



Planning for a Sustainable Future

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Contents

- 3 CEO's Statement
- 4 Core Business
- 5 Corporate Governance
- 6 The Drought in our Region
- 8 Working together to beat the Drought
- 9 Water UK Sustainability Indicators
- 10 Water Quality
- 12 Wastewater Quality
- 14 Spotlight on our Challenge
- 16 Energy and Transport
- 18 Employees, Materials and Resources
- 20 Conservation and Community
- 22 Statement of Verification

Introduction

In this summary report, we highlight operational issues relating to corporate social responsibility and environmental performance. Our Conservation, Access and Recreation report is available at www.southernwater.co.uk/sustainability

This report shows how we performed against targets we published in 2005 and against our programme of five-year targets. We measure targets against a combination of the 2005 calendar year and April 2005–March 2006 data. Our business regulators require us, as a water supply, wastewater treatment and biosolids-recycling operator, to retain data particular to these performance years.

This report is one of the ways we publicly account for our performance. Further information and details of all of our reports and key sustainability, environmental and corporate social responsibility policies can be found at www.southernwater.co.uk



I am pleased to introduce Southern Water's fifth annual sustainability report – Planning for a Sustainable Future. Our priorities remain to deliver good customer service while safeguarding the environment and this report highlights how the company has striven to strike a balance between the environmental, social and economic aspects of the business in 2005-2006.

We have faced an extremely challenging year as the severe drought in the South East, caused by the driest period of weather since 1933, continues.

To help deal with the situation we fast-tracked over 50 projects to produce more water and allow us to move more around the region. We are investing approximately £20 million on these schemes which have the potential to produce nearly 100 million litres of extra water each day - enough to meet the needs of 625,000 people.

Leakage is a major priority for us and we have doubled the size of our teams which work round the clock to find and repair leaks on our 13,500 km of water mains. Their work is helping to ensure we have the lowest level of leakage per property in the country.

The response from our customers in helping stop the waste of water has been tremendous and we are working in partnership with them to promote water efficiency and the use of water meters. As part of this, we are offering free water audits in businesses and schools as well as homes in parts of our region most affected by drought.

While we have a hosepipe ban in place across large parts of our region, wetter weather in April and May, along with the above actions, allowed us to hold off putting further restrictions in place under a Drought Order issued by Defra.

However, the situation remains serious with underground aquifers in the region, which supply about two thirds of our drinking water, near record low levels. Therefore, we are constantly monitoring the situation to take the necessary steps to ensure we can continue to supply top quality drinking water 24-hours-a-day to our 2.3 million water supply customers. In the longer term, we are investigating possible new resources to cater for increased water demand that will come with population growth in the South East.

The year was the first in our 2005-2010 capital programme, which remains on target. Indeed, in the first year of our programme, we delivered many more projects than expected by our regulators.

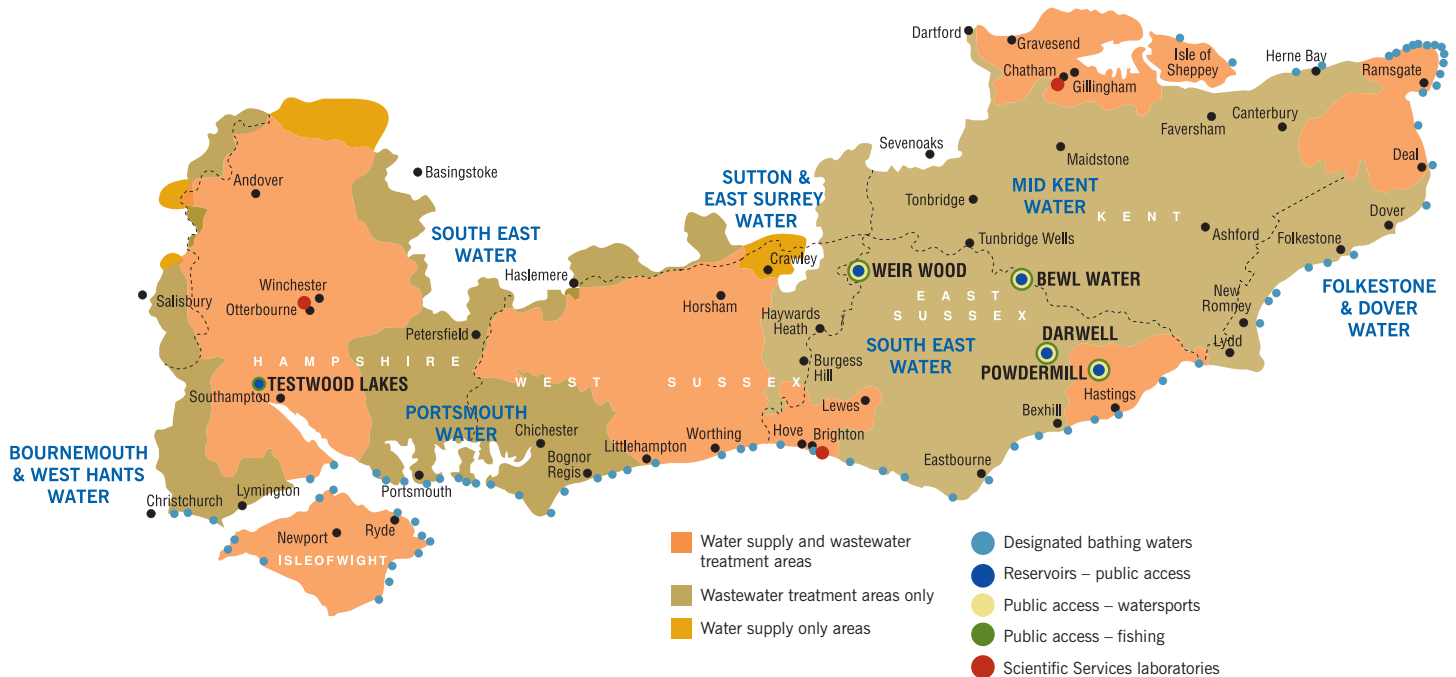
Work is pressing ahead in Margate and Broadstairs to build a new wastewater treatment scheme to bring cleaner seas to the area and in New Romney and Greatstone/Lydd-on-Sea work is progressing to provide mains drainage for the first time. Our plans to build a new wastewater treatment works to serve the Brighton and Hove area are under consideration following a public inquiry and, on all our projects, we continue to liaise with our stakeholders to help ensure successful delivery.

On the operational side of our business, we continued to deliver water quality to rival the best in Europe and our wastewater treatment works that recycle into the sea helped ensure every beach in the region met European water quality standards.

