

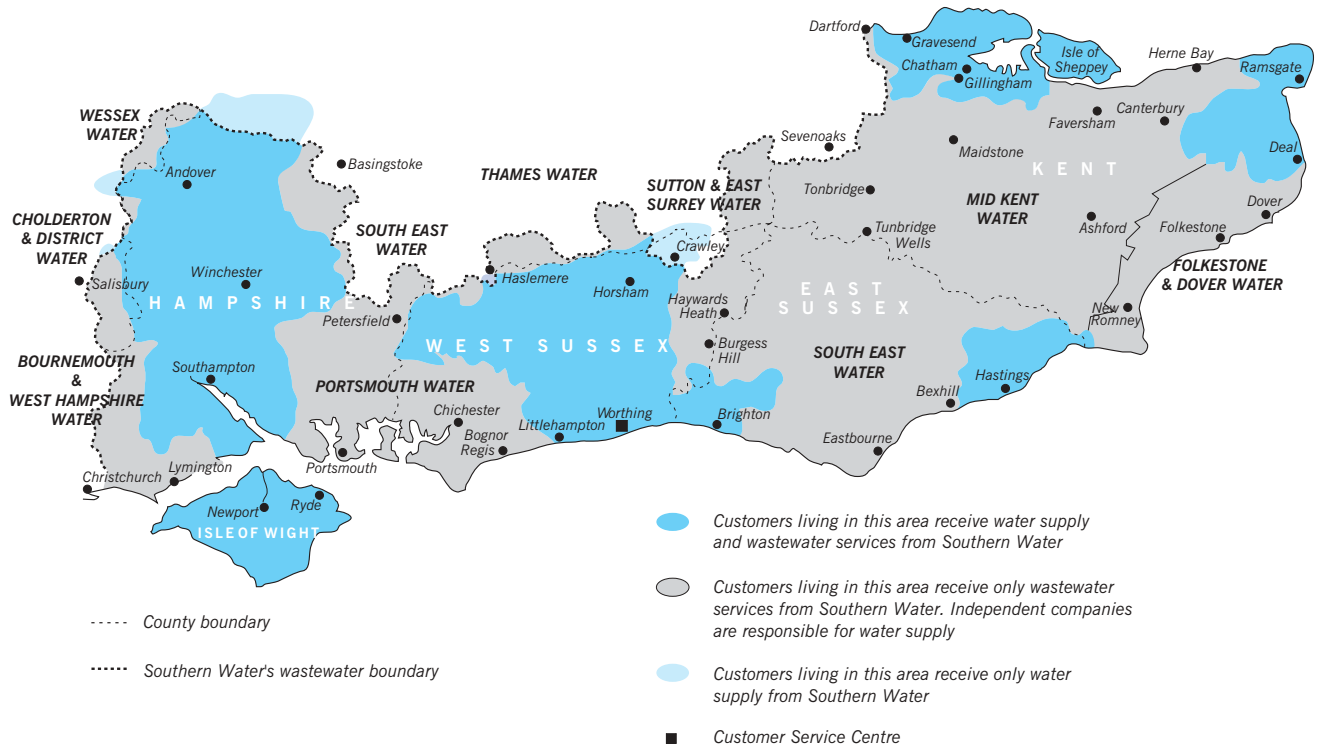


2003

Drinking water quality

REPORT

Southern Water Region



Maps that give details of water supply zones can be inspected at the address given at the back of this report.

Southern Water in 2003

Microbiological Compliance *	99.91 %
Overall Compliance	99.87 %
Capital investment in water supply schemes 2003/04	£54.507 million
Volume of water supplied	595 MI/d
Population supplied	2.28 million
Length of water main	13,394 km
Number of water supply works in use	94
Number of service reservoirs in use	210
Number of water supply zones	116
Number of tests taken for compliance reasons	76,090
Number of tests taken for all reasons (monitoring and compliance)	409,219

* Combined Total Coliform and E Coli parameter

Foreword

I am pleased to present our Drinking Water Quality Report for 2003, which shows Southern Water's drinking water supply to have been maintained at the high level of quality achieved in previous years.



This report is significant in that it is the last report to be made under the old 1989 Water Quality Regulations, as new Regulations came into effect at the start of 2004. Looking back over the years there has been a considerable improvement in what was then an already high quality of drinking water supplies. In 1990, which was the first report under the 1989 Regulations, 99.48% of tests complied with the relevant standards whereas last year 99.87% complied. A significant achievement brought about by our continued investment in treatment works, service reservoir and distribution system improvements, together with the professional dedication and commitment shown by our staff to maintaining quality.

