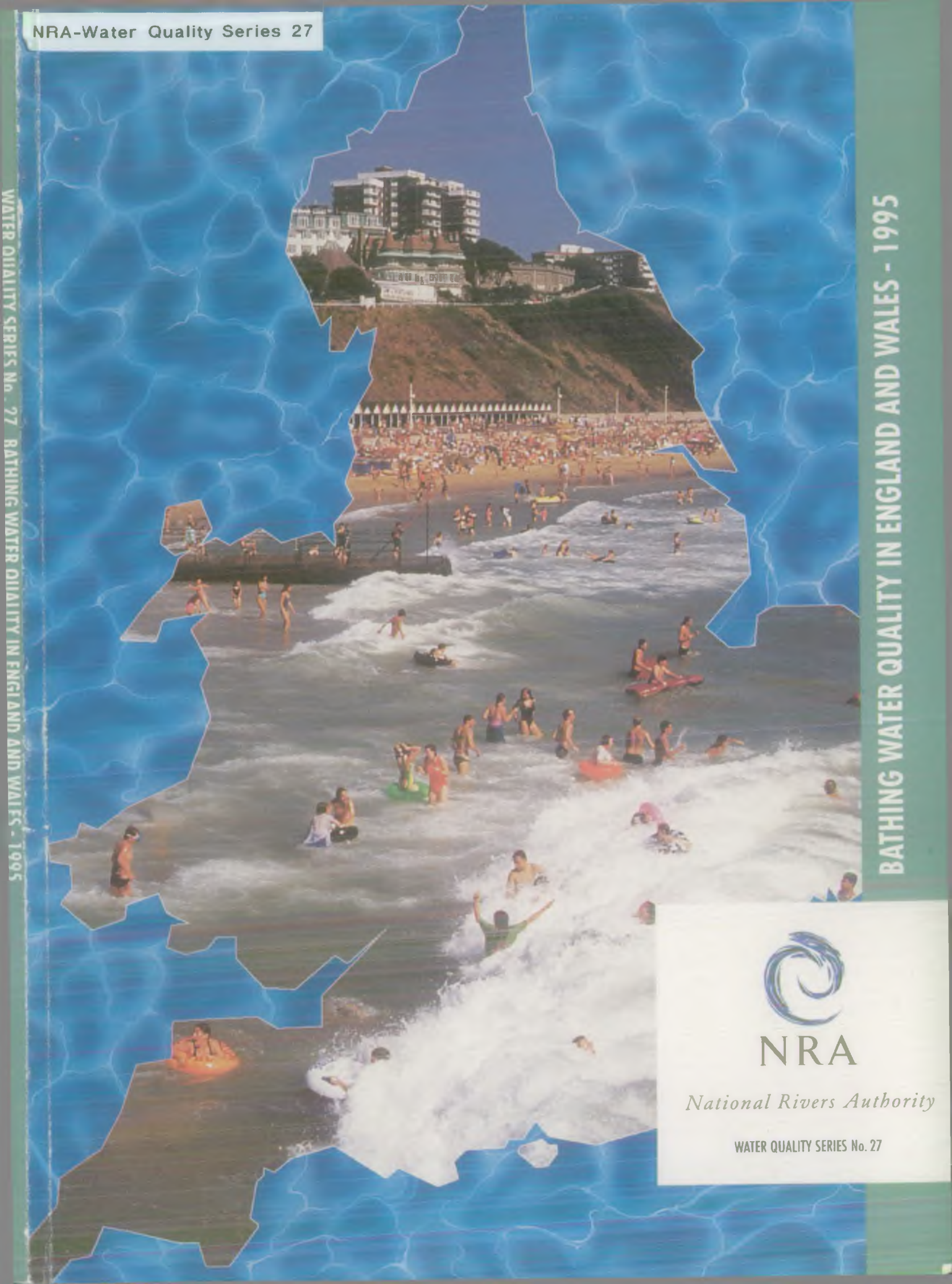




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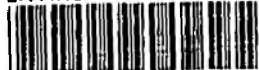
BATHING WATER QUALITY IN ENGLAND AND WALES IN 1995

Report of the National Rivers Authority

March 1996

Water Quality Series No. 27

ENVIRONMENT AGENCY



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EXECUTIVE SUMMARY

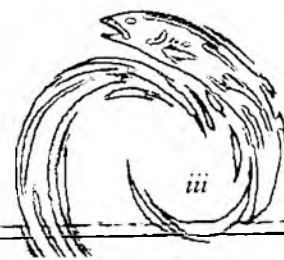
INTRODUCTION

This is the sixth annual report on Bathing Water Quality published by the NRA, presenting the results of the 1995 bathing water survey.

The number of bathing waters identified in England and Wales for the purposes of the Bathing Water Directive increased by 6 to 425 for the 1995 season. The 1995 data, as assessed by DoE in accordance with the Directive show an additional 34 compliant bathing waters which is an increase in compliance of 6.7% over 1994 (89.2%) with the mandatory coliform standards compared with 1994 (82.5%). There were an additional 34 compliant bathing waters. The NRA expects a continued increase in compliance as more capital schemes in the Water Service Companies improvement programme are completed.

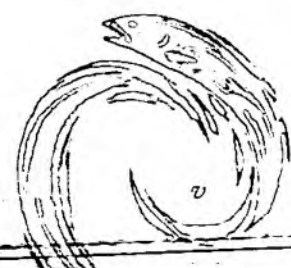
Trend data show that the percentage of bathing waters complying consistently over a three year period with the mandatory coliform standards has increased to 70% and the number consistently failing has dropped to 3%. Analysis of median faecal coliform values also suggests that general water quality has 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 1995 season.



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1 INTRODUCTION

1.1 The Role of the NRA

As the competent authority for England and Wales the National Rivers Authority (NRA) plays an important part in the implementation of 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).

On April 1 1996, the Environment Agency will come into being as an amalgamation of the NRA, Her Majesty's Inspectorate of Pollution (HMIP), the waste regulation authorities and some functions of the DoE. From this date the Agency will assume the current responsibilities of the NRA for the Bathing Water Directive.

This is the sixth and final NRA Report on Bathing Water Quality in England and Wales, giving the results of the 1995 bathing season and an update on information contained in the 1990 (NRA, 1991), 1991 (NRA, 1992a), 1992 (NRA, 1993), 1993 (NRA, 1994) and 1994 (NRA, 1995) Reports.

1.2 Developments since 1994

In 1994 there were 419 bathing waters identified in England and Wales for the purposes of the Directive. Six additional bathing waters were identified for the 1995 bathing season. These are located in the NRA's Welsh and Anglian Regions and are Aberporth Beach West, Tresaith, Tal-y-Bont, Dyffryn/Llanendwyn, Penmaenmawr and Clacton (Groyne 41). During the period of engineering works (NRA 1993, 1994) access to Lyme Regis (Church) Beach bathing water for sampling or bathing was impossible. The engineering works were completed for the 1995 Bathing Season and this Bathing Water was included in the assessment for the first time in two years.

TABLE 1
New identified bathing
waters in 1995

Bathing water	Region	National Grid Reference
Aberporth Beach West	Welsh	SN25805170
Tresaith	Welsh	SN27805170
Talybont	Welsh	SH57752110
Dyffryn/Llanendwyn	Welsh	SH56712258
Penmaenmawr	Welsh	SH71807693
Clacton (Groyne 41)	Anglian	TM17601430

2 THE 1995 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 normally 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 1995 bathing season are given in the 1995 DoE Report to Parliament (Appendix A). Twenty samples were taken for coliform analysis at each bathing water (except for Sidmouth Town where 19 samples were taken as a result of sea defence work) and two samples were analysed for salmonellae. A minimum of two samples are analysed for enteroviruses at those bathing waters which failed the mandatory coliform standards during the 1994 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 (except Sidmouth Town) were also analysed for faecal streptococci.

2.2 Survey Results: Compliance with Directive

The mandatory coliform standards given in the Directive which are generally used 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 95% of samples taken must meet these standards.

During the 1995 bathing season, 425 identified bathing waters were examined in England and Wales. The number of bathing waters complying with the Directive, as determined by the DoE on the basis of the coliform parameters, was 379; that is to say, 89.2%. This is an increase of 6.7% compared with the results of the 1994 survey.

Table 2 gives details of the numbers and percentages of bathing waters complying with the Directive in 1995 by NRA Region. The changes in the number of bathing waters complying between 1994 and 1995 are also given.

TABLE 2
1995 EC identified bathing
waters - coliform results

NRA Region	Number of bathing waters	Complying		Non-Complying		Number of compliant bathing waters compared with 1994
		No.	%	No.	%	
Anglian	34	30	88.2	4	11.8	+3
Northumbria & Yorkshire	56	53	94.6	3	5.4	+4
North West	33	15	45.5	18	54.5	-9
Southern	67	62	92.5	5	7.5	+9
South Western	176	167	94.9	9	5.1	+16
Thames	3	3	100	0	0	+1
Welsh	56	49	87.5	7	12.5	+10
TOTAL	425	379	89.2	46	10.8	+34

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 November 1995 based on data supplied in June 1995. The report shows that in England and Wales 40 capital schemes were completed by June 1995 and these will have affected water quality at 60 bathing waters. It is expected that the completion of the remaining schemes (54 in the UK) will contribute to better water quality at bathing beaches in future seasons.

An update (compiled using the DoE's data collated in November 1995) on the information on remedial schemes contained in the 1990 and 1992 NRA reports is presented as Appendix B.

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. During the 1995 bathing season two such events were recorded, both at bathing waters in South Western Region, Instow and Burnham Jetty. Waivers were applied for and granted under the terms of the Directive. At each of these two bathing waters there were two exceedances of the mandatory standards, and in each case one of the exceedances was associated with exceptional rainfall. Therefore the result of applying the abnormal weather waiver was to confirm that these Bathing Waters complied with the mandatory coliform requirements of the Bathing Water Directive.



2.3 NRA Region by Region Analysis 1995

Maps are included for each NRA Region showing their identified bathing waters, and whether they complied (●), or did not comply (●), with the relevant parameters of the Directive for the 1995 bathing season.

Anglian Region

Of the 34 bathing waters in this Region, 30 complied with the Directive's mandatory coliform standards. This is three more compliant bathing waters than 1994, giving a percentage compliance of 88.2%. Figure 1 indicates the compliance of individual bathing waters within the Region in 1994.

There are still eight remedial capital schemes in progress by Anglian Water Ltd which should be completed by 1996 or 1997. Included in this list is the capital scheme at Great Yarmouth which will impact on the two failing bathing waters at Great Yarmouth Pier and Great Yarmouth South. The capital scheme at Cleethorpes was completed in July 1995. Sewage from the Cleethorpes area is now pumped to a new sewage treatment works where it receives secondary treatment and ultra-violet disinfection before discharge. The bathing water at Cleethorpes has shown an improvement in water quality although it still failed the Directive standards. The NRA is carrying out investigatory work to ascertain the reason for this continued failure, with causes including the influence of continuous and intermittent discharges near to Cleethorpes or local streams.

FIGURE 1
Map of Bathing Waters in
the NRA Anglian Region and
Thames Region



Northumbria & Yorkshire Region

The merged Northumbria & Yorkshire Region had 56 bathing waters for the 1995 season. Of these, 53 (94.6%) complied with the Directive's mandatory coliform standards. This is four more compliant waters than NRA Northumbria & Yorkshire Region in 1994. Figure 2 shows the individual state of compliance for the identified bathing waters in the Region in 1995.

