RA-Water Quality Series 22

BATHING WATER QUALITY IN ENGLAND AND WALES - 1994



Report of the National Rivers Authority

April 1995



National Rivers Authority

WATER QUALITY SERIES No.22

National Rivers Authority

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EXECUTIVE SUMMARY

This is the fifth annual report on Bathing Water Quality published by the NRA, presenting the results of the 1994 bathing water survey.

The number of bathing waters identified in England and Wales for the purposes of the Bathing Water Directive remained at 419 for the 1994 season. Lyme Regis (Church) Beach was, however, still closed due to engineering work and was therefore not monitored or included in compliance assessment. The 1994 data, as assessed by DoE in accordance with the Directive show an increase in compliance (82.5%) with the mandatory coliform standards compared with 1993 (79.4%). There were an additional 13 compliant bathing waters. The NRA expects a continued increase in compliance until the majority of capital schemes in the Water Service Companies improvement programme have been completed.

Trend data show that the percentage of bathing waters complying consistently over a three year period with the mandatory coliform standards has increased slightly to 65% and the number consistently failing has dropped to 5%. Analysis of median faecal coliform values also suggests that general water quality has improved after being relatively stable in the previous three seasons.

Details of the European Blue Flag and Tidy Britain Group Award schemes for high quality bathing beaches are given in this report, together with an analysis of bathing waters meeting the water quality requirements of those award schemes during the 1994 season.

1. INTRODUCTION

1.1 The Role of the NRA

The National Rivers Authority (NRA) is the competent authority in England and Wales to implement the EC Bathing Water Directive (76/160/EEC). Under the Direction and Notices given in May 1992 by the Secretary of State, the NRA is required to sample and analyse bathing waters in accordance with the requirements of the Directive and report the results annually to the Department of the Environment (DoE) and Welsh Office. The DoE uses these data to assess compliance of individual sites and transmits the results annually to the European Commission.

The NRA also has statutory duties and powers under the Water Resources Act 1991 to control discharges to controlled waters and thereby achieve relevant water quality objectives. For bathing waters, water quality objectives were set out in the Bathing Water (Classification) Regulations 1991 (SI 1597), which came into force in August 1991 (DoE, 1991).

This is the fifth NRA Report on Bathing Water Quality in England and Wales, giving the results of the 1994 bathing season and an update on information contained in the 1990 (NRA, 1991), 1991 (NRA, 1992a), 1992 (NRA, 1993) and 1993 (NRA, 1994) Reports.

1.2 Developments Since 1993

In 1993 there were 419 bathing waters identified in England and Wales for the purposes of the Directive. No additional bathing waters were identified for the 1994 bathing season.

2. THE 1994 EC IDENTIFIED BATHING WATER QUALITY SURVEY

2.1 Sampling and Analysis

The bathing season in England and Wales runs from 15 May to 30 September and sampling commences two weeks before the start of the season. NRA policy is that 20 samples are taken at regular intervals throughout the season at each site. All samples are taken at predetermined points off the beach of the identified bathing water where the daily average density of bathers is at its highest. Samples are taken 30 cm below the surface, except in the case of samples used for testing for mineral oils, which are taken at the water's surface.

The results of the analyses of samples taken in the 1994 bathing season are given in the 1994 DoE Report to Parliament (Appendix A). Twenty samples were taken for coliform analysis at each bathing water and, wherever possible, two samples were analysed for salmonellae, and a minimum of two samples analysed for enteroviruses at any bathing water which had failed the mandatory coliform standards during the 1993 season. All coliform counts were confirmed using the methods set out in the NRA "Manual of Standard Methods for Microbiological Analysis" (NRA 1992b). Twenty samples from all identified bathing waters were also analysed for faecal streptococci for Blue Flag and Seaside Award scheme purposes (see section 4).

2.2 Survey Results: Compliance with Directive

The mandatory coliform standards given in the Directive and used by the DoE to assess compliance require there to be no more than 10,000 total coliforms per 100 ml and no more than 2,000 faecal coliforms per 100 ml. In order for a bathing water to comply with the Directive, 95% of samples taken must meet these standards.

During the 1994 bathing season, 418 identified bathing waters were examined in England and Wales. Lyme Regis (Church) Beach was closed throughout the bathing season due to engineering work and was therefore not sampled or included in compliance assessment. Mounts Bay Heliport was also closed during parts of the bathing season, but this bathing water was included in compliance assessment.

The number of bathing waters complying with the Directive, as determined by the DoE on the basis of the coliform parameters, was 345; that is to say, 82.5%. This is an increase of 3.1% compared with the results of the 1993 survey.

Table 1 gives details of the numbers and percentages of bathing waters complying with the Directive in 1994 by NRA Region. The changes in the number of bathing waters complying between 1993 and 1994 are also given.

The Water Service Companies are continuing with their investment programme aimed at improving bathing water quality to the schedule agreed with the DoE. A report detailing the progress of these schemes was compiled by the Department for the European Commission in September 1994. The report shows that 30 capital schemes were completed by June 1994 and these will have affected water quality at 53 bathing waters in England and Wales. It is expected that the completion of the remaining schemes will contribute significantly to better water quality at bathing beaches in future seasons.

An update (compiled using the DoE's September 1994 report) on the information on remedial schemes contained in the 1990 and 1992 NRA reports is presented as Appendix B.

TABLE 1 - 1994 EC IDENTIFIED BATHING WATERS - COLIFORM RESULTS

NRA Region	Number of	Complying		Non-Complying		Number of compliant bathing	
	Bathing Waters	Number	%	Number	%	waters compared with 1993	
Anglian	33	27	81.8	6	18.2	-1	
Northumbria & Yorkshire	56	49	87.5	7	12.5	+3	
North West	33	24	72.7	9	27.3	+11	
Southern	67	53	79.1	14	20.9	-5	
South Western *	175	151	86.3	24	13.7	+9	
Thames	3	2	66.7	1	33.3	-1	
Welsh	51	39	76.5	12	23.5	-3	
TOTAL *	418	345	82.5	73	17.5	+13	

^{*} excludes Lyme Regis (Church) Beach

2.2.1 Abnormal weather waiver

Article 5.2 of the Directive states that "deviations from the values referred to in Article 3 shall not be taken into consideration in the calculation of the percentage referred to in paragraph 1 when they are the result of floods, other natural disasters or abnormal weather conditions". This is transcribed in paragraph 2 of Schedule 1 of the Bathing Waters (Classification) Regulations 1991 which states "for the purposes of paragraph 1 above samples shall be disregarded if they deviate from the parametric values specified in Schedule 3 as a result of abnormal weather conditions, floods or other natural disasters."

There is no official definition of what constitutes abnormal weather, but DoE have advised that generally a "1 in 5 year storm event" can be regarded as exceptional weather. That is a storm which is statistically likely to occur only once in every five years. The amount of rainfall which equates to a 1 in 5 year event depends on the prevailing weather in a specific location.

NRA Regions were advised that if it was believed that such an event had occurred and had affected the quality of a bathing water, an application for a waiver should be made for that sample, as allowed in the Directive. However no abnormal weather events were considered to have taken place during the 1994 bathing season.

2.3 NRA Region by Region Analysis 1994

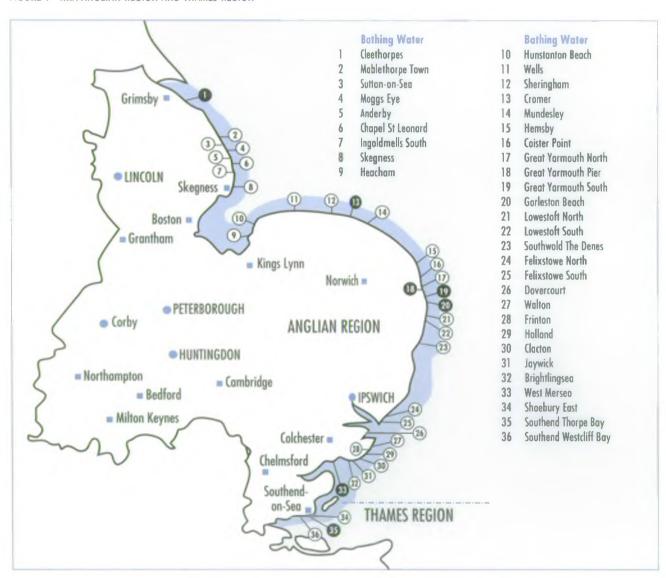
Maps are included for each NRA Region showing their identified bathing waters, and whether they complied (②), or did not comply (●), with the relevant parameters of the Directive for the 1994 bathing season.

Anglian Region

Of the 33 bathing waters in this Region, 27 complied with the Directive's mandatory coliform standards. This is one fewer compliant bathing water than 1993, giving a percentage compliance of 81.8%. Figure 1 indicates the compliance of individual bathing waters within the Region in 1994.

All six non-compliant bathing waters have remedial capital schemes in progress by Anglian Water Ltd to be completed by 1996 or 1997.

FIGURE 1 - NRA ANGLIAN REGION AND THAMES REGION

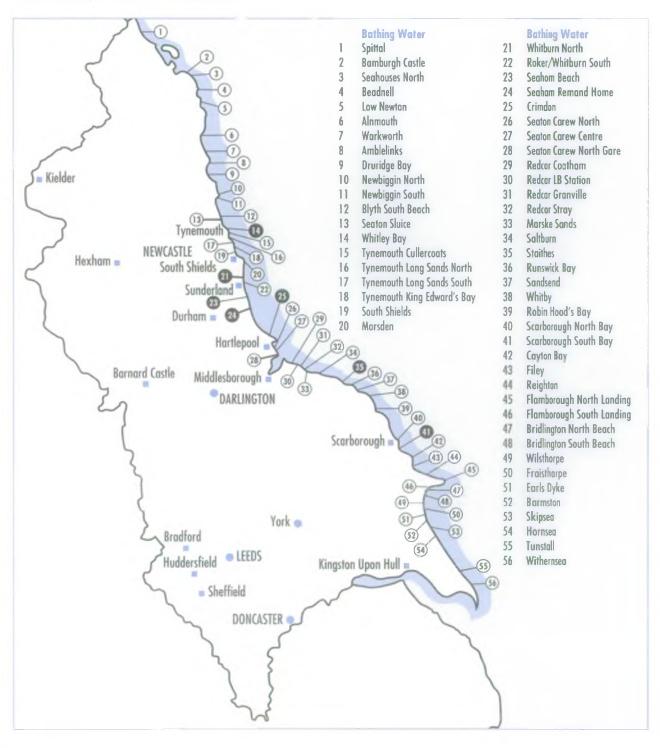


Northumbria & Yorkshire Region

The merged Northumbria & Yorkshire Region had 56 bathing waters for the 1994 season. Of these, 49 (87.5%) complied with the Directive's mandatory coliform standards. This is three more compliant waters than NRA Northumbria & Yorkshire Region in 1993. Figure 2 shows the individual state of compliance for the identified bathing waters in the Region in 1994.

It is expected that the remedial capital schemes in hand by Northumbrian Water Ltd and Yorkshire Water Services will be completed during 1995 and 1996. Where failures have occurred at previously compliant bathing waters in the Region, detailed studies are being undertaken by the NRA in conjunction with the relevant Water Service Company to identify reasons for exceedences and to ensure appropriate remedial action is taken.

FIGURE 2 - NRA NORTHUMBRIA & YORKSHIRE REGION



North West Region

Of the 33 identified bathing waters in the region, 24 (72.7%) met the coliform requirements of the Directive - eleven more compliant bathing waters than in 1993. Compliance for individual bathing waters in the Region for 1994 is illustrated in Figure 3.

The large capital investment programme being undertaken by North West Water Ltd is continuing. The majority of remedial works are due to be completed before the 1996 bathing season. The remainder are due for completion by 1997.

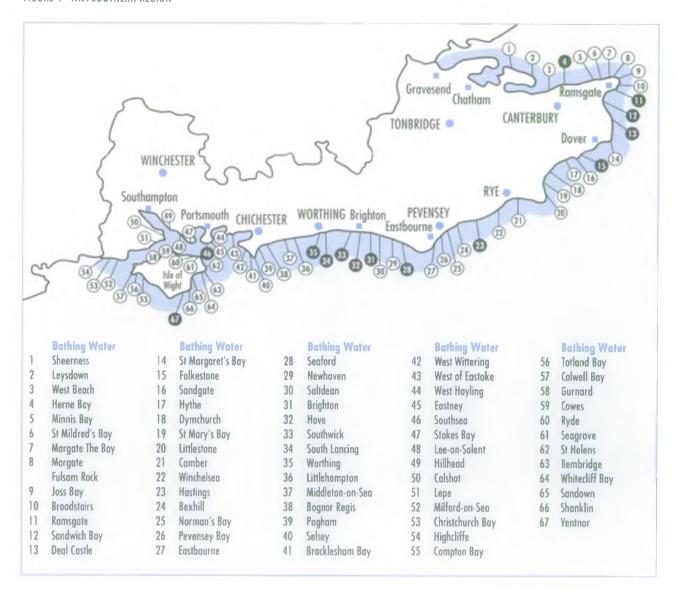
FIGURE 3 - NRA NORTH WEST REGION



Severn-Trent Region

Severn-Trent Region has no waters identified by the DoE as subject to the Bathing Water Directive.

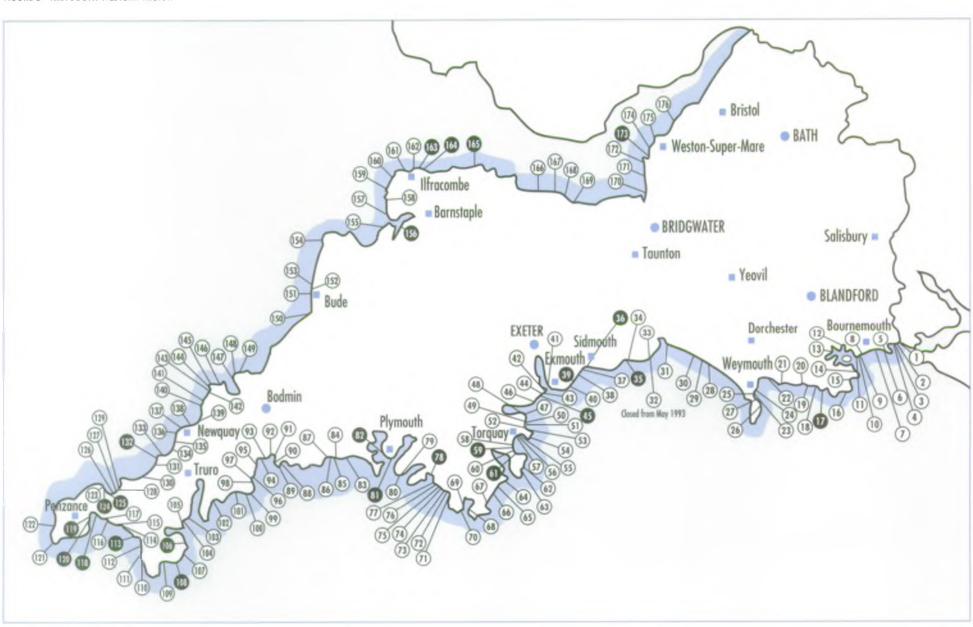
FIGURE 4 - NRA SOUTHERN REGION



Southern Region

There are 67 identified bathing waters in Southern Region; 53 (79.1%) complied with the mandatory coliform standards of the Directive, five fewer than in 1993. Figure 4 shows the compliance of individual bathing waters in Southern Region for the 1994 bathing season.

Southern Water Services Ltd has a large number of schemes planned or in progress to ensure improvements to bathing water quality. Some of these are due for completion before the 1995 bathing season and all except Ventnor and Folkestone are due for completion by the end of 1996. Southern Region are continuing to investigate causes of exceedences where schemes have already been completed.



	Bathing Water		Bathing Water		Bathing Water		Bathing Water
1	Christchurch	21	Ringstead Bay	49	Maidencombe	77	Challaborough
	Highcliffe Castle	22	Bowleaze Cove	50	Watcombe	78	Mothecombe
2	Christchurch	23	Church Ope Cove	51	Oddicombe	79	Wembury
	Friar's Cliff	24	Weymouth Lodmoor	52	Babbacombe	80	Bovisand
3	Christchurch	25	Weymouth Central	53	Redgate	81	Plymouth Hoe East
	Avon Beach	26	Portland Harbour	54	Meadfoot	82	Plymouth Hoe West
4	Christchurch Mudeford		Sandsfoot Castle	55	Beacon Cove	83	Portwrinkle
	Sandbank East	27	Portland Harbour	56	Torre Abbey	84	Downderry
5	Bournemouth		Castle Cove	57	Hollicombe	85	Secton (Cornwall)
	Hengistbury East	28	West Bay (West)	58	Paignton .	86	Millendreath
6	Bournemouth	29	Eypemouth		Preston Sands	87	East Looe
2	Fisherman's Walk	30	Seatown	59	Paignton Sands	88	Readymoney
7	Bournemouth	31	Charmouth West	60	Goodrington	89	Palkerris
	Boscombe Pier	32	Lyme Regis Church Beach	61	Broadsands	90	Par
8	Bournemouth Pier	33	Lyme Regis Cobb	62	Shoaktone	91	Crinnis Golf Links
9	Bournemouth	34	Seaton (Devon)	63	St Mary's Bay	92	Crinnis Leisure Centre
	Durley Chine	35	Beer	64	Dartmouth Castle	93	Charlestown
10	•	36	Sidmouth Town		and Sugary Cove	94	Duporth
	Rd Sandbanks	37	Sidmouth Jacob's Ladder	65	Blackpool Sands	95	Porthpean
11	Poole Harbour Sandbanks	38	Ladram Bay	66	Slapton Sands Monument	96	Pentewan
12	Poole Harbour Lake	39	Budleigh Salteron	67	Slapton Sands Torcross	97	Polstreath
13	Poole Harbour Rockley	40	Sandy Bay	68	Mill Boy	98	Port Mellon
_	Sands	41	Exmouth	69	Salcombe North Sands	99	Gorran Haven
14	Shell Bay North	42	Dawlish Warren	70	Salcombe South Sands		Little Perhaver
15	Studland Knoll House	43	Dawlish Town	71	Hope Cove	100	
16	Swanage Central	44	Dawlish Coryton Cove	72	Thurlestone South	101	Porthluney
17	Kimmeridge Bay	45	Teignmouth Holcombe	73	Thurlestone North	102	Pendower
18		46	Teignmouth Town	74	Bantham	103	Gyllyngvase
19		47	Shaldon	75	Bigbury-on-Sea South	104	Swanpool
20		48	Ness Cove	76	Bigbury-on-Sen North	105	Maen Porth

	Bathing Water		Bathing Water
106	Porthollow	132	Trevaunance Cove
107	Porthoustock	133	Perranporth
108	Coverack		Village End
109	Kennack Sands	134	Perronporth
110	Pollurian Cove		Penhale Sands
111	Poldhu Cove	135	Holywell Bay
112	Gunwalloe Cove	136	Crantock
113	Porthleven West	137	Fistral
114	Praa Sands East	138	Towan
115	Praa Sands West	139	Watergate
116	Perran Sands	140	Mawgan Porth
117	Mounts Bay	141	Porthcothan
	Little Holgus	142	Treyarnon Bay
118	Mounts Bay Heliport	143	Constantine Bay
119	Mounts Bay Penzance	144	Mother Ivey's Bay
120	Mounts Bay	145	Harlyn Bay
	Wherry Town	146	Trevone Bay
121	Porthcurno	147	Rock
122	Sennen	148	Daymer Bay
123	Porthmeor	149	Polzeath
124	Porth Gwidden	150	Widemouth Sand
125	Porthminster	151	Bude Summerleaze
126	Carbis Bay	152	Bude Crooklets
	Station Beach	153	Bude Sandy Mouth
127	Carbis Beach Porth	154	Hartland Quay
	Kidney Sands	155	Westward Ho!
128	The Towans (Hayle)	156	Instow
129	The Towans (Godrevy)	157	Saunton Sands
130	Portreath	158	Croyde Bay
131	Porthtowan	159	Woolacombe Putsborough
			•

	Bathing Water
160	Woolacombe Village
161	Ilfracombe
	Tunnels Beach
162	Ilfracombe Capstone
163	Ilfracombe Hele
164	Combe Martin
165	Lynmouth
166	Porlock Weir
167	Minehead Terminus
168	Dunster North West
169	Blue Anchor West
170	Burnham Jetty
171	Berrow North
	of Unity Farm
172	Brean
173	Weston-super-Mare Uphill
	Slipway
174	Weston-super-Mare Main
175	Weston-super-Mare
	Sand Bay
176	Clevedon Beach

South Western Region

South Western Region has over two fifths of the identified bathing waters in England and Wales, the total being 176. As Lyme Regis (Church) Beach was closed throughout the bathing season due to engineering work, the number of monitored bathing waters for the 1994 season was 175. Of these, 151 (86.3%) complied with the mandatory coliform standards, nine more compliant bathing waters than in 1993. The individual compliance results for NRA South Western bathing waters in 1994 are shown in Figure 5.