In 2002, for the two comparative indices introduced by the Drinking Water Inspectorate in 1996, the Overall Quality Index and the Operational Performance Index, we were above the industry average. Again we have seen an improvement in quality according to these indicators. When the two indices were first introduced we achieved 99.61 for the Overall Index and 99.91 for the Operational Index whilst in 2002 we achieved 99.93 and 99.92 respectively. We will know the results for 2003 when DWI publishes its report in July.

Last year saw temperatures rise to record levels during the Summer and water shortage stories dominated the news in the Autumn. Throughout the period Southern Water maintained water supplies with the same high standard of quality. A record we intend to keep.

Looking to the future, next year will see the first report on drinking water quality under the new Regulations. Comparisons with performance in previous years will be difficult due to the changes in monitoring requirements under the new Regulations. What I can assure you is that we will not relax and will remain ever watchful in continuing to supply water of the highest standard. Southern Water is committed to the challenge of maintaining compliance with the new Regulations, which include some new and more stringent limits. We will maintain our comprehensive programme of testing from the raw water to the customers' taps so that everyone can be confident their drinking water is safe and of a quality to match the best in the country.

Everyone knows drinking 7 to 8 glasses of water each day is good for you and I am proud to say drinking water from Southern Water rivals any other from a tap or a bottle.

Martin Baggs
Operations Director

Contents

	Page
1. Overall Compliance	4
2. Microbiological Quality	4
3. Physico - Chemical Quality	5
4. Other Quality Issues	7
5. Relaxations and Undertakings	7
6. Inspection of Records	7
7. Microbiological Quality of Water Supplied	8
Table 1 Water leaving treatment works	8
Table 2 Water in service reservoirs	8
Table 3 Water at customers' taps	8
8. Physico - Chemical Quality of Water Supplied	9
Table 4 Physico - chemical quality of water at customers' taps	9
Parameters which contravened the PCV	9
9. Appendices	10
Appendix 1 Relaxations and Undertakings	10
Appendix 2 Prescribed concentrations or values (PCVs) for samples taken at customers' taps	11



Southern Water

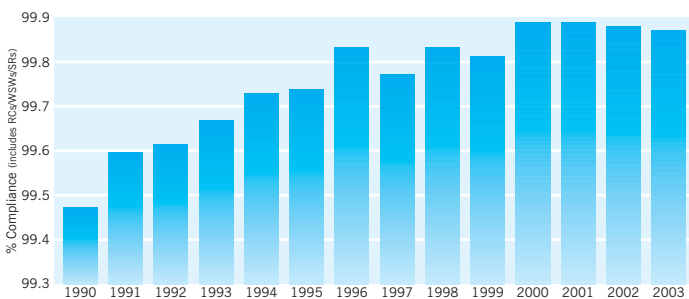
WATER SUPPLY (WATER QUALITY) REGULATIONS 1989 REGULATION 31 REPORT ON WATER QUALITY FOR 2003

1. Overall Compliance

In 2003, to measure compliance with the Regulations, 76,090 determinations were carried out on parameters having a prescribed concentration or value (PCV), and 99.87% of these tests complied with the standard. The summary tables supplied with this report provide more detail on compliance with the Regulations. They demonstrate that the drinking water supplied by Southern Water is of a high quality.

It should be noted, that water quality standards in the Water Quality Regulations necessarily provide a wide margin for safety. A water quality standard failure does not mean there is any risk to public health. All samples that fail the standards are investigated in full, and remedial action taken if required.

Overall Compliance 1990 – 2003



An agreed programme of capital investment continues to be carried out to maintain the high standard of water quality. During 2003 this programme included:

- improvement and refurbishment of the surface water treatment works at Testwood
- improvement to the disinfection systems at a number of works
- installation of new, and optimisation of existing, orthophosphate dosing systems for the control of plumbosolvency
- an ongoing programme of routine inspection, cleaning and improvement at service reservoirs.

Southern Water has an ISO9002 accredited Quality Management System in place, which includes a programme of detailed audits of systems and procedures associated with the treatment and supply of drinking water. This provides confidence that the high quality of our drinking water supplies is maintained and continued improvement is achieved.

To check that Southern Water complies with the Regulations for the supply of drinking water a series of technical audits are carried out by the Drinking Water Inspectorate (DWI). The DWI Chief Inspector's Report 2003 will provide an independent report of these audits and on the water supplied by Southern Water and all other water companies. The report is due to be published in July 2004 and will be available on the DWI website, <http://www.dwi.gov.uk>.

