

## 9 Folkestone and Dover Water Services Limited

### Overall Water Quality supplied by Folkestone and Dover Water Services Limited in 2002

- A total of 7,228 tests were carried out on samples taken by Folkestone and Dover Water Services Limited in 2002.
- Of these tests, 99.89% complied with the Regulations.



#### Company Information

Amount of Water Supplied:	50 MI/d
Consumers Supplied:	163,300
Areas of Supply:	Coastal strip from Dungeness to Dover on the Kent coast
Water Composition:	15% from shallow gravel aquifer 85% from boreholes
Treatment Works:	17
Service Reservoirs:	13
Km of Mains:	1,101
Water Supply Zones:	10

### Water Quality at Treatment Works, in Service Reservoirs and in Water Supply Zones

To be wholesome, water must comply with the standards for the parameters set out in the Water Supply (Water Quality) Regulations 1989. In 2002, the Company carried out a total of 7,228 tests on samples taken at water treatment works, from service reservoirs and in water supply zones and of these, 99.89% complied with the relevant water quality standards set down in the Regulations. A list of the parameters, the relevant standards and their significance can be found at the beginning of this section.

#### Water Quality leaving Treatment works

	2002	2001	2000
<b>Number of water treatment works</b>	17	16	15
<b>COLIFORMS</b>			
<b>Total number of tests</b>	1,454	1,372	1,234
– number containing coliforms	0	1	1
– % containing coliforms	0.00%	0.07%	0.08%
<b>Treatment works with coliforms detected</b>	<b>0</b>	<b>1</b>	<b>1</b>
– % of all works with coliforms detected	0.00%	6.25%	6.67%
<b>FAECAL COLIFORMS</b>			
<b>Total number of tests</b>	1,454	1,372	1,234
– number containing faecal coliforms	0	0	1
– % containing faecal coliforms	0.00%	0.00%	0.08%
<b>Treatment works with faecal coliforms detected</b>	<b>0</b>	<b>0</b>	<b>1</b>
– % of all works with faecal coliforms detected	0.00%	0.00%	6.67%

There were no failures of either the coliform or faecal coliform standards at any of the Company's works in 2002. Differences over the last three years in the number of treatment works, and in the number of tests carried out on samples from treatment works, in which coliforms or faecal coliforms were detected were not considered significant.

In 2002, the Company took no regulatory samples for *Cryptosporidium*.

### Water Quality in Service Reservoirs

	2002	2001	2000
<b>Number of service reservoirs</b>	13	13	13
<b>COLIFORMS</b>			
<b>Total number of tests</b>	676	676	665
– number containing coliforms	0	0	0
– % containing coliforms	0.00%	0.00%	0.00%
Service reservoirs with coliforms detected	0	0	0
<b>Service reservoirs with coliforms detected in more than 5% of tests</b>	<b>0</b>	<b>0</b>	<b>0</b>
– % of all service reservoirs with coliforms detected	0.00%	0.00%	0.00%
<b>FAECAL COLIFORMS</b>			
<b>Total number of tests</b>	676	676	665
– number containing faecal coliforms	0	0	0
– % containing faecal coliforms	0.00%	0.00%	0.00%
<b>Service reservoirs with faecal coliforms detected</b>	<b>0</b>	<b>0</b>	<b>0</b>
– % of all service reservoirs with faecal coliforms detected	0.00%	0.00%	0.00%

There were no failures of the coliform or faecal coliform standard at any of the service reservoirs.

### Water Quality in Water Supply Zones

The table below shows the data for the key parameters and any other parameters where there was a failure of the standard. All other parameters were fully compliant.

Parameter	Total number of tests	Tests not meeting the prescribed concentration or value		Number of failures covered by Undertakings	Number of zones not complying with the standards		
		No	%		2002	2001	2000
Coliforms	484	0	0.00	0	0	0	0
Faecal coliforms	484	0	0.00	0	0	0	0
Colour	45	0	0.00	0	0	0	0
Turbidity	157	0	0.00	0	0	0	0
Odour	48	0	0.00	0	0	0	0
Taste	48	0	0.00	0	0	0	0
Hydrogen ion	76	0	0.00	0	0	0	0
Nitrate	75	0	0.00	0	0	0	0
Nitrite	75	0	0.00	0	0	0	0
Aluminium	54	0	0.00	0	0	0	0
Iron	182	1	0.55	0	1	1	0
Manganese	80	0	0.00	0	0	1	0
Lead	39	2	5.13	0	2	0	1
PAH	43	3	6.98	0	2	0	0
Trihalomethanes	16	0	0.00	0	0	0	0
Total pesticides	24	0	0.00	0	0	0	0
Simazine	26	1	3.85	0	1	0	0
Other pesticides	254	0	0.00	0	0	0	0
Benzo 3-4 Pyrene	43	1	2.33		0	0	0
All others	715	0	0.00	0	0	0	0
<b>TOTAL</b>	<b>2,968</b>	<b>8</b>	<b>0.27%</b>	<b>0</b>			

