

Our plans for 2010 - 2015



Foreword

As we look ahead over the next five years, I'm pleased to report that we can move forward with a strong record of recent performance.



In the last four years, we have seen year-on-year improvements in a host of areas. Our recent achievements include the best drinking water quality of any major supplier, reducing leakage by 27 per cent and creating enough renewable energy to supply 15 per cent of our own power needs.

We are well placed to face the challenges of the next five years, which include planning for climate change and the ongoing economic downturn.

Over the same period, we will need to provide sewerage services for over 140,000 more people – roughly equivalent to the population of Oxford – as well as drinking water for many of those new customers.

However, we do not intend simply to maintain our current high standards. Quite rightly, there are growing expectations from our customers, our regulators and the numerous stakeholders who take an interest in our work.

Within Thames Water, we ourselves also want to deliver ever-improving performance. I look forward to being able to report many more advances in the coming months.

You can read more in this overview about the £5bn of investment we plan to make across our region between now and 2015.

The work we will be doing includes measures to help control the demand for water and, where needed, to develop new sources.

In the wastewater part of our business, we will continue to work hard to protect the environment and significantly reduce the number of properties at risk of sewer flooding, provide extra capacity to treat wastewater and install new technology to generate renewable energy.

Of course, we will also be investing in other parts of our business – for example, to make further improvements in customer service and to protect and maintain our sites.

This is an exciting time to be working in the water industry, with plenty of change and innovation that will result in further improvements in customer service.

You can find out more about the work we will be carrying out in your local area at www.thameswater.co.uk/thebigmap.

Martin Baggs
Chief Executive Officer
Thames Water

November 2010

How the water industry plans its work

Every five years, water companies in England and Wales prepare their business plans, setting out the main areas in which they intend to invest.

These proposals are reviewed by the economic regulator, Ofwat, which decides by how much the level of bills should change to pay for the work required.

Like other companies, we submitted our final business plan in 2009, outlining our investment proposals for the period from 2010 to 2015.

The plan explained how we aimed to address the priorities of our customers, meet the requirements of new legislation, provide water and wastewater services for our region's growing population, and accommodate the expected challenges of climate change. For details of this, visit www.thameswater.co.uk/ourfiveyearplan.

Ofwat gave its decision in a 'final determination', which sets limits for customers' bills for the five-year period.

This report sets out the main work we plan to carry out between 2010 and 2015. In some cases, we have agreed with Ofwat the exact locations where we will be investing, while in other cases we have flexibility to decide where best to make the improvements.

This work is in line with the longer-term objectives we set out in our 25-year plan, *Taking care of water*, published in December 2007. In some areas, however, we have had to adjust the pace of our plans due to the balance of priorities since agreed with Ofwat, and the effects of the current economic downturn.

Our work over the next five years

From 2010 to 2015, we will invest almost £5bn, plus annual operating costs of about £600m.

This represents the biggest-ever investment programme in the UK water industry.

As part of this, we aim to:

- Ensure there is sufficient water available to supply all of our customers.
- Provide sufficient capacity in our sewers and treatment plants to meet the demand for wastewater services.
- Meet the necessary drinking water and environmental standards.
- Maintain our assets, such as pipes, pumping stations and treatment works.
- Improve our customer service, to meet the targets set by Ofwat and increase the overall level of customer satisfaction.

Responsible environmental management is core to our delivery of these aims. Our services depend on a healthy natural environment, but we can affect the natural and built environments in all that we do.

We aim to ensure that what we do today is right for tomorrow and does not disadvantage future generations or store up problems for the future.

Customer service

Improving our customer service will be a major focus for us in the five years to 2015. Customers expect a high-quality service and, in an increasingly 24-hour culture, they expect to be able to communicate with us whenever they require assistance.

Our planned changes include improvements to our website, to allow customers to do more online. This will include a new tool to show people how much water they use in their day-to-day activities, and an interactive map indicating the location of emergency incidents and planned work.

We are increasingly engaging with customers through social media, such as Twitter and Facebook and will continue to explore new ways to communicate.

Improvements will also include an enhanced focus on recruiting the best staff, and providing extra training to further develop the way employees handle telephone queries and correspondence.

