  |  |                                       |                     |                                       |
| 1 Length of raw water aqueducts refurbished  | km             | 0.0  | 1.0  | 1.0                                   | s                   | 0.0                                   |
| 2 Work on dams & impounding reservoirs   | nr             | 0  | 0  | 0                                     | s                   | 4                                     |
| 3 Capital investment in aqueducts, dams and impounding reservoirs  | £m             | 0.000  | 0.580  | 0.580                                 | s                   | 5.000                                 |
| <b>B Key activity projections - water treatment</b>  |                |  |  |                                       |                     |                                       |
| 4 Number of refurbished or new treatment works   | nr             | 13   | 3  | 16                                    | s                   | 13                                    |
| 5 MI/day of refurbished or new treatment works   | MI/d           | 188.00   | 46.00  | 234.00                                | s                   | 90.00                                 |
| 6 Capital investment in refurbished or new treatment works   | £m             | 139.700  | 28.447   | 168.147                               | s                   | 106.306                               |
| <b>C Key activity projections - water distribution</b>   |                |  |  |                                       |                     |                                       |
| 7 Length of mains renewed  | km             | 350.7  | 103.0  | 453.7                                 | s                   | 372.0                                 |
| 8 Length of mains relined  | km             | 0.0  | 0.0  | 0.0                                   | s                   | 4.1                                   |
| 9 Length of new mains  | km             | 150.0  | 0.0  | 150.0                                 | s                   | 150.0                                 |
| 10 Number of refurbished or new district meters & pressure control valves  | nr             | 40   | 0  | 40                                    | s                   | 40                                    |
| 11 Capital investment in underground water distribution activity (incl investment in meters reported in Block E of this table) | £m             | 168.025  | 187.638  | 355.663                               | s                   | 351.306                               |
| 12 Number of refurbished or new pumping stations   | nr             | 87   | 2  | 89                                    | s                   | 60                                    |
| 13 Capital investment in refurbished or new pumping stations   | £m             | 20.667   | 0.000  | 20.667                                | s                   | 15.677                                |
| 14 Number of refurbished or new service reservoirs   | nr             | 34   | 1  | 35                                    | s                   | 34                                    |
| 15 Capital investment in refurbished or new service reservoirs   | £m             | 16.637   | 15.290   | 31.927                                | s                   | 19.482                                |
| <b>D Key activity projections - management &amp; general</b>   |                |  |  |                                       |                     |                                       |
| 16 Offices, labs, depots, workshops  | m <sup>2</sup> | 0.0  | 0.0  | 0.0                                   | s                   | 0.0                                   |
| 17 Capital investment in offices, labs, depots, workshops and vehicles   | £m             | 0.000  | 0.000  | 0.000                                 | s                   | 0.000                                 |
| 18 Capital investment in instrumentation, control and automation (ICA), telemetry & computers                                  | £m             | 26.791   | 0  | 26.791                                | s                   | 16.240                                |
| <b>E Key activity projections - metering performance</b>   |                |  |  |                                       |                     |                                       |
| 19 Number of household meters renewed  | nr             |  |  | 81,000                                | s                   | 95,000                                |
| 20 Optional meters: households   | nr             |  |  | 0                                     | s                   | 0                                     |
| 21 Selective meters: households  | nr             |  |  | 527,816                               | s                   | 0                                     |
| 22 Percentage of households metered (at the end of the period)   | %              |  |  | 93                                    | s                   | 93                                    |
| <b>F Total - water service</b>   |                |  |  |                                       |                     |                                       |
| 23 Total capital investment in the water service   | £m             | 372.632  | 246.288  | 618.920                               |                     | 514.011                               |