It is expected that the remedial capital schemes in hand by Northumbrian Water Ltd will be completed during 1995 and 1996. A Northumbrian Water scheme due for completion in September 1997 will pick up crude sewage discharges from North Hartlepool which are believed to have contributed to the non-compliance at Crimdon. A detailed catchment investigation has been carried out to identify and quantify the sources of bacterial contamination at Staithes. The impacts from these sources, together with the sea outfall, will be assessed to target the remedial actions needed. No previous failures have been recorded at Robin Hood's Bay and detailed investigations are being carried out to locate the source of the problems and the necessary remedial actions.

FIGURE 2
Map of Bathing Waters in
the NRA Northumbria
& Yorkshire Region



North West Region

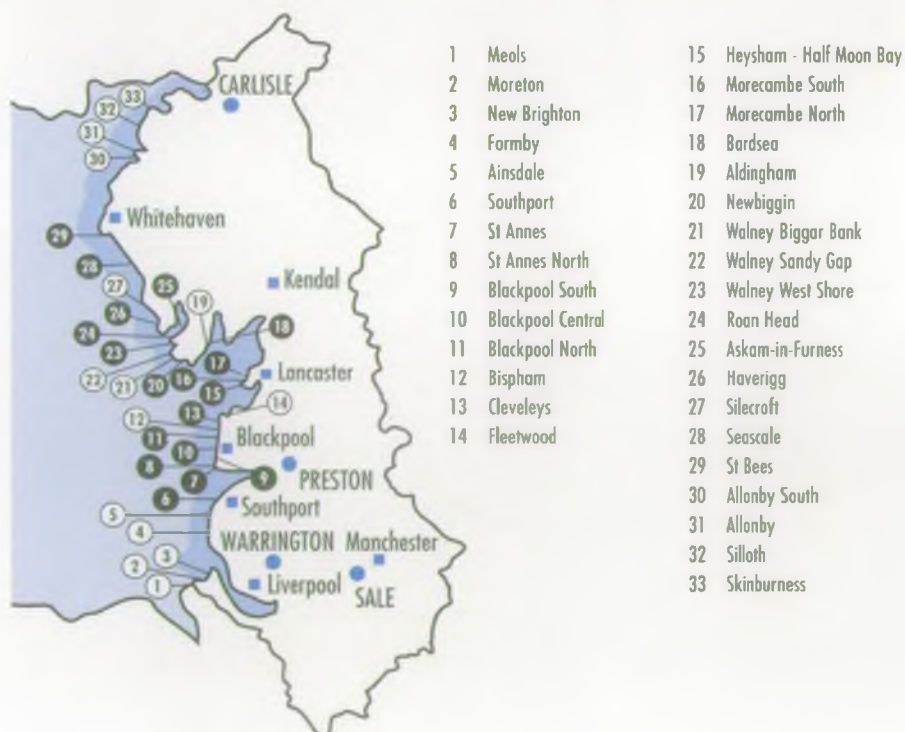
Of the 33 identified bathing waters in the region, 15 (45.5%) met the coliform requirements of the Directive. When compared with the statistics from 1991 through to 1993 this shows a continuing improvement in bathing water quality within the region.

For the years 1991, 1992 and 1993 10, 11 and 13 bathing waters respectively complied with the Directive's mandatory coliform standards. In 1994 there were 24 compliant Bathing Waters which must be regarded as an atypical year. Consistent compliance is not expected to be achieved until the schemes have been completed.

The large capital investment programme being undertaken by North West Water is continuing, and the majority of remedial works are due to be completed before the 1996 bathing season. Difficulties with the excavations, due to unusual ground conditions, have caused some delay to part of the Fylde Coast Scheme which should be completed during the 1996 Bathing Season. The Morecambe scheme is due for completion by the 1997 season.

Investigative work has and will continue to be undertaken to identify why waters have failed to comply at sites without an associated sewerage scheme. Several local contamination problems have been identified and action is being taken to resolve these issues before the start of the 1996 Bathing Season.

FIGURE 3
Map of Bathing Waters in
the NRA North West Region



Severn Trent Region

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

Southern Region

There are 67 identified bathing waters in Southern Region; 62 (94.9%) complied with the mandatory coliform standards of the Directive, nine more than in 1994. Figure 4 shows the compliance of individual bathing waters in Southern Region for the 1995 bathing season.

Southern Water Services Ltd has a large number of schemes planned or in progress to ensure improvements to bathing water quality. All of these, except Ventnor, Folkestone, Bembridge, Pennington Outfall and Hove-Portobello, are due for completion by the end of 1996 and many were completed before the 1995 Bathing Season. Southern Region are continuing to investigate causes of exceedences where schemes have already been completed or there is no improvement scheme in place. There is no capital investment identified for major sewer replacement schemes in the Southsea area and detailed investigations are taking place to establish the causes of problems at this Bathing Water. Similarly, detailed investigations will be undertaken at Totland Bay and Sandwich Bay into the causes of non-compliance. Remedial sewage improvements on the main outfall and storm overflows have been identified in Southern Water Services Asset Management Plan to improve treatment at Bognor Regis.

FIGURE 4
Map of Bathing Waters in
the NRA Southern Region





FIGURE 5
Map of Bathing Waters in the NRA South Western Region

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

102 Pendower
 103 Gyllyngvase
 104 Swanpool
 105 Maen Porth
 106 Porthallow
 107 Porthoustock
 108 Coverack
 109 Kennack Sands
 110 Pollurian Cove
 111 Poldhu Cove
 112 Gunwalloe Cove
 113 Porthleven West
 114 Praa Sands East
 115 Praa Sands West
 116 Perron Sands
 117 Mounts Bay
 Little Holgus
 118 Mounts Bay Heliport
 119 Mounts Bay Penzance
 120 Mounts Bay
 Wherry Town
 121 Porthcurno
 122 Sennen
 123 Porthmeor
 124 Porth Gwidden
 125 Porthminster
 126 Carbis Bay
 Station Beach
 127 Carbis Beach Porth

 Kidney Sands
 128 The Towans (Hayle)
 129 The Towans (Godrevy)
 130 Portreath
 131 Porthtowan
 132 Trevaunance Cove
 133 Perranporth
 Village End
 134 Perranporth
 Penhale Sands
 135 Holywell Bay
 136 Crantock
 137 Fistral
 138 Towan
 139 Watergate
 140 Mawgan Porth
 141 Porthcothan
 142 Treyarnon Bay
 143 Constantine Bay
 144 Mother Ivey's Bay
 145 Harlyn Bay
 146 Trevone Bay
 147 Rock
 148 Daymer Bay
 149 Polzeath
 150 Widemouth Sand
 151 Bude Summerleaze
 152 Bude Crooklets
 153 Bude Sandy Mouth

154 Hartland Quay
 155 Westward Ho!
 156 Instow
 157 Saunton Sands
 158 Croyde Bay
 159 Woolacombe Putsborough
 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. Of these, 167 (94.9%) complied with the mandatory coliform standards, sixteen more compliant bathing waters than in 1994. The individual compliance results for NRA South Western bathing waters in 1995 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. Remedial action will be taken to ensure future compliance.

Thames Region

Thames Region has only three identified bathing waters, all of which met the mandatory coliform standards of the Directive. This is one more compliant bathing water than recorded in the 1994 bathing season. 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 56 identified bathing waters (including West Kirby which is on the English coastline). A total of 49 (87.5%) complied with the mandatory coliform standards of the Directive in 1995. This is ten more compliant waters than in 1994. The compliance and location of the Region's bathing waters is shown in Figure 6.

The Dŵr Cymru (Welsh Water) investment programme will ensure that the majority of schemes are completed by the 1996 bathing season. Further improvements - the Lavernock Point (formerly Jacksons Bay), Swansea Bay and Saundersfoot schemes will be completed in 1997. The Saundersfoot scheme will involve general sewerage improvements in the town centre and transfer of sewage from Saundersfoot to a new treatment works at Tenby. The existing works at Saundersfoot will be modified to provide a storm storage and settlement facility. These will result in improvements to a range of identified bathing waters in the Barry, Swansea and Saundersfoot areas.

FIGURE 6
Map of Bathing Waters in
the NRA Welsh Region

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.



3 TRENDS AND VARIATIONS IN BATHING WATER SURVEY RESULTS

3.1 Trends in Compliance 1987 to 1995

The percentage compliance for 1995 shows an improvement of 6.7% over 1994. 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 as more remedial schemes are completed. Many of these schemes were 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 show results for mandatory microbiological parameters that fall 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. During the 1995 Bathing Season it is believed that the unusually dry and sunny weather conditions are likely to have contributed to the increase in compliance of bathing waters in England and Wales. The effects of these conditions are twofold; firstly increased and more intense sunlight causes bacteria in the water to die off more quickly therefore reducing bacterial counts in the bathing water, secondly the drier conditions result in less frequent operation of combined sewer overflows which tend to discharge via short outfalls close to the Bathing Waters. As a consequence there has been a reduction of untreated sewage material flowing into coastal waters.

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 1993-1995. The number of bathing waters failing none of the last three years is 70%, whilst the number failing all three years is 3%. However, 27% of bathing waters fail for one or two of the three years; in other words, they 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.