We will be reviewing and redesigning our bills, to make them easier to read and understand.

Enhancing our processes

We will introduce new processes which will allow us to better manage our work from scheduling through to completion. This will further enhance our service – for example, through better planning.

We will install the latest monitoring technology at many of our sites, so that we can check how they are operating in real time. This will enable us, for example, to gain early notification, and respond quicker, when mains burst or when there are issues at a treatment works.

In addition, we will be looking to improve communications to keep customers updated on our progress in resolving issues.

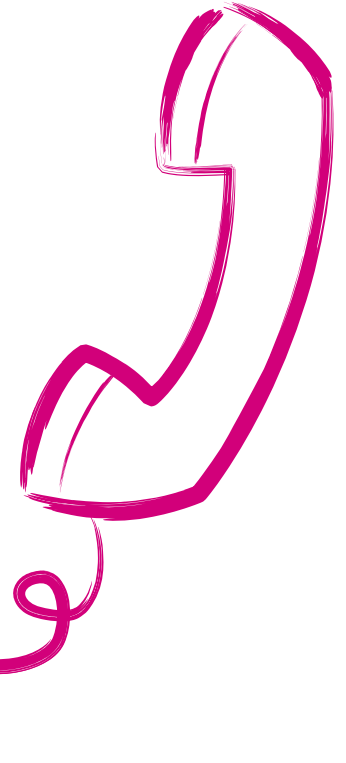


Providing top-quality service

We will be reviewing and redesigning our bills, to make them easier to read and understand.

We will also continue to ensure that we meet the customer service targets set by Ofwat. These cover such issues as properties receiving low pressure, the speed with which we answer enquiries and how well we respond to telephone calls.

Throughout this, we will aim to provide a service that ensures customers trust us, find us easy to do business with and shows that we really care.



Water supplies

We must ensure that we can meet our customers' long-term water needs, addressing the challenges posed by population growth, climate change and the need to protect the environment.

This involves helping control the demand for water – for example, by controlling leakage and encouraging people to use water wisely – and, where necessary, developing additional sources of water.

Our work in the next five years will include providing an extra 21 million litres per day from new underground sources of water in the Swindon and Oxfordshire areas.

We will also carry out 33 separate projects to ensure we maintain the high quality of our tap water. This will include work to reduce the risk of pesticides entering rivers, and replacing more than 30,000 sections of lead pipe.

In other work, we will make improvements to help reduce the impact on the environment of the water that we take from a number of local rivers and streams.

We will provide an extra 21 million litres per day from new underground sources.

Leakage

Repairing leaks is the most important factor in addressing demand. The high priority we have given this work has helped us beat our leakage target for each of the last four years and reduced the likelihood of burst mains.

We will continue to control leakage levels by finding and fixing holes in our pipes. We will also continue to replace some of our oldest water mains, most of which are in London and date from Victorian times.



Installing water meters

Water meters have an important role to play in helping manage demand for water. As well as being the fairest system of charging, meters encourage households to use water wisely. They also help pinpoint leakage from customers' own pipework.

In the five years to 2015, we will fit about 225,000 new meters at existing properties, in addition to those we expect to fit at 150,000 newly connected properties. This will increase the proportion of metered properties in our region from the current level of about 28 per cent to 37 per cent by 2015.

We will also replace 121,000 domestic meters, to ensure they continue to give accurate readings.

Where possible, we will fit meters at the same time as we replace water mains, to reduce costs and minimise disruption to customers. We will also provide newly-metered households with advice and assistance to help them control their water usage and bills.

Using water wisely

Over the five-year period, we will promote the wise use of water in homes and businesses across our region, with a target saving of 22.1 million litres per day – enough to supply more than 130,000 people.

As well as offering households advice on saving water, we will also work with local authorities, housing associations and developers to promote the wise use of water in existing and new homes.

We will continue to highlight the importance of water efficiency through education, partnerships and research projects across the area we supply.

Wastewater services

Over the next five years we will carry out our largest-ever wastewater investment programme. This will include engineering schemes to improve the quality of the River Thames as well as additional work to address a growing population.