Most of the non-compliant bathing waters in this Region are being addressed by remedial schemes which, once completed, will improve local bathing water quality. A number of these schemes are due for completion before the 1996 bathing season. A few schemes however have longer timescales, including Plymouth and Instow. The Plymouth scheme is due for completion in 1998 and the Instow scheme in 1997.

In the few cases where previously compliant bathing waters have failed and no scheme is planned, the NRA is planning detailed investigations to identify possible sources of faecal pollution. In South Western Region streams running across bathing beaches are often sources of bacterial loading. Wherever possible, remedial action will be taken to ensure future compliance.

Thames Region

Thames Region has only three identified bathing waters, two of which met the mandatory coliform standards of the Directive. Thames bathing waters are shown in Figure 1 (along with those of Anglian Region).

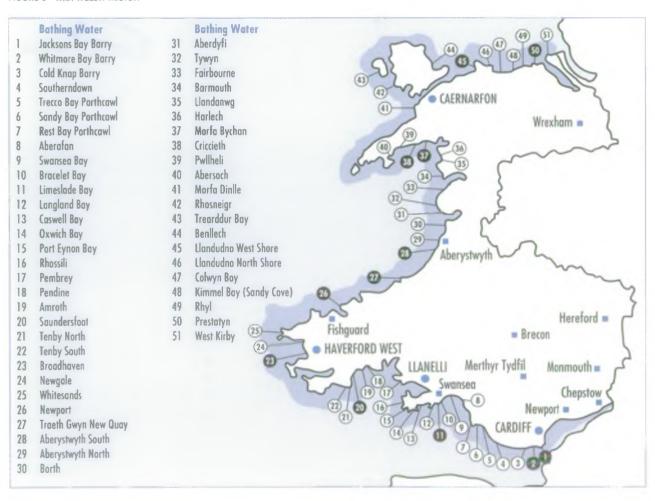
The Anglian Water Services capital scheme under way at Southend, from which Thorpe Bay will benefit, is due to be fully completed by 1998.

Welsh Region (Rhanbarth Cymru)

Welsh Region has 51 identified bathing waters (including West Kirby which is on the English coastline). A total of 39 (76.5%) complied with the mandatory coliform standards of the Directive in 1994. This is three fewer compliant waters than in 1993. The compliance and location of the Region's bathing waters is shown in Figure 6.

The Dwr Cymru (Welsh Water) investment programme should ensure that the majority of schemes are completed by the 1996 bathing season. Further improvements - the Lavernock Point (formerly Jacksons Bay) and Swansea Bay schemes will be completed in 1997, and the Saundersfoot scheme in 1998, in accordance with agreements with Welsh Office. These will result in improvements to a range of identified bathing waters in the Barry and Swansea areas and at Saundersfoot. Investigations by the NRA are underway at the few failing waters which have previously been compliant, to assess likely causes of failure and requirements for action.

FIGURE 6 - NRA WELSH REGION



3. TRENDS AND VARIATIONS IN BATHING WATER SURVEY RESULTS

3.1 Trends in Compliance 1987 to 1994

The percentage compliance for 1994 shows an improvement of 3.1% over 1993. This continues the steady improvement generally experienced since 1987. There is still a tendency for bathing waters to move in and out of compliance from year to year and compliance levels within Regions continue to show a small variation. From a national perspective, however, bathing water quality is improving.

The NRA expects compliance to continue to rise until the majority of remedial schemes are completed. Many of these schemes are due for completion before the end of 1995 and it is expected that this will result in a good increase in compliance for the 1996 bathing season.

3.2 Variation in Compliance

A significant number of bathing waters are on the borderline between compliance and non-compliance. These bathing waters pass the Directive's standards one year and fail the next (or vice versa). This volatility is caused by a combination of the inherent variability of the data collected over the bathing season and the way in which compliance within the Directive is assessed on a "pass/fail" basis. Changes in compliance can therefore be caused simply for no other reason than the laws of chance. Weather conditions can also play a part in the overall compliance level experienced during a bathing season.

It is interesting, therefore, to examine the consistency of compliance by looking at the number of bathing waters that have failed the Directive in three, two, one or none of the previous three bathing seasons. Figure 7 illustrates this for the period 1992-1994. The percentage of bathing waters failing none of the last three years is 64%, whilst the percentage failing all three years is 5%. However, 30% of bathing waters fail for one or two of the three years; in other words, switch between compliance and non-compliance. It is not possible to determine whether these bathing waters fail as a result of changed water quality or because of the volatility of the assessment methods used in the Directive.

As more remedial schemes are completed in areas where the water quality is close to the standards in the Directive, the number of these 'borderline' bathing waters should decrease and the true picture of the quality of bathing waters will become clearer, subject only to the limitations of the monitoring regime required under the Directive.

Previous Bathing Water Quality reports contain similar pie charts illustrating the consistency of compliance for the periods 1988-1990, 1989-1991, 1990-1992 and 1991-1993. A summary of these assessments together with that for the 1992-1994 period is shown in Table 2. From this, the changes in consistent compliance which have occurred in recent years can clearly be seen.

The percentage of waters consistently failing is continuing to decrease and the percentage consistently passing is increasing further as more remedial schemes are completed. This trend is expected to continue in future years.

FIGURE 7 - COMPARISON OF BATHING WATER FAILURES 1992-1994

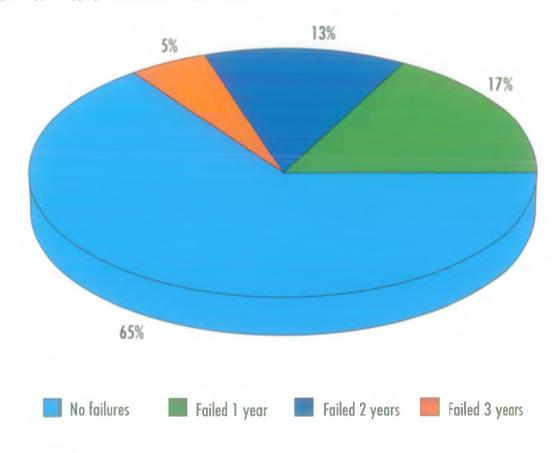


FIGURE 8 - GRAPH DEMONSTRATING REDUCTION IN HIGHEST MEDIAN FAECAL COLIFORM VALUES SINCE 1987

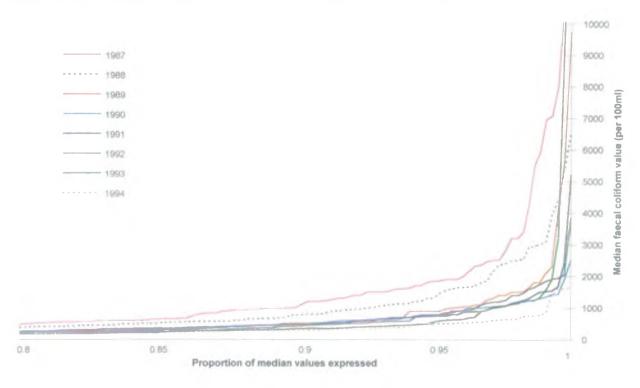


TABLE 2 - CONSISTENCY OF COMPLIANCE OVER THREE YEAR PERIODS

	1988	3-1990	198	9-1991	199	0-1992	1991	-1993	1992	-1994
No failures at all	5	7%	(50%		64%	63	3%	6	5%
Failed 1 year	18%	200/	22%	200/	16%	0.40/	17%	200/	17%	200/
Failed 2 years	12%	30%	6%	28%	8%	24%	11%	28%	13%	30%
Failed 3 years	13%		13%	•	12%	-	9%		5%	

3.3 Assessment of Bathing Water Quality Using Median Coliform Values

The use of ranked median faecal coliform values (one from each bathing water) was first discussed in the 1990 Report. It is one way of overcoming the statistical drawbacks in the Directive's "pass/fail" method of assessing compliance and demonstrates the general bathing water quality in the assessed area.

The three main advantages in using the median faecal coliform value are:

- it offers a stable estimate of trend;
- it is relatively insensitive to changes in sampling rate; and thus
- it is a good way of comparing bathing water quality between countries.

Figure 8 illustrates the trend in median values of faecal coliforms over the past seven years. It shows the ranked median faecal coliform values for the years 1987 to 1994 inclusive. The further to the bottom right of the graph a particular year's plot is, the lower are the highest medians for that year, and therefore the better the bathing water quality.

The graph represents only the highest 20% of median values for each year to illustrate more clearly the difference between years. Adjustments have also been made to take into account the increase in the number of identified bathing waters during the assessed period.

Figure 8 shows that between 1987 and 1990 there was a steady improvement in bathing water quality as revealed by assessment of median faecal coliform values. There has again been a noticeable improvement in 1994, after the relatively stable quality achieved in the years 1991-1993.

4. BLUE FLAG AND SEASIDE AWARD SCHEMES AND STANDARDS

4.1 The European Blue Flag Scheme

The European Blue Flag Scheme is organised by the Federation of Environmental Education in Europe (FEEE). In 1994 it continued to be administered in the UK by Tidy Britain Group (TBG), a registered charity and an independent voluntary body, part-funded by the DoE. European Blue Flags are awarded to high quality EC identified bathing beaches which meet the water quality and land-based requirements of the award scheme. Beaches are only considered for an award if an application (by a relevant local authority or other interested party) is made, and should any criterion of the award scheme no longer be met during the bathing season, then the Blue Flag has to be removed.

Water quality is judged on the results of the analyses of samples taken throughout the previous bathing season (ie the 1995 awards will be based on 1994 water quality). The 1994 awards again required compliance with the G value water quality standards of the Directive for the microbiological parameters total and faecal coliforms and faecal streptococci. The award does not require compliance with Directive standards for salmonella or enterovirus or physio-chemical parameters. Seventeen resorts in the UK (fifteen of them in England and Wales) applied for and were awarded a Blue Flag in 1994.

4.2 The Tidy Britain Group Seaside Award Scheme

The Seaside Award scheme was introduced in 1992 and is also administered by TBG. It is intended to complement the European Blue Flag Awards and aims to recognise beaches which attain high standards of facilities and management (where appropriate), beach cleanliness, and water quality. Again, water quality is judged on the results of the analyses of samples taken throughout the previous bathing season.

The Seaside Award scheme has two categories, Resort and Rural, the former encompassing managed tourist resorts and the latter awarded to smaller beaches which have limited facilities but still offer clean water and whose attraction lies in their undeveloped character.

The Resort Beach award is given to those beaches which attain the water quality standards and comply with 28 land-based criteria (covering aspects such as public information and access, dog control and hygiene, and beach management and safety). The Rural Beach award is given to those beaches which attain water quality standards and fulfil 12 land-based criteria.

Within each category, there are two types of award which reflect different levels of water quality. The "Seaside Award" acknowledges water quality which meets the mandatory standards for the faecal and total coliform parameters of the EC Bathing Water Directive, and also complies with the landbased criteria. The "Premier Seaside Award" acknowledges water quality which meets the mandatory and guideline standards for coliforms and (since 1993) faecal streptococci, and also fulfils the land-based criteria. Neither award requires compliance with the standards in the Directive for salmonella, enterovirus or physico-chemical parameters.

In 1994, 165 beaches in the UK attained Seaside awards as shown in Table 3. In the Resort category, 19 attained the Premier Award, and 38 received the Seaside Award. In the Rural category there were 46 Premier Awards and 62 Seaside Awards.

TABLE 3 - BEACHES ATTAINING 1994 TIDY BRITAIN GROUP SEASIDE AWARDS

Category	Award	Beaches
Resort	Premier	Whitby (West Cliff), Southwold ^{BF} , Sheerness (Beach Street) ^{BF} , Birchington (Minnis Bay), Hayling Island West ^{BF} , Bournemouth (Fisherman's Walk) ^{BF} , Bournemouth (Durley Chine) ^{BF} , Poole (Sandbanks) ^{BF} , Torbay (Oddicombe) ^{BF} , Torbay (Meadfoot) ^{BF} , Torbay (Broadsands) ^{BF} , Crinnis ^{BF} , Sennen Cove ^{BF} , Porthmeor ^{BF} , Woolacombe ^{BF} , Cefn Sidan Pembrey Country Park ^{BF} , St Davids (Whitesands) ^{BF} , Portrush (West Bay Strand) ^{BF} , Benone ^{BF}
	Seaside	Troon South, Nairn Central, Fraserburgh, St. Andrews (West), Elie, Aberdour (Silver Sands),
	300300	Tynemouth (Cullercoats), Tynemouth (Longsands South), Scarborough (North Bay), Scarborough (South Bay), Filey, Bridlington (North), Bridlington (South), Hunstanton, Wells-next-the-Sea, Mundesley, Lowestoft (South), Southend-on-Sea (Three Shells), Margate, Broadstairs (Viking Bay), Bexhill, Eastbourne (Pier to Wishtower), Littlehampton, Bognor Regis, Ryde West, Ryde East, Sandown, Shanklin, Christchurch (Friar's Cliff), Weymouth Central, Dawlish Warren, Teignmouth (Main Beach), Torbay (Redgate), Torbay (Corbyn Head), Torbay (Paignton), Torbay (Goodrington South Sands), Tenby North, Aberystwyth (Traeth Y Gogledd)
Rural	Premier	Gullane Bents, Bamburgh, Beadnell Bay, Low Newton, Warkworth, Amble Links, Flamborough (South Landing), Snettisham, Kessingland, Dunwich, Aldeburgh, Sheerness (Minster Leas), Winchelsea, Birling Gap, Hill Head (near Fareham), Lepe Country Park, Vazon Bay Cobo (CI), Port Soif (CI), Pembroke/L'Ancresse (CI), Dawlish (Coryton Cove), Ness Cove Shaldon, Torbay (Maidencombe), Torbay (Elberry Cove), Blackpool Sands, Torcross, Thurlestone (South Milton Sands), Bigbury-on-Sea (Challaborough), St Merryn (Treyarnon), St Merryn (Constantine Bay), Polzeath, Bude (Widemouth Sand), Bude (Sandymouth), Oxwich Bay, Lydstep Bay, Skrinkle, Manorbier, Freshwater East, Barafundle, Broadhaven (South), Marloes Milford Haven, Newgale, Abereiddy, St Dogmaels (Poppit), Mwnt, Dinas Dinlle (near Caernarfon), Rhosneigr (Traeth Crigyll)
	Seaside	Sandend, Inverboyndie, Cruden Bay, Balmedie, Kingsbarns, Runswick Bay, Sandsend, Robin Hood's Bay, Shoeburyness (East), Southend (Leigh Bell Wharf), Dymchurch, Romney Sands, Camber, Pevensey Bay, West Wittering, Cowes, East Cowes, Springvale, St Helens Dover, Yaverland, Colwell Bay, Gurnard, Christchurch (Highcliffe Castle), Torbay (Watcombe), Torbay (Churston Cove), Dartmouth (Strete Gate), Hope Cove Inner Hope, Mouthwell Outer Hope, Bantham, St Merryn (Harlyn Bay), Bude (Crooklets), Southerndown, Saundersfoot (Amroth), Saundersfoot (Wiseman's Bridge), Saundersfoot (Coppet Hall), Tenby South, West Angle Bay, Dale, Haverfordwest (Broad Haven), Nolton Haven, St Davids (Caerfai), Pwllgwaelod, Fishguard (Cym-Yr-Eglwys), Aberporth (Traeth Y Diffryn), Tresaith, Penbryn, Cwmtydu, Llangrannog, New Quay (Traethgwyn), New Quay (Traeth Harbwr), New Quay (Traeth Cei Bach), Aberaeron (Traeth Y De), Gilfach Yr Halen, Borth, Llandanwg, Llanddwyn, Rhoscolwyn (Borth Wen), Trearddur Bay, Holyhead (Porth Dafarch), Benllech, Llanddona, Cranfield Bay

^{BF} indicates a 1994 European Blue Flag Award

4.3 Comparison of Identified Bathing Waters in England and Wales with Blue Flag and Premier Seaside Award Microbiological Standards

To be eligible for a Blue Flag or Premier Seaside Award a beach must now (amongst the other criteria) have a water quality which meets the mandatory and guideline microbiological standards of the Bathing Waters Directive for total and faecal coliforms and faecal streptococci.

TABLE 4 - BATHING WATERS BY REGION WITHIN THE GUIDELINE MICROBIOLOGICAL STANDARDS REQUIRED FOR BLUE FLAG AND PREMIER SEASIDE AWARDS DURING THE 1994 BATHING SEASON

Region	Bathing waters
North West	Moreton at Pasture Road, Walney Sandy Gap
Northumbria & Yorkshire	Bamburgh Castle, Seahouses North, Beadnell, Low Newton, Alnmouth, Warkworth, Amblelinks, Druridge Bay, Barmston, Skipsea, Tunstall
Anglian	Sutton-on-sea, Moggs Eye, Anderby, Ingoldmells South, Skegness, Sheringham, Lowestoft South, Southwold the Denes, Felixstowe North, Felixstowe South, Brightlingsea
Thames	None
Southern	Sheerness, Minnis Bay, Joss Bay, Hythe, Selsey, West of Eastoke, West Hayling, Eastney, Stokes Bay, Calshot, Milford-on-sea
South Western	Christchurch Highcliffe Castle, Bournemouth Hengistbury East, Bournemouth Fishermans Walk, Bournemouth Durley Chine Shell Bay North, Studland Knoll House, Lulworth Cove, Durdle Door East, Durdle Door West, Church Ope Cove, Weymouth Lodmoor, West Bay (West), Dawlish Warren, Ness Cove, Maidencombe, Watcombe, Oddicombe, Beacon Cove, Torre Abbey, Shoalstone, Blackpool Sands, Slapton Sands (Monument), Slapton Sands (Torcross), Thurlestone (South), Thurlestone (North), Bantham, Bigbury-on-Sea (North), Challaborough, Bovisand, Downderry, Seaton (Cornwall), Polkerris, Crinnis (Golf Links), Crinnis (Leisure Centre), Charlestown, Duporth, Porthpean, Polstreath, Gorran Haven (Yault), Porthluney, Gyllyngvase, Swanpool, Porthoustock, Kennack Sands, Gunwalloe Cove, Praa Sands (East), Praa Sands (West), Perran Sands, Porthcurno, Sennen, Carbis Bay (Porth Kidney Sands), The Towans (Hayle), The Towans (Godrevy), Portreath, Porthtowan, Perranporth (Penhale Sands), Fistral Beach Newquay, Porthcothan, Treyarnon Bay, Constantine Bay, Mother Ivey's Bay, Harlyn Bay, Rock, Daymer Bay, Widemouth Sand, Bude (Crooklets), Bude (Sandy Mouth), Hartland Quay, Woolacombe (Putsborough), Woolacombe (Village), Porlock Weir
Welsh	Oxwich Bay, Port Eynon Bay, Rhossili, Borth, Fairbourne, Barmouth, Pwllheli, Morfa Dinlle, Rhosneigr, Trearddur Bay

Table 4 lists the 116 identified bathing waters in England and Wales which met these guideline standards during the 1994 bathing season. Because the microbiological standards are not the sole criteria on which awards are based, not all of these bathing waters - if submitted - may attain a 1995 award. It should be noted that there will, in addition to those bathing waters in Table 4, be bathing waters eligible for the Seaside Award on the basis of compliance with the mandatory standards for total and faecal coliforms.

4.4 Comparison of Identified Bathing Waters with Directive Faecal Streptococci Standard

Compliance of bathing waters is based on the mandatory standards set in the Directive. As faecal streptococci currently has only a guideline standard, compliance with the standard set for this parameter does not affect the overall compliance of a bathing water with the Directive (section 2.2). Faecal streptococci analysis was carried out to enable Blue Flag and Seaside Awards to be made at those bathing beaches entering the schemes.

Table 5 shows the number of bathing waters within each Region in the 1994 bathing season which attained compliance with the Directive's faecal streptococci standard of 90% of samples with no more than 100 per 100 ml.

TABLE 5 - NUMBER OF BATHING WATERS BY REGION WITHIN GUIDELINE FAECAL STREPTOCOCCI STANDARD

Region	Number within Guideline standard	% within Guideline standard
Anglion	12	36%
Northumbria & Yorkshire	20	36%
North West	8	24%
Southern	24	36%
South Western	103	59%
Thames	1	33%
Welsh	14	27%
TOTAL	182	43%

5 OTHER ISSUES RELATING TO BATHING WATER QUALITY

5.1 Implementation of the Directive in EC Member States

The Commission of the European Communities published in 1994 a report entitled "Quality of Bathing Water 1993" (CEC 1994). This is the eleventh report in the series and covers the 1993 data from the 12 Member States.