FIGURE 7
Comparison of Bathing
Water failures 1993-1995

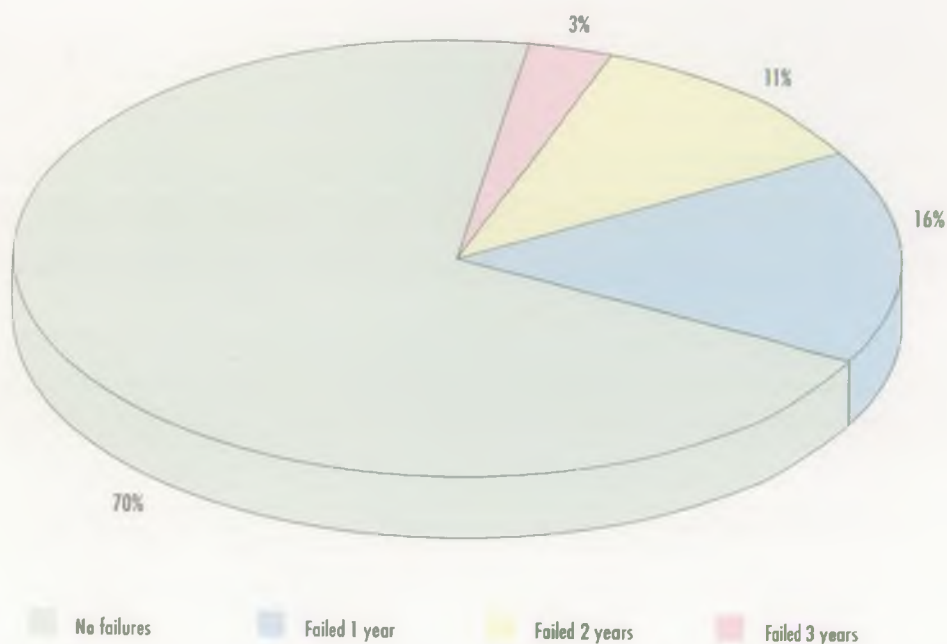
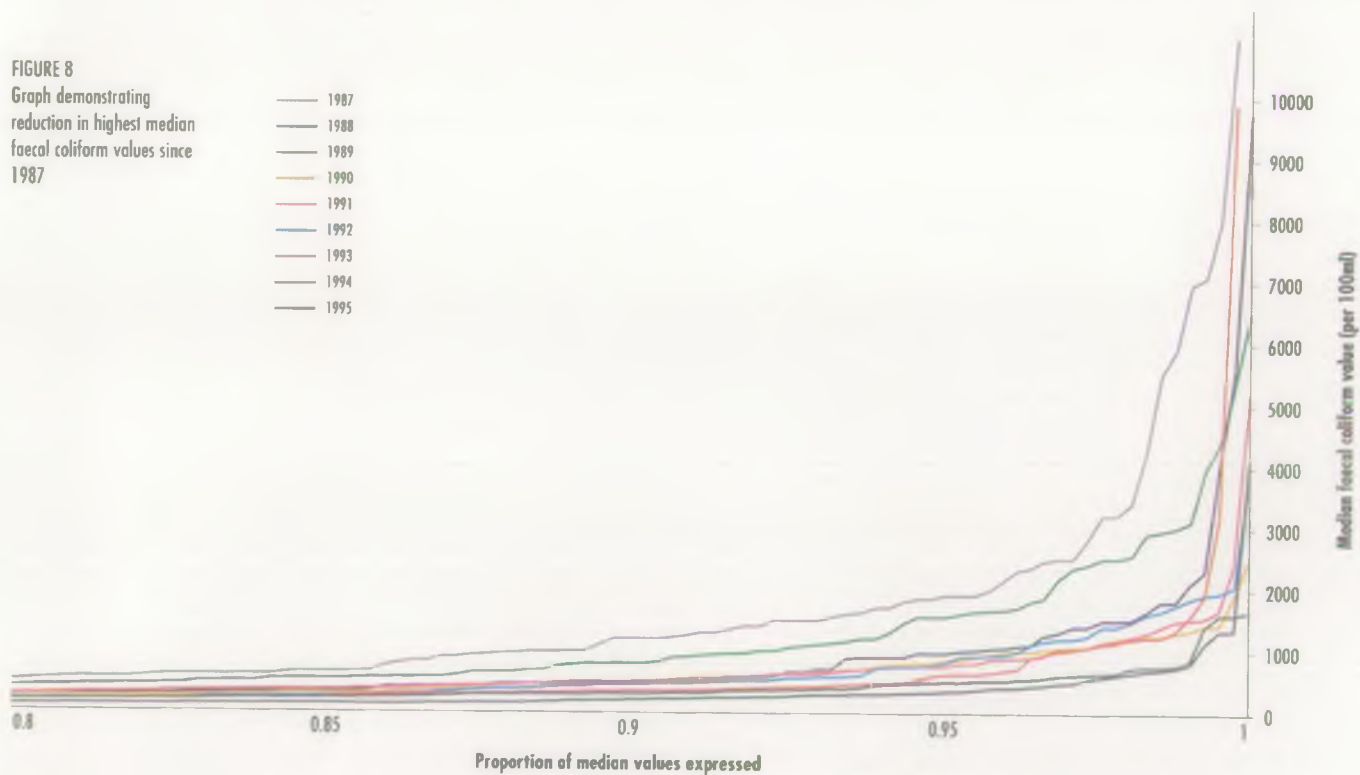


FIGURE 8
Graph demonstrating
reduction in highest median
faecal coliform values since
1987



Previous Bathing Water Quality reports contain similar pie charts illustrating the consistency of compliance for the periods 1988-1990, 1989-1991, 1990-1992, 1991-1993 and 1992-1994. A summary of these assessments together with that for the 1993-1995 period is shown in Table 3. 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.

TABLE 3
Consistency of compliance
over three year periods

	1988-1990	1989-1991	1990-1992	1991-1993	1992-1994	1993-1995
No failures at all	57%	60%	64%	63%	65%	70%
Failed 1 year	18%	22%	16%	17%	17%	16%
Failed 2 years	12%	6%	8%	11%	13%	11%
Failed 3 years	13%	13%	12%	9%	5%	3%

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 current method of assessing compliance and, by inference, 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 nine years. It shows the ranked median faecal coliform values for the years 1987 to 1995 inclusive. The further to the 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 been a noticeable improvement over last two years, 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 1995 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 1996 awards will be based on 1995 water quality). The 1995 awards again required compliance with the guidance or "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, enterovirus or physico-chemical parameters. Eighteen resorts in the UK (fifteen of them in England and Wales) applied for and were awarded a Blue Flag in 1995.

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, 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. 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 land-based criteria. The award does not require compliance with the standards in the Directive for salmonella, enterovirus or physico-chemical parameters.



In 1995, 182 beaches in the UK attained Seaside awards as shown in Table 4.

TABLE 4
Beaches attaining 1995
Tidy Britain Group Seaside
Awards (based on 1994
survey results).

^{BF} indicates a 1995
European Blue Flag Award

Category	Beaches
Resort	Aberdour (Silver Sands), Elie, Fraserburgh, Nairn Central, St Andrews West Sands, Troon South, Sandhaven, Bridlington North, Bridlington South, Filey, Scarborough N bay, Whitby West Cliff, Mablethorpe Central, Skegness ^{BF} , Sutton on Sea Central ^{BF} , Hunstanton, Lowestoft South ^{BF} , Mundesley, Southend-on-Sea Three Shells, Southwold ^{BF} , Wells-next-the-Sea, Bexhill, Bognor Regis, Eastbourne, Hayling Island West ^{BF} , Leysdown Grove Avenue, Littlehampton, Margate, Minnis Bay, Ryde East, Sandown, Shanklin, Sheerness Beach Street ^{BF} , Viking Bay Broadstairs, Bournemouth Durley ^{BF} , Bournemouth Fisherman's Walk ^{BF} , Christchurch Friar's Cliff, Torbay Corbyn Head ^{BF} , Crinnis ^{BF} , Dawlish Warren, Goodrington South Sands, Torbay Meadfoot, Oddicombe ^{BF} , Poole Sandbanks, Porthmeor, Torquay Redgate, Sennen Cove ^{BF} , Swanage, Teignmouth Main Beach, Weston-Super-Mare, Weymouth Central, Woolacombe ^{BF} , Aberystwyth North, Barmouth, Dinas Dinnlle ^{BF} , Llandudno North Shore, Pembrey, Rhyl, St Davids Whitesands, Tenby North, Trearddur Bay ^{BF} , Ballycastle ^{BF} , Benone ^{BF} , Portrush West Bay ^{BF} .
Rural	Balmedie, Belhaven Bay, Dornoch, Gullane Bents, Inverboyndie, Kings Barns, Water of Phildrith, Amble Links, Bamburgh, Beadnell, Low Newton, St Aidans Seadhouses, Warkworth, Flamborough South Landing, Robin Hoods Bay, Runswick Bay, Sandsend, Aldeburgh, Dunwich, Hunstanton, Kessingland, Mundesley, Sizewell, Shoeburyness East, Thorpeness, Birling Gap, Camber, Colwell Bay, Cowes East, Cowes West, Dymchurch, Gurnard, Joss bay Broadstairs, Lepe Country Park, Pevensey Bay, Romney Sands Greatstoke, Seagrove Bay, Sheerness Minster leas, Springvale, St Helens Duver, West Witterington, Winchelsea, L'Eree (CI), Pembroke/L'Ancrese (CI), Port Soif (CI), Vazon Bay, Bantham, Beesands, Blackpool Sands (Devon), Challaborough, Charmouth, Christchurch Highcliffe Castle, Constantine Bay, Bude Crooklets, Coryton Cove, Elbury Cove, Harlyn Bay, Hope Cove, Torquay Maidencombe, Mouthwell, Polzeath, Salcombe North Sands, Salcombe South Sands, Bude Sandymouth, Shaldon Ness cove, Treyarnon, Strete Gate, Bude Summerleaze, Thurlestone South Milton Sands, Torcross, Torquay Watcombe, Bude Widemouth Sands, Aberdaron, Aberdyfi, Aberieddy, Amroth, Barafundle, Benllech, Borth, Borth Wen, Broadhaven South, Cilborth Llangrannog, Cwm yr Eglwys, Dale, Freshwater East, Harlech, Llandanwg, Llandona, Llanddwyn, Llanfairfechan, Llanrhystud, Lydstep, Manorbier, Milford Haven Marloes, Mwnt, New Quay Traeth Harbwr, New Quay Traeth y Dolau, Newgale, Newport South, Oxwich Bay, Penbryn, Penmaenmawr, Poppit West, Port Eynon, Trearddur Bay Porth Dafarch, Porthcawl Rest Bay, Pwllheli, Southerndown, St Davids Caerfai, Talacre, Tenby South, Rhosneigr, Cwmtydu, Tresaith, Tywyn, West Angle Bay, Wisemans Bridge, Ainsdale

4.3 Comparison of identified bathing waters in England and Wales with Blue Flag and Seaside Award microbiological standards

To be eligible for a Blue Flag 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 guideline standards for faecal streptococci.

Table 5 lists the 173 identified bathing waters in England and Wales which met these guideline standards during the 1995 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 1996 award. It should be noted that there will, in addition to those bathing waters in Table 5, be bathing waters eligible for the Seaside Award on the basis of compliance with the mandatory standards for total and faecal coliforms.

TABLE 5

Bathing waters by Region within the guideline microbiological standards required for Blue Flag and Seaside Awards during the 1995 bathing season

Region	Bathing waters
Northumbria/ Yorkshire	Alnmouth, Amble Links, Bamburgh Castle, Druridge, Low Newton, Newbiggin South, Redcar Lifeboat Station, Seahouses North, Seaton Carew Centre, Seaton Carew North Gare, Seaton Sluice, Tynemouth King Edwards Bay, Tynemouth Long Sands North, Tynemouth Long Sands South, Warkworth, Whitley Bay, Barmston Beach, Bridlington N Beach, Bridlington S Beach, Filey Beach, Flamborough S Landing Beach, Reighton Beach, Scarborough N Bay Beach, Scarborough S Bay Beach, Whitby Beach, Wiltsthorpe Beach
Anglian	Chapel St Leonard, Felixstowe North, Felixstowe South, Frinton, Hemsby, Holland, Moggs Eye, Sheringham, Southwold the Denes
Thames	Shoebury East
Southern	Bracklesham Bay, Brighton, Christchurch Bay, Colwell Bay, Deal Castle, Highcliffe, Hillhead, Hythe, Joss Bay, Lee-on-Solent, Lepe, Leysdown, Margate-Fulsam Rock, Middleton-on-Sea, Milford-on-Sea, Minnis Bay, Saltdean, Sandgate, Seaford, Selsey, Sheerness, South Lancing, St Margarets Bay, St Mildred's Bay, West Beach, West Hayling, West of Eastoke, Winchelsea
South Western	Bournemouth Durley Chine, Bournemouth Fisherman's Walk, Poole Harbour Sandbanks, Poole Shore Road Sandbanks, Portland harbour Castle Cove, Portland Harbour Sandsfoot Castle, Purbeck Durdle Door E, Pubeck Durdle Door W, Purbeck Shell Bay, Purbeck Studland, Purbeck Swanage, Ringstead, Charmouth West, Eypemouth, Seatown, West Bay (W), West Somerset Porlock Weir, Church Ope Cove, Weymouth Central, Weymouth Lodmoor, Babbacombe, Bantham, Beacon Cove, Bigbury North Beach, Bigbury South Beach, Blackpool Sands, Bude (Crooklets), Bude (Sandy Mouth), Carbis Bay (Porth Kidney sands), Carbis Bay (Station Beach), Challaborough, Charlesown, Constantine Bay, Crantock, Crinnis (Golflinks), Crinnis (Leisure Centre), Croyde Bay, Dartmouth Castle and Sugary Cove, Dawlish Warren, Daymer Bay, Downterry, Duporth, Exmouth, Fistral, Gorran Haven (Vault), Gunwalloe Cove, Gyllyngvase, Hartland Quay, Kennack Sands, Maidencombe, Meadfoot, Mill Bay, Mothecombe, Mother Ivey's Bay, Ness Cove, Oddicombe, Par, Pendower, Pentewan, Perran Sands, Perranporth (Penhale), Poldhu Cove, Polzeath, Porthcurno, Porthmeor, Porthoustock, Porthpean, Porthtowan, Portreath, Portwrinkle, Praa Sands (East), Redgate, Saunton Sands, Seaton (Cornwall), Sennen, Sidmouth (Jacobs Ladder), Slapton Sands (Monument), Slapton Sands (Torcross), Swanpool, The Towans (Godrevy), The Towans (South), Torre Abbey, Treyarnon Bay, Watcombe, Watergate, Widemouth
Welsh	Aberporth Beach West, Abersoch, Amroth, Barmouth, Broadhaven Centre, Dinas Dinlle, Dyffryn/Llanedwyn, Newgale, North Shore Llandudno, Oxwich Bay, Pembrey Beach (Cefn Sidan), Port Eynon Bay, Pwllheli Beach, Rhosneigr, Rhossilli, Sandy Bay Porthcawl, Tal-y-bont, Tenby North, Trearddur Bay, Trecco Bay, Whitesands Centre.