After heavy rain, some of our London sewage works and sewers can become overloaded and discharge into the River Thames. This overflow capacity was built into their original design, but the frequency of these discharges means we must take action to reduce them. We have identified three solutions:

- We are investing £675m to modernise and extend London's five major sewage treatment works, to increase their capacity and improve the standard to which we treat wastewater.
- We began work in summer 2010 on the Lee Tunnel, which will prevent a significant proportion of sewage discharges into the River Lee. Construction is due to finish in 2014.
- Work is expected to start in 2013 on the larger Thames Tunnel, which will capture much of the sewage that currently discharges directly into the Thames following periods of heavy rainfall. We anticipate that work should be completed within the next ten years.

Coping with growing population

We forecast connecting about 236,000 new properties to mains drainage by 2015. Our challenge is to ensure we provide wastewater services for all new and existing customers, while ensuring the quality of treated effluent we discharge to local watercourses meets the relevant environmental standards.

We will need to improve treatment capacity at a number of our works to ensure they can cope with sewage from an extra 146,000 people.

Our plans also include increasing our capacity to treat sludge, which is recycled to farm land as a fertiliser.

We will carry out upgrades at many of our sewage treatment works across London and the Thames Valley. This will ensure they comply with new legal requirements included in a range of European Union legislation, such as the Urban Waste Water Treatment Directive and the Water Framework Directive.



Protecting homes from flooding

We are committed to reducing the small percentage of properties that are at risk of flooding from our sewers at times of heavy rainfall.

We plan to carry out work that will benefit more than 1,700 homes which are currently at risk of flooding internally at least once every ten years.

Taking into account new cases that come to our attention in the next five years, we estimate that by 2015 we will have brought about a net reduction of about 500 in our 'risk register' of such properties.

If we are unable to fully remove the risk, where possible we will offer protection in other ways – for example, in the form of flood guards or by securing manhole covers.

We estimate that, through our work to tackle internal flooding, we will also reduce the risk of external flooding at 670 properties across our region.

In addition, we will invest to protect our major sites from flooding caused by rivers and rainwater run-off. This will include 11 water treatment

works, as well as work to enhance our emergency response capabilities by improving monitoring, IT and communication systems.

Reducing the risk of odour from our sites

In a number of locations, new development has meant that houses are now much closer to sewage treatment works than was originally the case. This can occasionally lead to odour problems.

In the next five years we are planning improvements at nine sites to reduce potential odour problems. This will include installing odour reduction equipment and covering over certain treatment equipment.

A total of more than 14,000 homes will benefit from the work, which will be carried out in areas such as Beckton, Dartford, Kingston and Redhill.

We will carry out upgrades at many of our sewage treatment works.

Sustainability

We face long-term challenges including climate change, population growth and increasing pressure on limited natural resources. We therefore need to continually evolve our approach to environmental management and ensure that sustainability is at the heart of our business.

Many of the improvements we plan to make to our water and wastewater treatment works, outlined in other sections, will have sustainability benefits – for example, by improving the quality of treated effluent we return to the River Thames.

A sustainable Thames Water provides benefits for customers, stakeholders, investors, our staff, the environment and society. We will achieve this by working to eliminate waste, reducing use of natural resources, operating more efficiently, continually improving performance, building employee pride and meeting the expectations of our stakeholders.

Renewable energy

One of the biggest sustainability challenges we face is climate change. We are tackling this in many different ways. For example, the sewage treatment process produces methane, which at some sites we capture and store to use as a fuel, generating renewable energy. We have already installed this process, known as 'combined heat and power' at 20 of our sites.

In the next five years, we will be installing this technology at Chertsey Sewage Treatment Works, and boosting capacity at 11 works where it is already in place, such as Banbury, Camberley and Basingstoke.

We will install 'thermal hydrolysis' technology at sewage treatment works in Rainham, Crawley and Oxford, plus our two biggest London works. This will break down more of the sewage sludge into methane, which we use to create power. As a result, we will generate more renewable energy and transport less sludge to farmland.