In order to provide objective and comparable information, the 1993 report concentrates on compliance of bathing waters with the mandatory values given in the Annex of Directive 76/160/EEC. Prior to 1991, the reports had referred to the more stringent standards which some Member States had set under the provisions made in Articles 3 and 7 of the Directive. This approach had led to some confusion in the comparison of bathing water quality between Member States.

Table 6 shows the sampling frequency required and achieved for marine bathing waters in each of the Member States. Eight out of 11 Member States continue to have a number of bathing waters with an inadequate sampling frequency.

TABLE 6 - COMPARISON OF SAMPLING FREQUENCY AT MARINE WATERS IN EC MEMBER STATES

Member State (u)	No. of marine sampling points (b)	Required Frequency (c)	No. with inadequate sampling frequency	Average No. of Samples Taken
Belgium	39	13 (7)	0	44.8
Denmark	1180	9 (5)	2	12.0
Germany	436	9 (5)	32	12.0
Greece	1250	11 (6) or 13 (7)	10	14.0
Spain	1405	7-11	6	13.8
France	1856	3 (2) - 21 (11)	166	11.2
Ireland	90	7 (4)	0	10.5
Italy	4288	11 (6) or 13 (7)	287	10.7
Netherlands	45	9 (5)	6	9.0
Portugal	312	9 (5)	34	9.4
United Kingdom	457	10 (6) or 6 (4)	0	20.3

- (a) Luxembourg is not included as it has no marine bathing waters.
- (b) The number of sampling points is not necessarily the same as the number of identified bathing waters.
- (c) The minimum number of samples required depends on the length of bathing season which can differ between regions of a Member State because of geographical and climatical conditions (eg. in England and Wales 15 May to 30 September, in Scotland and Northern Ireland 1 June to 15 September). Also, if the water quality has, in previous years, been appreciably better than the standards laid down in the Annex, the Directive allows sampling frequency to be reduced to the values given in brackets.

TABLE 7 - COMPARISON OF COMPLIANCE OF MARINE WATERS WITH MANDATORY (I VALUE) COLIFORM STANDARDS OF DIRECTIVE

Member State (*)	No. of marine sampling points (h)	No. complying with 'I' values	% compliance
Belgium	39	32	82%
Denmark (c)	1180	1135	96%
Germany	436	333	76%
Greece	1250	1201	96%
Spain	1405	1341	95%
France	1856	1526	82%
Ireland	90	86	96%
Italy	4288	3755	88%
Netherlands (c)	45	39	87%
Portugal	312	252	81%
United Kingdom	457	365	80%

- (a) Luxembourg is not included as it has no marine bathing waters.
- (b) The number of sampling points is not necessarily the same as the number of identified bathing waters.
- (c) Denmark and the Netherlands do not analyse for total coliforms as they have concluded that in all cases where a water met the required standard for faecal coliforms it also complied with the limits for total coliforms. This table therefore represents compliance with the mandatory faecal coliform standard only in these Member States.

The methods of coliform analysis recommended by the Directive leaves some flexibility for Member States, which means that compliance with Directive standards may not be directly comparable. This has been recognised by the European Commission which has organised comparative studies of microbiological methods of analysing seawater. It is hoped that the report on these studies will be published soon.

5.2 Revision of the Directive

The European Commission was given a mandate at the December 1992 European Summit in Edinburgh to review water quality Directives "in the light of scientific knowledge and technical progress". The aim was not to weaken existing standards, but to devolve responsibility of standard setting to the national, regional and local level under the principle of subsidiarity. On 16 February 1994 the European Commission approved proposals for a new Bathing Water Directive, intended to streamline the Directive and bring it into line with current scientific thinking (Appendix C).

The proposals include dropping the total coliforms parameter which is not felt to be a particularly useful indicator of sewage pollution. Salmonella and certain physico-chemical parameters which are not considered suitable measures of water quality have also been removed. The standards for faecal coliforms (*E.coli*) and enterovirus have been retained, however the sampling frequency for enterovirus has been changed from discretionary to a minimum of 2 samples per season. The proposals also contain a mandatory standard for faecal streptococci of no more than 400 per 100ml in 95% of samples, but with a provision for abnormal peak values to be disregarded if the water is retested. It must be stressed however that such amendments to the Directive are currently only proposed and are subject to negotiations between Member States before adoption of final text.

The Economic and Social Committee of the European Communities considered the proposed revision of the Directive during 1994 and at the meeting of 14 September the Opinion (Appendix D) was adopted. The Committee welcomed the new proposal but were unhappy about the Commission's assertion that the proposal would not result in a tightening of standards. Data from some Member States indicate that the new imperative value for faecal streptococci would have a considerable effect on the compliance figures and this would be construed as a tightening of standards. The Committee also indicated that it would prefer to see bacteriophage replace enterovirus monitoring in the near future. The NRA acted as a Technical Expert to this Committee.

The new proposals were also examined by Sub-Committee C (Environment and Social Affairs) of the House of Lords. The Committee took evidence from the Department of the Environment, Department of Health, NRA, WSA, the Association of County Councils, a number of experts from environmental groups and microbiological experts from other countries. A report on their findings was made public on 16 December (HL, 1994). The Committee was of the opinion that further research was needed into standards and that greater account should be taken of the 4 year study recently completed in the UK. Furthermore the Committee thought that the Directive should be confined to monitoring microbiological parameters which are good indicators of public health risk.

In November the Environment Committee of the European Parliament commenced its examination of the new proposals. In December this Committee recommended that its deliberations should be held in abeyance until the Commission could come forward with better parameters, scientific justification and better testing methods. Further progress will be dependent on the Commission reviewing its proposals.

The NRA will continue to actively advise DoE and the European institutions on the implications of the proposals to ensure that new parameters and standards have a sound scientific basis. It is particularly important to use the depth of information collected by the NRA to provide a sound basis for the improvements to the Directive.

6. REFERENCES

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7. APPENDICES

Appendix A	Bathing Water Directive, Detailed Summary of Monitoring Results in 1994
Appendix B	Update on Bathing Water Improvement Schemes in England and Wales
Appendix C	Proposal for a Council Directive Concerning the Quality of Bathing Water
Appendix D	Opinion of the Economic and Social Committee on the Proposal for a Council Directive Concerning the Quality of Bathing Water

APPENDIX A

BATHING WATER DIRECTIVE DETAILED SUMMARY OF MONITORING RESULTS IN 1994

The following information forms the basis of the Report to Parliament made by the Department of the Environment in pursuance of Article 13 of the Bathing Water Directive. It provides a summary of the results of the survey during 1994 of the quality of bathing waters in England and Wales included within the scope of Council Directive 76/160/EEC.

Section 1: Changes from 1993 List of Identified Waters

No additional bathing waters were identified for the 1994 bathing season.

The name of the bathing water formerly known as Weston-Super-Mare Tropicana has been changed to Weston Main and that of Clevedon Swimming Pool to Clevedon Beach to avoid confusion with artificial bathing waters in those locations.

No results are recorded for Porthleven East and Lyme Regis Church Beach, both in NRA South Western Region. Access to Porthleven East has been impossible for a number of years and Lyme Regis Church Beach was closed for engineering works for the entire season.

Section 2: Bathing Season and Sampling Frequency

The bathing season is generally taken as being from 15 May to 30 September in England and Wales. However, the competent authorities may vary the length of the season depending on local conditions.

Throughout the UK a minimum of 20 samples were taken over the season except at Mounts Bay Heliport, which was closed for parts of the year, where only 12 samples were taken. In most cases this is in excess of the minimum requirements of the Directive.

There are no cases where sampling frequency was reduced in accordance with footnote (1) to the Annex to the Directive.

The "Article 13" report is divided into two sections, dealing with coliform and other mandatory parameters.

Section 3: Coliform Parameters

The tables contain a numerical summary of the information required to assess compliance with the Directive's mandatory coliform standards. The tables are arranged to show the bathing waters in clockwise order, starting at Spittal, which is the most north-easterly bathing water in NRA Northumbria & Yorkshire Region and proceeding around England and Wales to Skinburness in NRA North West Region. The Isle of Wight waters are placed in the report between Highcliffe and Christchurch, that is to say, as the last waters in the NRA Southern Region.

For each water, the following information is given:

1. The grid references

TOTAL COLIFORMS

- 2. Number of results
- 3. Median of results
- 4. Range of results (minimum and maximum)
- 5. Number of results failing to conform to the Directive's standard.

FAECAL COLIFORMS

- 6. Number of results
- 7. Median of results
- 8. Range of results (minimum and maximum)
- 9. Number of results failing to conform to the Directive's standard.

Derivations from the values referred to in Article 3 may, in accordance with Article 5(2), be excluded from the assessment of compliance if they arise as a result of abnormal weather conditions. No exclusions under Article 5(2) were applied for with regard to the 1994 season.

Section 4: Other Mandatory Parameters

The tables contain the numerical summary of results for the other mandatory parameters covered by the Directive. The bathing waters are set out as in Section 3.

The Annex to the Directive provides that these parameters do not have to be measured in every case. The results for each parameter are given as the number of observations and, in the columns headed "F", the number failing to comply with the Directive's mandatory requirements. As with section 3, no results have been excluded this year as a result of abnormal weather conditions.

Article 8 states that the Directive may be waived in the case of certain parameters to take into account local weather, geographic conditions or natural enrichment. Waivers for transparency and colour (indicated by an asterisk) have been granted and are likely to be permanent.

Section 3
Bathing Waters Survey — 1994 Results (United Kingdom)
Compliance with Bathing Water Directive (76/160/EEC): COLIFORM STANDARDS

				otal Coliforms	5			Fo	iecal Coliforn	15	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Number of Failure
Spittal	NU00805150	20	219	52	10000	0	20	42	15	2280	1
Samburgh Castle	NU18503530	20	28	1	510	0	20	17	0	432	0
seahouses North	NU21103300	20	23	1	800	0	20	14	0	330	0
Beadnell	NU23302840	20	39	3	1800	0	20	36	0	540	0
ow Newton	NU24202450	20	30	0	480	0	20	13	0	340	0
Alnmouth	NU25301070	20	56	1	2200	0	20	20	0	1080	0
Varkworth	NU25900650	20	8	0	380	0	20	6	0	200	0
Amblelinks	NU27600440	20	22	3	1750	0	20	9	0		
Oruridge Bay	NZ27909640		37			_				1100	0
		20		1	1800	0	20	16	0	469	0
Newbiggin North	NZ31308780	20	120	<10	10000	0	20	65	<10	3960	1
Newbiggin South	NZ31108730	20	81	0	1080	0	20	50	<10	666	0
Blyth South Beach	NZ32207950	20	622	0	3300	0	20	170	<10	880	0
eaton Sluice	NZ33407710	20	40	<10	920	0	20	25	<10	486	0
Vhitley Bay	NZ35307340	20	84	8	9900	0	20	50	0	2720	2
ynemouth Cullercoats	NZ36507130	20	101	<10	6500	0	20	70	<10	1300	0
ynemouth Long											
ands North	NZ36607080	20	167	<10	7120	0	20	95	0	2500	1
ynemouth Long											
ands South	NZ36907020	20	76	<10	18000	1	20	30	<10	6200	1
ynemouth King											
Edwards Bay	NZ37306960	20	70	<10	19500	1	20	20	<10	4900	1
South Shields	NZ37906740	20	113	7	4520	0	20	29	2	1204	0
Marsden	NZ40006500	20	156	2	5000	0	20	63	0	1760	0
Whitburn North	NZ40706050	20	575	70	75000	2	20	226	<10	30000	2
Roker/Whitburn South	NZ40705930	20	300	30	6400	0	20	106	<10	1100	0
Seaham Beach	NZ42405080	20	218	<10	12000	2	20	100			
beaham Remand Home	NZ42605050	20	204	30	11610	2	20		0	5800	2
Crimdon	NZ48503730	20	815	80	64800	1	20	100 303	<10 20	7500 4200	2
Seaton Carew North	NZ52503050	20	99	2	16000	1	20	41	0	3200	1
eaton Carew Centre	NZ53102960	20	135	0	2700	0	20	73	6	333	0
	NZ54002860	20	175	3	2124	0	20	56	5	504	0
Redcar Coatham	NZ59202570	20	94	3	2500	0	20	46	0	1600	0
Redcar LB Station	NZ60602550	20	120	1	2060	0	20	36	0	1120	0
Redcar Granville	NZ61302510	20	97	6	882	0	20	52	4	310	0
Redcar Stray	NZ62502380	20	114	0	1908	0	20	41			
Sea at Marske Sands	NZ63602320		177						0	1020	0
saltburn		20		<2	2100	0	20	43	2	1060	0
	NZ66602170	20	390	<10	7500	0	20	105	0	1140	0
itaithes	NZ78701900	20	607	84	42100		20	350	10	13680	2
Runswick Bay	NZ81101590	20	113	<10	6720	0	20	60	<10	3420	1
sandsend	NZ86401260	20	45	10	21300	1	20	30	<10	9520	1
Whitby	NZ89701170	20	35	<10	1100	0	20	10	<10	472	0
Robin Hoods Bay	NZ95900450	20	35	<10	2520	0	20	10	<10		
										1710	0
Scarborough North Bay	TA03709000	20	113	<10	1080	0	20	70	<10	760	0

Section 3
Bathing Waters Survey — 1994 Results (United Kingdom)
Compliance with Bathing Water Directive (76/160/EEC): COLIFORM STANDARDS

	orkshire Region (contd) Total Coliforms Faecal Coliforms									ns	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Scarborough South Bay	TA04608860	20	369	10	6500	0	20	93	<10	3360	2
Cayton Bay	TA06708450	20	257	10	19300	1	20	97	<10	7200	1
Filey	TA12008060	20	70	<10	3680	0	20	45	<10	3200	1
Reighton	TA14407630	20	25	<10	12060	1	20	10	<10	7360	1
Flamborough North Landing	TA23807220	20	230	<10	5800	0	20	200	<10	3360	1
Flamborough									10	500	
South Landing	TA23106920	20	100	<10	740	0	20	50	<10	592	0
Bridlington North Beach	TA19006720	20	60	<10	3600	0	20	40	<10	3440	1
Bridlington South Beach	TA18106610	20	65	<10	5500	0	20	45	<10	5500	1
Wilsthorpe	TA17206400	20	50	<10	13100	1	20	40	<10	1900	0
Fraisthorpe	TA17106290	20	275	<10	6210	0	20	178	<10	2800	1
Earls Dyke	TA17006150	20	285	<10	23360	1	20	117	<10	2500	1
Barmston	TA17205940	20	45	<10	1100	0	20	15	<10	392	0
Skipsea	TA17705720	20	30	<10	1300	0	20	15	<10	900	0
Hornsea	TA21004780	20	65	<10	1200	0	20	35	<10	1200	0
Tunstall	TA32203120	20	15	<10	1800	0	20	10	<10	1800	0
Withernsea	TA34402810	20	93	<10	1500	0	20	25	<10	1080	0

Anglian Region	Total Coliforms Faecal Coliforms										
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Number of Failures
Cleethorpes	TA31050860	20	2400	11	18000	4	20	1600	4	11000	9
Mablethorpe Town	TF50808540	20	245	В	3300	0	20	48	5	500	0
Sutton-on-sea	TF52258210	20	94	7	700	0	20	38	7	300	0
Moggs Eye	TF55007760	20	20	4	1300	0	20	16	2	1200	0
Anderby	TF55307620	20	25	4	1200	0	20	19	4	700	0
Chapel St Leonard	TF56407220	20	42	7	800	0	20	28	7	300	0
Ingoldmells South	TF57406855	20	37	3	600	0	20	27	0	180	0
Skegness	TF57206345	20	34	3	2100	0	20	29	3	1000	0
Heacham	TF66303750	20	195	10	>20000	1	20	100	<10	2150	1
Hunstanton Beach	TF67804250	20	109	<10	1600	0	20	25	<10	740	0
Wells	TF91404560	20	75	<10	3000	0	20	35	<10	3000	1
Sheringham	TG16204360	20	42	<10	1700	0	20	30	<10	360	0
Cromer	TG21904250	20	1690	225	6311	0	20	550	32	6300	2
Mundesley	TG31703660	20	241	20	1114	0	20	83	<10	450	0
Hemsby	TG50901740	20	10	<10	3900	0	20	10	<10	3550	1

Section 3
Bathing Waters Survey — 1994 Results (United Kingdom)
Compliance with Bathing Water Directive (76/160/EEC): COLIFORM STANDARDS

			Faecal Califorms								
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Number of Failures
Caister Point	TG53001200	20	163	10	2350	0	20	78	<10	1120	0
Great Yarmouth North	TG53501050	20	253	<10	4900	0	20	108	<10	2200	1
Great Yarmouth Pier	TG53300740	20	1250	270	6720	0	20	650	100	3240	2
Great Yarmouth South	TG53300640	20	1640	280	9800	0	20	642	100	3970	3
Gorleston Beach	TG53200310	20	930	300	>20000	1	20	299	88	>20000	2
Lowestoft North	TM55309500	20	343	77	1100	0	20	114	10	400	0
Lowestoft South	TM54509170	20	80	<10	560	0	20	20	<10	120	0
Southwold The Denes	TM50807540	20	41	<10	360	0	20	10	<10	160	0
Felixstowe North	TM30503430	20	127	<10	1500	0	20	20	<10	130	0
Felixstowe South	TM29703370	20	114	<10	330	0	20	28	<10	193	0
Dovercourt	TM25173064	20	150	<10	3600	0	20	68	<10	1300	0
Walton	TM25552156	20	330	10	>20000	1	20	150	<10	700	0
Frinton	TM23791941	20	246	<10	7520	0	20	95	<10	1900	0
Holland	TM22451765	20	43	<10	1500	0	20	30	<10	400	0
Clacton	TM18791525	20	123	<10	580	0	20	50	<10	350	0
Jaywick	TM14851280	20	252	10	2250	0	20	190	<10	1700	0
Brightlingsea	TM07631616	20	88	<10	1500	0	20	15	<10	190	0
West Mersea	TM02271203	20	227	10	>20000	1	20	90	<10	5956	3

Thames Region			T	otal Coliform	s			Fo	iecal Coliforn	ns	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Number of Failures
Shoebury East	TQ94508520	20	100	<10	1400	0	20	50	<10	280	0
Southend Thorpe Bay	TQ91108470	20	200	20	4300	0	20	110	<10	2700	2
Southend Westcliff Bay	TQ86458525	20	497	20	45500	1	20	285	<10	20300	1

			T	otal Coliform	Faecal Coliforms						
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Number of Failures
Sheerness	TQ92507500	20	20	<10	630	0	20	10	<10	380	0
Leysdown	TR03407080	20	135	<10	6800	0	20	58	<10	880	0
West Beach	TR09806600	20	58	<10	1800	0	20	35	<10	1100	0
Herne Bay	TR18606860	20	2250	180	22000	4	20	735	40	8600	6
Minnis Bay	TR28606970	20	43	<10	210	0	20	20	<10	100	0
St Mildred's Bay	TR32807050	20	95	10	600	0	20	58	<10	360	0
Margate The Bay	TR34707080	20	265	10	2800	0	20	155	10	1700	0
Margate Fulsam Rock	TR35607150	20	48	<10	530	0	20	20	<10	470	0
Joss Bay	TR39907020	20	100	<10	470	0	20	48	<10	290	0
Broadstairs	TR39806770	20	220	20	69300	1	20	140	<10	12800	1