Meanwhile, work to install a new customer information system at our customer call centre in Durrington is well under way. This will come on line in the new year and bring about major improvements in the service we provide.

Of course, our performance would not be possible without our employees and I would publicly thank them for their hard work. I would also like to thank all our customers who have worked with us to improve our performance and efficiency to the benefit of the environment in the South East.

Les Dawson
Chief Executive Officer



Core Operations

Of the total UK population, around 7% reside within our region. As part of our public service of water supply and wastewater treatment, we:

- Operate from 11 river abstraction points, 93 borehole abstraction points and four reservoirs, taking two thirds of water supplied to customers from groundwater sources.
- Maintain 94 water treatment works, 3.8% of the UK total.
- Look after over 13,500 kilometres of water mains connecting our region.
- Maintain 367 wastewater treatment works, 4.1% of the UK total.
- Look after over 21,300 kilometres of sewers across our region.

Our area of operations map illustrates the regions in which we provide water supply and wastewater treatment services. In the areas within our overall region where we do not supply drinking water, we work alongside other suppliers to ensure appropriate management of water resources across South East England.

We transported wastewater away from 1.8 million domestic households across Kent, Sussex, Hampshire and the Isle of Wight over 2005-2006, providing vital, high quality drinking water to more than two million customers. We continued to maintain our expansive infrastructure, investing in improvements and extending it to meet the growing needs of the drought-hit South East of England. Whilst investing significant resources into tackling the drought, we worked in partnership with our customers, also maintaining key community education and support programmes. We made significant improvements in the quality of our wastewater treatment services, connecting an additional 14,314 properties to our sewerage system over 2005-2006.

Our Awards

- ✓ **Commendation from the Learning and Skills Council for our Apprenticeship Scheme**
- ✓ **We were awarded our 7th consecutive gold medal award from the Royal Society for the Prevention of Accidents (RoSPA)**
- ✓ **Our construction partners won a gold medal award from RoSPA**
- ✓ **Carbon Trust's Energy Efficiency Accreditation**



Our risk and control framework is focused around a monthly review of key business risks. Outcomes from these reviews are logged centrally and overseen by our Risk Monitoring Committee, which reports directly to our Executive Management Team. Additionally, our Environmental Policy Advisory Committee (SWEPAC) meets quarterly to review policy, risk and performance with a specific sustainability focus. SWEPAC reports as necessary through our Risk Monitoring Committee.

Our internal audit programme, generated annually for the year ahead, supports our risk and control framework. Audit findings are reported directly to our Audit Committee. We maintain formal environmental, quality and health and safety management systems, each with its own programme of audit, within our business.

At a glance

- Our water supply operations continued to be certified to the International BS EN ISO 9001:2000 quality standard.
- We maintained our laboratory testing and calibration operations to international standard ISO17025.
- We continued to maintain health and safety management to Royal Society for the Prevention of Accidents standards.
- We revised and re-issued our Environmental Management System (EMS) this year to improve its ease of use to all.
- We fully reviewed our EMS again this year.
- We now offer three environmental management training courses through our Open Learning facility.
- We developed environmental management training for our site operators.
- We continued to conduct environmental audits of our suppliers and our operational sites.



Risk and Control Framework Process



The Drought in our Region



Drought update

- The South East region of England covers more than 19,000km² with an estimated population of 8.1 million.
- Drought in the South East started in November 2004 and continued into 2006.
- We continued to work closely with the Environment Agency and other water companies in the South East to moderate the impacts of drought and maintained monthly meetings with them over 2005-2006.
- We worked with our customer community to alleviate the problems of the drought and first placed formal restrictions on water use in June 2005.
- We applied for a Drought Order to allow restrictions on non-essential water use for the supply areas of Sussex North, Coast and Hastings in East Sussex, and Kent Medway and Thanet in March 2006.
- We issued our revised Drought Plan to Defra in 2006.

There was a prolonged period of below average rainfall between November 2004 and the end of March 2006. Total rainfall in this period was only 74% of the long-term average rainfall, the lowest since 1934. Two dry winters affected both reservoir storage and groundwater reserves.

Rainfall in our region must be seasonally sufficient to ensure refill of groundwater reserves each year. In our water supply region, around 70% of water comes from groundwater. Rain falling in warmer seasons is subject to higher levels of evaporation or use by plants than in cooler seasons. Heavy rainfall is subject

to high levels of run-off, ultimately to sea, rather than soaking into the ground. This is particularly the case following extended periods of dry weather where the ground has become compact and hard.

Water companies are able to use some basic powers to help alleviate the impacts of drought. These rest largely around restricting domestic use (e.g. with a hosepipe ban). Other arrangements must be sought through agreement. Some are agreed with the Environment Agency, for example to abstract more water from a location than we would under normal conditions. Others require agreement from Defra. These include non-essential use restrictions on certain types of commercial use, such as watering cricket grounds.

Defra require water companies to use drought order powers sensitively and progressively. Defra continue to monitor the effects of drought orders to ensure they deliver results in a proportionate way.

We activated our Drought Plan before Christmas 2004 in response to the developing situation. We put drought management structures in place and have continued to maintain them. We introduced a number of water use restrictions over time, appropriate to the deepening drought as it affected increasingly wider areas of our operational region.

We continue to work hard to communicate the need for responsible, efficient use of water to our commercial and domestic customers.

We applied for, and were granted, a series of drought permits and a drought order. Drought permit applications go to the Environment Agency and generally cover changes to existing consents to draw water. We were granted permits that allowed us to continue to take water from rivers leaving lower river flows than our consents would normally allow. Drought order applications go to the Secretary of State and cover broader permissions than permits.

We make public notices for all restrictions we put in place and all permits or orders we apply for. Anyone may inspect proposals made in permits or orders and can object to them should they wish to. We support all our applications for drought orders and permits with our findings from comprehensive environmental studies. Without restrictions on water use during a drought, there would be a serious threat to groundwater and surface water that would in time impact on local environments and habitats.

Water Framework Directive

www.defra.gov.uk
www.environment-agency.gov.uk
www.euwfd.com –
Water Framework Directive
Information Centre



- The Water Framework Directive (WFD) is designed to integrate the way we manage bodies of water across Europe.
- The WFD requires all inland and coastal waters to reach a certain status by 2015 through establishing a river basin district structure and setting environmental objectives within these.
- Representatives from the UK water industry are together looking at new ways of working under the requirements of the WFD.
- We began to define shared responsibilities for river basin districts with other water companies over 2005-2006 and a method of working to achieve effective plans for these districts.
- We represent the water sector on the Environment Agency's South East River Basin District Liaison Panel.