4.4 Comparison of bathing waters with Directive Faecal Streptococci Standard

Compliance of bathing waters is based on the mandatory standards set in the Directive. As the faecal streptococci parameter 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 awards to be made at those bathing beaches entering the schemes.



Table 6 shows the number of bathing waters within each Region in the 1995 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 6
Number of bathing waters
by Region within Guideline
Faecal Streptococci standard

Region	Number within Guideline standard	% within Guideline standard
Anglian	15	47%
Northumbria/Yorkshire	35	63%
North West	1	3%
Southern	33	49%
South Western	102	58%
Thames	1	33%
Welsh	32	57%
TOTAL	219	52%

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 1995 a report entitled *Quality of Bathing Water 1994* (EC, 1995). This is the twelfth report in the series and covers the 1994 data from the 12 Member States.

In order to provide objective and comparable information, this 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 7 shows the sampling frequency required and achieved for marine bathing waters in each of the Member States. Seven out of 11 Member States continue to have a number of bathing waters with an inadequate sampling frequency.

TABLE 7
Comparison of sampling
frequency at marine waters
in EC member states 1994

Member State ^(a)	No. of sampling points ^(b)	Required frequency ^(c)	No. with inadequate sampling frequency	Average No. of samples taken
Belgium	39	13 (7)	0	35.1
Denmark	1190	9 (5)	1	12.0
Germany	444	9 (5)	14	12.0
Greece	1282	11 (6) or 13 (7)	1	13.2
Spain	1490	7-11	0	15.2
France	1870	3 (2) - 24(12)	17	11.2
Ireland	108	7 (4)	0	9.8
Italy	4543	11 (6) or 13 (7)	384	10.7
Netherlands	52	9 (5)	8	8.0
Portugal	315	9 (5)	16	9.7
United Kingdom	457	10 (6) or 8(5)	0	20.1

(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 8
Comparison of compliance
of marine waters with
mandatory (I value)
coliform standards of
Directive 1994

Member State ^(a)	No. of marine ^(b) sampling points	No. complying with 'I' values	% compliance
Belgium	39	36	92%
Denmark (c)	1190	1132	95%
Germany	444	356	80%
Greece	1282	1216	95%
Spain	1490	1432	96%
France	1870	1690	90%
Ireland	108	108	100%
Italy	4543	3927	86%
Netherlands (c)	52	33	64%
Portugal	315	262	83%
United Kingdom	457	376	82%

(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.

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 published proposals for a new Bathing Water Directive, intended to streamline the Directive and bring it into line with current scientific thinking.

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 current qualified obligation to sample for enterovirus has been changed to a mandatory obligation to sample at least twice per season. The proposals also contain a mandatory standard for faecal streptococci of no more than 400 per 100ml. It must be stressed however that such amendments to the Directive are currently only proposed and are subject to negotiations between Member States before the 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 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 for faecal streptococci and this should take account 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. An additional report was made regarding the likely costs of the new proposals and this is discussed in detail below.

In November 1994 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.

In addition the DoE commissioned Sir William Halcrow and Partners to study the cost implications to the UK sewerage undertakers and regulators (Gross and Cook, 1995). Their final report was published in February 1995. A number of scenarios were examined to determine costs associated with meeting the Directive and with three further, less stringent, water quality scenarios. These were firstly in accordance with the proposed Directive, secondly in accordance with guideline standards in the existing Directive without the enterovirus requirement, thirdly in accordance with the proposed Directive without the enterovirus requirement and finally in accordance with the mandatory standard in the existing Directive but with the inclusion of a faecal streptococci standard of 1000/100ml. Cost estimates were prepared by the sewerage undertakers in accordance with stringent guidelines prepared by Halcrow. After auditing the costings were aggregated to produce a national estimate. A range of costs was produced for each scenario which allowed for expected inaccuracies in the estimating procedure. In summary, the study suggested that the investment required to meet the proposed Directive represents an additional expenditure of between 15% and 40% over and above current expenditure and investment in existing compliance programmes for the Bathing Water Directive and Urban Waste Water Treatment Directive (some £9.5 billion over the next decade). The findings of the study were also presented to the House of Lords Select Committee on the European Communities (Sub-Committee C (*q.v.*)) and formed the basis for the additional report published in March

1995 (HL, 1995). This report concluded that the existing Bathing Water directive is indeed in need of up-dating and simplification in the light of recent scientific knowledge and methodologies. However, the Committee found that the proposed directive is unsatisfactory in that it is based on a false assumption about the costs of compliance and in that there is no firm public health justification for the proposed mandatory levels of the parameters for enterovirus or faecal streptococci.

In June 1995 the European Parliament Environment Committee held a public hearing on water policy in the European Union. The objective of the hearing was to ensure a coherent and complete legislative framework for EU water quality and protection policies. Three proposals, the quality of water intended for human consumption, the ecological quality of water and the quality of bathing water were considered. The European Commission promised at this meeting to review the EC Water Directives and produce a coherent strategy to improve the EU water policy. In October the Environment Council met to discuss the strategy paper on EU Water Policy produced by the Commission and at the Ministerial meeting in December 1995 the Council invited the Commission to present a communication on the proposal for a framework Directive on the integration of water protection policy before March 1996. To date there has been no further progress on approving the original proposals for a new Bathing Water Directive.

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.

5.3 BCR Report

In November 1995 the European Commission published a report of research work carried out over the last four years by the Bureau Communautaire de Référence (BCR) on the performance of methods for the microbiological examination of bathing waters. The project involved the comparison of the standard methods employed by thirty four laboratories from various EU States. The participants were divided into two groups and were requested to use their standard methods for testing the same samples, either natural or artificial seawater. All the tests were carried out in one laboratory at the Institute Pasteur de Lille.

A step by step approach was followed starting with the study of simple test samples and progressing to various natural seawaters. Each trial depended on the results of the previous trial, the conclusions giving the basis for the continuation of the project. The project tried to define groups of equivalent methods and to define one representative method for each group.

The study found that the 3 or 5 tube MPN method was unreliable and not statistically comparable with the 96 MPN and the membrane filtration methods. It was observed that the differences between individual methods were such that they could account for the differences in passing or failing individual samples. Culture media prepared by different manufacturers and sold under the same name and presenting the same formulae could also lead to significantly different results.

The NRA was very active in these studies, participating in both groups. In producing analytical data for bathing water compliance statistics the NRA is very much aware of the importance of quality control to ensure compatibility of results across England and Wales. The NRA has standard requirements for the quality assurance schemes run by the laboratories participating in the provision of analytical results for bathing waters. All laboratories participate in the PHLS water microbiology external quality control scheme. Additional circulations arranged by the NRA during the bathing season ensure one set of internal QA samples are analysed each month. All laboratories are required to have NAMAS accreditation for the bathing water determinands and to use the approved NRA methods of analysis.



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7 APPENDICES

APPENDIX A

Bathing Water Directive, Detailed Summary of Monitoring Results in 1995

APPENDIX B

Update on Bathing Water Improvement Schemes in England and Wales



APPENDIX A

BATHING WATER DIRECTIVE DETAILED SUMMARY OF MONITORING RESULTS IN 1995

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 1995 of the quality of bathing waters in England and Wales included within the scope of Council Directive 76/160/EEC.

Section 1: Changes from 1994 List of Identified Waters

Six new additional bathing waters were identified for the 1995 bathing season. They are as follows:

Welsh Region	Aberporth Beach West
	Tresaith
	Tal-y-Bont
	Dyffryn/Llanendwyn
	Penmaenmawr
Anglian Region	Clacton (Groyne 41).

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 Sidmouth Town where 19 samples were taken as a result of sea defence work which precluded the taking of one sample. 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.

Deviations 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. Two exclusions under Article 5(2) were applied for with regard to the 1995 season, at Instow and Burnham Jetty in South Western Region. The maxima and median data have been adjusted accordingly

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.

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 – 1995 Results (United Kingdom)

Compliance with Bathing Water Directive (76/160/EEC); Coliform Standards

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform
NORTHUMBRIA & YORKSHIRE REGION											
Spittal	NU00805150	20	76	1	2500	0	20	18	1	830	0
Bamburgh Castle	NU18503530	20	21	3	90	0	20	13	1	51	0
Seahouses North	NU21103300	20	40	8	420	0	20	20	2	175	0
Beadnell	NU23302840	20	98	5	1500	0	20	74	0	860	0
Low Newton	NU24202450	20	14	0	900	0	20	10	0	264	0
Alnmouth	NU25301070	20	45	1	560	0	20	28	0	198	0
Warkworth	NU25900650	20	8	0	620	0	20	2	0	480	0
Amblelinks	NU27600440	20	30	3	400	0	20	7	1	240	0
Druridge Bay	NZ27909640	20	15	2	1040	0	20	8	0	510	0
Newbiggin North	NZ31308780	20	86	10	2000	0	20	56	1	1500	0
Newbiggin South	NZ31108730	20	94	3	1860	0	20	39	0	550	0
Blyth South Beach	NZ32207950	20	305	6	1750	0	20	66	1	700	0
Seaton Sluice	NZ33407710	20	32	2	1600	0	20	35	2	320	0
Whitley Bay	NZ35307340	20	54	1	880	0	20	18	0	370	0
Tynemouth Cullercoats	NZ36507130	20	120	6	910	0	20	69	3	440	0
Tynemouth Long Sands Nth	NZ36607080	20	42	10	740	0	20	20	2	350	0
Tynemouth Long Sands Sth	NZ36907020	20	77	24	480	0	20	26	<10	270	0
Tynemouth King Edwards Bay	NZ37306960	20	93	14	560	0	20	24	2	400	0
South Shields	NZ37906740	20	226	10	3000	0	20	70	2	1000	0
Marsden	NZ40006500	20	151	3	2800	0	20	56	1	800	0
Whitburn North	NZ40706050	20	114	<10	2500	0	20	45	8	1200	0
Roker/Whitburn South	NZ40705930	20	60	<10	1600	0	20	55	<10	520	0
Seaham Beach	NZ42405080	20	325	10	5200	0	20	145	<10	2080	1
Seaham Remand Home	NZ42605050	20	279	<10	6000	0	20	105	<10	4000	1
Crimdon	NZ48503730	20	1100	<10	8900	0	20	242	<10	4000	2
Seaton Carew North	NZ52503050	20	55	9	15000	1	20	33	5	11160	1
Seaton Carew Centre	NZ53102960	20	76	4	640	0	20	25	<2	288	0
Seaton Carew North Gare	NZ54002860	20	99	7	500	0	20	28	0	100	0
Redcar Coatham	NZ59202570	20	99	1	6230	0	20	55	0	1200	0
Redcar LB Station	NZ60602550	20	90	8	1000	0	20	36	<2	600	0
Redcar Granville	NZ61302510	20	111	16	8000	0	20	36	3	1000	0
Redcar Stray	NZ62502380	20	220	14	840	0	20	107	2	630	0
Sea at Marske Sands	NZ63602320	20	250	6	800	0	20	58	0	480	0
Saltburn	NZ66602170	20	365	30	7200	0	20	147	<10	1700	0
Staithes	NZ78701900	20	617	56	26471	1	20	215	14	>26471	2
Runswick Bay	NZ81101590	20	37	1	3430	0	20	12	1	1450	0
Sandsend	NZ86401260	20	65	2	7500	0	20	31	1	7500	1
Whitby	NZ89701170	20	25	1	1620	0	20	10	<1	700	0
Robin Hoods Bay	NZ95900450	20	15	4	14000	1	20	10	1	4340	2
Scarborough North Bay	TA03709000	20	20	3	184	0	20	10	<1	116	0

