

20 Tendring Hundred Water Services Limited

Overall Water Quality supplied by Tendring Hundred Water Services Limited in 2002

- A total of 3,739 tests were carried out on samples taken by Tendring Hundred Water Services Limited in 2002.
- Of these tests, 99.84% complied with the Regulations.



Company Information

Amount of Water Supplied:	30 MI/d
Consumers Supplied:	145,000
Areas of Supply:	Tendring Peninsula of Essex
Water Composition:	20% from rivers and reservoirs 80% from boreholes and aquifers
Treatment Works:	2 (3 compliance monitoring points)
Service Reservoirs:	8
Km of Mains:	910
Water Supply Zones:	4

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 3,739 tests on samples taken at water treatment works, from service reservoirs and in water supply zones and of these, 99.84% 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
Number of water treatment works	3	3	3
COLIFORMS			
Total number of tests	386	373	631
– number containing coliforms	1	0	0
– % containing coliforms	0.26%	0.00%	0.00%
Treatment works with coliforms detected	1	0	0
– % of all works with coliforms detected	33.33%	0.00%	0.00%
FAECAL COLIFORMS			
Total number of tests	386	373	631
– number containing faecal coliforms	1	0	0
– % containing faecal coliforms	0.26%	0.00%	0.00%
Treatment works with faecal coliforms detected	1	0	0
– % of all works with faecal coliforms detected	33.33%	0.00%	0.00%

Failures of the coliform and faecal coliform standards at one works in 2002 were considered trivial. 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 were not required to take any regulatory samples for *Cryptosporidium* at any of its sites.

Water Quality in Service Reservoirs

	2002	2001	2000
Number of service reservoirs	8	8	8
COLIFORMS			
Total number of tests	410	448	449
– number containing coliforms	1	0	0
– % containing coliforms	0.24%	0.00%	0.00%
Service reservoirs with coliforms detected	1	0	0
Service reservoirs with coliforms detected in more than 5% of tests	0	0	0
– % of all service reservoirs with coliforms detected	0.00%	0.00%	0.00%
FAECAL COLIFORMS			
Total number of tests	410	448	449
– number containing faecal coliforms	1	0	0
– % containing faecal coliforms	0.24%	0.00%	0.00%
Service reservoirs with faecal coliforms detected	1	0	0
– % of all service reservoirs with faecal coliforms detected	12.50%	0.00%	0.00%

There were no failures of the coliform standard at any of the service reservoirs. The detection of faecal coliforms at one service reservoir was considered trivial. Differences over the last three years in the number of service reservoirs, and in the number of tests carried out on samples from service reservoirs, in which coliforms or faecal coliforms were detected were not considered significant.

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	377	1	0.27	0	0	0	0
Faecal coliforms	377	0	0.00	0	0	0	1
Colour	36	0	0.00	0	0	0	0
Turbidity	54	0	0.00	0	0	0	1
Odour	36	0	0.00	0	0	0	0
Taste	36	0	0.00	0	0	0	0
Hydrogen ion	41	0	0.00	0	0	0	0
Nitrate	37	0	0.00	0	0	0	0
Nitrite	36	0	0.00	0	0	0	1
Aluminium	36	0	0.00	0	0	0	0
Iron	118	1	0.85	0	1	1	0
Manganese	54	0	0.00	0	0	0	1
Lead	16	0	0.00	0	0	0	0
PAH	16	0	0.00	0	0	0	0
Trihalomethanes	32	0	0.00	0	0	0	0
Total pesticides	16	0	0.00	0	0	0	0
Other pesticides	320	0	0.00	0	0	0	0
All others	509	0	0.00	0	0	0	0
TOTAL	2,147	2	0.09%	0			

4 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	25	1.0 µg/l	0
Bromate	23	10.0 µg/l	1
1,2 dichloroethane	24	3.0 µg/l	0
Nitrite (ex-water treatment works)	56	0.1 mg/l	0
<i>Clostridium perfringens</i>	26	0/100 ml	0
Enterococci	30	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	4	10.0 µg/l	0	5.0 µg/l	0
Arsenic	4	50.0 µg/l	0	10.0 µg/l	0
Boron	4	2.0 mg/l	0	1.0 mg/l	0
Copper	16	3.0 mg/l	0	2.0 mg/l	0
Lead	16	50.0 µg/l	0	25.0 µg/l ¹ 10.0 µg/l ²	0
Nickel	5	50.0 µg/l	0	20.0 µg/l	0
Nitrite (at consumers' taps)	36	0.1 mg/l	0	0.5 mg/l	0
PAH	16	0.2 µg/l	0	0.1 µg/l	0
Tetrachloroethene	16	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
Review of distribution system undertaking	August 2002
Inspection of one water treatment works and one service reservoir	November 2002
Audit of sampling arrangements	November 2002
Audit of response to selected consumer complaints	November 2002
Audit trails of five test results	December 2002
Review of plumbosolvency treatment and control programmes of work for lead	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 sample audit trails.

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

No improvement programmes were due for completion during 2002.

Distribution

Surveys undertaken in connection with the Company's distribution system undertaking have demonstrated that no mains renovation is justified.

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.