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			T	otal Coliform	S			Fo	iecal Coliforn	ns	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
comsgate	TR37206400	20	3650	<100	230000	3	20	1600	100	90000	6
andwich Bay	TR35805900	20	6700	300	82800	5	20	1650	180	4400	8
Deal Castle	TR37805270	20	1900	20	10300	1	20	845	20	4000	5
t Margaret's Bay	TR36804440	20	170	10	690	0	20	45	<10	270	0
olkestone	TR23703630	20	880	90	13700	1	20	320	10	5700	4
andgate	TR18803480	20	83	<10	5800	0	20	20	<10	5000	1
lythe	TR16003400	20	45	<10	380	0	20	20	<10	140	0
ymchurch	TR11303040	20	170	<10	1400	0	20	63	<10	610	0
Mary's Bay	TR09302770	20	125	20	780	0	20	50	<10	470	0
ittlestone	TR08402390	20	135	10	1400	0	20	75	<10	1400	0
amber	TQ97301840	20	115	<10	1100	0	20	95	<10	1100	0
/inchelsea	TQ91201540	20	85	<10	9200	0	20	33	<10	400	0
astings	TQ81900920	20	525	140	52000	3	20	220	15	31500	4
exhill	TQ73700680	20	390	90	17100	1	20	125	40	12200	1
orman's Bay	TQ68200530	20	585	30	1900	0	20	220	20	1400	0
evensey Bay	TQ65700370	20	395	80	1700	0	20	150	35	660	0
astbourne	TV61409820	20	325	30	6900	0	20	195	10	2200	1
eaford	TV48809820	20	340	40	64000	2	20	160	10	21000	3
ewhaven	TV44909980	20	610	40	15400	1	20	290	<10	4100	1
altdean	TQ38100180	20	70	<10	37500	1	20	10	<10	28900	1
righton	TQ32300340	20	135	10	39900	1	20	90	<10	15400	2
love	TQ28800430	20	805	20	72800	2	20	225	10	18300	3
outhwick	TQ24200480	20	1200	<10	27500	1	20	405	<10	13800	2
outh Lancing	TQ18300360	20	530	10	113200	2	20	180	<10	27300	4
orthing	TQ13900210	20	460	10	13500	2	20	190	<10	9800	4
ittlehampton	TQ04000130	20	70	10	3200	0	20	43	<10	2200	1
liddleton-on-sea	SZ98509990	20	53	<10	1100	0	20	40	<10	1100	0
ognor Regis	SZ92309850	20	235	10	4200	0	20	88	<10	1200	0
agham	SZ89209720	20	35	<10	5900	0	20	30	<10	5900	1
elsey	SZ86809370	20	20	<10	620	0	20	10	<10	370	0
racklesham Bay	SZ 8 0509630	20	45	<10	550	0	20	40	9	440	0
Vest Wittering	SZ76809800	20	25	<10	660	0	20	10	<10	660	0
Vest of Eastoke	5272909840	20	10	<10	340	0	20	10	<10	230	0
Vest Hayling	\$270509870	20	15	<10	90	0	20	10	<10	80	0
astney	5267509880	20	50	<10	260	0	20	20	<10	120	0
outhsea	\$265309820	20	400	<10	14000	1	20	200	<10	13800	2
outnsea tokes Bay	SZ60009790	20	55	<10	500	0	20	33	<10	460	0
ee-on-Solent		20	83	9	3700	0	20	28	<10	650	0
ee-on-soieni Iillhead	SU56200050	20	55	<10	8300	0	20	25	<10	510	0
tillhead Calshot	SU54000220 SU48100120	20	80	<10	2000	0	20	38	<10	500	0

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			T	otal Coliform	S			Fo	ecal Coliforn	ns	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Lepe	SZ45609850	20	65	10	540	0	20	40	<10	490	0
Milford-on-sea	SZ28309150	20	55	<10	1800	0	20	33	<10	250	0
Christchurch Bay	SZ23909280	20	60	<10	4700	0	20	35	<10	3800	1
Highcliffe	SZ21609310	20	20	<10	2200	0	20	10	<10	1100	0
Compton Bay	SZ37708410	20	70	10	2100	0	20	53	<10	880	0
Totland Bay	SZ32208710	20	105	<10	6000	0	20	25	<10	250	0
Colwell Bay	SZ32808790	20	175	10	20300	1	20	45	<10	1900	0
Gurnard	SZ47709590	20	255	20	2800	0	20	115	<10	1100	0
Cowes	SZ48809670	20	215	40	1300	0	20	68	10	390	0
Ryde	SZ60109270	20	80	<10	29000	1	20	35	<10	10000	1
Seagrove	SZ63209120	20	80	<10	420	0	20	50	<10	420	0
St Helens	SZ63708920	20	470	40	37200	1	20	105	10	19800	1
Bembridge	SZ65708810	20	155	<10	4600	0	20	145	<10	1700	0
Whitecliff Bay	SZ64108620	20	235	20	6400	0	20	40	10	3100	1
Sandown	SZ60108430	20	250	<10	26000	1	20	155	<10	8400	1
Shanklin	SZ58508110	20	175	50	28000	1	20	75	<10	13200	1
Ventnor	SZ56207730	20	1150	200	107500	5	20	505	55	25400	5

			T	otal Coliform	5			Fo	iecal Coliforn	ns	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Christchurch											
Highcliffe Castle	SZ20009290	20	58	<1	840	0	20	25	<1	340	0
Christchurch Friar's Cliff	SZ19209252	20	53	<10	1560	0	20	45	<10	360	0
Christchurch Avon Beach	SZ18889223	20	76	<10	4000	0	20	20	<10	2700	1
Christchurch Mudeford											
Sandbank East	SZ18259121	20	15	<10	2600	0	20	10	<10	1040	0
Bournemouth											
Hengistbury East	SZ17009060	20	8	<1	310	0	20	3	<1	190	0
Bournemouth											
Fisherman's Walk	SZ12809130	20	46	<1	280	0	20	19	<1	220	0
Bournemouth											
Boscombe Pier	SZ11209110	20	84	7	1000	0	20	82	1	1300	0
Bournemouth Pier	SZ08859065	21	60	2	13800	1	21	50	2	2900	1
Bournemouth											
Durley Chine	SZ07859030	20	16	<1	1100	0	20	6	<1	800	0
Poole Shore Rd											
Sandbanks	SZ05108830	20	13	<1	1400	0	20	5	<1	560	0
Poole Harbour Sandbanks	SZ04908850	20	8	<1	660	0	20	12	<]	410	0
Poole Harbour Lake	SY98329040	20	140	10	1170	0	20	75	6	700	0
Poole Harbour						-					
Rockley Sands	SY97209080	20	188	10	6960	0	20	130	6	1710	0
Shell Bay North	SZ03708660	20	3	<1	80	0	20	2	<1	65	0

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	AL a Lead	N I		otal Coliforms		M I	M I		ecal Coliforn		М 1
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Studland Knoll House	SZ03488353	20	6	<1	1100	0	20	7	<1	460	0
Swanage Central	SZ03297910	20	74	<10	3660	0	20	20	<10	1900	0
(immeridge Bay	SY90707905	20	15	1	3680	0	20	10	<1	4700	2
ulworth Cove	SY82477995	20	65	10	6000	0	20	45	<10	4000	1
Ourdle Door East	SY80808030	20	3	<1	50	0	20	2	<1	32	0
Ourdle Door West	SY80408030	20	3	<1	20	0	20	1	<1	7	0
DOLUIE DOOL MEST	3100400030	20	J	<u> </u>	20	0	20			,	U
Ringstead Bay	SY75198132	20	35	<10	2100	0	20	10	<10	1400	0
Bowleaze Cove	SY70428189	20	20	<1	1360	0	20	18	<1	800	0
hurch Ope Cove	SY69767100	20	3	<1	60	0	20	2	<1	27	0
Veymouth Lodmoor	SY68806710	20	28	<1	220	0	20	11	<1	90	0
Veymouth Central	SY68107940	20	15	1	3000	0	20	10	1	620	0
Portland Harbour											
Castle Cove	SY67607750	20	80	2	500	0	20	50	<1	700	0
ortland Harbour	310/00//30	40	JU	L	300	V	20	30	\ I	700	V
andsfoot Castle	SY67307720	20	113	3	1000	0	20	28	1	1000	0
		20	35	5	400	0	20	17	2	360	0
Vest Bay (West)	SY45909040										
ypemouth	SY44689100	20	27	<1	2070	0	20	12	<]	672	0
eatown	SY41879165	20	21	<1	8280	0	20	14	<1	5220	
harmouth West	SY36309300	20	138	1	3900	0	20	84	<1	3300	1
yme Regis Church Beach	SY34369212	0	0	0	0	0	0	0	0	0	0
yme Regis Cobb	SY33909185	20	239	20	1600	0	20	95	<2	1100	0
eaton (Devon)	SY24508985	20	36	2	1368	0	20	23	1	1260	0
Beer	SY23158910	20	157	10	35200	1	20	56	5	3100	2
idmouth Town	SY12708720	20	271	10	7000	0	20	212	10	3280	3
idmouth Jacobs Ladder	SY11908695	20	230	<10	6370	0	20	76	<10	5100	1
adram Bay	SY09728515	20	170	<10	37800	1	20	102	<10	43000	1
Judleigh Salterton	SY06958190	20	202	<10	24800	1	20	166	<10	11200	2
andy Bay	SY03357980	20	276	<10	9000	0	20	95	<10	4700	1
andy bay	310333/700	20	2/0	<10	7000	U	20	7.7	<10	4700	
xmouth	SY00987995	20	25	<10	5200	0	20	30	<10	2880	1
awlish Warren	SX98307875	20	39	<1	800	0	20	13	<1	800	0
Dawlish Town	SX96557680	20	175	10	2000	0	20	111	<10	2240	1
awlish Coryton Cove	SX96117606	20	105	1	5700	0	20	40	<1	2430	1
eignmouth Holcombe	SX95657461	20	111	<10	6600	0	21	50	5	51600	2
eignmouth Town	SX94307285	20	126	1	3900	0	20	70	2	3000	1
ihaldon	SX93507230	20	117	<10	980	0	20	89	<10	540	0
less Cove	SX93857170	20	18	3	300	0	20	15	<1	360	0
Aaidencombe	SX92786850	20	21	2	320	0	20	19	2	207	0
Vatcombe	SX92626730	20	19	<1	610	0	20	13	2	590	0
N. L. L.	CVOOLELEOS	00	10	3	200	^	00	10		0/0	
Oddicombe	SX92656585	20	13	<1	300	0	20	13	<1	260	0
Babbacombe	SX93006545	20	42	<1	15300		20	52	<1	16600	
Redgate	SX93506480	20	60	7	1980	0	20	10	6	1170	0
Meadfoot	SX93056305	20	35	<1	2520	0	20	17	<1	910	0
Beacon Cove	SX91956307	20	15	1	1600	0	20	10	<1	1200	0

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				otal Coliform					ecal Coliforn	ns	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Torre Abbey	SX90956351	20	60	6	8280	0	20	24	4	4100	1
Hollicombe	SX89806215	20	34	<10	1100	0	20	20	7	640	0
Paignton Preston Sands	SX89646177	20	89	1	8160	0	20	43	<1	4860	1
Paignton Paignton Sands	SX89496063	20	234	3	4590	0	20	159	3	2720	2
Goodrington	SX89355940	20	59	7	4230	0	20	24	2	3700	1
Broadsands	SX89705745	20	130	<1	8200	0	20	75	<1	6100	2
Shoalstone	SX93205662	20	20	<1	2800	0	20	11	<1	660	0
St Mary's Bay	SX93205510	20	80	10	3000	0	20	55	<10	3240	1
Dartmouth Castle and											,
Sugary Cove	SX88655020	20	158	10	3600	0	20	96	<10	2200	1
Blackpool Sands	SX85504785	20	21	<1	126	0	20	7	<1	100	0
Slapton Sands Monument	SX82954430	20	8	1	1400	0	20	3	<1	950	0
Slapton Sands Torcross	SX82354195	20	24	1	2560	0	20	11	<1	1980	0
Mill Bay	SX74073825	20	30	5	1300	0	20	26	4	500	0
Salcombe North Sands	SX73103820	20	252	10	1700	0	20	130	<10	800	0
Salcombe South Sands	SX72853775	20	750	<10	5000	0	20	286	<10	1750	0
Hope Cove	SX67553975	20	95	14	6300	0	20	64	3	3510	1
Thurlestone South	SX67654170	20	6	<1	250	0	20	5	<1	152	0
Thurlestone North	SX67404210	20	30	<1	1500	0	20	22	<1	280	0
Bantham	SX66234380	20	49	2	7800	0	20	25	<1	530	0
Bigbury-on-Sea South	SX65104415	20	30	<1	1700	0	20	15	<1	600	0
Bigbury-on-Sea North	SX64954430	20	17	<1	420	0	20	10	<1	260	0
Challaborough	SX64924480	20	24	<1	900	0	20	11	<1	250	0
Mothecombe	SX61054734	20	102	<10	7700	0	20	31	<10	4400	2
Wembury	SX51604850	20	40	<10	1400	0	20	10	7	333	0
Bovisand	SX49305050	20	64	<10	470	0	20	30	<10	580	0
Plymouth Hoe East	SX47805370	20	616	<10	19800	1	20	280	<10	4050	3
Plymouth Hoe West	SX47505370	20	550	40	25000	3	20	298	10	5700	4
Portwrinkle	SX35905380	20	20	<1	1400	0	20	8	<1	960	0
Downderry	SX31405380	20	11		800	0	20	8	<1	600	0
Seaton (Cornwall)	SX30305430	20	27	1	2400	0	20	16	<1	1400	0
Millendreath	SX26805410	20	312	6	22000	1	20	150	1	6440	1
East Looe	SX25705320	20	88	<1	7290	0	20	58	<1	5040	1
Readymoney	SX11805110	20	1160	104	3600	0	20	620	72	2500	1
Polkerris	SX09105230	20	29	1	2000	0	20	21	<1	1800	0
Par	SX08305330	20	96	1	1190	0	20	58	<1	500	0
Crinnis Golf Links	SX06305220	20	21	<1	800	0	20	22	1	700	0
Crinnis Leisure Centre	SX05605210	20	5	<1	160	0	20	3	<1	63	0
Charlestown	SX04205160	20	6	<1	73	0	20	4	<1	48	0
Duporth	SX03505120	20	6	<1	200	0	20	6	<1	52	0
Porthpean	SX03205070	20	7	<1	100	0	20	4	<1	84	0

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				otal Coliforms					ec <mark>al Co</mark> lifori	ms	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Pentewan	SX01804670	20	73	3	3400	0	20	54	1	1500	0
Polstreath	SX01704540	20	75	10	13000	1	20	52	1	5600	1
Port Mellon	SX01604390	20	27	1	1400	0	20	27	<1	500	0
Gorran Haven	3001004370	20	21		1700	0	20	LI	\ \ \	300	U
Little Perhaver	SX01304170	20	185	10	1890	0	20	89	1	1800	0
		20	3	<1	300	0	20	2	-1	75	
Gorran Haven (Vault)	SX01004080	20	3	<1	300	U	20	2	<1	/3	0
Porthluney	SW97304130	20	74	1	1400	0	20	57	<1	1200	0
Pendower	SW90503830	20	56	<1	8100	0	20	24	<1	3360	1
Gyllyngvase	SW80903160	20	21	1	1100	0	20	10	1	400	0
Swanpool	SW80303130	20	50	<1	2200	0	20	21	<1	1300	0
Maen Porth	SW79002960	20	100	<1	9400	0	20	67	<1	8000	1
Porthallow	SW79702330	20	550	5	36000	2	20	197	<1	28000	4
Porthoustock	SW80702170	20	5	<1	910	0	20	2	<1	1000	0
rormousiock Coverack	SW78301840	20	30	<1 5	60000	1	20	27	<1 <1	18000	2
		20						10			
Kennack Sands	SW73401650		12	<1	400	0	20		<1	360	0
Pollurian Cove	SW66801870	20	34	<	1680	0	20	16	<1	1520	0
Poldhu Cove	SW66501980	20	34	<1	5400	0	20	28	<1	1360	0
Gunwalloe Cove	SW65402250	20	4	<1	102	0	20	3	<1	54	0
Porthleven West	SW63202530	20	112	<1	12000	1	20	48	<1	5300	2
Praa Sands East	SW58502760	20	11	<1	360	0	20	8	<1	152	0
Praa Sands West	SW57702810	20	9	<1	5000	0	20	7	<1	1100	0
Perran Sands	SW53902930	20	14	<1	81	0	20	11	<1	45	0
Mounts Bay L Holgus	SW51303100	20	101	6	9400	0	20	54	2	800	0
Mounts Bay Heliport	SW48503110	12	450	3	20000	1	12	320	<1	11000	2
Mounts Bay Penzance	SW47502980	20	124	6	20000	3	20	82	<1	15000	3
•		20	2495	52	120000	6	20	1405	12	96000	9
Mounts Bay Wherry Town	3W40/UZ74U	20	2473	32	120000	0	20	1405	12	70000	7
Porthcurno	SW38702230	20	31	<1	1800	0	20	12	<1	910	0
Sennen	SW35522645	20	38	<1	520	0	20	28	<1	280	0
Porthmeor	SW51504103	20	50	1	12000	1	20	27	<1	3000	1
Porth Gwidden	SW52204110	20	440	9	9000	0	20	131	2	6400	2
Porthminster	SW52204025	20	112	1	8100	0	20	49	<1	5280	2
Carbis Bay Station Beach	SW52803890	20	35	- 5	2500	0	20	23	<1	1800	0
Carbis Bay		24	4.5		2000		20		71	1000	
Porth Kidney Sands	SW54003850	20	18	<1	14000	1	20	- 11	<1	12000	1
The Towans (Hayle)	SW56303950	20	98	1	480	0	20	31	<1	160	0
The Towons (Godrevy)	SW58104170	20	63	8	6300	0	20	19	1	4200	1
Portreath	SW65304550	20	70	2	1200	0	20	38	2	1260	0
Porthtowan	SW68904790	20	51	2	1300	0	20	33	1	900	0
	SW72305170	20	270	90	6300		20	133	34	4100	5
Forganish Village End						0					
Perranporth Village End	SW75705480	20	216	10	2400	0	20	140	5	1500	0
Perranporth	CHELONGTON	00	0.0	1	1000		0.0	1.5	1	500	
Penhale Sands	SW76205700	20	30	<1	1000	0	20	15	<1	500	0
Holywell Bay	SW76505950	20	52	<1	3200	0	20	40	<1	1900	0

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			T	otal Coliforms				Fa	ecal Coliforn	15	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
rantock	SW78406080	20	108	8	4700	0	20	42	<1	1710	0
istral	SW79606230	20	33	2	1530	0	20	25	2	1040	0
owan	SW81006205	20	114	4	4320	0	20	70	3	2340	1
	SW84106490	20	63	12	12000	1	20	39	8	7600	1
	SW84806740	20	50	2	2700	0	20	29	1	1800	0
orthcothan	SW85707202	20	50	1	7200	0	20	31	2	3870	1
	SW85707390	20	14	<1	600	0	20	11	<1	500	0
, ,	SW85807480	20	4	<1	200	0	20	3	<1	200	0
	SW86307600	20	45	2	880	0	20	17	<1	360	0
	SW87707550	20	24	<1	600	0	20	13	<1	500	0
iuliyii buy	3#0//0/330	20	24	<1	000	U	20	13	<1	300	U
revone Bay	SW89207610	20	200	19	2000	0	20	102	9	1600	0
Rock	SW93607550	20	47	3	600	0	20	37	2	208	0
Daymer Bay	SW92807760	20	23	1	700	0	20	16	<1	700	0
Polzeath	SW93607920	20	100	2	1800	0	20	39	<1	1280	0
Widemouth Sand	5519800240	20	9	<1	7000	0	20	5	<1	4600	1
Bude Summerleaze	SS20400660	20	36	<1	2400	0	20	14	<1	1890	0
Bude Crooklets	SS20300720	20	13	<1	11300	1	20	5	<1	4700	1
Bude Sandy Mouth	\$\$20200990	20	4	<1	250	0	20	3	<1	180	0
tartland Quay	SS22302485	20	20	<10	243	0	20	10	<1	144	0
Westward Ho!	\$\$43252940	20	38	3	1620	0	20	25	1	1100	0
nstow	SS47173044	20	400	10	9000	0	20	263	<10	7600	5
Saunton Sands	\$\$44553760	20	55]	2240	0	20	21	<1	700	0
Croyde Bay	\$\$43473930	20	50	<10	2300	0	20	15	<10	1350	0
Moolacombe Putsborough		20	5	<1	300	0	20	3	<1	260	0
Woolacombe Village	\$\$45624370	20	23	<1	756	0	20	14	<1	210	0
Ifracombe Tunnels Beach Ifracombe Capstone	SS51454780	20	202	6	2790	0	20	129	3	2250	1
(Wildersmouth)	SS51824790	20	700	30	7700	0	20	389	20	3500	1
Ifracombe Hele	5553554792	20	850	30	8800	0	20	490	<10	9100	3
Combe Martin	5557724732	20	1060	40	29600	1	20	465	10	19000	2
Lynmouth	SS72504975	20	292	<10	26100	1	20	214	<10	12800	4
Porlock Weir	5586404790	21	30	<10	700	0	21	20	<10	558	0
Minehead Terminus	SS97304650	21	153	40	2220	0	21	88	10	1800	0
						-					
Dunster North West	5599704550	21	225	40	1800	0	21	120	10	700	0
Blue Anchor West	ST02304350	21	234	40	1500	0	21	120	30	1700	0
Burnham Jetty	ST30204880	20	655	216	2200	0	21	360	60	1000	0
Berrow North of											
Unity Farm	ST29305450	22	356	91	3100	0	22	176	20	2300	1
Brean	ST29605850	22	399	20	3600	0	22	147	<10	2100	1
Weston-s-Mare											
Uphill Slipway	ST31205880	23	208	50	15000	1	23	210	10	5600	2
Weston-s-Mare Main	ST31606070	23	280	30	5000	0	23	198	30	2400	1
Weston-s-Mare Sand Bay		22	500	60	3100	0	22	237	20	2800	1
Clevedon Beach	ST39807120	22	600	140	1800	0	22	369	60	1020	0