10 zones in 2000, 2001 and 2002

## The New Regulations

In 2002, the Company carried out monitoring for the six new parametric values set down in the new Water Supply (Water Quality) Regulations 2000. These Regulations come into force on 25 December 2003. The results are shown in the table below.

Parameter	Total number of tests	New standard	Tests not meeting the new standard
Benzene	136	1.0 µg/l	0
Bromate	72	10.0 µg/l	0
1,2 dichloroethane	135	3.0 µg/l	0
Nitrite (ex-water treatment works)	0	0.1 mg/l	N/a
<i>Clostridium perfringens</i>	105	0/100 ml	0
Enterococci	112	0/100 ml	0

Compliance data for 2002 has also been analysed against the revised standards and the results are shown in the following table.

Parameter	Total number of tests	Current Standard	Number of tests not meeting current standard	Revised Standard	Number of tests not meeting revised standard
Antimony	10	10.0 µg/l	0	5.0 µg/l	0
Arsenic	22	50.0 µg/l	0	10.0 µg/l	0
Boron	10	2.0 mg/l	0	1.0 mg/l	0
Copper	10	3.0 mg/l	0	2.0 mg/l	0
Lead	39	50.0 µg/l	2	25.0 µg/l <sup>1</sup> 10.0 µg/l <sup>2</sup>	4 12
Nickel	11	50.0 µg/l	0	20.0 µg/l	0
Nitrite (at consumers' taps)	75	0.1 mg/l	0	0.5 mg/l	0
PAH	43	0.2 µg/l	3	0.1 µg/l	1
Tetrachloroethene	15	30.0 µg/l	0	} 10.0 µg/l	0
Trichloroethene	16	10.0 µg/l	0		

Details of the new and revised standards, and the reasons for the revisions where applicable, can be found in chapter J "New Regulations and Associated Programmes of Work".

1 From 25.12.03

2 From 25.12.13

## Company Audit and Inspection

The Company was inspected or audited by the Inspectorate or its appointed consultants on a number of occasions during 2002. Where relevant, report summaries are available in the ‘Business and Technical’ section of the Inspectorate’s web site under ‘Audit and Inspection’.

Audit or Inspection	Date
Audit of progress with regulatory programmes of work	March 2002
Review of distribution system undertaking	August 2002
Audit of response to selected consumer complaints	October 2002
Inspection of one water treatment works and one service reservoir	November 2002
Audit of sampling arrangements	November 2002
Audit of analytical requirements for nitrate and nitrite	November 2002
Review of plumbosolvency treatment and control programmes of work for lead	November 2002
Audit trails of five test results	December 2002

A number of recommendations were made in respect of action required to avoid the risk of a breach of a regulatory duty. These recommendations were in relation to the audit trails, arrangements for compliance sampling, the water treatment works and plumbosolvency treatment and control.

## Incidents

The Inspectorate regarded none of the events notified during 2002 by the Company as incidents. For further details on the classification of incidents, see chapter C “Events affecting Water Quality” in Part 3.

## Enforcement Action

No enforcement action was considered for the Company as a result of the Inspectorate’s activities during 2002.

## Undertakings and other Improvement Programmes

### Water treatment works and service reservoirs

Two statements of intent to reduce the risk of *Cryptosporidium* breaching the treatment standards were due for completion during 2002. The programmes were completed on schedule.

No other improvement programmes were due for completion during 2002.

### Distribution

Surveys undertaken in connection with the Company’s distribution system improvement programme during the year indicated that no renovation was justified in the area investigated. Additional areas are currently undergoing further investigations.

### Lead

The Company has a Regulation 41 programme of work to meet the revised standard for lead set down in the new Water Supply (Water Quality) Regulations 2000, which will come into force on 25 December 2003. Progress with the delivery of the programme is monitored by the Inspectorate and has been satisfactory.