The Drought in our Region

Fact!

We introduced a **one hour** leak response to customers and relaxed the number of free leak fixes per customer due to the drought

We aim to repair leaks within **one day** on average

DROUGHT ORDER AND PERMITS

Source	Drought Order/Permit	Condition
Weir Wood reservoir	Drought Order	Reduction in compensation release – water released back to the environment from the reservoir.
Hardham surface water abstraction	Drought Permit	Minimum residual flow reduction to consent – river flows may be left lower than in non-drought conditions.
Hardham surface water abstraction	Drought Permit (extension)	Minimum residual flow reduction (see above).
River Medway scheme	Drought Permit	Minimum residual flow reduction (see above). Enhanced pumped refill of Bewl Water Reservoir.
River Medway scheme	Drought Permit (extension)	Minimum residual flow reduction (see above). Enhanced pumped refill of Bewl Water Reservoir.

THE DROUGHT IN OUR REGION AT A GLANCE

	Our Region/South East	Comparison
Population and Region	South East England has an average population density of 425 people per km ² .	North East England has an average population density of 297 people per km ² .
Water Use	The average person in the South East uses 160 litres of water a day. Average daily water use in the South East totals 1,300 million litres or 68,075 litres per km ² .	160 litres of water is roughly two baths full. This is 10 litres more than the UK daily average per person for water use. In North East England, average daily water use totals 44,847 litres per km ² .
Water Resources	Typically, 70% of water supplied to customers comes from groundwater. The rivers Medway and Ouse ran at all-time lows over November 2004 to March 2006, with 32% and 38% long-term average flows.	The Met Office found 'exceptionally low levels' of groundwater in parts of the South East. Our region had lower long-term average river flows over November 2004 to March 2006 than any other in the UK.
Rainfall and Refill	We received only 74% of average rainfall for our region between November 2004 and March 2006. Critically, it remained dry over most of the last two winter periods, when recharge of groundwater and run-off to storage reservoirs occurs.	We received the lowest percentage of average rainfall for our region than any other in the UK between November 2004 and March 2005.
Total Leakage (includes customers)	Total leakage from our network and our customers' premises averaged 92.75 million litres per day over 2005-2006. Our leakage performance has consistently met target levels throughout the 3-year period prior to 2005-2006.	The Water Services Regulation Authority states leakage levels are cost-effective at Southern Water and most UK companies. Over the last five years, UK water companies spent £770 million finding and mending leaks. Total leakage from networks and premises in North East England averaged 157 million litres per day over 2005-2006.
Permits, orders and hosepipe bans	Hosepipe and sprinkler use is banned across most of South England. We had no water use restrictions in place in the 5-year period ending March 2005. We were granted permission to move water around to reduce impacts of drought to the driest parts of our region. Defra granted us further Drought Powers to restrict non-essential use in the driest parts of our region.	A sprinkler uses over 1,000 litres of water an hour. The Consumer Council for Water supports restrictions on water usage to tackle the current drought in the South East. The Water Services Regulation Authority confirms customers prefer occasional hosepipe bans to higher bills.

Working together to beat the Drought



Working together

- We delivered **49** Water Wise (water efficiency) community talks over 2005-2006
- We delivered **35** school talks (water efficiency) over 2005-2006
- We distributed **31,957** water efficiency packs to customers in our region
- We promoted water efficient gardening to **130,000** people through B&Q stores in our region
- We sold **19,303** water butts for rainwater capture over 2005-2006

During the year, we made full use of the media to communicate the measures we were taking to beat the drought, encouraging a partnership with our customers. Press releases highlight to our customers what we are doing to beat the drought, encouraging them to adopt water conservation measures themselves.

We followed the principle of 'a picture paints a thousand words' and released hard-hitting images of the drought to the media to capture the imagination of editors. We got our message into almost every national and local newspaper. There was also widescale television and radio coverage, not just of the drought but of the schemes put in place to provide more water for our customers and to move it more efficiently around our network.

We delivered water efficiency talks to schools and community groups. Similarly, our award-winning play, 'Are You A Drip?', was performed at 48 primary schools during 2005-2006, showing an estimated audience of 6,323 people how water can be conserved in the home.

We also worked with local authorities to provide drought-resistant gardens where colourful plants can survive on little rainfall. We sponsored discounted price water butt sales and continuously gave advice on how customers can save water, such as not running the tap when brushing your teeth.

Water saving tips

- A tap left running whilst brushing teeth can use 10 litres of water at a time.
- A short shower uses less water than a bath.
- Customers should report leaks to 0800 820 999.
- A dripping tap can waste 140 litres of water a week.



RESTRICTIONS ON WATER USE:

Date of introduction	Water resource zone	Level of restriction
10 June 2005	Sussex North	Full hosepipe ban
11 July 2005	Sussex Coast	Full hosepipe ban
11 July 2005	Sussex Hastings	Sprinkler/unattended hosepipe
11 July 2005	Kent Medway	Sprinkler/unattended hosepipe
11 July 2005	Kent Thanet	Sprinkler/unattended hosepipe
30 July 2005	Sussex Hastings	Full hosepipe ban
30 July 2005	Kent Medway	Full hosepipe ban
30 July 2005	Kent Thanet	Full hosepipe ban
24 March 2006	Isle of Wight	Full hosepipe ban

Water UK Sustainability Indicators

Our industry sector produces aggregate sustainability indicators annually through the Water UK Sustainable Development Network. A selection of these is shown below for the latest reported data, 2004-2005. Alongside, we have benchmarked our company results for both 2004-2005 and 2005-2006 reporting years. These indicators should be interpreted in the context and completeness of industry confidence levels. For further information on this and other aspects of the indicators, please go to Water UK's report Towards Sustainability 2004-2005, at www.water.org.uk