During 2003 DWI inspections covered:

- detailed audit trails of sample results and follow up actions;
- completion of mains renovation schemes;
- procedures for the collection, transport and analysis of compliance samples;
- inspection of water supply works and service reservoirs;
- audit of treatment improvement schemes and programmes of work.
- procedures for handling of and response to customer complaints related to water quality.

2. Microbiological Quality

In 2003 high microbiological quality has been maintained overall. The reported results are for the initial compliance samples only, and indicate very good quality.

% Samples free from coliform bacteria

	Total Coliforms	Faecal Coliforms
Customers' Taps	99.53 %	99.95 %
Service Reservoirs	99.94 %	100 %
Treated Waters	99.90 %	99.99 %

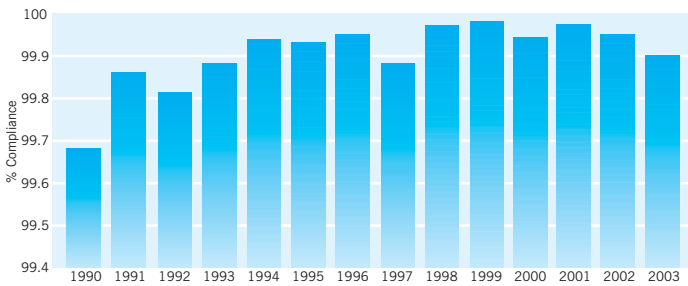
All 116 zones and 210 service reservoirs passed the 95% standard set by the Regulations for total coliforms. Of the 94 treatment works in supply during the year, 89 did not have coliforms detected.

Water leaving treatment works is disinfected to eliminate any potentially harmful micro-organisms which may be present in the raw water. Within Southern Water's area water is disinfected either by the addition of chlorine, by the addition of sodium hypochlorite or by the use of ultra violet light. In all cases the water leaving the works has a small amount of chlorine added to maintain the quality of the water as it travels through the distribution system to our customers' taps. The effectiveness of this treatment process and the integrity of the distribution system are measured by analysing the water samples for coliform bacteria. Coliforms are a group of bacteria, not normally pathogenic, which occur extensively in nature. A sub-group, faecal coliforms, may be an indicator of possible pollution of water supplies.

The method of testing is extremely sensitive and coliforms can also indicate the hygienic condition of the sampling location. Each occasion coliforms are detected, re-sampling and investigations are initiated to establish any remedial action that may be needed.

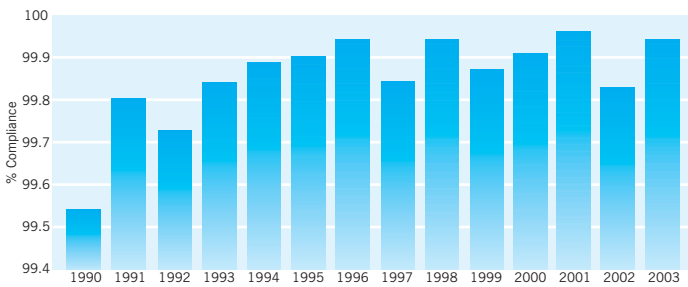
Southern Water - Microbiological Quality 1990-2003

Water Supply Works



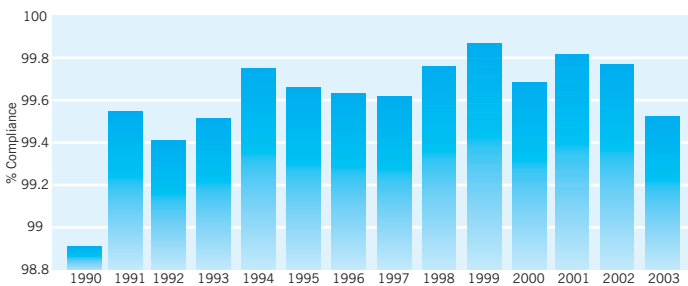
Southern Water - Microbiological Quality 1990-2003

Service Reservoirs



Southern Water - Microbiological Quality 1990-2003

Customers' Taps



3. Physico – Chemical Quality

In 2003, 22,019 determinations were carried out on samples from customers' taps for physico - chemical determinands. Of these, 99.75% complied with the relevant water quality standard. Details of the determinands for which samples exceeded the PCV are given in Table 4.

These exceedences were confined to six determinands. The majority of the exceedences, 43 out of 56, were due to one parameter, polycyclic aromatic hydrocarbons (PAH) from coal tar lined mains.

Compliance with all the standards was achieved in 81 of the 116 water quality zones in 2003.