**Table 5: Sewerage service - Key activity projections**

| Line description  | 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 |
|---|----------------|--|--|---------------------------------------|---------------------|---------------------------------------|
| <b>A Key activity projections - sewers</b>  |                |  |  |                                       |                     |                                       |
| 1 Length of critical sewers renewed   | km             | 48.7   | 0.0  | 48.7                                  | s                   | 48.0                                  |
| 2 Length of critical sewers renovated   | km             | 0.0  | 0.0  | 0.0                                   | s                   | 0.0                                   |
| 3 New critical sewers   | km             | 4.0  | 46.2   | 50.2                                  | s                   | 94.0                                  |
| 4 Length of non-critical sewers renewed   | km             | 9.0  | 3.4  | 12.4                                  | s                   | 15.8                                  |
| 5 Length of non-critical sewers renovated   | km             | 2.0  | 2.2  | 4.2                                   | s                   | 11.9                                  |
| 6 New non-critical sewers   | km             | 6.5  | 259.8  | 266.3                                 | s                   | 595.1                                 |
| 7 Capital investment in critical and non-critical sewers                                      | £m             | 208.485  | 405.016  | 613.501                               | s                   | 661.349                               |
| 8 Number of refurbished or new intermittent discharges  | nr             | 0  | 51   | 51                                    | s                   | 70                                    |
| 9 Capital investment in refurbished or new intermittent discharges                            | £m             | 0.000  | 17.536   | 17.536                                | s                   | 13.476                                |
| <b>B Key activity projections - sewage treatment &amp; disposal.</b>                          |                |  |  |                                       |                     |                                       |
| 10 Number of refurbished or new treatment works   | nr             | 100  | 171  | 271                                   | s                   | 128                                   |
| 11 Population equivalent of refurbished or new treatment works                                | 000            | 1,000.00   | 1,500.00   | 2,500.00                              | s                   | 2,600.00                              |
| 12 Capital investment in refurbished or new treatment works                                   | £m             | 538.031  | 558.462  | 1,096.493                             | s                   | 1,178.809                             |
| 13 Number of refurbished or new sludge treatment works  | nr             | 2  | 0  | 2                                     | p5                  | 2                                     |
| 14 Capital investment in refurbished or new sludge treatment works                            | £m             | 103.748  | 1.000  | 104.748                               | p5                  | 169.482                               |
| <b>C Key activity projections - sewerage service</b>  |                |  |  |                                       |                     |                                       |
| 15 Number of refurbished or new pumping stations  | nr             | 51   | 47   | 98                                    | s                   | 93                                    |
| 16 Capital investment in refurbished or new pumping stations                                  | £m             | 85.039   | 108.878  | 193.917                               | s                   | 209.169                               |
| 17 Number of refurbished or new sea outfalls  | nr             | 0  | 3  | 3                                     | s                   | 5                                     |
| 18 Capital investment in refurbished or new sea outfalls                                      | £m             | 0.000  | 0.300  | 0.300                                 | s                   | 0.500                                 |
| <b>D Key activity projections - management &amp; general</b>                                  |                |  |  |                                       |                     |                                       |
| 19 Offices, labs, depots, workshops   | m <sup>2</sup> | 0.0  | 0.0  | 0.0                                   | s                   | 0.0                                   |
| 20 Capital investment in offices, labs, depots, workshops and vehicles                        | £m             | 0.000  | 0.000  | 0.000                                 | s                   | 0.000                                 |
| 21 Capital investment in instrumentation, control and automation (ICA), telemetry & computers | £m             | 96.883   | 0.000  | 96.883                                | p1                  | 100.000                               |
| <b>E Total - sewerage service</b>   |                |  |  |                                       |                     |                                       |
| 22 Capital investment in the sewerage service   | £m             | 1,032.186  | 1,091.192  | 2,123.378                             |                     | 2,332.785                             |