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Welsh Region			T	otal Coliform	ns.			Fo	iecal Coliforn	ns	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Jacksons Bay Barry	ST12206657	20	2550	200	>300000	2	20	575	40	>300000	4
Whitmore Bay Barry	ST11456625	20	1400	150	5000	0	20	370	60	3000	2
Cold Knap Barry	ST09656640	20	490	120	3000	0	20	205	30	3000	1
Southerndown	SS88407290	20	375	40	6000	0	20	265	20	2000	0
oounierndown	3300407 270	20	3/3	40	0000	U	20	203	20	2000	U
Trecco Bay Porthcawl	\$\$83107630	20	145	20	1400	0	20	65	<10	700	0
Sandy Bay Porthcowl	SS82407650	20	145	20	1100	0	20	70	<10	310	0
Rest Bay Porthcawl	SS80007790	20	150	<10	1120	0	20	55	<10	360	0
Aberafan	SS73908960	20	200	<10	8800	0	20	100	<10	3400	1
	CC/ 4400010	00	750	0.0	11500	1	20	0.45	20	2000	1
Swansea Bay	SS64409210	20	750	80	11500	1	20	245	30	2800	1
Bracelet Bay	SS63008710	20	600	40	3800	0	20	330	<10	1800	0
Limeslade Bay	SS62508700	20	595	90	14000	2	20	300	20	4500	3
Langland Bay	SS60608710	20	290	30	1600	0	20	165	10	1100	0
Caswell Bay	SS59108740	20	140	20	4500	0	20	40	<10	3000	1
Oxwich Bay	SS50708620	20	30	<10	360	0	20	15	<10	220	0
Port Eynon Bay	SS47208480	20	30	<10	300	0	20	15	<10	280	0
Rhossili	SS41409000	20	25	<10	250	0	20	10	<10	220	0
Pembrey	\$\$40009980	20	100	10	4000	0	20	40	<10	2200	1
Pendine	SN23800740	20	195	<10	4000	0	20	120	<10	4000	1
Amroth	SN16700680	20	140	10	3000	0	20	85	<10	1500	0
Saundersfoot	SN14100470	20	2100	90	17600	2	20	530	30	5700	4
Tenby North	SN13450080	20	90	10	4000	0	20	45	<10	2700	1
Tenby South	SS13259985	20	115	<10	3200	0	20	60	<10	1400	0
Broadhaven	SM86101380	20	120	<10	16000	1	20	60	<10	9200	3
Newgale	SM84602170	20	25	<10	5000	0	20	10	<10	2400	1
Whitesands	SM73002700	20	20	<10	2000	0	20	10	<10	1600	0
Newport	SN05304070	20	125	<10	12000	1	20	70	<10	8000	2
	SN39805970	20	45	<10	11000	1	20	30	<10	4000	2
Traeth Gwyn New Quay Aberystwyth South	SN57908140	20	580	110	20000	3	20	280	10	11200	4
Abdi yatayin 300m	31(3) 7001 10	20	300	110	20000		20	200	10	11200	
Aberystwyth North	SN58308220	20	400	20	2100	0	20	245	10	820	0
Borth	SN60609010	20	25	<10	8000	0	20	20	<10	280	0
Aberdyfi	SN60729580	20	104	0	4500	0	20	48	0	2400	1
ywyn	SH57670032	20	58	0	1760	0	20	50	0	1600	0
airbourne	SH60911307	20	20	0	512	0	20	19	0	410	0
Barmouth	SH60841590	20	45	0	1280	0	20	30	0	544	0
Llandonwg	SH56692818	20	135	2	2070	0	20	48	0	1032	0
tarlech	SH56763148	20	103	0	1088	0	20	55	0	600	0
Morfa Bychan	SH54213595	20	1199	1	12080	2	20	500	0	6800	2
worra bycnan Criccieth	SH50333807	20	1456	126	23000	1	20	450	20	19500	3
Pwllheli	SH37103407	20	30	0	520	0	20	10	0	160	0
Abersoch	SH31682772	20	34	0	306	0	20	17	0	160	0
Morfa Dinlle	SH43495669	20	47	0	270	0	20	20	0	220	0
Rhosneigr	SH32377212	20	10	0	140	0	20	10	0	70	0
Trearddur Bay	SH25567891	20	51	4	5400	0	20	23	2	4300	1

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			T	otal Coliforms	S			Fo	ecal Coliforn	15	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Benllech	SH52688256	20	214	7	6800	0	20	88	1	5200	1
Llandudno West Shore	SH76558165	20	137	3	18300	1	20	100	0	11300	2
Llandudno North Shore	SH79188227	20	131	10	1680	0	20	58	4	825	0
Colwyn Bay	SH85847917	20	246	20	2460	0	20	115	10	2020	1
Kinmel Bay (Sandy Cove)	SH97808060	20	104	13	880	0	20	54	0	535	0
Rhyl	SJ00208260	20	279	0	11760	1	20	170	0	4400	1
Prestatyn	SJ05408390	21	180	12	10600	1	21	60	4	4240	2
West Kirby	SJ21008680	20	560	2	7500	0	20	290	0	3600	1

			T	otal Coliform	S			Fa	ecal Coliforn	TS .	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Numbe of Failure
Meols	SJ23009060	20	133	26	2800	0	20	54	0	800	0
Moreton	SJ25709180	20	45	8	1280	0	20	20	0	960	0
New Brighton	SJ28709370	20	215	48	2140	0	20	94	8	1720	0
Formby	SD27701000	20	400	8	2800	0	20	210	0	900	0
Ainsdale	SD29701290	20	235	12	3900	0	20	105	0	3300	1
Southport	SD32201790	20	830	40	6200	0	20	315	26	2800	1
St Annes	SD31802830	20	1400	130	9000	0	20	505	6	4100	3
St Annes North	SD30403050	20	1700	120	0000	0	20	475	26	5000	2
Blackpool South	SD30403380	20	1550	580	6000	0	20	775	180	4700	2
Blackpool Central	SD30603560	20	935	86	3500	0	20	750	23	2200	1
Blackpool North	SD30503640	20	920	80	6000	0	20	290	12	3000	1
Bispham	SD30703970	20	700	220	4500	0	20	360	46	2500	1
Cleveleys	SD31204330	20	700	140	28200	1	20	380	36	12000	1
Fleetwood	SD33604850	20	1075	270	5000	0	20	640	180	6000	3
Heysham - Half Moon Bay	SD41306180	20	436	150	1800	0	20	146	10	1420	0
Morecambe South	SD42206360	20	565	60	4200	0	20	225	0	2360	}
Morecambe North	SD44106500	20	1600	350	4800	0	20	610	90	2200	2
Bardsea	SD30007400	20	2050	83	5200	0	20	750	70	2200	1
Aldingham	SD28307090	20	400	24	2100	0	20	235	19	2500	1
Newbiggin	SD27306940	20	690	80	15000	1	20	385	30	1700	0
Walney Biggar Bank	SD17806730	20	41	15	1500	0	20	24	1	2000	0
Walney Sandy Gap	SD17506810	20	71	10	1680	0	20	30	0	450	0
Walney West Shore	SD17007000	20	560	18	12600	1	20	210	10	9500	2
Roan Head	SD19807580	20	850	20	5600	0	20	232	0	2500	2
Askam-in-Furness	SD20907820	20	1250	180	9100	0	20	550	0	3000	1

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			T	otal Coliform	5			Fo	ecal Coliforn	15	
Bathing Water	National Grid Reference	Number of Samples	Median	Minimum	Maximum	Number of Failures	Number of Samples	Median	Minimum	Maximum	Number of Failures
Haverigg	SD16007780	20	890	58	6800	0	20	355	0	1600	0
Silecroft	SD12008120	20	130	4	800	0	20	48	0	300	0
Seascale	NY03400100	20	1090	33	5200	0	20	520	14	3700	2
St Bees	NX95901170	20	425	80	2600	0	20	280	25	1900	0
Allonby South	NY06604060	20	980	15	5400	0	20	530	4	3600	2
Allonby	NY07804240	20	730	38	3600	0	20	280	0	2280	1
Silloth	NY09405280	20	295	20	2000	0	20	150	6	1600	0
Skinburness	NY12605650	20	620	36	2600	0	20	170	0	2200	1

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Bathing Water	National Grid Reference		рН	Trans	parency	Salm	onella	Ente Viru		Colo	וטר	Min O			e Active tances	Phe	no
					Num	ber of	Observat	tions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		
Spittal	NU00805150	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Bamburgh Castle	NU18503530	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Seahouses North	NU21103300	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Beadnell	NU23302840	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Low Newton	NU24202450	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
LOW NEWION	NUZYZUZYJU	U	U	20	U	7	U	U	U	20	U	20	U	20	U	20	
Alnmouth	NU25301070	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Warkworth	NU25900650	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Amblelinks	NU27600440	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Druridge Bay	NZ27909640	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Newbiggin North	NZ31308780	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Newbiggin South	NZ31108730	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Blyth South Beach	NZ32207950	0	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
Seaton Sluice	NZ32207730	0	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
Whitley Bay	NZ35307340	0	0	20	0*	2	0	0	0	20	0	20	0	20	0		
Tynemouth Cullercoats	NZ36507130	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20 20	
ynemooni conercours	N230307130	U	U	20	U		U	U	U	20	U	20	0	20	U	20	
ynemouth Long																	
Sands North	NZ36607080	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Tynemouth Long																	
Sands South	NZ36907020	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
ynemouth King																	
Edwards Bay	NZ37306960	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
South Shields	NZ37906740	1	0	22	0*	2	0	2	1	22	0	22	0	22	0	22	
Marsden	NZ40006500	1	0	22	0*	2	0	2	1	22	0	22	0	22	0	22	
Whitburn North	NZ40706050	1	0	22	0*	2	0	2	1	22	0	22	0	22	0	22	
Roker/Whitburn South	NZ40705930	1	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	
Seaham Beach	NZ42405080	1	0	21	0*	2	0	2	2	20	0	20	0	20	0	20	
Seaham Remand Home	NZ42605050	1	0	21	0*	2	0	2	2	21	0	21	0	21	0	21	
Crimdon	NZ48503730	1	0	21	5	2	0	0	0	21	0	21	0	21	0	21	
	NACOCOCCO	,		0.3	0	-	0		-	6.4		61					
Seaton Carew North	NZ52503050	1	0	21	3	2	0	0	0	21	0	21	0	21	0	21	
eaton Carew Centre	NZ53102960		0	21		2	0	2	2	21	0	21	0	21	0	21	
eaton Carew North Gare		1	0	21		2	0	0	0	21	0	21	0	21	0	21	
Redcar Coatham	NZ59202570	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Redcar LB Station	NZ60602550	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Redcar Granville	NZ61302510	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Redcar Stray	NZ62502380	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Sea at Marske Sands	NZ63602320	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Saltburn	NZ66602170	1	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
itaithes	NZ78701900	1	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	

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Bathing Water	National Grid Reference	F	Н	Fransp	оагепсу	Salm	onella	Ente Viru		Colo	ur	Min Oi			e Active tances	Phe	nols
					Num	ber of	Observa	ions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		١
Runswick Bay	NZ81101590	1	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
andsend	NZ86401260	1	0	22	0*	2	0	0	0	22	0	22	0	22	0	22	0
Yhitby	NZ89701170	1	0	21	0.	2	0	0	0	21	0	21	0	21	0	21	0
Robin Hoods Bay	NZ95900450	1	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
carborough North Bay	TA03709000	1	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
carborough South Bay	TA04608860	1	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
ayton Bay	TA06708450	1	0	21	0*	2	0	2	1	21	0	21	0	21	0	21	(
iley	TA12008060	1	0	21	0.	2	0	0	0	21	0	21	0	21	0	21	(
Reighton	TA14407630	1	0	22	0.	2	0	0	0	22	0	22	0	22	0	22	(
lamborough															4		
lorth Landing	TA23807220	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
-lamborough																	
outh Landing	TA23106920	1	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
Bridlington North Beach	TA19006720	1	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
Bridlington South Beach	TA18106610	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Wilsthorpe	TA17206400	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
raisthorpe	TA17106290	1	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
arls Dyke	TA17006150	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Barmston	TA17205940	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
kipsea	TA17705720	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
fornsea	TA21004780	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Tunstall	TA32203120	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Withernsea	TA34402810	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(

Bathing Water	National Grid Reference	-	Н	Transp	arency	Salm	onella	Ente Viru		Colo	Uľ	Min Oi			e Active lances	Pher	ıols
					Num	ber of	Observa	ions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		F
leethorpes	TA31050860	0	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Aablethorpe Town	TF50808540	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
utton-on-sea	TF52258210	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
loggs Eye	TF55007760	0	0	20	0*	2	0	0	0	20	0	20	0	20	1	20	(
inderby	TF55307620	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(

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Bathing Water	National Grid Reference		Н	Trans	ourency	Salm	onella	Ente Viru		Colo	ur		eral Is		e Active tances	Pher	nols
					Num	ber of	Observat	ions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		
Chapel St Leonard	TF56407220	0	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	
ngoldmells South	TF57406855	0	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	- (
Skegness	TF57206345	0	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Heacham	TF66303750	1	0	18	0*	2	0	0	0	21	0	21	0	21	0	21	
Hunstanton Beach	TF67804250	1	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
Wells	TF91404560	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Sheringham	TG16204360	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	
Cromer	TG21904250	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	-
Mundesley	TG31703660	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Hemsby	TG50901740	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Caister Point	TG53001200	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Great Yarmouth North	TG53501050	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Great Yarmouth Pier	TG53300740	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	
Great Yarmouth South	TG53300640	2	0	20	0*	2	2	2	2	20	0	20	0	20	0	20	-
Gorleston Beach	TG53200310	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	-
Lowestoft North	TM55309500	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Lowestoft South	TM54509170	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Southwold The Denes	TM50807540	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Felixstowe North	TM30503430	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Felixstowe South	TM29703370	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Dovercourt	TM25173064	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	(
Walton	TM25552156	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	
Frinton	TM23791941	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	(
Holland	TM22451765	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	(
Clacton	TM18791525	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	(
Jaywick	TM14851280	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	(
Brightlingsea	TM07631616	2	0	21	0*	2	1	0	0	21	0	21	0	21	0	21	
West Mersea	TM02271203	2	0	21	0*	2	0	2	1	21	0	21	0	21	0	21	-

Bathing Water	National Grid Reference		Н	Trans	parency	Salm	onella	Ento Viru		Colo	Uľ	Min Oi			e Active tances	Pher	ıols
					Num	ber of	Observo	tions	(Num	ber of F	ilures	- F)					
			F		F		F		F		F		F		F		F
Shoebury East	TQ94508520	1	0	20	0.	20	4	20	15	20	0	20	0	20	0	20	0
Southend Thorpe Bay	TQ91108470	1	0	20	0*	20	2	20	17	20	0	20	0	20	0	20	0
Southend Westcliff Bay	TQ86458525	1	0	20	0*	20	3	19	17	20	0	20	0	20	0	20	0

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Bathing Water	National Grid Reference	١	ρΗ	Irans	parency	2alm	onella	Ente Viru		Colo	Ur	Min Oi			e Active lances	Phe	nols
					Num	ber of	Observat	tions	(Num	ber of Fo	ailures	- F)					
			F		F		F		F		F		F		F		
heerness	TQ92507500	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	(
.eysdown	TR03407080	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	(
Vest Beach	TR09806600	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	
lerne Bay	TR18606860	2	0	21	0*	2	0	2	2	21	0	21	0	21	0	21	
Ainnis Bay	TR28606970	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
t Mildred's Bay	TR32807050	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Aargate The Bay	TR34707080	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Aargate Fulsam Rock	TR35607150	2	0	20	0*	2	0	2	1	20	0*	20	0	20	0	20	
oss Bay	TR39907020	2	0	20	0*	2	0	2	2	20	0*	20	0	20	0	20	
Broadstairs	TR39806770	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
lamsgate	TR37206400	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
andwich Bay	TR35805900	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Deal Castle	TR37805270	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
t Margaret's Bay	TR36804440	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
olkestone	TR23703630	2	0	21	0*	2	0	2	2	21	0	21	0	21	0	21	
andgate	TR18803480	2	0	21	0*	2	0	2	1	21	0	21	0	21	0	21	
lythe	TR16003400	2	0	21	0*	2	0	2	1	21	0	21	0	21	0	21	
ymchurch	TR11303040	2	0	21	0*	2	0	2	1	21	0	21	0	21	0	21	
it Mary's Bay	TR09302770	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	
ittlestone	TR08402390	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	
amber	TQ97301840	2	0	21	0.	2	0	2	0	21	0	21	0	21	0	21	
Vinchelsea	TQ91201540	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	
lastings	TQ81900920	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
Bexhill	TQ73700680	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
lorman's Bay	TQ68200530	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	
evensey Bay	TQ65700370	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
astbourne	TV61409820	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
eaford	TV48809820	2	0	20	0*	2	0	2		20	0	20	0	20	0	20	
lewhaven	TV44909980	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
altdeon	TQ38100180	2	0	20	0*	2	0	2	0	20	0*	20	0	20	0	20	
Prighton	TQ32300340	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
love	TQ28800430	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
outhwick	TQ24200480	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
outh Lancing	1018300360	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
Vorthing	TQ13900210	2	0	20	0.	2	1	2	2	20	0	20	0	20	0	20	

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Bathing Water	National Grid Reference	F	Н	Transp	parency	Salm	onella	Ente Viru		Colo	10	Min Oi			e Active tances	Pher	ıol
					Num	ber of	Observat	ions	(Num	ber of F	ilures	- F)					
			F		F		F		F		F		F		F		
ittlehampton	TQ04000130	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Aiddleton-on-sea	SZ98509990	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Rognor Regis	SZ92309850	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
agham	SZ89209720	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
elsey	SZ86809370	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
Bracklesham Bay	SZ80509630	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Vest Wittering	SZ76809800	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
Vest of Eastoke	SZ72909840	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
Vest Hayling	SZ70509870	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
astney	SZ67509880	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
outhsea	SZ65309 8 20	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
itokes Bay	SZ60009790	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
ee-on-Solent	SU56200050	2	0	20	0*	2	1	2	1	20	0	20	0	20	0	20	
Hillhead	SU54000220	2	0	20	0*	2	1	2	1	20	0	20	0	20	0	20	
Calshot	SU48100120	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Lepe	SZ45609850	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
Milford-on-sea	SZ28309150	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Christchurch Bay	SZ23909280	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Highcliffe	SZ21609310	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Compton Bay	SZ37708410	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Totland Bay	SZ 322087 10	2	0	20	0.	2	0	2	0	20	0	20	0	20	0	20	
Colwell Bay	SZ32808790	2	0	20	0*	2	0	2	-1	20	0	20	0	20	0	20	
Gurnard	SZ47709590	2	0	20	0.	2	0	2	0	20	0	20	0	20	0	20	
Cowes	SZ48809670	2	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	
Ryde	SZ60109270	2	0	20	0.	2	1	2	0	20	0	20	0	20	0	20	
Seagrove	5Z63209120	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
St Helens	SZ63708920	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	
Bembridge	SZ65708810	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
Whitecliff Bay	SZ64108620	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Sandown	SZ60108430	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	
Shanklin	SZ58508110	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Ventnor	5256207730	2	0	20	0*	2	1		1	20	0	20	0	20	0	20	