Customers' taps are randomly sampled, in accordance with the compliance monitoring programme required by the Regulations, throughout the area supplied by Southern Water and are routinely tested for over 100 determinands. The standards set by the Water Regulations are very stringent and include for a wide margin for safety. Failing a standard does not mean there is any risk to public health. All samples that breach the standards are followed up and investigated in full.

Explanatory notes of determinands of interest, including those that breached in 2003, are provided below:

Iron

In 2003 of the 846 tests carried out for iron 99.65% complied with the iron standard. Full investigations were carried out into the failures.

Iron above the Regulation standard of 200 µg/l does not pose any risk to health. However, it may give rise to discolouration and occasionally particles in the water. Iron in water can originate from a number of sources including the source water, the pipe it is transported through and customer's own pipework.

Turbidity

In 2003 of the 839 tests carried out for turbidity 99.76% complied with the PCV.

Turbidity is a measure of the cloudiness of the water. Turbidity above the standard of 4 NTU is generally an indication of disturbance within the distribution system or a problem with plumbing pipework.

Nitrate

In 2003 of the 986 tests carried out for nitrate 99.70% complied with the PCV. In one zone, supplied by Mile Oak treatment works, there were two exceedences of the PCV.

Nitrate arises from the use of fertilisers and some sources are showing increasing levels especially after heavy rainfall. At the end of 2003 Southern Water completed two schemes, one at Mile Oak WSW and one at Goldstone treatment works, to reduce the level of nitrates found in some of our water supply zones due to rising nitrate levels in these groundwater sources.

Trihalomethanes

In 2003 of the 549 tests carried out for THMs 99.27% complied with the PCV. In three zones, all supplied by the same treatment works, there were four exceedences of the PCV for THM.

Trihalomethanes (THMs) are formed by the reaction of chlorine with naturally occurring organic compounds in the water. An Undertaking was accepted in 2002 for THMs at the works supplying the zones with the failures. During 2003 interim measures have been made and a major capital scheme to refurbish the works begun for completion in 2004.

Pesticides

In 2003, 4397 determinations for individual pesticides were carried out on samples from customers' taps, with 100% complying with the PCV. This is the fifth consecutive year that we have achieved 100% compliance with the stringent European Union (EU) and UK Government standard of 0.1 µg/l.

Southern Water carries out a comprehensive programme of monitoring for some 56 different pesticide compounds in raw water sources and from customers' taps. Protection of raw water supplies from contamination

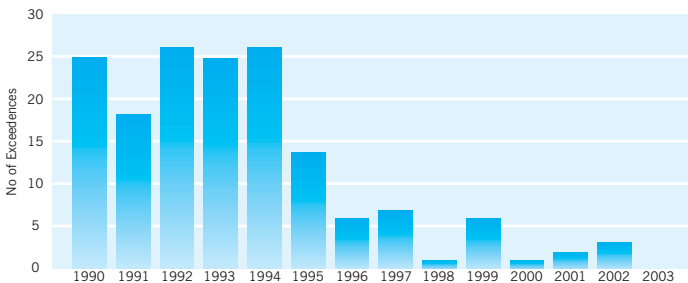
by pesticides is paramount in maintaining the highest drinking water quality. These residues arise from the widespread use of pesticides by many sections of society such as agriculture, local authorities, railways and domestic gardeners. Southern Water continues to encourage the 'safer' use of pesticides that minimise residues of these compounds entering water sources.

Additional treatment processes are in operation at a number of sites where pesticides are found in the raw water sources. The use of ozone and granular activated carbon systems ensures that the drinking water maintains compliance with the Regulations.

Lead

In 2003, for the first year ever, there were no exceedences of the lead standard. This achievement reflects the work carried out to reduce plumbosolvency in preparation for the more stringent standard proposed for 2013.

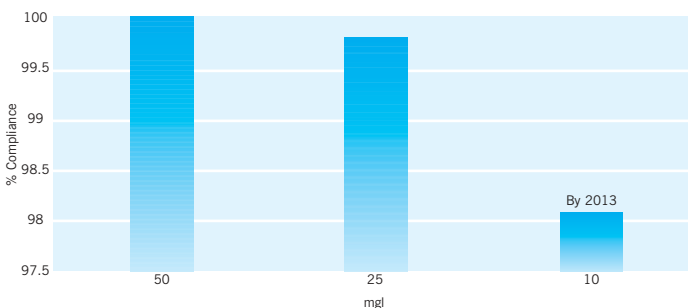
Southern Water - Lead Exceedences 1990-2003