**Table 6: Price limits, bills, water sales and supply/demand balance**

| Line description   | Units | AMP3    |         | AMP4    |         |         |         | AMP5    |         |         |         |         |
|--|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|  |       | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
| <b>A Operating expenditure outperformance since PRO4</b>                   |       |         |         |         |         |         |         |         |         |         |         |         |
| 1 Water operating expenditure outperformance                               | £m    | 3.7271  | 5.642   | 0.000   | 5.689   | 7.364   |         |         |         |         |         |         |
| 2 Water outperformance as a % of regulatory expectations                   | %     | 5.2     | 7.8     | 0.0     | 7.8     | 10.0    |         |         |         |         |         |         |
| 3 Total adjusted water opex incentive revenue allowance                    | £m    |         |         |         |         |         | 7.610   | 6.227   | 6.227   | 2.131   | 0.925   |         |
| 4 Sewerage operating expenditure outperformance                            | £m    | 0.000   | 2.770   | 0.000   | 0.000   | 6.049   |         |         |         |         |         |         |
| 5 Sewerage outperformance as a % of regulatory expectations                | %     | 0.0     | 2.1     | 0.0     | 0.0     | 4.4     |         |         |         |         |         |         |
| 6 Total adjusted sewerage opex incentive revenue allowance                 | £m    |         |         |         |         |         | 6.350   | 4.355   | 4.355   | 4.355   | 0.000   |         |
| <b>B Capital expenditure outperformance since PRO4</b>                     |       |         |         |         |         |         |         |         |         |         |         |         |
| 7 Water service capex outperformance                                       | £m    | 1.124   | 5.330   | -13.025 | 3.422   | 7.329   | 8.783   |         |         |         |         |         |
| 8 Water service capex outperformance as a % of regulatory expectations     | %     | 2.8     | 12.7    | -20.4   | 7.0     | 15.4    | 19.5    |         |         |         |         |         |
| 9 Sewerage service capex outperformance                                    | £m    | 64.370  | -0.681  | -35.342 | 9.403   | 61.032  | 87.859  |         |         |         |         |         |
| 10 Sewerage service capex outperformance as a % of regulatory expectations | %     | 35.8    | -0.3    | -9.8    | 3.1     | 20.4    | 28.2    |         |         |         |         |         |
| <b>C Water service - overall compounded efficiency improvements</b>        |       |         |         |         |         |         |         |         |         |         |         |         |
| 11 Operating expenditure (base service)                                    | %     |         |         |         |         | 2.00    | 2.00    | 2.49    | 2.98    | 3.46    | 3.95    | 4.43    |
| 12 Operating expenditure (enhancements)                                    | %     |         |         |         |         | 2.00    | 2.00    | 2.49    | 2.98    | 3.46    | 3.95    | 4.43    |
| 13 Capital maintenance expenditure - infrastructure                        | %     |         |         |         |         | 0.00    | 0.00    | 0.50    | 1.00    | 1.49    | 1.99    | 2.48    |
| 14 Capital maintenance expenditure - non-infrastructure                    | %     |         |         |         |         | 0.00    | 0.00    | 1.00    | 1.99    | 2.97    | 3.94    | 4.90    |
| 15 Capital enhancement expenditure - infrastructure                        | %     |         |         |         |         | 0.00    | 0.00    | 0.50    | 1.00    | 1.49    | 1.99    | 2.48    |
| 16 Capital enhancement expenditure - non-infrastructure                    | %     |         |         |         |         | 0.00    | 0.00    | 1.00    | 1.99    | 2.97    | 3.94    | 4.90    |
| 17 Capital enhancement expenditure - meters                                | %     |         |         |         |         | 0.00    | 0.00    | 1.00    | 1.99    | 2.97    | 3.94    | 4.90    |
| <b>D Sewerage service - overall compounded efficiency improvements</b>     |       |         |         |         |         |         |         |         |         |         |         |         |
| 18 Operating expenditure (base service)                                    | %     |         |         |         |         | 2.00    | 2.00    | 2.98    | 3.95    | 4.91    | 5.86    | 6.80    |
| 19 Operating expenditure (enhancements)                                    | %     |         |         |         |         | 2.00    | 2.00    | 2.98    | 3.95    | 4.91    | 5.86    | 6.80    |
| 20 Capital maintenance expenditure - infrastructure                        | %     |         |         |         |         | 0.00    | 0.00    | 1.00    | 1.99    | 2.97    | 3.94    | 4.90    |
| 21 Capital maintenance expenditure - non-infrastructure                    | %     |         |         |         |         | 0.00    | 0.00    | 2.00    | 3.96    | 5.88    | 7.76    | 9.61    |
| 22 Capital enhancement expenditure - infrastructure                        | %     |         |         |         |         | 0.00    | 0.00    | 1.00    | 1.99    | 2.97    | 3.94    | 4.90    |
| 23 Capital enhancement expenditure - non-infrastructure                    | %     |         |         |         |         | 0.00    | 0.00    | 2.00    | 3.96    | 5.88    | 7.76    | 9.61    |