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform
Scarborough South Bay	TA04608860	20	53	7	329	0	20	15	<1	329	0
Cayton Bay	TA06708450	20	27	<1	4480	0	20	10	<1	829	0
Filey	TA12008060	20	20	<1	329	0	20	10	<1	126	0
Reighton	TA14407630	20	10	<1	279	0	20	10	<1	69	0
Flamborough Nth Landing	TA23807220	20	178	12	1680	0	20	72	7	1400	0
Flamborough Sth Landing	TA23106920	20	30	8	440	0	20	10	<1	91	0
Bridlington North Beach	TA19006720	20	17	<10	1470	0	20	10	8	73	0
Bridlington South Beach	TA18106610	20	35	9	610	0	20	10	9	216	0
Wilthorpe	TA17206400	20	30	8	540	0	20	19	<1	269	0
Fairsthorpe	TA17106290	20	20	9	730	0	20	11	9	546	0
Earls Dyke	TA17006150	20	70	10	1300	0	20	41	<10	700	0
Warmston	TA17205940	20	89	<10	7600	0	20	25	9	840	0
Skipsea	TA17705720	20	99	<10	760	0	20	34	<10	279	0
Hornsea	TA21004780	20	128	10	536	0	20	73	9	470	0
Tunstall	TA32203120	20	10	8	2130	0	20	10	4	2310	1
Withernsea	TA34402810	20	28	6	539	0	20	20	4	168	0

ANGLIAN REGION

Cleethorpes	TA31050860	20	1200	100	4300	0	20	400	60	3000	3
Mablethorpe Town	TF50808540	20	355	10	8000	0	20	80	10	1200	0
Sutton-on-sea	TF52258210	20	110	30	2300	0	20	55	<10	320	0
Mablethorpe	TF55007760	20	60	<10	510	0	20	40	<10	140	0
Anderby	TF55307620	20	100	20	2900	0	20	50	<10	1120	0
Chapel St Leonard	TF56407220	20	60	10	330	0	20	45	<10	280	0
Ingoldmells South	TF57406855	20	60	10	330	0	20	35	<10	170	0
Skegness	TF57206345	20	70	10	430	0	20	40	<10	380	0
Heacham	TF66303750	20	330	<10	>20000	1	20	190	<10	5500	4
Hunstanton Beach	TF67804250	20	45	<10	1400	0	20	30	<10	290	0
Wells	TF91404560	20	45	<10	1500	0	20	40	<10	940	0
Sheringham	TG16204360	20	40	<10	11300	1	20	10	<10	7700	1
Cromer	TG21904250	20	237	<10	2700	0	20	105	<10	2400	1
Mundesley	TG31703660	20	105	<10	780	0	20	35	<10	500	0
Hemsby	TG50901740	20	10	<10	900	0	20	10	<10	290	0
Caister Point	TG53001200	20	65	<10	1000	0	20	35	<10	340	0
Great Yarmouth North	TG53501050	20	215	10	3800	0	20	120	<10	2200	1
Great Yarmouth Pier	TG53300740	20	1650	70	10500	1	20	685	10	3700	2
Great Yarmouth South	TG53300640	20	2350	170	11000	1	20	740	50	3800	3
Garlestone Beach	TG53200310	20	600	250	4500	0	20	240	60	1400	0
Lowestoft North	TM55309500	20	840	120	3400	0	20	250	10	2000	0
Lowestoft South	TM54509170	20	187	10	9300	0	20	110	<10	2200	1
Southwold The Denes	TM50807540	20	45	<10	190	0	20	10	<10	150	0
Felixstowe North	TM30503430	20	150	<10	459	0	20	30	<10	220	0
Felixstowe South	TM29703370	20	130	<10	560	0	20	40	<10	180	0

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
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Anglian Region – continued

Dovercourt	TM25173064	20	150	10	730	0	20	85	<10	400	0
Walton	TM25552156	20	375	<10	1020	0	20	125	<10	1500	0
Frinton	TM23791941	20	210	<10	660	0	20	55	<10	310	0
Holland	TM22451765	20	40	<10	650	0	20	20	<10	280	0
Clacton	TM18791525	20	385	30	8900	0	20	60	10	1500	0
Clacton (Groyne 41)	TM17601430	20	360	10	7700	0	20	85	10	2600	1
Jaywick	TM14851280	20	235	10	5500	0	20	130	<10	1600	0
Brightlingsea	TM07631616	20	40	<10	>20000	1	20	20	<10	>20000	1
West Mersea	TM02271203	20	360	10	2600	0	20	290	10	1600	0

THAMES REGION

Shoebury East	TQ94508520	20	30	<10	800	0	20	10	<10	360	0
Southend Thorpe Bay	TQ91108470	20	90	<10	20000	1	20	40	<10	13000	1
Southend Westcliff Bay	TQ86458525	20	231	<10	21000	1	20	300	<10	20000	1

SOUTHERN REGION

Sheerness	TQ92507500	20	30	<10	110	0	20	10	<10	100	0
Leysdown	TR03407080	20	30	0	520	0	20	10	0	470	0
West Beach	TR09806600	20	20	<10	900	0	20	10	<10	300	0
Herne Bay	TR18606860	20	175	<10	3700	0	20	60	<10	1000	0
Minnis Bay	TR28606970	20	25	<10	400	0	20	10	<10	400	0
St Mildred's Bay	TR32807050	20	53	<10	660	0	20	25	<10	310	0
Margate The Bay	TR34707080	20	88	<10	2700	0	20	50	<10	720	0
Margate Fulsam Rock	TR35607150	20	63	<10	670	0	20	33	<10	520	0
Joss Bay	TR39907020	20	43	<10	500	0	20	20	<10	380	0
Broadstairs	TR39806770	20	155	30	570	0	20	73	10	260	0
Ramsgate	TR37206400	20	20	<10	2270	0	20	15	<10	1300	0
Sandwich Bay	TR35805900	20	100	<10	91000	7	20	45	<10	1700	0
Deal Castle	TR37805270	20	95	<10	480	0	20	38	<10	220	0
St Margaret's Bay	TR36804440	20	58	<10	260	0	20	28	<10	200	0
Folkestone	TR23703630	20	435	80	7800	0	20	230	30	1300	0
Sandgate	TR18803480	20	55	<10	740	0	20	10	<10	260	0
Hythe	TR16003400	20	38	<10	340	0	20	10	<10	180	0
Dymchurch	TR11303040	20	73	<10	330	0	20	40	<10	270	0
St Mary's Bay	TR09302770	20	95	10	1100	0	20	73	<10	1000	0
Littlestone	TR08402390	20	120	20	1800	0	20	75	<10	1800	0
Camber	TQ97301840	20	65	<10	5100	0	20	40	<10	4300	1
Winchelsea	TQ91201540	20	38	<10	770	0	20	30	<10	640	0
Hastings	TQ81900920	20	210	30	9000	0	20	70	10	1900	0
Bexhill	TQ73700680	20	125	25	5000	0	20	38	<10	510	0
Norman's Bay	TQ68200530	20	550	30	4900	0	20	255	10	1400	0
Pevensey Bay	TQ65700370	20	285	<10	3100	0	20	145	<10	2300	1
Eastbourne	TV61409820	20	250	10	5500	0	20	125	10	880	0
Seaford	TV48809820	20	68	10	840	0	20	23	<10	640	0
Newhaven	TV44909980	20	365	60	1500	0	20	150	10	780	0
Saltdean	TQ38100180	20	18	<10	50	0	20	10	<10	45	0

Bathing water	National Grid Reference	Total and Faecal Coliforms									
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		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform
Brighton	TQ32300340	20	63	<10	>20000	1	20	35	<10	>20000	1
Hove	TQ28800430	20	65	10	3200	0	20	40	<10	1100	0
Southwick	TQ24200480	20	445	50	14900	1	20	108	<10	4900	1
South Lancing	TQ18300360	20	20	<10	18000	1	20	10	<10	3400	1
Worthing	TQ13900210	20	40	<10	2700	0	20	30	<10	1200	0
Littlehampton	TQ04000130	20	20	<10	2400	0	20	10	<10	2400	1
Middleton-on-sea	SZ98509990	20	20	<10	1200	0	20	10	<10	900	0
Bognor Regis	SZ92309850	20	75	<10	54000	1	20	20	<10	15900	2
Pagham	SZ89209720	20	20	<10	420	0	20	15	<10	280	0
Selsey	SZ86809370	20	10	<10	480	0	20	10	<10	190	0
Bracklesham Bay	SZ80509630	20	23	<10	250	0	20	10	<10	180	0
West Wittering	SZ76809800	20	20	<10	350	0	20	10	<10	350	0
West of Eastoke	SZ72909840	20	10	<10	210	0	20	10	<10	210	0
West Hayling	SZ70509870	20	10	<10	270	0	20	10	<10	160	0
Eastney	SZ67509880	20	73	<10	230	0	20	35	<10	120	0
Southsea	SZ65309820	20	495	40	4700	0	20	405	30	4700	5
Stokes Bay	SZ60009790	20	68	<10	1600	0	20	25	<10	970	0
Lee-on-Solent	SU56200050	20	38	<10	1200	0	20	10	<10	500	0
Hillhead	SU54000220	20	10	<10	400	0	20	10	<10	230	0
Calshot	SU48100120	20	23	<10	4600	0	20	20	<10	<300	0
Lepe	SZ45609850	20	30	<10	1300	0	20	15	<10	1200	0
Milford-on-sea	SZ28309150	20	25	<10	13500	1	20	10	<10	3200	1
Christchurch Bay	SZ23909280	20	15	<10	28100	1	20	10	<10	3800	1
Highcliffe	SZ21609310	20	10	<10	36500	1	20	10	<10	9100	1
Compton Bay	SZ37708410	20	53	<10	690	0	20	20	<10	620	0
Totland Bay	SZ32208710	20	135	15	46800	1	20	30	<10	7700	2
Colwell Bay	SZ32808790	20	30	<10	3100	0	20	15	<10	420	0
Gurnard	SZ47709590	20	140	20	5700	0	20	45	<10	730	0
Cowes	SZ48809670	20	150	<10	4900	0	20	55	<10	4900	1
Ryde	SZ60109270	20	235	10	2300	0	20	70	<10	460	0
Seagrove	SZ63209120	20	80	<10	3500	0	20	15	<10	1900	0
St Helens	SZ63708920	20	210	30	11100	1	20	90	<10	1800	0
Bembridge	SZ65708810	20	40	<10	1300	0	20	20	<10	1200	0
Whitecliff Bay	SZ64108620	20	155	<10	3700	0	20	68	<10	2000	0
Sandown	SZ60108430	20	60	<10	36000	1	20	28	<10	16300	1
Shanklin	SZ58508110	20	100	<10	129200	1	20	40	<10	15900	1
Ventnor	SZ56207730	20	1200	220	265800	2	20	435	25	45000	2