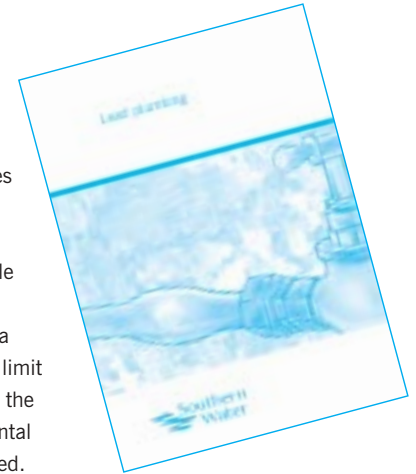
The current UK standard of 50 $\mu\text{g/l}$ is more stringent than that set by the original EU Directive, because it relates to an unflushed sample (i.e. water that has been standing in the pipe) rather than a flushed sample.

Lead was used in the past in service pipes (between the main and the property) and in the internal plumbing. When water comes into contact with lead pipes minute traces of lead can be picked up. The new EU Directive, which has been incorporated into the Water Supply (Water Quality) Regulations 2000, has reduced the standard limit to 10 $\mu\text{g/l}$ to be met by the end of 2013, with provision for an interim standard of 25 $\mu\text{g/l}$ to be met by the end of 2003.

Southern Water - Lead compliance against revised standards



To ensure levels of lead are minimised at the tap, customers will need to change any lead pipework they have in their plumbing and Southern Water encourages customers to do this. Advice on this subject is available in a lead leaflet that is available on request from the Customer Service Centre at Worthing. If a sample is found to exceed the limit for lead in drinking water both the customer and local Environmental Health Officer (EHO) are notified.



The Company replaces, free of charge, any lead pipework between the main and the property boundary, i.e. the communication pipe. In addition, if there is a leak on a lead underground supply pipe on the customers' property, Southern Water will replace any such pipe free of charge, up to a length of ten metres.

Polycyclic Aromatic Hydrocarbons (PAH)

In 2003, 601 samples were taken for PAH analysis of which 93.83 % complied with the standard for Total PAH and 99.83% complied with the PCV set for benzo 3,4 pyrene.

PAH is a class of organic compounds that occur in soot, tar, vehicle exhausts and combustion products of fuels such as oil. They also occur in coal tar linings, used in the past to protect iron water mains from corrosion. Leaching of PAH from coal tar linings in distribution systems means that some water samples show residues of PAH above the current PCV of 0.2 $\mu\text{g/l}$ for Total PAH. Of the average daily intake of PAH for an individual person, only a small proportion comes from drinking water.

The limit of 0.2 $\mu\text{g/l}$ for Total PAH in the Regulations is based on the previous EU Directive and specifies six individual PAH compounds to be monitored in the Total PAH group. The new Directive removes two of these individual compounds from the PAH group but tightens the standard for Total PAH to 0.1 $\mu\text{g/l}$. One of the individual PAH to be removed is the compound fluoranthene. Within Southern Water's area, breaches of the current PAH standard have been largely due to the incidence of fluoranthene. Comparing 2003 results with this new standard would have resulted in no exceedences of the PCV for Total PAH.

Benzo 3,4 pyrene is the second of the individual PAH to be removed from the Total PAH parameter. Instead, this compound is given its own standard of 0.01 $\mu\text{g/l}$. Benzo 3,4 pyrene has always been recognised as being of more significance to health than other individual PAH and in the current Regulations it is necessary to achieve an average of less than 0.01 $\mu\text{g/l}$ over a year. Whilst benzo 3,4 pyrene is occasionally found in samples, its incidence is generally related to mains disturbance and re-samples are always satisfactory. It is not expected to result in a significant increase in exceedences.

4. Other Quality Issues

Cryptosporidium

During 2003 a total of 4417 samples were taken from the 11 works classed as at 'significant risk' under the Cryptosporidium Regulations. 73 samples had low levels of cryptosporidium detected, often only one cryptosporidium oocyst in a 1000 litre sample volume. All results were well below the treatment standard and there were no associated outbreaks of Cryptosporidiosis.

The Cryptosporidium Regulations came into force from June 1999. They specified a new sampling procedure requiring continuous 24-hour sampling and the samples themselves to be treated in the same way as forensic evidence. A new more sensitive analysis method was specified which significantly improved the ability to detect the organism in water. A treatment standard of an average of less than one cryptosporidium oocyst in ten litres was also introduced.