**Table 7: Water service - Expenditure projections**

| Line description  | Units  | AMP4     |          |          | AMP5     |          |          |          |          |
|---|--------|----------|----------|----------|----------|----------|----------|----------|----------|
|   |        | 2007-08  | 2008-09  | 2009-10  | 2010-11  | 2011-12  | 2012-13  | 2013-14  | 2014-15  |
| <b>A Base service levels (£/property served)</b>  |        |          |          |          |          |          |          |          |          |
| 1 Operating expenditure to maintain current services to consumers   | £/prop | 72.26    | 66.22    | 67.04    | 73.01    | 72.25    | 73.21    | 73.36    | 72.02    |
| 2 Expenditure on pipelines, dams and aqueducts to maintain current services to consumers - "infrastructure"   | £/prop | 24.41    | 25.95    | 11.72    | 30.19    | 29.73    | 29.32    | 29.50    | 30.93    |
| 3 Expenditure on surface assets (includes abstraction, treatment, pumping and service storage) to maintain current services to consumers - "non-infrastructure" | £/prop | 28.58    | 15.44    | 18.02    | 37.84    | 36.75    | 32.17    | 32.38    | 46.23    |
| <b>B Enhanced service levels (£/property served)</b>  |        |          |          |          |          |          |          |          |          |
| 4 Additional operating expenditure for improving services to consumers  | £/prop | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| 5 Additional capital expenditure for improving services to consumers  | £/prop | 0.00     | 0.37     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| <b>C Supply/demand balance (£/property served)</b>  |        |          |          |          |          |          |          |          |          |
| 6 Additional operating expenditure to continue to maintain and improve the balance between the water available and the demand from consumers                    | £/prop | 0.00     | 0.00     | 0.00     | 0.08     | 0.39     | 0.70     | 1.01     | 1.31     |
| 7 Additional capital expenditure to continue to maintain and improve the balance between the water available and the demand from consumers                      | £/prop | 15.84    | 18.91    | 9.42     | 27.40    | 27.99    | 30.08    | 30.48    | 27.23    |
| <b>D Quality enhancements (£/property served)</b>   |        |          |          |          |          |          |          |          |          |
| 8 Additional operating expenditure to meet new environmental and water quality standards  | £/prop | 0.00     | 0.00     | 0.01     | 0.01     | 0.01     | 0.04     | 0.04     | 0.04     |
| 9 Additional capital expenditure to meet new environmental and water quality standards  | £/prop | 1.68     | 0.13     | 0.07     | 6.13     | 14.22    | 14.68    | 18.62    | 12.65    |
| <b>E Enhancements - large projects (£/property served)</b>  |        |          |          |          |          |          |          |          |          |
| 10 Additional operating expenditure for large projects  | £/prop | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| 11 Additional capital expenditure for large projects  | £/prop | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     |
| <b>F Water service totals (£/property served)</b>   |        |          |          |          |          |          |          |          |          |
| 12 Total operating expenditure  | £/prop | 72.26    | 66.22    | 67.06    | 73.10    | 72.66    | 73.95    | 74.40    | 73.36    |
| 13 Total capital expenditure excluding grants and contributions   | £/prop | 70.51    | 60.80    | 39.23    | 101.55   | 108.69   | 106.25   | 110.98   | 117.04   |
| 14 Average connected properties (excluding empty properties)  | 000    | 1,006.17 | 1,022.42 | 1,032.42 | 1,042.43 | 1,053.13 | 1,063.83 | 1,074.53 | 1,085.24 |
| <b>G Water service totals (£m)</b>  |        |          |          |          |          |          |          |          |          |
| 15 Total operating expenditure  | £m     | 72.708   | 67.701   | 69.230   | 76.198   | 76.518   | 78.670   | 79.941   | 79.614   |
| 16 Total capital expenditure excluding grants and contributions   | £m     | 70.945   | 62.166   | 40.503   | 105.862  | 114.465  | 113.033  | 119.256  | 127.014  |
| 17 Forecast capital expenditure real price effect (RPE)   | %      | -0.9     | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |
| 18 Total capital expenditure (2007-08 cost terms) excluding grants and contributions  | £m     | 70.300   | 62.166   | 40.503   | 105.862  | 114.465  | 113.033  | 119.256  | 127.014  |
| 19 Total capital grants, contributions and compensation for abstractions  | £m     | 5.181    | 6.776    | 5.978    | 4.750    | 4.750    | 4.750    | 4.750    | 4.750    |