Water UK Sustainability Indicator	UK Sector	Southern Water	
	UK 2004-2005	SWS 2004-2005	SWS 2005-2006
Governance			
Operators with management systems for sustainability:			
Environment	17	Yes	Yes
Quality	21	Yes	Yes
Health and Safety	24	Yes	Yes
Convictions (total number)	101	15	14
Environment			
Sludge management (% reused)	81	93	96
Energy used per million litres water supplied (kWh)	663	801	845 ¹
Energy used per million litres wastewater treated (kWh)	663	622 ²	608 ²
Renewable energy as percentage of total energy used (%)	8.45	0.96	2.7
Greenhouse gases emitted, total (million tonnes)	4.14	N/A ³	0.52
Compliance with abstraction licences			
(Number of exceedances)	94	5	2
(Total water abstracted in excess of licensed volume, million litres)	4,280	106	0.2
Rivers in Environment Agency classes 'very good to fair' % for:			
Chemical water quality	95	88.7	N/A
Biological water quality	95	99.3	N/A
Designated bathing waters. % achieving:			
Mandatory European standards	98.4	98.7	100
Guideline European standards	74	69.6	82.3
Society			
Security of supply index score	-63 to 100	51	58
Water demand:			
Domestic water demand (litres/person/day)	151	157	153
Total water consumed, domestic and non-domestic (million litres/day)	13,355	485	481
Tests complying with drinking water standards (%)	99.86	99.89	99.9
Workplace			
Employee turnover rate (%)	10.3	7.9	10.0
Workforce with access to formal bargaining arrangements (%)	97.4	100	100
Working environment – average days lost through sickness (days/person/year)	6.5	8.9	8.6
Infrastructure			
Properties with low pressure supply	19,265	502	898 ⁴
Performance of supply infrastructure – interruptions to supply:			
number of properties	734,567	19,716	28,796
% of properties	2.68	1.92	2.77
% Population served by wastewater treatment works meeting numerical standards (%)	97.0	99.9	100
Sewer Flooding:			
Properties at risk of flooding (%)	0.042	0.027	0.021
Properties flooded (%)	0.021	0.016	0.017
Actual leakage – total volumes lost from supply (million litres/day)	4,950	91.6	92.7

¹ This figure includes the energy consumption necessary to move water around to alleviate the impacts of drought in 2005-2006

² These figures include a factor for infiltration, this is largely leakage of groundwater

³ These figures are calculated using a new methodology, different to that in use in 2004-2005

⁴ Operational improvements implemented throughout 2004-2005 proved unsustainable in the context of the developing drought

Water Quality



Water Quality

Our drinking water quality report is available at: www.southernwater.co.uk



The Drinking Water report for the Southern Region is available at: www.dwi.gov.uk

- The drinking water quality Operational Performance Index (OPI) is a measure used by Ofwat based on a number of key standards it believes water companies can most influence. In 2005, our OPI was 99.92%, meeting our company target for the year.
- Over 2005, 99.9% of our water quality tests complied with standards.
- We maintained bi-annual audits of water supply operations to international quality management standards (ISO9001:2000).
- We maintained our laboratory testing and calibration operations to international standard ISO17025.

Drinking water quality is measured in zones containing no more than 100,000 consumers. Drinking water quality is reported across six regions in England by the Drinking Water Inspectorate (DWI). These regional reports provide an insight into a number of aspects of drinking water quality. Not only do they inform on the outcome of tests taken for microbiological, physical and chemical attributes, but use maps to show variations in drinking water quality.

All water companies are required by regulations to monitor their supplies against European and national standards at works, reservoirs and at customer taps.

The overall DWI measure of tests meeting the standards at customer taps is reported as percentage mean zonal compliance. For 2005 the figure for Southern Water was 99.96% which was the same as the industry average. This represents an improvement not only in our year on year performance but also in our position relative to the industry.

In Europe, World Health Organisation (WHO) advice on lead levels in drinking water was adopted through the 1998 Drinking Water Directive. Along with other water companies in the DWI Southern Region, we made good progress in meeting the current standard, with 100% compliance in 2005.

Water Resources

- We significantly increased the number of people working on leakage within our region over 2005-2006.
- We are reviewing our water use, particularly in wastewater treatment, to identify further water savings.
- Our work with high water use commercial customers continues and we commenced water efficiency audits of our 60 top commercial users.

Our water resources needs largely focused on managing drought issues over 2005-2006. We have an ongoing programme of work to maintain water resources throughout the drought. This programme of work involves close collaboration with other water companies in the South East. Our approach combines managing water resources, reviewing our own water use to achieve further savings and a variety of customer demand management initiatives, including metering and working with our commercial customers to reduce water use.

2005-2010 Targets



Install **113,324** meters in households of areas in deficit supply

Increase percentage of households metered to **42.6%**

Maintain total leakage at **92** million litres / day





Achieve **500,000m³** internal water savings

- We completed key work to secure reservoir resources from leakage
- We are replacing 6,000 water distribution communications pipes in Sussex and will replace customer supply pipes (the customer's responsibility) free of charge where customers agree to adopt a water meter
- We introduced a one-hour leak response to customers and relaxed the number of free leak fixes per customer due to the drought
- We aim to repair leaks on average within one day




KEY: Target met  Target not met  This target contributes to a 5 year target 







Water Quality

2003 Progress	2004 Progress	2005 Target	2005 Target Progress	2006 Target
Target met.	Target met.	Zero treatment works failing coliform standard with enforcement action.	Zero treatment works failing with enforcement action. Target met. 	Maintain target.
Target met.	Target met.	Zero service reservoirs failing coliform standard with enforcement action.	Zero service reservoirs failing with enforcement action. Target met. 	Maintain target.
99.5%	99.8%	99.7% of customer taps samples with no coliforms.	99.9%. Target met. 	Maintain target.
99.8%	99.9%	Physico-chemical compliance customer taps 99.8% compliant.	99.9%. Target met. 	Maintain target.

Water Resources

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Target Progress	2006-2007 Target
Water production management tool target deferred. Informal source optimisation has taken place as a pre-cursor to the successful future delivery of the production tool.	Implemented optimal refill operations at key reservoir refill sites within the Bewl-Darwell system. Implemented groundwater monitoring at priority sites across the region.	Implement company policy on abstraction alarms and auto shut-downs on all our groundwater sources.	Status of all shutdown levels and abstraction alarms was undertaken. Target not met in full by March 2006. 	Zero breaches of abstraction licences.

Water Efficiency

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Target Progress	2006-2007 Target
Internal water use data for wastewater sites serving a population equivalent above 25,000 input to our Optima6 management system.	Undertaken reporting to compare water use between sites serving populations above 25,000.	Identify 200,000 m ³ /year water savings from sites. 	Target met. 	Achieve 200,000m ³ /year water savings from sites.
	Carried out audits of sites with high water consumption compared to the populations they serve, and on sites with deteriorating trends in consumption.			
14,944 meters installed.	13,194 meters installed.	Install 17,894 meters in households in our region.  Increase ratio of households metered to 30.3%.	17,084  29.5%	Install 27,219 meters in households in our region. Increase ratio of households metered to 33.8%.
91.60MI/day. Target met.	91.57MI/day. Target met.	Maintain total leakage at 92 million litres per day (MI/day). 	92.75MI/day 	Maintain total leakage at 92 million litres per day.
—	—	—	—	Conduct water audits of high water-use commercial customers.