Water Supply (Water Fittings) Regulations 1999

These Regulations replace the Bylaws previously issued by water companies. Their prime function is to protect the quality of water supply. All non-domestic premises must be categorised according to risk. A programme of inspections is being carried out by Southern Water to ensure that there is no risk of contamination by back siphonage due to illegal or incorrect installations.

Water Supply (Water Quality) Regulations 2000

These Regulations were introduced at the end of 2000 as a replacement for the existing Water Supply (Water Quality) Regulations 1989, and subsequent Amendments, and reflect the changes made within the EU Directive for water quality monitoring. The requirements of the Regulations are to be introduced over a phased period. From January 2001 water companies started monitoring for new parameters given in the Regulations. This enables the Drinking Water Inspectorate to assess compliance in advance of the standards. Within Southern Water work is already underway to reduce lead levels in water and this is detailed in the lead section of this report.

In 2003 Southern Water carried out monitoring for the six new parametric values set down in the new Water Supply (Water Quality) Regulations 2000. These Regulations came into force on 25 December 2003. The results are shown in the table below:

Parameter	Total number	New standard	No. of tests not meeting revised standard
Benzene	348	1.0µg/l	0
Bromate	345	10.0µg/l	0
1,2 Dichloroethane	343	3.0µg/l	0
Nitrite (ex-water treatment works)	1484	0.1mg/l	0
Clostridium perfringens	56	0/100ml	0
Enterococci	391	0/100ml	2

Compliance data for 2003 has also been analysed against the revised standards and the results are shown in the following table.

Parameter	Total no. of tests	Current standard 1989 Regs	No. of tests not meeting current standard	Revised standard 2000 Regs	No. of tests not meeting revised standard
Antimony	116	10.0µg/l	0	5.0µg/l	0
Arsenic	116	50.0µg/l	0	10.0µg/l	0
Boron	116	2.0mg/l	0	1.0mg/l	0
Copper	466	3.0mg/l	0	2.0mg/l	2
Lead	520	50.0µg/l	0	25.0µg/l 10.0*µg/l	1 7
Nickel	116	50.0µg/l	0	20.0µg/l	0
Nitrite (at customers' taps)	116	0.1mg/l	0	0.5mg/l	0
PAH	603	0.2µg/l	43	0.1µg/l	0
Tetrachloroethene	522	10.0µg/l	0	10.0µg/l	0
Trichloroethene	521	30.0µg/l	0		

* Standard to be met by end of 2013

5. Relaxations and Undertakings

No authorisations apply for relaxation of standards during 2003 in the Southern Water region.

Two undertakings were in force during 2003, refer to Appendix 1 for details.

6. Inspection of Records

A record of all compliance samples taken since 1 January 1990 is available for inspection by any member of the public during normal business hours.

Requests for information on water quality should be directed, preferably by telephone, to the Customer Service Centre (address at the back of this report). This information will be made available, free of charge, for the zone in which the customer resides. The water quality Public Register is available for inspection free of charge at our offices in Southern House, Yeoman Road, Worthing, during our normal business hours of 8am to 6pm Monday to Friday. For more information call 0845 278 0845.

If anyone wishes to inspect the Public Register, it will greatly assist the staff of Southern Water, and save time for the visitor, if a prior appointment is made through the Customer Service Centre at Worthing.

It is possible to view the register at other locations but only with a prior appointment.

7. Microbiological Quality of Water Supplied

Table 1 - Water leaving Treatment Works 01/01/03 - 31/12/03

Volume of water distributed from works (m ³ /d)	No. of Samples	Percentage of samples exceeding PCV	
		Total Coliforms	Faecal Coliforms
Less than 3,000	2004	0.20	0.05
3,000 - 12,000	3526	0.06	0
More than 12,000	1525	0.07	0
TOTAL	7055	0.10	0.01

Prescribed concentration or value (PCV):
 Total Coliforms = 0/100ml
 Faecal Coliforms = 0/100ml

Table 2 - Water in Service Reservoirs 01/01/03 - 31/12/03

Capacity of reservoir (m ³)	No. of Samples	Percentage of samples exceeding PCV	
		Total Coliforms	Faecal Coliforms
Less than 3,000	5865	0.03	0
3,000 - 12,000	4199	0.10	0
More than 12,000	841	0	0
TOTAL	10905	0.06	0

Prescribed concentration or value (PCV):
 Total Coliforms = 0/100ml for 95% of samples taken from any service reservoir
 Faecal Coliforms = 0/100ml