**Table 8: Sewerage service - Expenditure projections**

| Line description  | Units  | AMP4      |           |           | AMP5      |           |           |           |           |
|---|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|   |        | 2007-08   | 2008-09   | 2009-10   | 2010-11   | 2011-12   | 2012-13   | 2013-14   | 2014-15   |
| <b>A Base service levels (£/property served)</b>  |        |           |           |           |           |           |           |           |           |
| 1 Operating expenditure to maintain current services to consumers   | £/prop | 81.59     | 73.18     | 74.01     | 81.28     | 80.40     | 81.70     | 82.30     | 80.66     |
| 2 Expenditure on below ground assets (includes sewers and storm overflows) to maintain current services to consumers - "infrastructure"             | £/prop | 13.02     | 7.43      | 5.80      | 13.89     | 15.51     | 16.65     | 23.52     | 30.59     |
| 3 Expenditure on surface assets (includes sewage treatment & disposal and pumping) to maintain current services to consumers - "non-infrastructure" | £/prop | 82.44     | 54.74     | 28.31     | 75.30     | 55.75     | 84.01     | 106.47    | 88.44     |
| <b>B Enhanced service levels (£/property served)</b>  |        |           |           |           |           |           |           |           |           |
| 4 Additional operating expenditure for improving services to consumers  | £/prop | 0.00      | 0.00      | 0.04      | 0.08      | 0.08      | 0.08      | 0.08      | 0.08      |
| 5 Additional capital expenditure on improving services to consumers   | £/prop | 11.84     | 20.94     | 12.26     | 10.73     | 10.52     | 12.03     | 19.66     | 28.39     |
| <b>C Supply/demand balance (£/property served)</b>  |        |           |           |           |           |           |           |           |           |
| 6 Additional operating expenditure to continue to accommodate and deal with increased waste water from consumers                                    | £/prop | 0.00      | 0.01      | 0.01      | 0.55      | 0.54      | 0.58      | 0.85      | 0.87      |
| 7 Additional capital expenditure to continue to accommodate and deal with increased waste water from consumers                                      | £/prop | 11.23     | 22.43     | 12.25     | 5.46      | 18.16     | 22.03     | 29.50     | 56.86     |
| <b>D Quality enhancements (£/property served)</b>   |        |           |           |           |           |           |           |           |           |
| 8 Additional operating expenditure to meet new environmental standards  | £/prop | 0.00      | 0.08      | 0.13      | 1.70      | 1.67      | 2.98      | 12.07     | 11.99     |
| 9 Additional capital expenditure to meet new environmental standards  | £/prop | 56.01     | 49.33     | 53.57     | 71.89     | 114.13    | 95.94     | 19.72     | 25.09     |
| <b>E Enhancements - large projects (£/property served)</b>  |        |           |           |           |           |           |           |           |           |
| 10 Additional operating expenditure for large projects  | £/prop | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| 11 Additional capital expenditure for large projects  | £/prop | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>F Sewerage service totals (£/property served)</b>  |        |           |           |           |           |           |           |           |           |
| 12 Total operating expenditure  | £/prop | 81.59     | 73.27     | 74.20     | 83.61     | 82.68     | 85.34     | 95.30     | 93.59     |
| 13 Total capital expenditure excluding grants and contributions   | £/prop | 174.54    | 154.86    | 112.19    | 177.27    | 214.07    | 230.66    | 198.87    | 229.36    |
| 14 Average connected properties (excluding empty properties)  | 000    | 1,790.956 | 1,807.829 | 1,824.434 | 1,841.038 | 1,859.933 | 1,878.828 | 1,897.722 | 1,916.617 |
| <b>G Sewerage service totals (£m)</b>   |        |           |           |           |           |           |           |           |           |
| 15 Total operating expenditure  | £m     | 146.120   | 132.468   | 135.364   | 153.932   | 153.780   | 160.334   | 180.850   | 179.374   |
| 16 Total capital expenditure excluding grants and contributions   | £m     | 312.589   | 279.967   | 204.681   | 326.361   | 398.155   | 433.364   | 377.393   | 439.599   |
| 17 Forecast capital expenditure real price effect (RPE)   | %      | -0.9      | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       |
| 18 Total capital expenditure (2007-08 cost terms) excluding grants and contributions  | £m     | 309.748   | 279.967   | 204.681   | 326.361   | 398.155   | 433.364   | 377.393   | 439.599   |
| 19 Total grants and contributions received by companies from third parties  | £m     | 5.126     | 5.550     | 5.550     | 5.650     | 5.650     | 5.650     | 5.650     | 5.650     |