Wastewater Treatment

- We reduced our pollution incidents again over the past calendar year.
- We worked to continue to improve our compliance information through installing additional online monitors of wastewater treatment process performance.
- We started a review of trade effluent consents checking the needs of commercial operators in our area, and whether these had changed since the latest issue of their consent.
- In 2005, the beaches in our area received a total of 35 Seaside Awards, including 10 Blue Flag Awards.

Our wastewater quality performance improved for 2005 compared to previous years. This was a consequence of a number of our initiatives. We used risk assessments, combined with close monitoring of sampled and online performance data, to determine our wastewater treatment works inspection programme. We maintained a site action plan and reviewed progress against it monthly. We continued to rollout training to our site operators and began auditing our wastewater sampling points to ensure future sampling is representative of our performance. Our Compliance Programme completed 112 capital schemes by the end of March 2006, with no compliance failures during construction. This work delivered a clear trend in improved performance, based on wastewater quality sample tests. This work continues.

Discharges from commercial operations can have significant impacts on the performance of our wastewater treatment works. Our work to check and enforce trade effluent consents continues.

Waste Management

- We increased our recycling of waterworks sludge over 2005-2006.
- We worked on further recycling routes for other materials, e.g. batteries, paper. We hope to implement these over 2006-2007.
- We developed proposals to reduce the number of transport movements of waste volumes by looking at waste drying and compaction.

We worked with our waste framework contractor to implement a contract-specific Environmental Management System across waste management operations over 2005-2006. We continued to work to influence contract operations to minimise waste volumes disposed of to landfill.



2005-2010 Targets



97.4% of intermittent discharges satisfactory (protecting river and bathing water quality)

98% wastewater treatment works compliant with Water Resources Act numeric consents

96.4% wastewater treatment works compliant with Urban Waste Water Treatment Directive consents

99.9% population equivalent served by Water Resources Act Look-up-Table compliant works (sanitary quality)

100% population equivalent served by Urban Waste Water Treatment Directive Look-up-Table compliant works










Remove **259** properties from the internal flooding at risk register

- We are way ahead with our progress on meeting necessary standards for intermittent discharge locations.
- We made significant progress removing properties from our 'at-risk of internal flooding' register. We achieved a reduction of 99 properties, over a third of our 5-year target.
- Our compliance progress with Water Resources Act targets was good, in line with our year five (2009-2010) target.
- Our compliance progress with Urban Waste Water Treatment Directive targets showed 97.3% compliance overall, over and above our target for year five (2009-2010).


Wastewater Quality

KEY: Target met  Target not met  This target contributes to a 5 year target 




Wastewater Quality

2003 Progress	2004 Progress	2005 Target	2005 Target Progress	2006 Target
86%	99.9% (look up table sanitary substances only). 76.4% (look up table sanitary substances, including Upper Tier sanitary and non sanitary substances).	95% population equivalent served by Water Resources Act compliant works. 	100% (look up table sanitary substances only).  84.4% (look up table sanitary substances, including Upper Tier sanitary and non sanitary substances).	Maintain target.
96.9%	91.7%	95% population equivalent served by Urban Waste Water Treatment Directive compliant works. 	97.3% Target met. 	Maintain target.
We demonstrated the highest level of self-reporting of incidents in the UK water industry.	Total pollution incidents were reduced in number by 25%.	Reduce category 1 and 2 pollution incidents by 10%.	Target met. 	Category 1 and 2 pollution incidents to be reduced from 2005.
2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Target Progress	2006-2007 Target
220 flow monitors installed to the end of 2003-2004. 209 turbidity monitors installed and monitored.	351 flow monitors installed March 2005.	93.2% intermittent discharges satisfactory (protecting river and bathing water quality). 	97.4% Target met. 	94.7% intermittent discharges satisfactory (protecting river and bathing water quality).
11 properties removed.	7 properties removed.	Remove 32 properties from the internal flooding at risk register. 	99 properties removed. Target met. 	Remove 52 properties from the internal flooding at risk register.

Bathing Water Quality

2003 Progress	2004 Progress	2005 Target	2005 Target Progress	2006 Target
100%	98.7% Defra report 99% for the Southern region.	95% Bathing waters compliant with mandatory standard of EU Bathing Waters Directive.	100% compliant. Target met. 	Maintain target.

Waste

2003 Progress	2004 Progress	2005 Target	2005 Target Progress	2006 Target
One prosecution for failing to prevent the escape of controlled waste.	No prosecutions.	Zero prosecutions for waste management offences.	No prosecutions. Target met. 	Zero prosecutions for waste management offences.
2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Target Progress	2006-2007 Target
2 targets withdrawn in year due to operational changes.	Developed integrated waste framework agreement for efficient management of waste streams.	Implement an integrated waste data recording system.	Target date moved to next year. 	Set up and maintain centralised battery-recycling collection points at our 4 main office sites.
Grits and screenings composting research and development project completed.	95% sewage sludge produced as biosolids recycled to land (agriculture).	95% sewage sludge produced as biosolids recycled to land (agriculture).	98% sewage sludge produced as biosolids recycled to land (agriculture). 	95% sewage sludge produced as biosolids recycled to land (agriculture).

Spotlight on our Challenge



Capital programme and major schemes

Work on our capital programme for the 2005-2010 investment period is well underway with our construction partners. By December 2005, 84% of our capital schemes were assessed for environmental and archaeological planning constraints. We established various performance targets with our construction partners and by March 2006, there were no environmental enforcement actions relating to any of our schemes in this key programme of work. We are working with our partners to maintain this progress with our environmental performance.

Waste Water Schemes

Details on archaeology are in our **Land, Conservation, Access and Recreation** report at: www.southernwater.co.uk/sustainability



We continue to work to improve the quality of our wastewater treatment services. European Law, specifically the Urban Waste Water Treatment Directive (UWWTD), requires us to deliver the following wastewater treatment works:



- Margate and Broadstairs UWWTD Enhancement Scheme.
- Brighton and Hove area Wastewater Treatment Works.
- New Romney, Greatstone/Lydd-on-Sea First-Time Mains Drainage Scheme.

We completed a comprehensive Environmental Statement to accompany our planning applications to construct the Brighton and Hove area wastewater treatment works. In order to generate the Statement, a full Environmental Impact Assessment was undertaken. We also developed a Construction Environmental Management Plan, submitted as part of our planning application, to state how construction activities would be managed in order to minimise adverse effects to the environment.