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Bathing Water	Notional Grid Reference		pH	Trans	parency	Salm	onella	Ente Viru		Cola	Uľ	Min Oi	eral ils		e Active tances	Pher	nols
					Num	ber of	Observa	lions	(Num	ber of Fo	ilures	- F)					
			F		F		F		F		F		F		F		
hristchurch																	
lighcliffe Castle	SZ20009290	18	0	18	0.	2	0	0	0	20	0	20	0	20	0	20	
hristchurch Friar's Cliff	SZ19209252	18	0	18	0*	2	0	2	1	22	0	22	0	22	0	22	
hristchurch Avon Beach	SZ18889223	18	0	18	0*	2	0	1	0	21	0	21	0	21	0	21	
hristchurch Mudeford																	
andbank East	SZ18259121	18	0	18	0*	2	0	2	1	22	0	22	0	22	0	22	
ournemouth																	
lengistbury East	SZ17009060	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
ournemouth																	
isherman's Walk	SZ12809130	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
ournemouth																	
oscombe Pier	SZ11209110	18	0	18	0*	2	0	2	1	22	0	22	0	22	0	22	
ournemouth Pier	SZ08859065	18	0	18	0*	2	0	2	0	22	0	22	0	21	0	22	
ournemouth																	
urley Chine	SZ07859030	19	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
oole Shore Rd																	
andbanks	SZ05108830	18	0	17	0*	2	0	0	0	20	0	20	0	20	0	20	
oole Harbour Sandbanks	\$704908850	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
oole Harbour Lake	SY98329040	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	19	
oole Harbour																	
ockley Sands	SY97209080	18	0	18	0.	2	1	2	0	22	0	22	0	22	0	21	
hell Bay North	SZ03708660	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
tudland Knoll House	SZ03488353	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
wanage Central	SZ03297910	18	0	18	0.	2	0	2	0	22	0	22	0	22	0	22	
immeridge Bay	SY90707905	20	0	20	0*	2	0	2	1	22	0	24	0	24	0	22	
ulworth Cove	SY82477995	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
urdle Door East	SY80808030	18	0	18	0.	2	0	0	0	20	0	20	0	20	0	20	
urdle Door West	SY80408030	18	0	18	0.	2	0	0	0	20	0	20	0	20	0	20	
ingstead Bay	SY75198132	18	0	18	0*	2	0	2	0	22	0	22	0	22	0	22	
owleaze Cove	SY70428189	18	0	18	0*	2	0	0	0	19	0	19	0	19	0	19	
hurch Ope Cove	SY69767100	17	0	18	0.	2	0	0	0	21	0	21	0	21	0	21	
/eymouth Lodmoor	SY68806710	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	20	
eymouth Central	SY68107940	18	0	18	0*	2	0	0	0	20	0	20	0	20	0	19	
ortland Harbour																	
astle Cove	SY67607750	18	0	18	0*	2	0	0	0	21	0	21	0	21	0	21	(
ortland Harbour																	
andsfoot Castle	SY67307720	18	0	18	0*	2	0	2	1	23	0	23	0	23	0	23	(
lest Bay (West)	SY45909040	17	0	16	0*	2	0	2	1	21	0	21	0	21	0	21	
ypemouth	SY44689100	17	0	17	0*	2	1	0	0	19	0	19	0	19	0	19	(
eatown	SY41879165	17	0	17	0*	2	0	2	1	22	0	22	0	22	0	22	(

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athing Water	National Grid Reference		pН	Trans	oarency	Salm	onella	Ente Viru		Colo	Uľ	Min Oi			e Active tances	Phe	nols
					Num	ber of	Observat	ions	(Numl	ber of Fi	ailures	- F)					
			F		F		F		F		F		F		F		ı
harmouth West	SY36309300	17	0	17	0*	2	0	2	1	22	0	22	0	22	0	22	(
yme Regis Church Beach		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
yme Regis Cobb	SY33909185	20	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	0
eaton (Devon)	SY24508985	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
eer .	SY23158910	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
	3120130710	20		20		-	0		•	20	•	20		20	v	20	,
idmouth Town	SY12708720	20	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
idmouth Jacobs Ladder	SY11908695	20	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
adram Bay	SY09728515	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Judleigh Salterton	SY06958190	20	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	
andy Bay	SY03357980	20	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
xmouth	SY00987995	20	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
Oawlish Warren	SX98307875	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Dawlish Town	SX96557680	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Oawlish Coryton Cove	SX96117606	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
eignmouth Holcombe	SX95657461	21	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	(
eignmouth Town	SX94307285	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
haldon	SX93507230	20	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
less Cove	SX93857170	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	- (
Aaidencombe	SX92786850	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	- (
Vatcombe	SX92626730	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Oddicombe	SX92656585	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	-
Babbacombe	SX93006545	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Redgate	SX93506480	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Aeadfoot	SX93056305	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Beacon Cove	SX91956307	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
orre Abbey	SX90956351	20	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	
tollicombe	SX89806215	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	-
Paignton Preston Sands	SX89646177	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Paignton Paignton Sands	SX89496063	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Goodrington	SX89355940	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	- (
Broadsands	SX89705745	20	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
hoalstone	SX93205662	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
St Mary's Bay	SX93205510	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Dartmouth Castle and																	
Sugary Cove	SX88655020	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Blackpool Sands	SX85504785	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	- (

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Bathing Waters Survey — 1994 Results (United Kingdom)
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Bathing Water	National Grid Reference		рH	Trans	parency	Salm	onella	Ento Viru		Colo	יטו		eral ils		e Active tances	Phe	nols
					Num	ber of	Observa	ions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		١
ilapton Sands Monument	SX82954430	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
lapton Sands Torcross	SX82354195	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Aill Bay	SX74073825	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
alcombe North Sands	SX73103820	20	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	(
alcombe South Sands	SX72853775	20	0	20	0*	4	2	2	2	20	0	20	0	20	0	20	
						•	-	_	_				-	20		2.0	,
ope Cove	SX67553975	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
hurlestone South	SX67654170	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
hurlestone North	SX67404210	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
antham	SX66234380	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
igbury-on-Sea South	SX65104415	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
igaoty on sou soom	3,103101113	20		20		-	0	•		20	0	20	0	LV	V	20	
igbury-on-Sea North	SX64954430	20	0	20	0*	2	0	D	0	20	0	20	0	20	0	20	(
hallaborough	SX64924480	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
lothecombe	SX61054734	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
/embury	SX51604850	20	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
ovisand	SX49305050	20	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Ovidania	3847303030	20	U	20	U		U	-	2	20	U	20	0	20	U	20	
lymouth Hoe East	SX47805370	20	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
lymouth Hoe West	SX47505370	20	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	(
ortwrinkle	SX35905380	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
ownderry	SX31405380	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
eaton (Cornwall)	SX30305430	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
illendreath	SX26805410	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
ast Looe	SX25705320	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	(
eadymoney	SX11805110	2	0	19	0*	2	0	2	-1	20	0	20	0	20	0	20	(
olkerris	SX09105230	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
or	SX08305330	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
	CV0/00/000	0	0	00	0*	0	0	0	0	00	0	00	٨	00	^	0.0	
rinnis Golf Links	SX06305220	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
rinnis Leisure Centre	SX05605210	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
harlestown	SX04205160	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
uporth	SX03505120	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
orthpean	SX03205070	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
entewan	SX01804670	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
olstreath	SX01704540	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
orstream ort Mellon	SX01704340 SX01604390	2	0	20	0*	2	1	0	0	20	0	20	0	20	-		0
orran Haven	3801004370		U	20	U		1	U	U	20	U	20	U	ZU	0	20	0
orran naven ittle Perhaver	CV01204170	9	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
	SX01304170	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
orran Haven (Vault)	SX01004080	2	0	20	0*	7	0	U	0	20	0	20	0	20	0	20	0

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Bathing Water	National Grid Reference	P	Н	Transp	arency	Salmo	onella	Ente Viru		Colo	Ur	Mino Oi			e Active tances	Phen	iol:
					Num	ber of	Observat	ions	(Num	ber of Fo	ilures	- F)					
			F		F		F		F		F		F		F		
orthluney	SW97304130	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
endower	SW90503830	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Syllyngvase	SW80903160	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
wanpool	SW80303130	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	
Agen Porth	SW79002960	2	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	
nueli Foriii	3W/7002700	2	U	20	v	2	U	~	'	20	U	20	0	20	U	20	
Porthallow	SW79702330	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
Porthoustock	SW80702170	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Coverack	SW78301840	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
(ennack Sands	SW73401650	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Pollurian Cove	SW66801870	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Poldhu Cove	SW66501980	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Sunwalloe Cove	SW65402250	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Porthleven West	SW63202530	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Praa Sands East	SW58502760	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	
Praa Sands West	SW57702810	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	
Perron Sands	SW53902930	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Mounts Bay L Holgus	SW51303100	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	
Mounts Bay Heliport	SW48503110	1	0	12	0*	1	0	0	0	12	0	12	0	12	0	12	
Mounts Bay Penzance	SW47502980	2	0	20	0*	3	1	2	1	20	0	20	0	20	0	20	
Mounts Bay Wherry Town		2	0	20	0*	3	i	2	2	20	0	20	0	20	0	20	
		_						_	_								
Porthcurno	SW38702230	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Sennen	SW35522645	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Porthmeor	SW51504103	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Porth Gwidden	SW52204110	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	
Porthminster	SW52204025	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Carbis Bay Station Beach	CM258U380U	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Carbis Bay	34772003070	-	0	20	0	_	0	0	0	20		20		20	0	20	
Porth Kidney Sands	SW54003850	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
The Towans (Hayle)	SW56303950	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
The Towans (Godrevy)	SW58104170	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	
Portreath	SW65304550	2	0	20	0.	2	1	0	0	20	0	20	0	20	0	20	
D. d.	CW/0004700		^	00	0.0	0	0		0	00	0	00	0	00	0	00	
Porthtowan	SW68904790	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Trevaunance Cove	SW72305170	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	
Perranporth Village End	SW75705480	2	0	20	0-	2	-	0	0	20	0	20	0	20	0	20	
Perranporth	CUIT / 00 5700		^	00	0.5		,	0		00		00	0	00	0	00	
Penhale Sands	SW76205700	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Holywell Bay	SW76505950	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	

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Bathing Water	National Grid Reference	I	pΗ	Trans	parency	Salm	onella	Ente Viru		Colo	100	Min Oi			e Active tances	Phe	nols
					Num	ber of	Observa	ions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		
Crantock	SW78406080	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Fistral	SW79606230	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Towan	SW81006205	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Watergate	5W84106490	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Mawgan Porth	SW84806740	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
orthcothan	SW85707202	2	0	19	0*	4	2	2	2	20	0	20	0	20	0	20	
reyarnon Bay	SW85707390	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	
onstantine Bay	SW85807480	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	(
Nother Ivey's Boy	5W86307600	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	(
larlyn Bay	SW87707550	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	- (
revone Bay	SW89207610	2	0	19	0*	2	0	2	2	20	0	20	0	20	0	20	(
Rock	SW93607550	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	(
aymer Bay	SW92807760	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	
olzeath	SW93607920	1	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	
Videmouth Sand	5519800240	19	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
ude Summerleaze	SS20400660	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Jude Crooklets	\$\$20300720	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Jude Sandy Mouth	5520200990	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
lartland Quay	SS22302485	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Vestward Ho!	5543252940	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	-
nstow	SS47173044	20	0	20	0.	2	0	2	2	20	0	20	0	20	0	20	
aunton Sands	SS44553760	19	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	
royde Bay	SS43473930	19	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
Voolacombe Putsborough		20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	- 1
Noolacombe Village	SS45624370	20	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	1
lfracombe Tunnels Beach Ifracombe	SS51454780	20	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	
Tapstone (Wildersmouth)	SS 51824700	20	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	
Ifracombe Hele	5553554792	20	0	20	0.	2	1	0	0	20	0	20	0	20	0	20	
Combe Martin	5557724732	20	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
ynmouth	SS72504975	20	0	20	0.	2	n	2	1	20	0	20	0	20	0	20	
		20	V	20	U	2	J	2		20	V	10	0	70	U	20	
Porlock Weir	\$\$86404790	21	0	21	0*	0	0	0	0	21	0*	21	0	21	0	21	(
Ainehead Terminus	\$\$97304650	21	0	21	0.	0	0	0	0	21	0.	21	0	21	0	21	(
Dunster North West	SS99704550	21	0	21	0.	0	0	0	0	21	0*	21	0	21	0	21	(
lue Anchor West	ST02304350	21	0	21	0.	0	0	0	0	21	0*	21	0	21	0	21	(
Turnham Jetty	ST30204880	21	0	21	0.	1	0	0	0	21	0.	21	0	21	0	21	(

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Bathing Water	Notional Grid Reference		рН	Trans	parency	Salm	onella	Ente Viru		Colo	1U	Min Oi			e Active tances	Pher	ıols
					Num	ber of	Observat	ions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		F
Berrow																	
North of Unity Farm	ST29305450	22	0	22	0*	1	0	0	0	22	0*	22	0	22	0	22	0
Brean	ST29605850	22	0	22	0*	1	0	0	0	22	0.	22	0	22	0	22	0
Weston-s-Mare																	
Uphill Slipway	ST31205880	23	0	23	0*	2	1	0	0	23	0*	23	0	23	0	23	(
Weston-s-Mare Main	ST31606070	23	0	23	0*	2	0	2	0	23	0*	23	0	23	0	23	(
Weston-s-Mare Sand Bay	ST33006350	23	0	23	0*	2	0	2	0	22	0*	22	0	22	0	22	(
Clevedon Beach	\$139807120	22	0	22	0*	1	0	1	1	22	0*	22	0	22	0	22	0

Bathing Water	National Grid Reference	-	Н	Transp	oarency	Salm	onella	Ente Viru		Colo	ur	Min Oi			e Active tances	Pher	nols
					Num	ber of	0bserva1	lions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		
Jacksons Bay Barry	ST12206657	2	0	17	0.	2	0	0	0	19	0	18	0	19	0	19	0
Whitmore Bay Barry	ST11456625	2	0	17	0*	2	1	0	0	19	0	18	0	19	0	19	0
Cold Knap Barry	ST09656640	2	0	16	0.	2	0	0	0	19	0	18	0	19	0	19	0
Southerndown	SS88407290	2	0	20	0.	2	1	0	0	20	0	20	0	20	0	20	0
Trecco Bay Porthcawl	SS83107630	2	0	18	0.	2	0	0	0	18	0	18	0	18	0	18	(
Sandy Bay Porthcawl	SS 82407 650	2	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	(
Rest Bay Porthcawl	SS 8000779 0	2	0	19	0.	2	1	0	0	19	0	19	0	19	0	19	- (
Aberafan	SS73908960	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Swansea Bay	SS64409210	2	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	(
Bracelet Bay	5563008710	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	(
Limeslade Bay	SS62508700	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Langland Bay	SS60608710	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Caswell Bay	\$\$59108740	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	
Oxwich Bay	SS50708620	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	-
Port Eynon Bay	SS47208480	2	0	20	0°	2	0	0	0	20	0	20	0	20	0	20	1
Rhossili	SS41409000	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	(
Pembrey	\$\$40009980	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	(
Pendine	SN23800740	2	0	19	0.	2	0	0	0	19	0	19	0	19	0	19	(
Amroth	SN16700680	2	0	20	0.	2	0	0	0	20	0	20	0	20	0	20	
Saundersfoot	SN14100470	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	

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Bathing Water	National Grid Reference		pH	Irans	parency	Salm	onella	Ento Viru		Colo	Uľ	Min Oi	eral ils		e Active tances	Phe	nols
					Num	ber of	Observa	lions	(Num	ber of F	ailures	- F)					
			F		F		F		F		F		F		F		
enby North	SN13450080	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
enby South	SS13259985	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
roadhaven	SM86101380	3	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	
lewgale	SM84602170	3	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
Vhitesands	SM73002700	3	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
ewport	SN05304070	3	0	19	0*	2	0	2	0	19	0	19	0	19	0	19	(
raeth Gwyn New Quay	SN39805970	3	0	20	0*	2	0	0	0	19	0	20	0	20	0	20	(
berystwyth South	SN57908140	3	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
berystwyth North	SN58308220	3	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
orth	SN60609010	3	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
berdyfi	SN60729580	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	
/wyn	SH57670032	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
airbourne	SH60911307	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
armouth	SH60841590	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
landanwg	SH56692818	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	
arlech	SH56763148	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	-
Norfa Bychan	SH54213595	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	-
riccieth	SH50333807	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	-
wllheli	SH37103407	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	-
bersoch	SH31682772	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
iorfa Dinlle	SH43495669	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
hosneigr	SH32377212	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
rearddur Bay	SH25567891	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
enllech	SH52688256	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
andudno West Shore	SH76558165	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
andudno North Shore	SH79188227	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
olwyn Bay	SH85847917	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
inmel Bay (Sandy Cove)	SH97808060	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	(
hyl	SJ00208260	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	(
restatyn	SJ05408390	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	(
est Kirby	SJ21008680	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(

Section 4
Bathing Waters Survey — 1994 Results (United Kingdom)
Compliance with Bathing Water Directive (76/160/EEC): Other Parameters

Bathing Water	National Grid Reference	1	Н	Transp	arency	Salm	onella	Ente Viru		Colo	ur	Mino Oi			e Active tances	Pher	nols
					Number of Observations (Number of Failures				ailures	~F)							
			F		F		F		F		F		F		F		F
Meols	\$123009060	2	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	0
Moreton	SJ25709180	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
New Brighton	SJ28709370	2	0	20	0.	2	2	2	1	20	0	20	0	20	0	20	0
ormby	SD27701000	1	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Ainsdale	SD29701290	1	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Southport	SD32201790	1	0	20	0*	2	1	2	1	20	0	20	0	20	0	20	0
of Annes	SD31802830	3	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
St Annes North	SD30403050	3	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Blackpool South	SD30403380	3	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Blackpool Central	SD30603560	3	0	20	0*	2]	2	2	20	0	20	0	20	0	20	0
Blackpool North	SD30503640	3	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
Bispham	SD30703970	3	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Cleveleys	SD31204330	3	0	20	0°	2	0	2	2	20	0	20	0	20	0	20	(
Fleetwood	SD33604850	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Heysham - Half Moon B	ay SD41306180	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Morecambe South	SD42206360	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Morecambe North	SD44106500	2	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	0
Bardsea	SD30007400	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Aldingham	SD28307090	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
Newbiggin	SD27306940	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Walney Biggor Bank	SD17806730	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
Walney Sandy Gap	SD17506810	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
Walney West Shore	SD17007000	2	0	20	0.	2	0	2	2	20	0	20	0	20	0	20	(
Roan Head	SD19807580	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Askam-in-Furness	SD20907820	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Haverigg	SD16007780	2	0	20	0*	2	0	2	2	19	0	20	0	20	0	20	(
Silecroft	SD12008120	2	0	20	0*	2	0	0	0	19	0	20	0	20	0	20	(
Seascale	NY03400100	2	0	20	0.	2	0	2	2	19	0	20	0	20	0	20	(
St Bees	NX95901170	2	0	20	0.	2	0	2	1	19	0	20	0	20	0	20	(
Allonby South	NY06604060	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	(
Allonby	NY07804240	2	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	(
Silloth	NY09405280	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	(
Skinburness	NY12605650	2	0	20	0.	2	0	2	1	20	0	20	0	20	0	20	(

APPENDIX B

UPDATE ON BATHING WATER IMPROVEMENT SCHEMES IN ENGLAND AND WALES

The 1990 and 1992 NRA reports on Bathing Water Quality presented details of the Water Service Companies' compliance schemes planned or in hand within each Region. This Appendix updates that information on the basis of DoE's report to the European Commission of September 1994. The report covers 110 schemes included either in the 1989 UK bathing water improvement programme or added subsequently.

Here the information is presented in three sections - a list of the schemes completed by June 1994; details of schemes where changes or additions have been made to the information presented in previous NRA reports; and a list of schemes remaining in progress after June 1994.

SECTION 1 - SCHEMES COMPLETED BY JUNE 1994

By June 1994 the total number of schemes completed in the UK since the start of the bathing water improvement programme reached 37, covering 58 bathing waters (30 schemes covering 53 bathing waters in England and Wales).

Region	Scheme	Bathing Waters					
Inglian Heacham/Hunstanton		Heacham					
		Hunstanton					
Northumbria	Guisbarough	Saltburn					
& Yorkshire	Newbiggin	Newbiggin North					
		Newbiggin South					
	Seaton Carew	Seaton Carew Centre					
		Seaton Carew North					
		Seaton Carew North Gare					
	Seaton Sluice	Seaton Sluice					
	Flamborough	Flamborough South Landing					
	Withernsea	Withernsea					
North West	Bardsea	Bardsea					
	Newbiggin	Newbiggin					
	Skinburness	Skinburness					
Southern	Cowes	Cowes					
	Eastney/Southsea	Eastney					
		Southsea					
	Joss Bay/Broadstairs	Joss Bay					
		Broadstairs					
	Ryde	Ryde					
	Seaford/Newhaven	Seaford					
		Newhaven					
	St Helens Inland STW	St Helens					
	St Mary's Bay/Littlestone	St Mary's Bay					
		Littlestone					
	Totland Bay/Colwell Bay	Totland					
		Colwell Bay					

SOUTHERN REGION

Scheme: Bembridge

Bathing Waters: Bembridge, Whitecliffe Bay

Expected Date of Compliance: Usually comply

Description: Sewerage transfer to Sandown STW

Scheme Completion: 05/96

Note: Difficulties with land acquisition are causing delay. As with Ventnor

the opportunity was taken to review the original proposals leading to the chosen option which is supported by the local NRA as modelling suggested the discharge from the proposed outfall could

impact on the Solent Estuary.