SOUTH WESTERN REGION

Christchurch Highcliffe Castle	SZ20009290	20	40	<1	800	0	20	16	<1	490	0
Christchurch Friar's Cliff	SZ19209252	20	63	2	2340	0	20	20	2	470	0
Christchurch Avon Beach	SZ18889223	20	273	<10	8000	0	20	70	<10	900	0
Christchurch Mudeford Sandbank East	SZ18259121	20	10	<10	500	0	20	20	<10	320	0
Bournemouth Hengistbury East	SZ17009060	20	3	<1	170	0	20	4	<1	104	0

Bathing water	National Grid Reference	Total and Faecal Coliform									
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South Western Region – continued											
Bournemouth Fisherman's Walk	SZ12809130	20	10	<1	280	0	20	5	<1	272	0
Bournemouth Boscombe Pier	SZ11209110	20	77	<10	1400	0	20	90	<10	2100	1
Bournemouth Pier	SZ08859065	20	65	<10	6300	0	20	55	<10	510	0
Bournemouth Durley Chine	SZ07859030	20	19	<1	800	0	20	10	<1	304	0
Poole Shore Rd Sandbanks	SZ05108830	20	2	<1	2080	0	20	1	<1	400	0
Poole Harbour Sandbanks	SZ04908850	20	12	<1	2200	0	20	10	<1	2600	1
Poole Harbour Lake	SY98329040	20	97	<10	2800	0	20	25	<10	2800	1
Poole Harbour Rockley Sands	SY97209080	20	94	<10	8000	0	20	31	<10	5100	1
Shell Bay North	SZ03708660	20	4	<1	540	0	20	2	<1	420	0
Studland Knoll House	SZ03488353	20	4	<1	5800	0	20	8	<1	5580	1
Swanage Central	SZ03297910	20	10	2	17600	1	20	10	5	10980	1
Kimmeridge Bay	SY90707905	20	19	<1	6000	0	20	11	<1	4480	1
Lulworth Cove	SY82477995	20	95	10	390	0	20	25	<10	270	0
Durdle Door East	SY80808030	20	4	<1	3300	0	20	2	<1	260	0
Durdle Door West	SY80408030	20	5	<1	46	0	20	3	<1	35	0
Ringstead Bay	SY75198132	20	17	1	1500	0	20	9	<1	297	0
Bowleaze Cove	SY70428189	20	20	<1	4320	0	20	10	<1	2700	1
Church Ope Cove	SY69767100	20	2	<1	30	0	20	1	<1	12	0
Weymouth Lodmoor	SY68806710	20	15	<1	600	0	20	7	<1	450	0
Weymouth Central	SY68107940	20	30	<10	2100	0	20	10	<10	1600	0
Portland Harbour Castle Cove	SY67607750	20	10	<1	1800	0	20	3	<1	1980	0
Portland Harbour Sandsfoot Castle	SY67307720	20	7	<1	304	0	20	4	<1	110	0
West Bay (West)	SY45909040	20	20	<10	800	0	20	10	<10	224	0
Eypemouth	SY44689100	20	14	<1	387	0	20	5	<1	153	0
Seatown	SY41879165	20	10	<1	96	0	20	10	1	50	0
Charmouth West	SY36309300	20	28	<1	>27000	1	20	10	<1	3400	1
Lyme Regis Church Beach	SY34369212	20	80	10	4200	0	20	75	<10	3800	1
Lyme Regis Cobb	SY33909185	20	10	<10	500	0	20	10	<10	380	0
Seaton (Devon)	SY24508985	20	60	<10	600	0	20	45	<10	360	0
Beer	SY23158910	20	65	10	1000	0	20	40	<10	700	0
Sidmouth Town	SY12708720	19	99	10	1120	0	19	60	<10	880	0
Sidmouth Jacobs Ladder	SY11908695	20	65	<10	500	0	20	25	<10	416	0
Ladram Bay	SY09728515	20	130	<10	1440	0	20	99	<10	1350	0
Budleigh Salterton	SY06958190	20	50	<10	3700	0	20	30	<10	2250	1
Sandy Bay	SY03357980	20	200	<10	4500	0	20	80	<10	2100	1
Exmouth	SY00987995	20	30	<10	5000	0	20	10	<10	2000	0
Dawlish Warren	SX98307875	20	14	1	112	0	20	10	<1	80	0
Dawlish Town	SX96557680	20	80	<10	12400	1	20	35	<10	3000	1
Dawlish Coryton Cove	SX96117606	20	31	<1	2750	0	20	17	<1	1890	0
Teignmouth Holcombe	SX95657461	20	40	10	>70000	1	20	30	<10	3780	1

Bathing water	National Grid Reference	Total and Faecal Coliforms									
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Teignmouth Town	SX94307285	20	55	20	900	0	20	45	<10	720	0
Shaldon	SX93507230	20	25	<10	1000	0	20	35	6	410	0
Ness Cove	SX93857170	20	10	1	162	0	20	5	<1	126	0
Maidencombe	SX92786850	20	20	2	<780	0	20	8	<1	126	0
Watcombe	SX92626730	20	12	1	800	0	20	6	<1	770	0
Ordicombe	SX92656585	20	10	<1	70	0	20	7	1	40	0
Babbacombe	SX93006545	20	37	<1	250	0	20	21	<1	261	0
Redgill	SX93506480	20	20	1	1500	0	20	20	<10	1530	0
Meadfoot	SX93056305	20	10	<1	1360	0	20	5	<1	189	0
Wotton Cove	SX91956307	20	11	1	550	0	20	5	<1	66	0
Torre Abbey	SX90956351	20	60	<10	8000	0	20	10	<10	4000	1
Hollicombe	SX89806215	20	35	<10	6000	0	20	10	<10	2080	1
Paignton Preston Sands	SX89646177	20	25	4	5310	0	20	20	1	910	0
Paignton Paignton Sands	SX89496063	20	140	14	6100	0	20	93	5	930	0
Goodrington	SX89355940	20	85	<10	7000	0	20	40	<10	3100	1
Broadsands	SX89705745	20	75	1	990	0	20	24	<1	320	0
Shoalstone	SX93205662	20	18	<1	1800	0	20	9	<1	780	0
St Mary's Bay	SX93205510	20	40	<10	24000	1	20	30	<10	10400	1
Dartmouth Castle and Sugary Cove	SX88655020	20	50	<10	368	0	20	40	<10	203	0
Slapton Sands	SX85504785	20	10	<1	130	0	20	3	<1	27	0
Slapton Sands Monument	SX82954430	20	8	<1	2600	0	20	5	<1	2100	1
Slapton Sands Torcross	SX82354195	20	19	1	1200	0	20	7	<1	1260	0
Mill Bay	SX74073825	20	60	1	234	0	20	35	1	120	0
Salcombe North Sands	SX73103820	20	45	<10	5600	0	20	15	2	4300	1
Salcombe South Sands	SX72853775	20	247	10	4500	0	20	55	<10	1400	0
Hoggs Cove	SX67553975	20	65	8	2400	0	20	40	2	1400	0
Thurlestone South	SX67654170	20	3	<1	510	0	20	3	<1	490	0
Thurlestone North	SX67404210	20	6	<1	200	0	20	2	<1	88	0
Bantham	SX66234380	20	13	<1	400	0	20	8	<1	180	0
Bigbury-on-Sea South	SX65104415	20	10	<1	8000	0	20	10	<1	3900	1
Bigbury-on-Sea North	SX64954430	20	10	<1	400	0	20	3	<1	208	0
Challaborough	SX64924480	20	13	<1	700	0	20	8	<1	207	0
Mothecombe	SX61054734	20	58	<1	600	0	20	17	1	250	0
Wembury	SX51604850	20	10	<10	1890	0	20	10	<10	1680	0
Bovisand	SX49305050	20	135	<10	1900	0	20	45	<10	1260	0
Plymouth Hoe East	SX47805370	20	418	10	6300	0	20	132	<10	1610	0
Plymouth Hoe West	SX47505370	20	398	77	12000	1	20	89	10	2400	1
Portwrinkle	SX35905380	20	10	<1	660	0	20	10	<1	459	0
Downderry	SX31405380	20	20	<10	200	0	20	10	<10	190	0
Looe (Cornwall)	SX30305430	20	30	<10	9600	0	20	10	<10	8400	1
Millendreath	SX26805410	20	191	<10	2700	0	20	170	<10	1080	0
Looe	SX25705320	20	314	<10	12000	1	20	191	10	8400	1
Readymoney	SX11805110	20	204	30	1600	0	20	89	10	1048	0
Polkerris	SX09105230	20	40	<10	1750	0	20	15	<10	675	0
Par	SX08305330	20	45	<10	430	0	20	30	<10	330	0

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform
South Western Region – continued											
Crinnis Golf Links	SX06305220	20	10	<1	2000	0	20	10	<1	1120	0
Crinnis Leisure Centre	SX05605210	20	10	<1	210	0	20	10	<1	150	0
Charlestown	SX04205160	20	10	<1	250	0	20	10	<1	147	0
Duporth	SX03505120	20	10	<1	180	0	20	10	<1	190	0
Porthpean	SX03205070	20	15	<1	850	0	20	10	<1	800	0
Pentewan	SX01804670	20	45	<10	9000	0	20	25	<10	2430	1
Polstreath	SX01704540	20	80	<1	14000	1	20	55	<10	11520	1
Port Mellon	SX01604390	20	35	<1	4700	0	20	20	<1	3200	1
Gorran Haven Little Perhaver	SX01304170	20	280	<10	5400	0	20	137	<1	3690	1
Gorran Haven (Vault)	SX01004080	20	10	<1	1060	0	20	10	<1	360	0
Porthluney	SW97304130	20	228	10	3000	0	20	127	<10	2070	1
Pendower	SW90503830	20	10	0	640	0	20	10	0	440	0
Gyllyngvase	SW80903160	20	10	<1	4000	0	20	10	<1	432	0
Swanpool	SW80303130	20	60	<10	1840	0	20	40	<1	972	0
Maen Porth	SW79002960	20	184	<10	2200	0	20	130	<10	1000	0
Porthallow	SW79702330	20	3165	<10	34000	1	20	1345	<10	12800	5
Porthoustock	SW80702170	20	10	0	1500	0	20	10	0	424	0
Coverack	SW78301840	20	65	<1	4400	0	20	35	<1	1890	0
Kennack Sands	SW73401650	20	10	<1	130	0	20	10	<1	50	0
Pollurian Cove	SW66801870	20	65	<1	1890	0	20	15	<1	1008	0
Poldhu Cove	SW66501980	20	99	<10	2800	0	20	35	<1	960	0
Gunwalloe Cove	SW65402250	20	10	<1	104	0	20	10	<1	20	0
Porthleven East	0	0	0	0	0	0	0	0	0	0	
Porthleven West	SW63202530	20	76	10	36000	1	20	30	<1	16000	2
Praa Sands East	SW58502760	20	10	<1	230	0	20	10	<1	210	0
Praa Sands West	SW57702810	20	10	<1	550	0	20	10	<1	420	0
Perran Sands	SW53902930	20	10	<1	230	0	20	10	<1	170	0
Mounts Bay L Holgus	SW51303100	20	70	10	928	0	20	60	<1	760	0
Mounts Bay Heliport	SW48503110	20	30	<1	5400	0	20	10	<1	1760	0
Mounts Bay Penzance	SW47502980	20	75	<1	3900	0	20	10	<1	2200	1
Mounts Bay Wherry Town	SW46702940	20	152	<10	7920	0	20	65	<10	2170	1
Porthcurno	SW38702230	20	20	<1	2400	0	20	10	<1	1080	0
Sennen	SW35522645	20	10	<1	441	0	20	10	<1	240	0
Porthmeor	SW51504103	20	15	<1	1000	0	20	10	<1	480	0
Porth Gwidden	SW52204110	20	100	<1	36000	2	20	55	<1	18000	2
Porthminster	SW52204025	20	109	<1	600	0	20	70	<1	264	0
Carbis Bay Station Beach	SW52803890	20	30	<1	1060	0	20	25	<1	320	0
Carbis Bay Porth Kidney Sands	SW54003850	20	10	<1	4000	0	20	20	<1	1400	0
The Towans (Hayle)	SW56303950	20	10	<1	350	0	20	10	<1	260	0
The Towans (Godrevy)	SW58104170	20	25	<1	360	0	20	20	<1	210	0