In the year 2009/10, we generated 15 per cent of our own power needs, and by 2015 aim to install a further 3MW of renewable energy generation capacity.

In a separate initiative, we have already begun using biomethane gas from Didcot Sewage Treatment Works as a source of renewable gas for up to 200 local homes. This joint venture with British Gas and Scotia Gas Networks is a UK first.

We will also be building our first hydro-electric installations at four sites, enabling us to generate electricity via energy recovery. They will have a combined capacity of about 1.4MW.

As well as work to produce more renewable energy, we will be making changes to reduce our own energy use and our contribution to greenhouse gas emissions.



This will help us respond to the introduction of the Carbon Reduction Commitment, a mandatory UK-wide scheme promoting energy efficiency among large businesses and public sector organisations, which began in April 2010.

New metering technology

We have trialled 'sub metering' technology at three of our treatment works, which allows us to measure the specific energy consumption of individual processes at each site, highlighting those areas that are using more power than expected.

This trial has already enabled us to identify savings, and we are investigating the potential to use it at other major operational sites.

Environmental protection

The range of sites we manage, and the importance of the environment to our work, means biodiversity is a vital consideration in our operations. We will continue to carefully manage our land holdings, which include a number of Sites of Special Scientific Interest, and to screen our planned engineering work to assess its impact

on the region's ecological, archaeological and cultural heritage.

We will also carry on our 'Ten for Ten' initiative, funded by company profits, which benefits a range of community projects. This includes supporting a new visitor attraction at the London Wetland Centre and helping the National Trust develop an improvement plan for a site near Newbury.

Achieving leadership

We want to be the leaders in environmental protection and sustainability. This means doing the right thing for people, the planet and our own performance. It also means making sure that what we do is right for today and tomorrow - and that it does not store up problems for future generations. We are developing our plan to achieve this and will keep our website updated with our progress.

We will ensure that sustainability is at the heart of our business.

A summary of our key work

We have summarised below some of the major elements of our planned improvements from 2010 to 2015.

Business Area	Some of our key activities for 2010-2015
Customer service	<p>Improve the services we deliver to customers by...</p> <ul style="list-style-type: none"> • Minimising incidents of low pressure, interruptions to supply and flooding from sewers • Investing in our systems, processes and people to ensure that we deal with customers' queries and complaints quickly and effectively • Improving our communication channels to keep customers informed and to make us easier to do business with
Water supplies	<p>Maintain a secure supply of water to our customers by...</p> <ul style="list-style-type: none"> • Maintaining our pipes, pumping stations and treatment works • Connecting 150,000 new properties to our network • Providing an additional 21 million litres of water per day from new sources • Promoting the wise use of water by installing 225,000 meters at existing properties and fitting meters at 150,000 new properties • Maintaining leakage at a sustainable level • Investing in flood protection measures at our major sites <p>Protect the high quality of our tap water by investing in 33 improvement schemes.</p>
Wastewater services	<p>Maintain wastewater services to our customers by...</p> <ul style="list-style-type: none"> • Maintaining our pipes, pumping stations and treatment works • Connecting 236,000 new properties to our mains drainage • Improving wastewater treatment capacity to cope with an additional 146,000 people • Investing in flood protection measures at our major sites <p>Minimise the impacts of our wastewater treatment on society and the environment by...</p> <ul style="list-style-type: none"> • Reducing the risk of internal flooding from sewers for over 1,700 properties • Developing two major tunnels as longer-term solutions to sewage overflows into the River Thames • Reducing odour at nine sewage treatment works • Improving the quality of effluent produced at our sewage treatment works to meet environmental requirements driven by EU Directives
Sustainability	<p>Put sustainability at the heart of our business by ...</p> <ul style="list-style-type: none"> • Increasing the amount of renewable energy that we generate through combined heat and power (CHP) schemes at 12 sites and installing hydro-electricity generation at four sites. We will also increase energy generation, and transport less sludge to farmland, by installing enhanced sludge treatment at five sites. • Delivering the water, wastewater and customer outputs that will improve our sustainability performance. • Continuing to manage and reduce our impact on the natural environment, including the Sites of Special Scientific Interest (SSSIs) within our region.



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