Scheme: Calshot Bathing Waters: Calshot

Expected Date of Compliance: Already complies

Description: Sewage transfer from Ashlett Creek WTW, closure of Ashlett Creek

and pumped transfer to secondary treatment at existing WTW at

Peel Common.

Scheme Completion: 02/96

Note: The construction of a new wastewater treatment at Ashlett Creek is

opposed by New Forest DC and Hampshire CC. Alternative solution is to transfer flow to Peel Common wastewater treatment works. This proposal is subject to satisfactory negotiations with National Power who are the owners of the cable tunnel through

which the main will be constructed.

Scheme: Dover and Folkestone Bathing Waters: Folkestone, Sandgate

Expected Date of Compliance: Some already comply

Description: Primary settlement and long sea outfall Scheme Completion: 04/98

Note: Planning application for primary treatment works was refused

September 1992. New application approved December 1993 for a

combined scheme serving both Dover and Folkestone.

Scheme: Herne Bay May St. STW

Bathing Waters: Herne Bay

Expected Date of Compliance: 1995

Description: Extensions to inland sewage treatment works and sewage transfer.

Scheme Completion: 04/9

Scheme: Pevensey Bay: Languey Point Outfall

Bathing Waters: Pevensey Bay
Expected Date of Compliance: Usually complies

Description: Primary settlement and long sea outfall

Scheme Completion: 03/96

Scheme: Shoreham Area Sewage Disposal Bathing Waters: South Lancing, Southwick

Expected Date of Compliance: 1996

Description: Primary treatment works, long sea outfall and transfer

Scheme Completion: 11/95

Scheme: St Helens Outfall Improvements

Bathing Waters: St Helens

Expected Date of Compliance: Usually complies

Description: Wastewater transfer from existing outfall to headworks/outfall at

Ryde

Scheme Completion: 04/95

Scheme: Ventnor
Bathing Waters: Ventnor
Expected Date of Compliance: 1997

Description: Sewage transfer to Sandown WTW

Scheme Completion: 04/97

Note: Serious problems were identified during the development of this

scheme; extensive site investigations revealed evidence of landslips, artesian groundwater, and unstable ground conditions in the area where the Headworks were to be built. Continuous monitoring of the boreholes revealed evidence that the ground movement was even more pronounced than first thought, making the scheme non-viable on technical grounds. A complete review of the perceived solutions was undertaken, leading to the selection of a flow transfer scheme to the existing Primary treatment works at Sandown as providing the most cost effective and least risk solution to the problems identified. Commissioning has been delayed by some 23 months but the result will be to secure a better solution in all

respects.

Scheme: Worthing Area Sewage Disposal
Bathing Waters: Southwick, South Lancing, Worthing

Expected Date of Compliance: 199

Description: Primary treatment works at East Worthing, long sea outfalls and

sewage transfer from West Worthing.

Scheme Completion: 03/96

SOUTH WESTERN REGION

Scheme: Fowey

Bathing Waters: Readymoney Cove Expected Date of Compliance: Usually complies

Description: Provide collector sewers and pumping stations to transfer sewage to

a new STW. Treat to secondary level and discharge through new

outfall.

Scheme Completion: 03/96

Scheme: Gorran Haven Sewerage and Sewage Treatment

Bathing Waters: Gorran Haven Little Perhaver and Vault

Expected Date of Compliance: 1995

Description: Collect all flows and pump to STW outside of village for secondary

treatment and discharge via existing outfall.

Scheme Completion: 07/94

Scheme:

Ilfracombe Sewerage and Sewage Treatment Ilfracombe Tunnels, Capstone and Hele

Bathing Waters:

Expected Date of Compliance:

Description:

Resewerage and provision of storage. Provide new sewage

treatment works to treat to secondary level plus UV disinfection.

Discharge through existing outfall.

Scheme Completion:

06/96

1996

Note:

Completion now six months later than previously advised due to

delays in obtaining planning consent from local council.

Scheme:

Lynmouth Sewerage and Sewage Treatment

Bathing Waters: Expected Date of Compliance:

Lynmouth

Description:

1996

Resewerage and provision of storage. Pump flows to remote STW for secondary treatment and UV disinfection. Discharge via

extended existing outfall.

Scheme Completion:

03/96

Note:

Planning approval date is best current estimate. Now three months

late due to local planning delays.

Scheme:

Penzance Region

Bathing Waters:

St. Ives (Porthgwidden, Porthminster, Porthmeor), Mounts Bay (Little Holgus, Heliport, Penzance, Wherry Town), Carbis Bay

(Station and Porth Kidney) 1995 (1996 for Porthgwidden)

Expected Date of Compliance:

Description:

Resewerage and provision of storage, construction of numerous pumping stations, transfer of mains and sewers to Hayle. Provision of secondary treatment and sludge treatment capacity, construction

of long sea outfall and two storm overflow outfalls.

Scheme Completion:

04/95 (except St Ives pumping station 09/95)

Note:

St Ives pumping station was subject to planning delays, planning

approval granted in January 1994.

Scheme:

Perranporth STW

Bathing Waters:

Perranporth (Village and Penhale Sands)

Expected Date of Compliance:

Description:

Resewerage and storage, uprate pumping stations, new rising main to new STW - chemically enhanced settlement. Discharge through

existing outfall with extension.

Scheme Completion:

09/95

Scheme:

Plymouth

Bathing Waters:

Plymouth Hoe East and West

Expected Date of Compliance:

1998

Description:

Interception of numerous outfalls into Plymouth Sound,

provision of pumping stations and trunk sewers to new secondary treatment works. Sea outfall modification, uprating of other

contributing works.

Scheme Completion:

06/98

Scheme: Salcombe Sewerage and Sewage Treatment
Bathing Waters: Mill Bay, Salcombe North and South Sands

Expected Date of Compliance: Usually comply

Description: Urban resewerage, provision of storage, interception of overflows

and outfalls, flow pumping to STW for secondary treatment.

Effluent discharge through new estuarial outfall.

Scheme Completion: 12/94

Scheme: Seaton and Downderry

Bathing Waters: Seaton (Cornwall), Downderry

Expected Date of Compliance: Usually comply

Description: Resewerage and interception of outfalls, flow transfers to STW

providing full treatment and disinfection. Discharge to river to EC

Bathing Water coliform standards.

Scheme Completion: 06/96

Note: Completion now 12 months late on previous date due to planning

delays.

Scheme: St Austell Menagwins STW

Bathing Waters: Pentewan

Expected Date of Compliance: Already complies

Description: Uprate sewage treatment works and resewerage of catchment. Add

disinfection if required.

Scheme Completion: 12/95

Scheme: St Mawgan (St Columb) STW

Bathing Waters: Mawgan Porth

Expected Date of Compliance: 1994

Description: Upgrade sewage treatment works at St Columb major.

Construction of tertiary phase to allow bacterial die-off prior to

effluent discharge to river Manalhyl if necessary.

Scheme Completion: 08/94

Scheme: Taw/Torridge - Southern Area

Bathing Waters: Saunton Sands, Instow, Westward Ho!

Expected Date of Compliance: Instow 1998

Description: Urban resewerage and flow attenuation. Transfer of flows to a new

STW with secondary treatment, UV disinfection and discharge

through a sea outfall.

Scheme Completion: 10/97

Scheme: Taw/Torridge - Northern Area

Bathing Waters: Saunton Sands, Instow, Westward Ho!

Expected Date of Compliance: Instow 1998

Description: Urban resewerage and flow attenuation. Extension and secondary

treatment to Ashford (Barnstaple) STW. Transfer of flows to

Ashford STW. New outfall into Taw estuary

Scheme completion: 04/97

Scheme: Trevone Bay

Bathing Waters: Mother Ivey's Bay, Harlyn Bay, Trevone Bay, Rock, Daymer Bay,

Polzeath

Expected Date of Compliance: 1996

Description: Intercept discharges and bring to new STW. Some resewerage. Treat

to secondary and UV disinfect. New outfall to estuary.

Scheme Completion: 12/96

WELSH REGION

Scheme: Aberystwyth

Bathing Waters: Aberystwyth South, North

Expected Date of Compliance: 1995

Description: Replace existing pumping station, construct new sewage treatment

works, sludge treatment plant.

Scheme Completion: 04/95

Note: Difficulties associated with access and visual impact have led to a

change in the proposed solution. The new scheme will now

discharge disinfected effluent to the river Rheidol.

Scheme: Benllech
Bathing Waters: Benllech
Expected Date of Compliance: 1995

Description: Construction of preliminary treatment works, long sea outfall and

associated pumping station, pipelines and roadworks.

Scheme Completion: 03/95

Note: The expected date of compliance given in previous reports was an

error. The outfall has been completed but will not be fully operational until the completion of the treatment works.

Scheme: Jackson's Bay

Bathing Waters: Cold Knap, Whitmore Bay, Jackson's Bay

Expected Date of Compliance: 1998

Description: Outfall with pre treatment, transfer works and storm overflow

improvements. Primary and secondary treatment.

Scheme Completion: 12/97

Scheme: Llandudno West Shore Bathing Waters: Llandudno West Shore

Expected Date of Compliance: 1995

Description: Construction of preliminary treatment works, long sea outfall, and

associated pumping station. Construction of pipelines and several

transfer pumping stations.

Scheme Completion: 03/95

Note: It has been envisaged that interception of untreated outfalls on the

eastern bank of the River Conwy would ensure the company's outfalls were not responsible for Llandudno failing. It transpired that this view was over-optimistic because of the effect of the Conwy outfalls and the compliance date has been altered to reflect this. The scheme has been delayed by planning and land purchase

difficulties.

Scheme: Rhosneigr Sewage Treatment

Bathing Waters: Rhosneigr

Expected Date of Compliance: Already complies

Description: Construction of secondary treatment works with disinfection.

Refurbishment of existing outfall.

Scheme Completion: 03/96

Scheme:

Saundersfoot Saundersfoot

Bathing Waters:
Expected Date of Compliance:

Jaune

05/98

Description:

General sewerage improvements in town centre, transfer of sewage from Saundersfoot to Tenby, construction of new treatment works at Tenby, modification of Saundersfoot works to provide storm

storage and settlement facility.

Scheme Completion:

Note:

When work on this scheme commenced, old mineworkings were discovered creating potential danger from methane escape. The company has now decided to relocate the discharge from

Saundersfoot to Tenby thus requiring the redesign of the scheme.

Scheme:

Swansea Bay

Bathing Waters:

Swansea Bay, Bracelet Bay, Limeslade Bay, Langland Bay, Caswell

Bay, Oxwich Bay

Expected Date of Compliance:

Description:

Provision of sewage treatment works and sea outfall, interceptor

sewers, transfer sewers and pumping stations, modern storm sewer

overflow facilities.

Scheme Completion:

10/97

Scheme:

Tywyn and Aberdyfi Sewage Treatment

Bathing Waters:

Tywyn, Aberdyfi

Expected Date of Compliance:

Usually comply

Description:

Construction of medium length outfall, secondary sewage

treatment, disinfection and sludge treatment. Pumping stations and

mains to transfer flows from Aberdyfi to Tywyn.

Scheme Completion:

06/95

SECTION 3 - SCHEMES IN PROGRESS AFTER JUNE 1994

In general, progress on the 66 remaining improvement schemes in England and Wales is on schedule. Completion of some schemes has had to be rephased because of objections, now largely resolved, to planning or discharge consents or the need to follow compulsory land purchase procedures.

As previously stated, the dates shown as scheme completion dates are target dates for the commissioning of the last stage of the remedial works. Depending on the nature of the scheme, water quality improvements may be achieved before the completion of construction and commissioning.

Region	Scheme	Scheme completion date	Bathing Waters
A li	Clarkson		Clasthagas
Anglian	Cleethorpes	07/95	Cleethorpes
3	Great Yarmouth	06/97	Hemsby
			Caister Point
			Great Yarmouth South
			Great Yarmouth Pier
			Great Yarmouth North
			Gorleston
	Harwich and Dovercourt	06/97	Dovercourt
	Mablethorpe/Sutton on Sea	03/95	Mablethorpe Town
			Sutton-on-Sea
	West Mersea STW Improvements	12/95	West Mersea
	West Runton	09/95	Sheringham
			Cromer
Northumbria	Berwick	post 95	Spittal
& Yorkshire	Limekiln Gill	05/95	Crimdon Park
	Seaham	02/96	Segham Beach
	Joanani	02/ /0	Seaham Remand Home
	Whitburn/Roker	05/95	Roker/Whitburn South
	Williboril/ Koker	03/ 73	Whitburn North
	M/Lielan Ban	02/04	
	Whitley Bay	03/96	Tynemouth King Edwards Bay
			Tynemouth Long Sands South
			Tynemouth Long Sands North
			Tynemouth Cullercoats
			Whitley Bay
	Langbaurgh Phase II	05/96	Saltburn
North West	Allonby	06/95	Allonby
			Allonby South
	Askam	04/95	Askam-in-Furness
	Barrow in Furness	03/96	Aldingham
			Newbiggin
	Fylde Coast	03/96	Bispham
			Cleveleys
			Fleetwood
			Blackpool South
			Blackpool North
			Blackpool Central
	Haverigg	03/96	Haverigg
	Morecambe	03/97	Morecambe North
	······································	00/ //	Morecambe South
			Heysham
	Seascale	03/96	Seascale
	Silloth		Silloth
		03/96	
	Southport	03/96	Southport
	St Annes	03/96	St Annes North
			St Annes
	St Bees	03/96	St Bees

Southern	Bembridge Sewage Disposal	05/96	Bembridge Whitecliffe Bay
	Calshot: Transfer of Flow to New STW	02/96	Calshot
	Camber Inland STW Modifications	03/95	Camber
		04/98	
	Dover and Folkestone: Sewage Disposal	U4/70	Sandgate Folkestone
	Horse Boy May Co CTW	04/05	
	Herne Bay May St. STW	04/95	Herne Bay
	Hove - Portobello: Storm Overflows	04/96	Brighton
		0.10.	Hove
	Pennington Outfall Improvements	06/96	Milford-on-Sea
			Christchurch Bay
	Pevensey Bay: Langney Point Outfall	03/96	Pevensey Bay
	Weatherlees Hill WTW	04/95	Ramsgate
			Sandwich Bay
	Deal to Weatherlees Hill WTW	12/94	Deal Castle
	Shoreham Area Sewage Disposal	11/95	Southwick
			South Lancing
	St Helens Outfall Improvements	04/95	St Helens
	Ventnor Sewage Disposal	04/97	Ventnor
	Worthing Area Sewage Disposal	03/96	Worthing
			South Lancing
			Southwick
outh Western	Combe Martin	12/95	Combe Martin
	Fowey	03/96	Readymoney Cove
	Gorran Haven	07/94	Gorran Haven (Vault)
	out all flavoir	07771	Gorran Haven (Little Perhaver)
	Ilfracombe	06/96	Ilfracombe (Tunnels)
	macombe	00,70	Ilfracombe (Hele)
			Ilfracombe (Capstone)
	Lyme Regis Sewerage and S.Treatment	04/95	Lyme Regis (Cobb)
	Lyme kegis sewerage and streament	04/73	
	1	02/04	Lyme Regis (Church)
	Lynmouth	03/96	Lynmouth
	Penzance Regional Sewerage and S.T	04/95	Marazion and Mounts Bay:
			Penzance, Heliport, Little Hogus
			Wherrytown
			Carbis Bay (Porth Kidney Sands)
		0.0 /5 -	Carbis Bay (Station Beach)
		09/95	Porthmeor St Ives
			Porthgwidden St Ives
			Porthminster St Ives
	Perranporth STW	09/95	Perranporth (Village End)
			Perranporth (Penhale Sands)
	Plymouth	06/98	Plymouth Hoe (East)
			Plymouth Hoe (West)
	Porthallow Sewage Treatment	no date	Porthallow
	Portleven Sewerage and S.Treatment	03/95	Portleven (West)
	Salcombe Sewerage and S.Treatment	12/94	Salcombe South
	9		Salcombe North
			Mill Bay
	Seaton and Downderry	06/96	Downderry
	Joseph dita portinger;	00/ /0	Seaton (Cornwall)
			Jealon (comwall)

	St Agnes	06/95	Trevaunance Cove		
	St Austell Menagwins STW	12/95	Pentewan		
	St Mawgan (St Columb)	08/94	Mawgan Porth		
	Taw/Torridge - Southern Area	10/97	Instow		
			Westward Ho!		
			Saunton Sands		
	Taw/Torridge - Northern Area	04/97	Instow		
	Idw/ Forriage - Northern Area		Westward Ho!		
			Saunton Sands		
	Trevone Regional	12/96	Polzeath		
	norono noglona.	12,10	Trevone Bay		
			Mother Ivey's Bay		
			Rock		
			Harlyn Bay		
			Daymer Bay		
hames	Southend-on-Sea	03/98	Thorpe Bay		
Turios 30		, , , , ,	Westcliffe Bay		
			Shoeburyness		
Welsh	Aberystwyth	04/95	Aberystwyth South		
	, ,		Aberystwyth North		
	Benllech	03/95	Benllech		
	Criccieth	03/95	Criccieth		
	Jacksons Bay	12/97	Whitmore Bay		
	,		Jacksons Bay		
	Llandudno West Shore	03/95	West Shore Llandudno		
	Rhosneigr	03/96	Rhosneigr		
	Saundersfoot	05/98	Saundersfoot		
	Swansea Bay	10/97	Oxwich Bay		
	,		Limeslade Bay		
			Bracelet Bay		
			Langland Bay		
			Swansea Bay		
			Caswell Bay		
	Tywyn and Aberdyfi	06/95	Tywyn		
	., .,	53/ 13	Aberdyfi		

Proposal for a COUNCIL DIRECTIVE concerning the quality of bathing water

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and, in particular, Article 130s(1) thereof,

Having regard to the proposal from the Commission',

In co-operation with the European Parliament²,

Having regard to the opinion of the Economic and Social Committee³,

Whereas Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water⁴, as last amended by Directive 91/692/EEC⁵, has been amended on a number of occasions: whereas the said Directive should, for reasons of clarity, be recast;

Whereas, in order to protect the environment and public health, it is necessary to reduce the pollution of bathing water and to protect such water against further deterioration;

Whereas the quality of bathing water is an important asset of the tourism sector in the Community; whereas its improvement and its surveillance are also necessary in the framework of the establishment and functioning of the internal market;

Whereas Community action is needed, in accordance with the principle of subsidiarity, in order to ensure basic health protection for bathers throughout the Community, to improve the quality of the aquatic environment by co-ordinating efforts made by Member States and to guarantee a sufficient quality of bathing water for the Community tourism industry;

Whereas all citizens of the Union have a right to health protection and to an unpolluted environment; and whereas the assessment of the quality of bathing water should be made on the basis of criteria harmonized at Community level in order that the public may make informed comparisons;

Whereas the list of parameters to be measured should indicate in the most appropriate way the quality of bathing water and take account of advances in science and technology; whereas there is a need to require the verification of only those parameters which are indispensable for ensuring an adequate protection of human health;

Whereas Member States should remain free to set stricter values than those given in this Directive and to set values for parameters not specified in this Directive;

- OJ No L 31, 5.2.1976, p1
- ⁵ OJ No L 377, 31.12.1991, p48

Whereas it should be provided that bathing water will, under certain conditions, be deemed to conform to the relevant parametric values even if a certain proportion of the analytical results or observations recorded during a bathing season do not comply with limits specified, and whereas the rules for determining that proportion should be set out numerically; whereas there is a need to simplify the criteria for compliance laid down in Directive 76/160/EEC;

Whereas Member States should identify all sources which are likely to affect the quality of bathing water and, in the event of non-compliance, take appropriate remedial action;

Whereas to highlight situations where outstanding results are achieved, it is desirable to introduce a standard of "excellent quality" for bathing water;

Whereas, in the case of bathing waters first falling within the scope of this Directive after 31 December 1995 as a result of an increased use by bathers, it is appropriate to allow a period of time for Member States to bring them up to the requisite quality;

Whereas the public should be adequately informed about the quality of bathing waters and about any remedial action taken by the competent authorities;

Whereas Member States should monitor the quality of bathing waters with adequate frequency and analyse them by comparable methods; whereas this frequency can be reduced, under certain conditions, for bathing waters which have previously proved to be of excellent quality;

Whereas bathing should not necessarily be prohibited on the ground that water is not in compliance with the limit values laid down in this Directive; whereas, however, in order to protect the health of bathers, it is necessary for Member States to prohibit bathing in any bathing area every time the pollution represents a danger to public health; whereas the said limit values should be taken into account;

Whereas technical progress may necessitate rapid adaption of the technical requirements laid down in Annex I; whereas, in order to facilitate the introduction of the measures required for this purpose, a procedure should be set up under which the Commission can adopt such adaptations with the assistance of a Committee composed by the representatives of Member States;

Whereas this Directive should not affect the obligations of the Member States concerning the deadlines for transposition into national law and for application indicated in Annex II;

HAS ADOPTED THIS DIRECTIVE:

Article 1

- 1 This Directive concerns the quality of bathing water, with the exception of water intended for therapeutic purposes and water used in swimming pools.
- 2 For the purposes of this Directive:
 - a "bathing water" means without prejudice to Article 7 all running or still fresh waters or parts thereof and sea water, in which:
 - bathing is explicitly authorized by the competent authorities of each Member State, or
 - bathing is not prohibited and is traditionally practised by a large number of bathers;
 - b "bathing area" means any place where bathing water is found;
 - c "bathing season" means the period during which a large number of bathers can be expected, in the light of local custom, and any local rules which may exist concerning bathing and weather conditions.