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform
Portreath	SW65304550	20	20	<1	336	0	20	15	<1	189	0
Porthtowan	SW68904790	20	20	<1	800	0	20	10	<1	396	0
Trevaunance Cove	SW72305170	20	228	20	174400	1	20	98	<10	28800	1
Perranporth Village End	SW75705480	20	60	<1	2880	0	20	54	<10	1840	0
Perranporth Penhale Sands	SW76205700	20	20	0	960	0	20	10	0	520	0
Holywell Bay	SW76505950	20	20	<1	900	0	20	30	<1	400	0
Crantock	SW78406080	20	40	<10	560	0	20	20	<1	230	0
Elstrat	SW79606230	20	25	<1	3060	0	20	15	<1	2000	0
Towan	SW81006205	20	53	<1	500	0	20	50	<10	342	0
Watergate	SW84106490	20	25	<1	260	0	20	10	<1	136	0
Mawgan Porth	SW84806740	20	55	<1	840	0	20	30	<1	360	0
Porthcorhan	SW85707202	20	80	<10	4800	0	20	92	10	3000	1
Treyarnon Bay	SW85707390	20	10	<1	480	0	20	10	<1	450	0
Constantine Bay	SW85807480	20	10	<1	500	0	20	10	<1	420	0
Mother Ivey's Bay	SW86307600	20	10	<1	176	0	20	10	<1	80	0
Harlyn Bay	SW87707550	20	35	<1	2600	0	20	25	<1	1800	0
Trevone Bay	SW89207610	20	90	<10	2500	0	20	65	<10	1116	0
Rock	SW93607550	20	130	<10	1242	0	20	65	<10	816	0
Daymer Bay	SW92807760	20	20	<1	190	0	20	20	<10	130	0
Polzeath	SW93607920	20	40	<1	1800	0	20	15	<1	1260	0
Widemouth Sand	SS19800240	20	7	<1	117	0	20	5	<1	40	0
Bude Summerleaze	SS20400660	20	33	<1	2000	0	20	21	<1	2100	1
Bude Crooklets	SS20300720	20	25	2	1200	0	20	16	<1	460	0
Bude Sands Mouth	SS20200990	20	10	<1	50	0	20	6	<1	41	0
Hartland Quay	SS22302485	20	20	<10	205	0	20	10	<10	50	0
Westward Ho!	SS43252940	20	120	1	>30000	1	20	40	<1	16720	1
Instow	SS47173044	20	245	3	26100	1	20	113	<1	9400	1
Bunton Sands	SS44553760	20	20	1	4300	0	20	16	<1	3600	1
Croyde Bay	SS43473930	20	20	<10	440	0	20	15	<10	370	0
Woolacombe Putsborough	SS44754085	20	15	<1	14000	1	20	10	<1	3400	2
Woolacombe Village	SS45624370	20	34	3	3120	0	20	25	<1	2200	1
Ilfracombe Tunnels Beach	SS51454780	20	180	6	2340	0	20	63	<1	380	0
Ilfracombe Capstone (Wildersmouth)	SS51824790	20	586	30	14000	1	20	370	20	9600	3
Ilfracombe Hele	SS53554792	20	785	231	13500	1	20	315	60	5200	2
Combe Martin	SS57724732	20	295	10	1600	0	20	126	10	770	0
Lynton	SS72504975	20	172	<10	17400	2	20	90	<10	8400	2
Porlock Weir	SS86404790	20	20	<10	760	0	20	10	<10	570	0
Minehead Terminus	SS97304650	20	370	50	3240	0	20	246	10	2300	1
Dunster North West	SS99704550	20	291	70	2940	0	20	130	30	2100	1
Blue Anchor West	ST02304350	20	204	90	540	0	20	85	14	144	0

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform

South Western Region – continued

Burnham Jetty	ST30204880	21	1260	200	5500	0	21	480	60	2430	1
Merrow North of Unity Farm	ST29305450	20	494	77	3240	0	20	195	20	990	0
Brean	ST29605850	20	191	<10	980	0	20	79	10	280	0
Weston-s-Mare Uphill	ST31205880	20	364	30	3700	0	20	140	30	1100	0
Slipway											
Weston-s-Mare Grand Pier	ST31606070	20	287	30	1520	0	20	145	20	1300	0
Weston-s-Mare Sand Bay	ST33006350	20	251	<10	13000	1	20	109	<10	3520	2
Clevedon Swimming Pool	ST39807120	20	750	66	13500	1	20	445	40	3040	2

WELSH REGION

Jacksons Bay Barry	ST12206657	20	2500	630	5100	0	20	651	330	2700	1
Whitmore Bay Barry	ST11456625	20	2140	600	4800	0	20	550	160	2200	1
Cold Knap Barry	ST09656640	20	608	340	3500	0	20	208	30	600	0
Loutherdown	SS88407290	20	200	10	2000	0	20	60	<10	530	0
Trecco Bay Porthcawl	SS83107630	20	80	10	1600	0	20	35	10	140	0
Landy Bay Porthcawl	SS82407650	20	90	20	400	0	20	25	<10	220	0
Rest Bay Porthcawl	SS80007790	20	50	10	520	0	20	25	<10	232	0
Aberafan	SS73908960	20	136	20	3400	0	20	85	<10	1200	0
Swansea Bay	SS64409210	20	825	20	16800	2	20	303	<10	5800	2
Tracelet Bay	SS63008710	20	605	30	6500	0	20	226	<10	2600	1
Limeslade Bay	SS62508700	20	611	60	7600	0	20	265	<10	2500	1
Langland Bay	SS60608710	20	210	10	4000	0	20	90	<10	3200	1
Caswell Bay	SS59108740	20	45	<10	1710	0	20	20	<10	410	0
Oxwich Bay	SS50708620	20	20	<10	1350	0	20	10	<10	272	0
Port Eynon Bay	SS47208480	20	10	<10	260	0	20	10	<10	240	0
Rhossili	SS41409000	20	25	<10	544	0	20	10	<1	520	0
Pembrey	SS40009980	20	40	<10	350	0	20	20	<10	240	0
Pendine	SN23800740	20	60	<10	670	0	20	30	<10	310	0
Amroth	SN16700680	20	50	<10	540	0	20	25	<10	150	0
Saundersfoot	SN14100470	20	550	20	4500	0	20	215	<10	850	0
Tenby North	SN13450080	20	75	<10	1100	0	20	30	<10	342	0
Tenby South	SS13259985	20	105	30	800	0	20	75	20	480	0
Broadhaven	SM86101380	20	55	<10	380	0	20	25	<10	330	0
Newgale	SM84602170	20	10	<10	140	0	20	10	<10	120	0
Whitesands	SM73002700	20	10	<10	80	0	20	10	<10	30	0
Newport	SN05304070	20	65	<10	4800	0	20	15	<10	1400	0
Aberporth	SN25805170	20	65	10	520	0	20	20	<10	130	0
Tresaith	SN27805170	20	120	10	8300	0	20	60	<10	1300	0
Traeth Gwyn New Quay	SN39805970	20	35	<10	1300	0	20	15	<10	180	0
Aberystwyth South	SN57908140	20	85	<10	17900	1	20	10	<10	670	0
Aberystwyth North	SN58308220	20	133	10	2500	0	20	25	<10	500	0
Borth	SN60609010	20	30	<10	4300	0	20	10	<10	3900	2
Aberdyfi	SN60729580	20	168	<10	7800	0	20	91	<10	4000	3
Tywyn	SH57670032	20	76	<10	1278	0	20	46	<10	518	0
Fairbourne	SH60911307	20	15	<10	568	0	20	10	<10	252	0

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform
Barmouth	SH60841590	20	15	<10	1680	0	20	10	<10	660	0
Tal-y-bont	SH57752110	20	37	<10	296	0	20	12	<10	153	0
Dyffryn (Llanendwyn)	SH56712258	20	33	<10	304	0	20	15	<10	228	0
Llandanwg	SH56692818	20	324	10	2250	0	20	127	10	959	0
Harlech	SH56763148	20	149	<10	11160	1	20	37	<10	4000	3
Morfa Brychan	SH54213595	20	106	<10	9400	0	20	31	<10	764	0
Criccieth	SH50333807	20	10	<10	1960	0	20	10	<10	342	0
Pwllheli	SH37103407	20	10	<10	>20000	1	20	10	<10	910	0
Abersoch	SH31682772	20	10	<10	392	0	20	10	8	103	0
Morfa Dinlle	SH43495669	20	42	<10	406	0	20	15	<10	210	0
Rhosneigr	SH32377212	20	10	<10	624	0	20	10	<10	119	0
Trearddur Bay	SH25567891	20	33	<10	3200	0	20	20	<10	2340	1
Benllech	SH52688256	20	160	<10	4700	0	20	104	<10	459	0
Penmaenmawr	SH71807693	20	236	<10	9090	0	20	72	<10	7840	2
Llandudno West Shore	SH76558165	20	55	<10	4300	0	20	19	<10	1337	0
Llandudno North Shore	SH79188227	20	89	19	486	0	20	37	10	432	0
Colwyn Bay	SH85847917	20	160	10	1610	0	20	93	<10	1143	0
Kinmel Bay (Sandy Cove)	SH97808060	20	130	<10	2790	0	20	55	<10	873	0
Rhyl	SJ00208260	20	440	25	>20000	2	20	206	<10	3840	3
Prestatyn	SJ05408390	20	102	<10	7200	0	20	59	<10	2000	0
West Kirby	SJ21008680	20	170	<10	63000	1	20	140	<10	34000	2