Table 3 - Water at Customers' Taps 01/01/03 - 31/12/03

Size of Zone (population)	Less than 5,000	5,000 - 20,000	20,001 - 50,000	TOTAL
Type of sample				
Random				
No. of samples	337	1513	4517	6367
% exceeding PCV for Total Coliforms	0	0.66	0.42	0.46
% exceeding PCV for Faecal Coliforms	0	0.13	0.02	0.05
Fixed				
No. of samples	0	0	0	0
% exceeding PCV for Total Coliforms	0	0	0	0
% exceeding PCV for Faecal Coliforms	0	0	0	0
Totals				
No. of samples	337	1513	4517	6367
% exceeding PCV for Total Coliforms	0	0.66	0.42	0.46
% exceeding PCV for Faecal Coliforms	0	0.13	0.02	0.05

Prescribed concentration or value (PCV):
 Faecal Coliforms = 0/100ml
 Total Coliforms = 0/100ml

If 50 or more samples have been taken in the preceding 12 months in a zone, 95% of samples must not contain total coliforms.
 If less than 50 samples have been taken in the preceding 12 months in a zone, 48 of the last 50 samples taken must not contain total coliforms.

8. Physico - Chemical Quality of Water Supplied

Table 4 - Water at Customers' Taps 01/01/03 - 31/12/03

Parameters which contravened the PCV

1 <i>Parameters</i>	2 <i>Size of zone (Population)</i>	3 <i>No. of zones in size group</i>	4 <i>No. of samples</i>	5 <i>Percentage exceeding PCV</i>	6 <i>No. of samples in column 5 which satisfy the terms of a relaxation</i>	7 <i>No. of zones in which PCV contravened</i>	8 <i>No. of zones in column 7 in which action taken has remedied the contravention (*)</i>
TOTAL	<5000	28	128	0	N/A	0	0
TRIHALOMETHANES	5000 - 20000	38	177	1.13	N/A	2	0
	20001 - 50000	50	244	0.82	N/A	1	0
	TOTAL	116	549	0.73	N/A	3	0
	TOTAL						
NITRATE	<5000	28	120	0	N/A	0	0
	5000 - 20000	38	220	0	N/A	0	0
	20001 - 50000	50	649	0.46	N/A	2	2
	TOTAL	116	989	0.30	N/A	2	2
IRON	<5000	28	117	1.71	N/A	2	0
	5000 - 20000	38	202	0	N/A	0	0
	20001 - 50000	50	529	0.19	N/A	1	0
	TOTAL	116	848	0.35	N/A	3	0
TURBIDITY	<5000	28	113	0.89	N/A	1	0
	5000 - 20000	38	202	0	N/A	0	0
	20001 - 50000	50	526	0.19	N/A	1	0
	TOTAL	116	841	0.24	N/A	2	0
BENZO 3,4 PYRENE	<5000	28	137	0	N/A	0	0
	5000 - 20000	38	191	0.52	N/A	1	0
	20001 - 50000	50	273	0	N/A	0	0
	TOTAL	116	601	0.17	N/A	1	0
TOTAL PAH (see page 6)	<5000	28	137	8.76	N/A	6	0
	5000 - 20000	38	191	8.38	N/A	11	0
	20001 - 50000	50	273	5.49	N/A	10	0
	TOTAL	116	601	7.15	N/A	27	0
TOTAL	<5000	28	-	-	-	9	0
	5000 - 20000	38	-	-	-	13	0
	20001 - 50000	50	-	-	-	13	0
	TOTAL	116	-	-	-	35**	0

NOTE (*) - Zones have been included in this column only where a specific programme of remedial works has been completed. In many cases, the immediate action taken following the exceedence of the PCV, or other interim improvements, has reduced the risk of a further contravention. In some cases, the investigation following a contravention did not reveal an underlying cause, or the circumstances leading to the contravention are thought to be unlikely to recur.

** Zones with more than one failing parameter are only counted once in the last section in the above table.

This report is published in accordance with Regulation 31 of the Water Supply (Water Quality) Regulations 1989 as amended. It contains information prescribed in the Regulations and sets out the achievements of the Company against the standards.

9. Appendices

Appendix 1 - Southern Water Relaxations and Undertakings

During 2003 the Company had no current authorisations for relaxations.

During 2003 Southern Water had two Section 19 undertakings for water quality parameters.