The project crossed the administrative boundaries of Brighton and Hove City Council and East Sussex County Council, requiring planning applications in both authorities. East Sussex County Council deferred its planning decision for those parts of the scheme within its jurisdiction. This meant the Secretary of State had to call a public inquiry for the planning authorities, ourselves and others to give evidence about the scheme. The public inquiry started on 21 June 2006.

We continued to progress our new Margate and Broadstairs enhancement scheme to programme target dates over 2005-2006. Our programme management monitored resolution of technical issues on the project, and we worked to keep local communities informed and to keep disruption to a minimum. We invested in special measures to protect the local environment, particularly in relation to reptiles on site, before starting construction.

Our modernising work to provide first-time mains drainage at New Romney, Greatstone/Lydd-on-Sea also continued. This project comprised a series of schemes that encountered sensitive archaeological and environmental zones. Early in 2005, we undertook comprehensive assessments with our construction partners on the likely nature and scale of impacts on sensitive areas. We then developed a code of construction practice in consultation with the local planning authority and English Nature. The code included actions that needed to be taken to protect the environment throughout scheme construction.

South East Plan

www.southeast-ra.gov.uk/southeastplan/

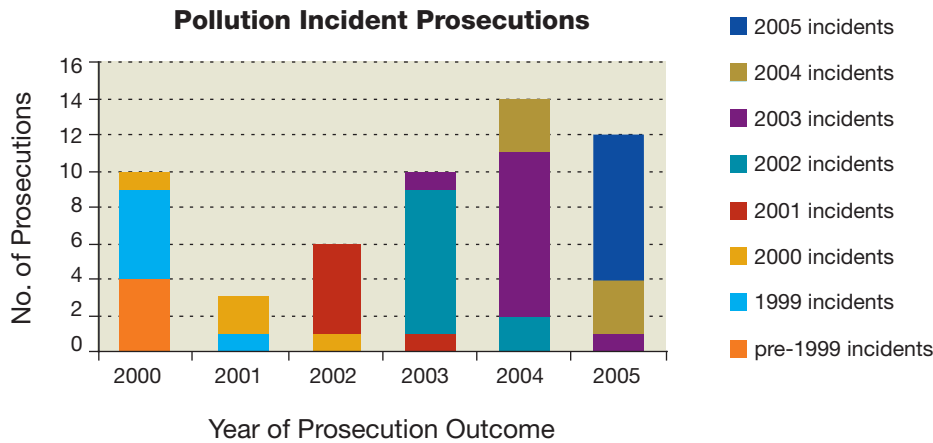


- The South East Plan was produced by the South East England Regional Assembly (SEERA) and submitted to Government on 31 March 2006.
- The Plan is a new type of planning document to cover the period to 2026 for the South East.
- We are one of several partners working with SEERA to develop infrastructure appropriate to support the population growth defined in the draft South East Plan.
- Water quality in the South East is a specific focus of our work with SEERA and the Environment Agency (EA) relating to this growth.
- Our responsibility to the South East Plan, is to raise concerns and work to solve the issues of providing adequate water and sewerage infrastructure to existing and new customers. We responded to SEERA consultation documents on the Plan with suggestions on these points.
- We worked with our water resources partners in the South East to assess the water supply and demand balance in relation to two potential housing growth scenarios. This reported results of different water efficiency scenarios against this proposed growth to SEERA as a further response to the draft Plan.

Prosecution

We continued to work with the Environment Agency to reduce our number of pollution incidents. Our Pollution Standby Team responds to pollution incidents, takes water and biological

samples from any affected watercourses and produces a post incident report to highlight issues to address or to identify further investigation.



Regulation

www.environment-agency.gov.uk
www.defra.gov.uk
www.ofwat.gov.uk



- Our industry is heavily regulated. Many regulations that directly affect the water and wastewater industry are based on European Union Directives – for example, drinking water, urban wastewater treatment, sewage sludge, groundwater protection, and health and safety at work. Others, for example economic regulation, are specific to England and Wales.
- Our industry is the major client of the agencies responsible for environment protection. In our case, the Environment Agency regulates water abstractions and discharges to water, air and land. English Nature and English Heritage have responsibilities for the natural and built environment.

2005 ENFORCEMENTS	DATE	FINE (£)	DETAILS
Prosecutions	16/02/2005	7,000	Pollution of groundwater at Aylesford Wastewater Treatment Works, Kent, caused by a corroded pipe.
	17/05/2006	4,000	Pollution of controlled waters at Edenbridge Wastewater Treatment Works, Kent. Investigations focused on the probable discharge from an industrial source to our works.
	06/06/2005	12,000	Pollution of controlled waters at Coxheath Wastewater Treatment Works, Kent. The works failed causing final effluent to discharge into a nearby watercourse.
	20/07/2005	5,000	Pollution of controlled waters at Vines Cross, East Sussex.
	09/09/2005	5,000	Pollution of controlled waters at Allington Wastewater Pumping Station, Kent, caused by a mains power supply failure and the standby generator failing to start.
	15/09/2005	5,000	Pollution of controlled waters in Worthing, West Sussex, caused by a blockage in a public sewer.
	17/11/2005	7,000	Pollution of controlled waters in Isle of Sheppey, Kent, caused by a burst rising main.
	22/12/2005	8,000	Pollution of controlled waters in Wainscott, Kent, due to a blockage caused by plant roots.
Formal Cautions	01/02/2005	—	Pollution of controlled waters at Chesworth Lane, West Sussex, when fat, silt and debris blocked a sewer.
	20/04/2005	—	Pollution of controlled waters at Anna Valley Trout Farm, Hampshire.
	05/07/2005	—	Pollution of controlled waters at Boyatt Wood, Hampshire, caused by a blockage in public sewer.



Energy efficiency

- We obtained the Carbon Trust's Energy Efficiency Accreditation.
- We used 56% of biogas generated in our treatment operations as a source of fuel for boilers, dryers, and combined heat and power (CHP).
- We produced over 11 megawatt hours of electricity from CHP in 2005.
- We explored wind power opportunities over 2005-2006.



- We calculated our total carbon dioxide emissions for 2005 to be 367,784 tonnes.
- We calculated our total equivalent carbon dioxide emissions (considering other greenhouse gases such as methane, nitrous oxide and carbon monoxide) for 2005 to be 517,426 tonnes.

Our combined heat and power (CHP) installations reduced the amount of grid-electricity we would have otherwise used. Our use of CHP also reduced our greenhouse gas emissions, compared to using more fossil fuel-derived electricity.

We recently completed a tendering exercise for a CHP framework that will enable new schemes to be delivered at our wastewater treatment works.