Article 1 (adapted)

Article 2

The physical, chemical and microbiological parameters applicable to bathing water are indicated in Table 1 of Annex I.

Article 2 (adapted)

Article 3

1 Member States shall, for all bathing areas or for each individual bathing area, set the values applicable to bathing water for the parameters given in Table 1 of Annex I.

Article 3(1) (adapted)

2 The values set pursuant to paragraph 1 may not be less stringent than those given in column I of Table 1 of Annex I. In setting those values, Member States shall endeavour, subject to Article 8, to observe the corresponding values appearing in column G of Table 1 of Annex I as guidelines.

Article 3(2) and 3(3) (adapted)

3 Member States may fix more stringent values for bathing water than those laid down in the Directive and may fix values for parameters not included in Table 1 of Annex I.

Article 7(2) (adapted)

Article 4

1 Member States shall take all measures necessary to ensure that the quality of bathing water at least conforms to the values given in column I of Table 1 of Annex I.

Article 4(1) (adapted)

2 In the case of bathing areas first falling within the scope of the second indent of Article 1, paragraph (2)(a) after 31 December 1995, Member States shall take all necessary steps to ensure that, at the start of the third bathing season following identification of a new bathing area, the bathing water there at least conforms to the values given in column I of Table 1 of Annex I.

Article 4(2) (adapted)

- By way of derogation from paragraphs 1 and 2 above, in those cases where the measures taken have not brought about compliance with the values given in column I of Table 1 of Annex I, the competent authority must identify the cause or causes of the non-compliance, and take the necessary action to bring about compliance as soon as possible. The competent authority shall in addition inform the Commission forthwith of the reasons for the failure to comply and of the necessary action to be taken, including a timetable for completion.
- 4 As regards sea water in the vicinity of frontiers between Member States and water crossing frontiers which affect the quality of the bathing water of another Member State, the consequences for the common quality objectives for bathing areas so affected shall be determined in collaboration by the riparian Member States concerned.

The Commission may participate in these deliberations.

Article 5

Bathing water shall be deemed to comply with the requirements of this Directive if for each parameter for which there is a value in column I of Table 1 of Annex I the number of samples failing to comply with the relevant value does not exceed the number specified in Table 2 of Annex I.

Compliance shall be assessed on the basis of the results obtained in a bathing season.

Article 5(1) (adapted)

- 2 Bathing water shall be deemed to be of "excellent quality" if:
 - the bathing water conforms to the requirements of this Directive in the manner specified in paragraph (1); and
 - for each parameter for which there is a value in column G of Table 1 of Annex I the number of samples failing to comply with the relevant value does not exceed the number specified in Table 3 of Annex I.

Assessment of whether bathing water is of excellent quality shall be on the basis of the results obtained in a bathing season.

3 In assessing compliance with the values in column G and I in Table 1 of Annex I, temporary deviations which are the results of floods, other natural disasters or abnormal weather conditions may be disregarded. The Commission shall be informed of those cases in which this provision has been used.

Article 5(2) (adapted)

- 4 Member States shall ensure that adequate information on bathing water quality is prominently displayed at each bathing area. This shall include, in particular:
 - a statement of whether the bathing water complied with the requirements of the Directive in the previous bathing season;
 - most recent information enabling the public to assess bathing water quality during the current bathing season; and
 - information, including a timetable on any remedial works in progress or planned.

The provisions of this paragraph are without prejudice to the implementation of Council Directive 90/313/EEC6.

Article 6

1 The competent authorities in the Member States shall sample and analyse and make visual and olfactory inspections of bathing waters during the period specified in paragraph (2) and at least as frequently as is specified in Table 1 of Annex I.

By way of exception, where water quality was excellent in the two previous bathing seasons, according to the criteria set out in Article 5(2) and when no new factor likely to lower the quality of the water has appeared, the sampling frequency during the current bathing season may be half that specified in Table 1 of Annex I.

Article 6(1) (adapted)

2 The sampling, analysis and visual and olfactory inspections referred to in paragraph (1) shall begin before the start of the bathing season and continue throughout the duration of the bathing season. The sampling and the inspections should be carried out at places where the daily average density of bathers is highest. Wherever possible samples shall be taken 30 cm below the surface of the water.

Article 6(2) (adapted)

3 Competent authorities shall periodically identify all discharges, whether continuous or intermittent, which are likely to affect the quality of bathing water, and assess their significance in relation to the obligations contained in Article 4(1) and to local geographical, tidal and current flow conditions.

They shall, in particular, identify all pollution sources, whether discharges, or contributions from diffuse sources, which might lead to salmonella reaching bathing areas, and shall take appropriate action to avoid pollution from such sources.

Article 6(3) and 6(4) (adapted)

OJ L 158, 23.6.1990, p56

- 4 Competent authorities shall investigate any unexpected sudden deterioration in the quality of bathing water in order to identify the cause and must take immediate and appropriate action to restore the quality of the water.
- 5 Reference methods of analysis for the parameters concerned are set out in Table 1 of Annex I.

Member States which employ other methods shall ensure that the results obtained are equivalent or comparable to those specified in Table 1 of Annex I. They shall inform the Commission of their use and provide evidence of their equivalence or comparability to the reference method. The Commission shall inform the other Member States thereof. The Commission may assess the reliability of such other methods.

Article 6(5) (adapted)

Article 7

- Where pollution constitutes a threat to public health Member States shall prohibit bathing at individual bathing areas. Such a threat shall be deemed to exist in a case of significant deviation from the values specified in column I in Table 1 of Annex I, taking local conditions into account.
- 2 Unless the prohibition is permanent the water shall still be considered to be bathing water for the purposes of this Directive.
- 3 Member States which permanently prohibit bathing at individual bathing areas shall forthwith inform the Commission thereof, indicating the reasons why the bathing water cannot be brought into conformity with this Directive's requirements.

Article 8

Implementation of the measures taken pursuant to this Directive may under no circumstances lead either directly or indirectly to deterioration of the current quality of bathing water.

Article 7(1)

Article 9

Such amendments as are necessary to adapt the content of Annex I to scientific and technical progress, shall be adopted in accordance with the procedures laid down in Article 10.

Article 9 (adapted)

Article 10

1 The Commission shall be assisted by a committee composed of the representatives of the Member States and chaired by the representative of the Commission.

Article 10 and 11 (adapted)

2 The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft within a time limit which the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the

majority laid down in Article 148(2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission. The votes of the representatives of the Member States within the committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

3 The Commission shall adopt measures which shall apply immediately. However, if these measures are not in accordance with the opinion of the committee, they shall be communicated by the Commission to the Council forthwith. In that event:

the Commission may defer application of the measures which it has decided for a period of three months from the date of communication.

the Council, acting by a qualified majority, may take a different decision within the time limit referred to in the previous paragraph.

Article 11

Every year, and for the first time by 31 December 1996, the Member States shall send to the Commission a report on the implementation of this Directive in the current year. The report shall be drawn up on the basis of a questionnaire or outline drafted by the Commission in accordance with the procedure laid down in Article 6 of Directive 91/692/EEC.

The questionnaire and outline shall be sent to the Member States six months before the start of the period covered by the report. The report shall be made to the Commission before the end of the year in question.

The Commission shall publish a Community report on the implementation of the directive within four months of receiving the reports from the Member States.

Article 13 amended by Article 3 of Directive 91/692/EEC

Article 12

Directive 76/160/EEC is hereby repealed with effect from 31 December 1995, without prejudice to the obligation of the Member States as to deadlines for transposition into national law and for application as shown in Annex II.

Reference to the repealed Directive shall be construed as a reference to this Directive and should be read in accordance with the correlation table set out in Annex III.

Article 13

1 Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive no later than 31 December 1995. They shall forthwith inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive and shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

Article 12 (adapted)

2 Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field covered by this Directive.

Article 14

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Communities.

Article 15

This Directive is addressed to the Member States.

Done at Brussels,

For the Council The President

ANNEX I

TABLE 1 - QUALITY REQUIREMENTS FOR BATHING WATER

	Parameters	G	1	Minimum sampling frequency	Method of analysis or inspection
1	Escherichia coli /100ml	100	2000	Fortnightly	Incubation at 44°C. Fermentation in multiple tubes. Subculturing of the positive tubes on a confirmation medium. Count according to MPN (most probable number) or membrane filtration and culture on an appropriate medium such as Tergitol lactose agar, endo agar, 0.4% Teepol broth, subculturing and identification of the suspect colonies.
2	Faecal streptococci /100 ml	100	400(1)	Fortnightly	Litsky method with incubation at 37°C. Count according to MPN (most probable number) or filtration on membrane. Culture on an appropriate medium.
3	Enteroviruses PFU/10 litres (2)	-	0	Monthly	Concentrating by filtration, flocculation, or centrifugation and confirmation
4	Bacteriophages Number/100 ml				
5	рН	-	6 to 9	Fortnightly	Electrometry with calibration at pH 7 and 9
6	Colour	-	No abnormal change	Fortnightly	Visual inspection or photometry with standards on the Pt.Co scale
7	Mineral oils		No film visible on the surface and no odour	Fortnightly	Visual and olfactory inspection
8	Surface active substances reacting with methylene blue mg/1	< 0.3	No lasting foam	Fortnightly	Visual inspection (for the I value), Absorption photometry with methylene blue (for the G value)
9	Phenols (3)	-	No specific	Fortnightly	Olfactory inspection
10	Transparency m	2	1 10	Fortnightly	Secchi's disc
11	Dissolved oxygen % saturation 02	-	80-120	Fortnightly	Winklers' method or electrometric method (oxygen meter)
12	Tarry residues and floating materials such as wood, plastic articles, bottles, containers of glass, plastic, rubber or any other substance. Waste or splinters.	Absonce	Absonce of sewage solids	Fortnightly	Visual inspection

- In case of abnormal peak value, Member States can within 2 working days retest this parameter. If following retesting a normal value is recorded, the peak value can be disregarded. However, the Commission shall be informed of the number of peak values disregarded for each bathing zone.
- This parameter must be measured once in the fortnight before the start of the bathing season. If, during the two preceding bathing seasons, the bathing water complied with the G value for Escherichia coli and the I value for faecal streptococci, on the basis of Table 3 and 2 respectively, and the bathing water does not receive discharges of chemically treated sewage, then the parameter needs only to be measured once more. This measurement should be made in the middle of the bathing season.
- When bathing water undergoes natural enrichment of this substance, in its unchlorinated form, Member States can, without prejudice to public health protection, waive the related provision of the Directive. In such cases, it shall forthwith inform the Commission thereof.
- Where this value cannot be respected for geographic reasons it may be replaced by "No abnormal decrease".

TABLE 2 - NUMBERS OF SAMPLES WHICH NEED NOT COMPLY WITH THE DIRECTIVE'S STANDARDS

Number of samples taken and analysed	Maximum number which need not conform to the I value
up to 19 inclusive	0
20 to 39 inclusive	1
40 to 59 inclusive	2
Greater than 59	5% of number of samples

TABLE 3 - NUMBERS OF SAMPLES WHICH NEED NOT COMPLY WITH THE DIRECTIVE'S STANDARDS

Number of samples taken and analysed	Maximum number which need not conform to the G value	
up to 4 inclusive	0	
5 to 9 inclusive	1	
10 to 14 inclusive	2	
15 to 19 inclusive	3	
20 to 24 inclusive	4	
25 to 29 inclusive	5	
30 to 34 inclusive	6	
35 to 39 inclusive	7	
40 to 44 inclusive	8	
45 to 49 inclusive	9	
50 to 54 inclusive	10	
55 to 59 inclusive	11	
Greater than 59	20% of number of samples	

NB. Annex II and III of the proposal not reproduced in this report.

ENVI/384 BATHING WATER

Brussels, 14 September 1994

OPINION
of the
Economic and Social Committee
on the
Proposal for a Council Directive concerning the quality of bathing water
(COM(94) 36 final)

On 14 June 1994 the Council decided to consult the Economic and Social Committee, under Article 130 S of the Treaty establishing the European Economic Community, on the

Proposal for a Council Directive concerning the quality of bathing water (COM(94) 36 final).

The Section for Protection of the Environment, Public Health and Consumer Affairs, which was responsible for preparing the Committee's work on the subject, adopted its Opinion on 15 July 1994. The Rapporteur was Mr PEARSON.

At its 318th Plenary Session (meeting of 14 September 1994), the Economic and Social Committee unanimously adopted the following Opinion:

1. Background

- 1.1 The Commission proposal is an amending Directive to the original Directive 76/160/EEC, which has already been amended a number of times. It has to operate in the light of bordering Directives concerning environmental issues and health and safety issues. Thus to increase accessibility and transparency the present proposal is a consolidated one, taking account of the advance of technology in this area, while not changing the scope of the original Directive.
- 1.2. The aims of the proposal as identified by the Commission are:
 - maintaining and improving protection of the environment and public health;
 - taking advantage of technical progress and focusing on the most significant parameters;
 - simplifying the operation of the Directive, thus consequently reducing the financial burden on Member States;
 - ensuring action by Member States while allowing the necessary time for bathing waters to be brought in line with the Directive's standards.

2. General remarks

- 2.1. The Committee welcomes the principles outlined in the Commission proposals but would point to matters of practical concern and as to whether they can achieve the desired results effectively.
- 2.2. The stated aims of the Directive in seeking to benefit from the experience of the last fifteen years, together with the latest technology, recognizes that the levels of protection afforded by the existing Directive are adequate and that only the parameters are altered.
- 2.3. The proposals take account of the 5th Environmental Programme with its targets for clean waters by the year 2000. However, the Committee thinks it regrettable that it has not been able to consider the proposals for the new Directive on "The Ecological Quality of Water" all surface water in parallel, as that Directive will lay down a framework for the whole subject into which the current proposal will need to fit.
- 2.4. The Committee understands the definition of "Bathing Water", accepting that it applies to fresh water and to seawater equally. The adoption of common standards, irrespective of the type of environmental water is appropriate and it is recognized that the standards referred to are specific to the particular use of water. The identified bathing waters currently 16,400 are

individually decided upon by the Member States. It is recognized that with some waterways, particularly some commercial waterways, it will be difficult to have waters identified as official bathing areas.

- 2.4.1. The Committee is pleased that those countries who are likely to join the European Union in the near future have indicated their acceptance of the parameters of the proposed new Directive.
- 2.5. The Council meetings at Edinburgh (11-12 December 1992) and Brussels (10-11 December 1993) included and approved a list of Directives which should be reviewed, amongst which was the Directive on Bathing Water. The outcome of that decision has been the change in the legal basis in accordance with the Treaty on European Union at Maastricht, and is now 130S(1). The original Directive was subject to Article 100. There is thereby a radical change in voting procedure, a weighted majority against a necessary unanimous decision previously and the Committee welcomes this change.
- 2.6. The Committee supports the Commission in its stance that basic microbiological requirements cannot vary from Member State to Member State whilst realizing that it is permissible to set more stringent levels appropriate to their own Regions.
- 2.6.1. With respect to visual and olfactory parameters the Committee realizes that Member States will be, under the subsidiarity principle, determining the definition of "abnormal" as required under the Directive Annex.
- 2.7. The scientific basis is changed due to the considerable growth in scientific knowledge on microbiology and in the improvement in analytical techniques: this enables the results of recent findings in microbiological research to be taken into account. Likewise, increased information from epidemiological studies has provided greater understanding of pollution indicators relating to health protection. All this has led to a change in the indicators proposed for microbiological quality.

3. Specific comments

- 3.1. The Committee has looked at the revised proposal of the Commission concerning the monitoring of Salmonella and wishes the Commission to further research and establish the public health significance of the changes proposed in the Directive. The Committee welcomes the proposal in the Directive to oblige competent authorities to take appropriate action to identify such sources of Salmonella and to avoid pollution from them. It is recognized that this will require monitoring for Salmonella in relevant circumstances.
- 3.2. One significant change proposed is the adoption of an imperative (I) value for faecal streptococci¹: there is no wide ranging information from the Member States concerning such a change. There is considerable variance with evidence of the consequential effects of the compliance with the proposed new standard for faecal streptococci. Examination of available data (assessed on the bases of non-harmonized methods of analysis on a Community level) indicates that in some Member States the proposals would result in an effective tightening of standards. This appears to be contrary to the Commission assertion that there be no tightening of standards as a consequence of the changes proposed. Further statistics are necessary to clarify the position.
- 3.3. The proposals as set out in the Directive are stated to have only "minor cost implications" over and above those arising from existing Directives. The improvements resulting from the Urban

Streptococci are bacteria which are key indicators of faecal contamination.

Wastewater Treatment Directive (91/271) are acknowledged, but in that legislation no specific provision is made concerning the microbiological quality of discharges; however, this Directive contains in the Annexes provisions in order to ensure that the requirements of other Council Directives are fulfilled. Therefore, the investment and financial costs incurred in providing additional waste-water treatment and disposal facilities to meet the proposed faecal streptococci parameter and to ensure full compliance with the enterovirus parameter, are likely to be substantial in some Member States with the consequential on-cost to the consumer. A more cost-neutral proposal would be achieved if a faecal streptococci standard was adopted which, in all Member States, is equivalent to the existing faecal coliform standard, whilst ensuring public health remains fully protected.

- 3.4. Bacterial pollution from freshwater rivers discharging close to the bathing water can impact on compliance with the existing Directive already. Under the new proposal the impact of freshwater inputs is likely to become more significant due to the introduction of an "I" value for faecal streptococci which have a longer survival time in waters.
- 3.5. Enterovirus² monitoring is subject to the new Directive and the idea is accepted. The Committee however would prefer the approach as set out in the explanatory memorandum and in the Annex to use Bacteriophage and which is envisaged by the Commission in the near future in place of Enteroviruses as being a more practical and cost effective alternative.
- 3.6. The imperative requirement that there should be no sewage solids visible is obviously desirable, but presents practical difficulties due to the non-biogradable plastics in a number of sanitary products. Fine screening of all land-based sewage discharges, including storm discharges, is necessary to remove such solids from sewage. The Commission however needs to make it quite clear in the Directive at Article 4(1) Col. 1, table 1 of Annex 1 that the monitoring is of any relevant discharges and not of the bathing water itself.
- 3.7. Article 5.2 of the Directive introduces the concept of "excellent quality" for waters of a higher quality than required by the "I" value. The Committee believes this to be unwise as the proposed designation in the legislation suggests that compliance with "I" values alone does not provide bathers with adequate protection. The concept of "excellent quality" is better dealt with outside the Directive.
- 3.8. The Committee believes that clean bathing waters, with a deserved reputation for such, are a huge attraction for leisure activity, are an indispensable factor for employment and commercial interests and are important in promoting the health of the population. The "spin off" for the tourist industry is very considerable, going far beyond the activities of swimming and boating. The proposal in Article 5.4. whereby bathers are informed of bathing water quality is important and innovative. Further consideration should be given to competent local authorities publishing annually this readily available information.
- 3.9. It is clear that the dates set out in Articles 12 and 13 are not practicable. It would suggest a period of three years subsequent to the adoption of the Directive by the Council of Ministers especially as the Urban Water Treatment Directive sets dates for the years 1998 and 2000.

Done at Brussels, 14 September 1994

The President of the Economic and Social Committee

The Secretary-General of the Economic and Social Committee

Susanne TIEMANN

Simon-Pierre NOTHOMB

Enteroviruses are micro-organisms which can be pathogenic and are characteristic of faeces.

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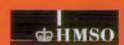
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