Undertakings Applicable During 2003

Parameter	Location	Action Taken	Completion Date
THMs	Brede WSW	Operational improvements have been made and interim dosing improvements were completed during 2003 as an initial step in a major capital scheme to refurbish the works.	December 2003
Nitrate	Gore WSW	Monitoring of the concentration of nitrate at Gore WSW and the WSZ supplied by Gore was completed. Analysis of the monitoring data showed that there will be no requirement for treatment until 2008.	September 2003

WSW = water supply works

Brighton during last summer's heatwave - despite the lack of rain Southern Water maintained water supplies with the same high standard of quality



Appendix 2: The Water Supply (Water Quality) Regulations 1989 prescribed concentrations or values samples taken from customers' taps in water supply zones

Parameter	Units	Maximum concentration or value	
Conductivity	µS/cm	1500	Average Over 12 Months
Odour	Diln. No.	3	
Taste	Diln. No.	3	
Turbidity	FTU	4	
Temperature	deg C	25	
Hydrogen Ion (pH)	pH value	5.5	Minimum 9.5 Maximum
Nitrate as NO3	mg/l	50	
Nitrite as NO2	mg/l	0.1	
Ammonium as NH4	mg/l	0.5	
Dry Residues	mg/l	1500	
Kjeldahl Nitrogen	mg/l	1	
Dissolved or Emulsified Hydrocarbons	µg/l	10	
Phenols	µg/l	0.5	
Substances Extractable in Chloroform	mg/l	1	
Iron	µg/l	200	
Aluminium	µg/l	200	
Manganese	µg/l	50	
Colour	mg/l	20	
Total THM	µg/l	100	See Note 1
Tetrachloromethane	µg/l	3	Average Over 12 Months
Trichloroethene	µg/l	30	Average Over 12 Months
Tetrachloroethene	µg/l	10	Average Over 12 Months
Copper	µg/l	3000	
Lead	µg/l	50	
Zinc	µg/l	5000	
Individual Pesticides	µg/l	0.1	
Total Pesticides	µg/l	0.5	
Benzo 3,4 Pyrene	µg/l	0.01	Average Over 12 Months
Total PAH	µg/l	0.2	See Note 2
Chloride	mg/l	400	Average Over 12 Months
Sulphate	mg/l	250	
Calcium as Ca	mg/l	250	Average Over 12 Months
Magnesium as Mg	mg/l	50	
Sodium	mg/l	150	See Note 3
Potassium	mg/l	12	
Oxidizability	mg/l	5	
Total Organic Carbon	mg/l	-	No Significant Increase Over That Normally Observed
Boron	µg/l	2000	Average Over 12 Months
Surfactants	µg/l	200	
Phosphorus	µg/l	2200	
Fluoride	µg/l	1500	
Barium	µg/l	1000	Average Over 12 Months
Silver	µg/l	10	
Arsenic	µg/l	50	
Cadmium	µg/l	5	
Cyanide	µg/l	50	
Chromium	µg/l	50	
Mercury	µg/l	1	
Nickel	µg/l	50	
Antimony	µg/l	10	
Selenium	µg/l	10	
Total Hardness as Ca	mg/l	60	Minimum - Applies only to softened or desalinated water
Alkalinity as HCO3	mg/l	30	Minimum - Applies only to softened or desalinated water
Total Coliforms	no/100ml	0	See Note 4
Faecal Coliforms	no/100ml	0	
Faecal Streptococci	no/100ml	0	
Sulphite-Reducing Clostridia	no/20ml	< 1 = 1	or
Colony Count 2d @ 37 C	no/ml	-	No Significant Increase Over That Normally Observed
Colony Count 3d @ 22 C	no/ml	-	No Significant Increase Over That Normally Observed

Notes:

1 TOTAL THM: Average concentration over the three preceding months in a zone must not exceed the PCV or, if less than four samples are taken in any year, individual samples must not exceed the PCV.
This parameter is the sum of the detected concentrations of tribromomethane, trichloromethane, dichlorobromomethane and dibromochloromethane.

2 TOTAL PAH: This parameter is the sum of the detected concentrations of fluoranthene, benzo 3,4 fluoranthene, benzo 11,12 fluoranthene, benzo 3,4 pyrene, indeno(123-cd)pyrene and benzo 1,12 perylene.

3 SODIUM: 80% of results taken within the preceding 36 months must not exceed the PCV

4 TOTAL COLIFORMS: If 50 or more samples have been taken in the preceding 12 months in a zone, 95% of samples must not contain total coliforms.
If fewer than 50 samples have been taken in the preceding 12 months in a zone, 48 of the last 50 samples taken must not contain total coliforms.

If you would like any further
information please contact:

Southern Water

Southern House

Yeoman Road

Worthing

BN13 3NX

Telephone:

0845 278 0845

www.southernwater.co.uk

Email:

customerservices@southernwater.co.uk