We also carried out pump testing and refurbishment works over 2005-2006 to improve energy efficiency. We reviewed wind-generated power opportunities and are currently studying impacts of two wind turbines on surrounding bird life with English Nature and the Royal Society for the Protection of Birds.

We continued to improve our odour management practices and worked to advise employees on areas of nuisance. We introduced Water UK's industry agreed standard for capture of greenhouse gas data.

We monitored fuel consumption over 2005-2006, identifying high road transport users and investigating the reasons for use.

2005-2010 Targets

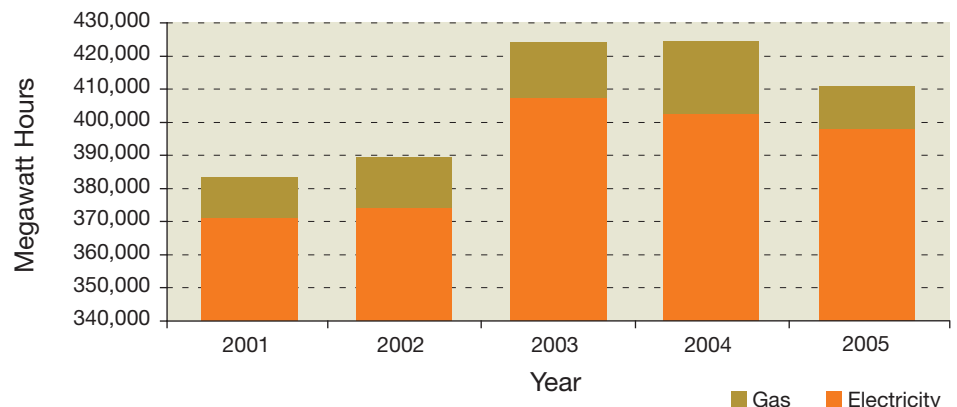


Meet UK water industry average for percentage of renewable energy used (of total energy used)

Research car sharing opportunities and alternatives to travel, for example, telephone conferencing meetings




- Our CHP framework will enable new CHP schemes to be delivered at our wastewater treatment works.
- We are in the process of researching car sharing opportunities and alternatives to travel, for example, telephone-conferencing meetings.

Fixed Sites Energy Consumption




KEY: Target met  Target not met  This target contributes to a 5 year target 



Energy

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
Users, auditors and estimators set up and active on the energy management system. We improved efficiency at a number of sites. Our efficiency study monitors 74 sites.	Achieved power saving of 1,178,000 kWh.	Investigate minimisation of energy consumption in wastewater operations.	Target not met. Our engineer resources are being refocused. 	Appoint dedicated optimisation engineers to investigate opportunities to minimise energy consumption through optimisation of wastewater plant and process.
A total of 114 sites monitored to enable energy efficiencies to be carried out. Feasibility study carried out into the opportunities for energy generation from wind at our sites.	Four new CHP systems installed and brought on line during 2004.	Reduce imports of brown electricity (fossil-fuel generated) via delivery of CHP. 	Target not met. Future CHP systems can be purchased rather than leased and progress continues. 	Reduce imports of brown electricity (fossil-fuel generated) via delivery of biogas fuelled CHP systems.

Air

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
Training carried out on operation and maintenance of an odour treatment technology with operational staff.	Information on odour control units has been gathered ready for implementation into a controlled maintenance programme.	Develop odour management guidance to specific timescale criteria for responding to customers.	Target met. 	Develop 3 odour management site plans. Train operators at the 3 sites.

Transport

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
—	Trial of a hybrid vehicle and review of liquid petroleum gas-fuel commenced.	Assess the benefits of alternative fuel-powered vehicles.	Target met. 	Continue to assess benefits of alternative fuel-powered vehicles.
—	—	—	—	Prepare an employee-driven car sharing initiative. 

Employees, Materials and Resources



Employees

- We were awarded another gold medal award from the Royal Society for the Prevention of Accidents.
- Our construction partners won a gold award from RoSPA.
- We ran a health and safety conference in 2005 with messages from Directors and Senior Management.
- We ran a health and safety seminar for all our health and safety representatives to meet and discuss issues in 2006.
- We maintained our Business Involvement Group (BIG) meetings for employees to discuss issues at functional and company levels over 2005-2006.
- We undertook an employee opinion survey in 2005.

We developed our health and safety planning to a function-specific focus for 2006-2007. Each function of our business has health and safety advisors focusing on their specific needs and issues. Each plan set targets for 2006-2007 and reported 2005-2006 performance results. This included good-housekeeping events, workshops refreshing employee knowledge.

Materials and Resources

- We aim to complete our key water supply works audits by August of 2006.
- We sent out questionnaires to our suppliers regarding the Waste Electrical and Electronic Equipment regulations in 2005, and reported findings to our Environmental Policy Advisory Committee (SWEPAC).

We maintained our programme of environmental audit of suppliers. We implemented improvements to our risk-based approach to identification of environmental audit needs within our procurement programme in 2006.

We continued to work to enhance the efficiency of our chemical consumption, driving down chemical dose rates at some of our wastewater treatment works.

We continued to report findings from supplier audits to our Procurement Team, Contract Managers, SWEPAC as well as our suppliers. Through delivery of our audit programme, we worked with our suppliers to identify areas of performance for improvement to mutual commercial and environmental benefit.


Our procedures are compliant with good practice and results from UK water industry benchmarking exercises indicated we have done more in this area than our competitors.


Fact!

We were awarded our 7th consecutive **gold medal** award from the Royal Society for the Prevention of Accidents (RoSPA).

In 2006, we received a **commendation** from the Learning and Skills Council for our Apprenticeship Scheme.

Employees, Materials and Resources





KEY: Target met 

Target not met 




This target contributes to a 5 year target



Employees - Health and Safety (H&S)

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
100% achieved across the business.	100% achieved across the business.	100% site safety/workplace inspections of total planned by department manager.	Target met. 	Maintain target.
87% delegate attendance rate of H&S training as a percentage of delegates proposed to attend.	95% highest attendance rate 91% average attendance rate.	90% of training attended as a % of the total number of delegates expected.	96% attendance rate. Target met. 	Maintain target.
Business involvement (employee/management) groups established company-wide.	Maintained BIGS process to consider issues that go across the business.	Maintain BIGS process to consider issues that go across the business.	Target met. 	Maintain target.
Various aspects of Human Resources Integrated Framework introduced throughout the year with more planned.	Continued to implement the Human Resources Integrated Framework.	Carry out full employee welfare opinion census and review results.	Target met. 	Maintain target.