**Table 9: Financial projections**

| Line description   | Units | AMP4    | AMP5    |         |
|--|-------|---------|---------|---------|
|  |       | 2007-08 | 2013-14 | 2014-15 |
| <b>A Current cost profit &amp; loss and financial indicators</b> |       |         |         |         |
| 1 Turnover   | £m    | 610     | 834     | 1,016   |
| 2 Operating costs  | £m    | 192     | 252     | 313     |
| 3 Capital charges  | £m    | 229     | 327     | 394     |
| 4 Operating profit   | £m    | 175     | 95      | 118     |
| 5 Regulatory capital value-year end                              | £m    | 3,319   | 3,612   | 4,285   |
| 6 Pre tax return on regulatory capital value                     | %     | 5.3     | 6.6     | 6.2     |

**Table 10: Water and sewerage services - Summary of justification of company investment proposals**

| Line description   | Units | Contribution to annual average household bill in 2014-15 | Net present value of costs arising from investment proposals in 2010-15 | Net present value of benefits arising from investment proposals in 2010-15 | Capital expenditure proposed for 2010-15 | Operating expenditure in 2014-15 |
|--|-------|--|---|--|--|----------------------------------|
|  |       | £/year   | £m  | £m   | £m                                       | £m/year                          |
| <b>A Water Service</b>   |       |  |   |  |  |                                  |
| 1 The total plan for the water service 2010-15                                   |       | 6  | 1,241   | 35   | 596                                      | 4                                |
| 2 Water service - Investment proposals demonstrated to be cost-beneficial        |       | 0  | 3   | 35   | 3  | 0                                |
| 3 Water Service - Investment proposals demonstrated to be non-cost-beneficial    |       | 0  | 0   | 0  | 0  | 0                                |
| 4 Water service - Investment proposals not assessed                              |       | 6  | 1,238   | 0  | 593                                      | 4                                |
| <b>B Sewerage Service</b>  |       |  |   |  |  |                                  |
| 6 The total plan for the sewerage service 2010-15                                |       | 22   | 2,904   | 1,071  | 2,032                                    | 28                               |
| 7 Sewerage service - Investment proposals demonstrated to be cost-beneficial     |       | 1  | 190   | 991  | 135                                      | 2                                |
| 8 Sewerage service - Investment proposals demonstrated to be non-cost-beneficial |       | 3  | 374   | 80   | 195                                      | 6                                |
| 9 Sewerage service - Investment proposals not assessed                           |       | 18   | 2,340   | 0  | 1,702                                    | 20                               |