Materials and Resources

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
Procurement audits of preferred contractors completed for key contractors.	Programme of risk based comparative procurement audits of key framework suppliers continued.	Continue to assess key contracts and undertake risk based comparative procurement audits of key framework suppliers.	Target met. 	Continue to identify contractors for comparative environmental audit through risk assessment of key contracts.
Audits undertaken to optimise chemical use at major surface water supply works.	Undertaken audits to optimise chemical use at major surface water supply works.	Undertake audits to optimise chemical use at major surface water supply works.	Target not met by March 2006. Work is in progress. 	Undertake audits to optimise chemical use at major surface water supply works.
Chemical use data for wastewater treatment works enhanced Study completed to review consumption of dosed chemicals at wastewater treatment works.	Chemical dosage optimised at several wastewater sites.	Optimise chemical dosage at all newly commissioned wastewater sites following take-over.	Target partially met. Dose optimisation is ongoing at all ferric (iron) dosing sites. 	Optimise ferric (iron) dosage at all newly commissioned wastewater sites following take-over.

Conservation and Community



Conservation



Further detail on our performance progress relating to Land, Conservation, Access and Recreation is available online at: www.southernwater.co.uk/sustainability

- We put up 32 bat, bird and bee nest boxes over 2005-2006.
- We maintained habitat for a range of species of butterflies.
- We continued to undertake reedbed management.



- We continued to support partnerships with Wildlife Trusts and volunteers, maintaining our sites as places where visitors could come and enjoy wildlife.

Over 2005-2006, we incorporated recommendations for site management into our grounds maintenance contract requirements. We also worked to develop conservation management plans. We are implementing these in 2006. We worked with our grounds maintenance contractors to ensure future monitoring of habitat enhancement work.

We ran a broad range of community partnering and educational initiatives over 2005-2006. Many related to core operational issues such as water resources and water efficiency.

Education

- We ran another Science Week for school children in March 2006 at our Bewl Water site in Kent.
- We continued to produce our Links newsletter for schools each term over 2005-2006.
- We will help a further 39,450 children through Learn to Swim in our region by August 2006. This is our 14th year of running the scheme.
- We continued to support the Young Enterprise scheme for school groups.
- We expanded our site-based education programme and started to develop an adult education programme.

Much of our community programme revolves around raising awareness of the issues we face together with our community. Our work with younger generations is key to the success of this part of our programme. We raise awareness in three key areas; conserving our water resources, responsible use of the sewerage system and community safety around water resources in our environment. We continued to raise awareness of safety needs associated with the recreational use of water through our Learn to Swim scheme. We held a seminar for swimming instructors in 2005, asking our delegates for feedback for future seminars.

Community

- We raised a total of £1.2 million for WaterAid.
- We donated a total of £21,952 to community groups and charities in our region.
- We made a total of £17,575 worth of environmental grants to schools.
- We constructed a Coastguard Station as part of our Margate and Broadstairs wastewater treatment enhancement scheme.

We promoted water efficiency at carnivals, fetes, shopping centres and visitor attractions in 2005-2006. We provided leaflets, displays, save-a-flush bags and talks on water efficiency to a variety of community group and local authority meetings and conferences.

2005-2010 Targets




Include wastewater messages into our community programme

- We developed a leaflet to explain how best to deal with rubbish for our Bag-it-and-Bin-it campaign.
- The leaflet describes the problems associated with certain types of waste when flushed away or fed to our sewers via sinks and drains.
- Nearly two-thirds of blockages in sewers are caused by items flushed away. Improper disposal of items impacts on our service to our customer and the costs of maintaining it.


Conservation and Community

KEY: Target met  Target not met  This target contributes to a 5 year target 





Land, Conservation, Access and Recreation

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
Desk-based phase of status review of designated landholdings completed.	Survey of Biodiversity Action Plan priority species (butterfly) undertaken at Powdermill and Darwell reservoirs.	Develop a SSSI land management plan.	Target met. Plans will be implemented by July 2006. 	Develop and publish targets for priority species and habitats.
18 barn owl boxes erected.				

Community

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
80 WaterWise talks given to community groups in our region.	WaterWise talks continued.	Maintain WaterWise talks programme.	Target met. 	Deliver a target number of 50 talks.
Water efficiency programme in schools continued.	Created water efficient gardens at three locations.	Continue to promote water efficiency for home and garden.	Target met. 	Deliver target number of 26 water efficiency roadshows.
Continued to support employee fundraising activities and community initiatives for our region.	Promoted water efficiency at 15 public events.			
Water efficient home and garden promotions continued.	Continued to promote water efficient gardening.			

Community – Education

2003-2004 Progress	2004-2005 Progress	2005-2006 Target	2005-2006 Progress	2006-2007 Target
15 schools received water audits from our employees and 110 water audit packs sent out on request.	Sent water efficiency newsletter to all primary, secondary and sixth form schools in our region every term.	Provide further training for school speakers. Achieve 50 school talks by March 2006.	Target met. 	Implement a new accredited training course for water efficiency speakers.
		Provide subsidised drinking water bottles for school children.	Target met. 	Include bag-it-and-bin-it messages in work with pupils at Science Week. 
Continued to seek partner funding for our Learn to Swim scheme.	Continued Learn to Swim scheme.	Continue to support Learn to Swim scheme.	Target met. 	Continue to support Learn to Swim scheme.

Statement of Verification



Verification Objective

To provide independent and autonomous assurance that statements and data used within the 2006 Southern Water Sustainability Report, Planning for a Sustainable Future, are factually correct and quoted in context.

Assurance Provision and Scope

Southern Water, in line with best industry practice on corporate governance, has an Audit Committee to which Internal Audit reports, enabling it to act independently of the business providing autonomous assurance to the Board. Acting on this basis, Internal Audit has reviewed and challenged:

- Business controls established for the gathering of data and information
- The quality of supporting information collated by the business
- The transposing of data into this report

Opinion

Having reviewed the complete document, Internal Audit has drawn the following opinions:

- Management has established a comprehensive data gathering process that records and indexes all facts and figures used within the report
- The system for recording of data and information collected is robust
- Statements and case study information are supported by assessed evidence
- Quantitative data has been transposed from sources into the body of the report accurately
- Management has promptly resolved issues identified during the verification process

It is therefore the considered opinion of the Audit Committee that the statements contained within this report are a true and accurate representation of the company's performance.

Donald Workman
Audit Committee Chairman

Your Feedback

We welcome your views on this report and other aspects of our company performance.

You can feedback your comments in the following ways:

Email: communications@southernwater.co.uk

Phone: 0845 278 0845

Write: **Sustainability
Communications
Southern Water
Southern House
Yeoman Road
Worthing
BN13 3NX**

If you would like any further information please contact:

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