## Next Steps

We will continue to refine this plan between now and April 2009, when we submit our final business plan to Ofwat. We are consulting on the content of this plan for 12 weeks until the 31st October 2008.

Please take this opportunity to give us your feedback. We welcome your views on any aspect of this plan and in particular on the questions we raise which are summarised here for your convenience.

### Drinking Water

Previous customer feedback says:

- You support our aim for all drinking water to meet Drinking Water Inspectorate standards
- You agree with our plans to remove lead pipes from our network
- You support an increase in renewing mains

**Do you support our proposals to improve the quality of water?**  
**Do you support the need to further enhance the resilience of critical abstraction points in our network?**

### Metering

This chapter explained our aims to:

- Install over 500,000 meters by 2015 to achieve full metering
- Integrate the communication pipe replacement programme
- Continue our water efficiency education/promotion programme

**Do you support our efficient pace of metering to achieve full coverage by 2015?**

### Leakage

Continued and proactive maintenance of the underground network is critical to the success of delivering reliable services to your home. Our network requires increased investment to maintain the current levels of service.

**Do you support the continuing drive to reduce leakage from today's level of 15% towards the SDS target of 10%?**  
**Are we right to increase the speed of our network renewal programme?**

### Sewer Flooding

We explained our determination to reduce the devastating effects of sewer floods to properties.

**Should we go further and invest to reduce the 1 in 20 year register and the external flooding register?**

### Pollution

We want to eliminate the risk of serious pollution incidents and sustain the improved compliance of our wastewater treatment works.

**Do you agree that we should increase sewer renewal rates?**

**Do you support our target for sustainable improvements in compliance and reduced pollution incidents?**

### Growth

Government targets for house building in the south east will put pressure on existing water supplies. We need to predict the future impact of these developments and build infrastructure to accommodate all eventualities.

**Our plan is based on a risk assessment of the latest forecast and assumes less growth than the optimistic government projections.**

**Do you agree with our stance?**

### Recycling Waste

We want to run a power efficient operation and cut our carbon emissions significantly between 2010-2015.

**Do you support our commitment to reduce our carbon footprint?**  
**Should we do more or less?**  
**Are there any other areas where we should look to cut our carbon emissions?**

### The environmental quality programme

We explained that further increases in the water treatment processes were accompanied by very high carbon emissions, while the benefits to the water environment were more marginal.

And we spoke about forthcoming legislation in the National Environment Programme.

**Did you realise the impact of these quality obligations on our programme?**

### What this means for bills

We have aimed to improve services whilst managing the upward pressure on bills. We aim to do this through the lower cost of financing compared to the previous five-year period, and the phased programme of investments over a longer period of time.

**Do you agree with our proposed package and pace of improvements?**  
**Overall, having read this summary, do you support this plan?**

### Competition

Ofwat are currently consulting on their review of competition for the water industry. It is evident that the approach of introducing competition to the retail market has not succeeded because no eligible consumers have switched suppliers.

**As with other utilities e.g. gas and electricity do you support the introduction of competition in water?**

**Please address your comments to the address below or e-mail to: [PR09@southernwater.co.uk](mailto:PR09@southernwater.co.uk)**

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