NORTH WEST REGION

Meols	SJ23009060	20	155	40	3100	0	20	129	10	3400	1
Moreton	SJ25709180	20	45	10	620	0	20	25	10	220	0
New Brighton	SJ28709370	20	379	60	4500	0	20	162	30	2800	1
Formby	SD27701000	20	84	10	4000	0	20	65	10	800	0
Ainsdale	SD29701290	20	82	10	7600	0	20	35	0	4000	1
Southport	SD32201790	20	7750	30	>999999	8	20	4100	70	>999999	12
St Annes	SD31802830	20	199	20	10000	0	20	190	0	7000	4
St Annes North	SD30403050	20	600	20	21000	2	20	330	10	16000	4
Blackpool South	SD30403380	20	1050	180	340000	2	20	590	130	260000	9
Blackpool Central	SD30603560	20	1350	140	19000	2	20	798	110	10000	7
Blackpool North	SD30503640	20	864	50	10000	0	20	705	19	6000	5
Bispham	SD30703970	20	475	10	8300	0	20	410	19	2500	1
Cleveleys	SD31204330	20	600	30	13000	1	20	293	10	5600	2
Fleetwood	SD33604850	20	927	30	4100	0	20	324	10	2000	0
Heysham - Half Moon Bay	SD41306180	20	506	20	10000	0	20	297	20	14000	3
Morecambe South	SD42206360	20	517	60	23000	3	20	345	50	10000	3
Morecambe North	SD44106500	20	2900	170	26000	4	20	1350	171	12000	9
Wardsea	SD30007400	20	1700	10	12000	1	20	615	30	10000	7
Aldingham	SD28307090	20	140	10	2800	0	20	75	10	1800	0
Newbiggin	SD27306940	20	1050	30	17000	2	20	485	10	9000	3

Bathing water	National Grid Reference	Total and Faecal Coliforms									
		Total Coliforms					Faecal Coliforms				
		No. of samples	Median	Min.	Max.	Nos. failing to conform	No. of samples	Median	Min.	Max.	Nos. failing to conform
North West Region – continued											
Walney Biggar Bank	SD17806730	20	15	10	1700	0	20	20	10	420	0
Walney Sand Gap	SD17506810	20	60	10	2000	0	20	70	10	900	0
Walney West Shore	SD17007000	20	450	20	18000	2	20	355	20	17000	4
Loan Head	SD19807580	20	150	10	7000	0	20	99	10	8700	3
Askam-in-Furness	SD20907820	20	205	10	11000	1	20	143	10	23000	3
Haverigg	SD16007780	20	530	10	5400	0	20	290	10	4900	3
Silecroft	SD12008120	20	60	10	5400	0	20	55	0	4300	1
Wanstead	NY03400100	20	2600	100	24000	6	20	1140	90	18000	8
St Bees	NX95901170	20	240	20	5500	0	20	115	10	6600	2
Allonby South	NY06604060	20	130	10	7500	0	20	75	10	2000	0
Allonby	NY07804240	20	85	10	5800	0	20	65	10	1600	0
Millthorpe	NY09405280	20	150	10	760	0	20	115	10	1000	0
Skinburness	NY12605650	20	355	10	5000	0	20	279	10	4700	1

Section 4

Bathing Waters Survey – 1995 Results (United Kingdom)

Compliance with Bathing Water Directive (76/160/EEC); Other Parameters

Bathing water	National Grid Reference	Other Parameters															
		pH		Trans- parency		Salmonella		Entero- viruses		Colour		Mineral oils		Surface active substances		Phenols	
		F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
NORTHUMBRIA & YORKSHIRE REGION																	
Spittal	NU00805150	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Bamburgh Castle	NU18503530	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seahouses North	NU21103300	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Bamburgh	NU23302840	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Low Newton	NU24202450	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Alnmouth	NU25301070	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Warkworth	NU25900650	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Amblelinks	NU27600440	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Druridge Bay	NZ27909640	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Newbiggin North	NZ31308780	1	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Newbiggin South	NZ31108730	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Wynk South Beach	NZ32207950	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seaton Sluice	NZ33407710	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Whitley Bay	NZ35307340	1	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Tynemouth Cullercoats	NZ36507130	1	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Tynemouth Long Sands North	NZ36607080	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Tynemouth Long Sands South20	NZ36907020	1	0	20	0*	2	0	0	0	20	0	0 20		0 20		0	
Tynemouth King Edwards Bay	NZ37306960	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
South Shields	NZ37906740	1	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	0
Marsden	NZ40006500	1	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	0
Whitburn North	NZ40706050	1	0	19	0*	2	0	2	1	19	0	19	0	19	0	19	0
Roker/Whitburn South	NZ40705930	1	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	0
Seaham Beach	NZ42405080	1	0	18	0*	2	0	2	0	19	1	19	0	19	0	19	0
Seaham Remand Home	NZ42605050	1	0	18	0*	2	0	2	1	19	1	19	0	19	0	19	0
Crimdon	NZ48503730	1	0	20	12	2	0	2	0	20	2	20	0	20	0	20	0
Seaton Carew North	NZ52503050	1	0	20	2	2	0	0	0	20	0	20	0	20	0	20	0
Seaton Carew Centre	NZ53102960	1	0	20	1	2	0	0	0	20	0	20	0	20	0	20	0
Seaton Carew North Gate	NZ54002860	1	0	20	3	2	0	0	0	20	0	20	0	20	0	20	0
Redcar Coatham	NZ59202570	1	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Redcar LB Station	NZ60602550	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Redcar Granville	NZ61302510	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Redcar Stray	NZ62502380	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Sea at Marske Sands	NZ63602320	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Whitburn	NZ66602170	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Staithes	NZ78701900	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0

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Bathing water	National Grid Reference	Other Parameters															
		pH		Trans- parency		Salmonella		Entero- viruses		Colour		Mineral oils		Surface active substances		Phenols	
		F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
Northumbria & Yorkshire Region – continued																	
Runswick Bay	NZ81101590	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Redburn	NZ86401260	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Whitby	NZ89701170	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Robin Hoods Bay	NZ95900450	2	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	0
Scarborough North Bay	TA03709000	1	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	0
Scarborough South Bay	TA04608860	1	0	19	0*	2	0	2	1	20	0	20	0	20	0	20	0
Cayton Bay	TA06708450	1	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	0
Filly	TA12008060	1	0	19	0*	2	1	0	0	20	0	20	0	20	0	20	0
Reighton	TA14407630	1	0	19	0*	2	0	0	0	20	0	20	0	20	0	20	0
Flamborough North Landing	TA23807220	1	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Flamborough South Landing	TA23106920	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Bridlington North Beach	TA19006720	1	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Bridlington South Beach	TA18106610	1	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Wilsthorpe	TA17206400	1	0	21	0*	2	0	0	0	21	0	20	0	20	0	20	0
Fraisthorpe	TA17106290	1	0	20	0*	2	0	0	0	20	0	19	0	19	0	19	0
Earls Dyke	TA17006150	1	0	21	0*	2	0	0	0	21	0	20	0	20	0	20	0
Barmston	TA17205940	1	0	19	0*	2	0	0	0	20	3	19	0	19	0	19	0
Wickham	TA17705720	1	0	20	0*	2	0	0	0	20	3	19	0	19	0	19	0
Hornsea	TA21004780	1	0	20	0*	2	0	0	0	20	3	19	0	19	0	19	0
Tunstall	TA32203120	1	0	20	0*	2	1	0	0	20	3	19	0	19	0	19	0
Withernsea	TA34402810	1	0	20	0*	2	0	0	0	20	3	19	0	19	0	19	0
ANGLIAN REGION																	
Cleethorpes	TA31050860	2	1	20	0*	2	1	2	1	20	0	20	0	20	0	20	0
Mablethorpe Town	TF50808540	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Sutton-on-sea	TF52258210	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Mablethorpe	TF55007760	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Anderby	TF55307620	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Claydon St Leonard	TF56407220	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Ingoldmells South	TF57406855	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Wigborough	TF57206345	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Heacham	TF66303750	1	0	20	0*	4	0	0	0	20	0	20	0	20	0	20	0
Hunstanton Beach	TF67804250	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Wells	TF91404560	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Worthington	TG16204360	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Cromer	TG21904250	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	0
Mundesley	TG31703660	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Hemsby	TG50901740	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0

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Bathing water	National Grid Reference	Other Parameters															
		pH		Transparency		Salmonella		Enteroviruses		Colour		Mineral oils		Surface active substances		Phenols	
		F		F		F		F		F		F		F		F	
Caister Point	TG53001200	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Great Yarmouth North	TG53501050	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Great Yarmouth Pier	TG53300740	1	0	19	0*	2	1	2	1	20	0	20	0	20	0	20	0
Great Yarmouth South	TG53300640	1	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Gorleston Beach	TG53200310	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	0
Lowestoft North	TM55309500	2	0	21	0*	2	1	0	0	21	0	21	0	21	0	21	0
Lowestoft South	TM54509170	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Southwold The Denes	TM50807540	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Felixstowe North	TM30503430	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Felixstowe South	TM29703370	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Dovercourt	TM25173064	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Walton	TM25552156	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Frinton	TM23791941	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Holland	TM22451765	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Clacton	TM18791525	1	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Clacton (Groyne 41)	TM17601430	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Jaywick	TM14851280	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Brightlingsea	TM07631616	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
West Mersea	TM02271203	1	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0

THAMES REGION

Shoebury East	TQ94508520	1	0	20	0*	20	1	20	5	20	0	20	0	20	0	20	0
Southend Thorpe Bay	TQ91108470	1	0	20	0*	20	2	20	5	20	0	20	0	20	0	20	0
Southend Westcliff Bay	TQ86458525	1	0	20	0*	20	6	20	6	20	0	20	0	20	0	20	0
Sheerness	TQ92507500	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0

SOUTHERN REGION

Leysdown	TR03407080	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
West Beach	TR09806600	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Herne Bay	TR18606860	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Minnis Bay	TR28606970	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
St Mildred's Bay	TR32807050	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Margate The Bay	TR34707080	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Margate Fulsam Rock	TR35607150	2	0	20	0*	2	0	2	1	20	0*	20	0	20	0	20	0
Joss Bay	TR39907020	2	0	20	0*	2	0	2	0	20	0*	20	0	20	0	20	0
Broadstairs	TR39806770	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Ramsgate	TR37206400	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Sandwich Bay	TR35805900	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Deal Castle	TR37805270	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
St Margaret's Bay	TR36804440	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Folkestone	TR23703630	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Sandgate	TR18803480	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0

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Bathing water	National Grid Reference	Other Parameters															
		pH		Trans- parency		Salmonella		Entero- viruses		Colour		Mineral oils		Surface active substances		Phenols	
		F		F		F		F		F		F		F			
Southern Region – continued																	
Hythe	TR16003400	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Dymchurch	TR11303040	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
St Mary's Bay	TR09302770	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Littlestone	TR08402390	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Camber	TQ97301840	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	0
Winchelsea	TQ91201540	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Hastings	TQ81900920	2	0	20	0*	2	2	2	1	20	0	20	0	20	0	20	0
Bexhill	TQ73700680	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Norman's Bay	TQ68200530	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Pevensey Bay	TQ65700370	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Eastbourne	TV61409820	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Seaford	TV48809820	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	0
Newhaven	TV44909980	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Saltdean	TQ38100180	2	0	20	0*	2	0	2	0	20	0*	20	0	20	0	20	0
Brighton	TQ32300340	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Hove	TQ28800430	2	0	20	0*	2	1	2	1	20	0	20	0	20	0	20	0
Southwick	TQ24200480	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
South Lancing	TQ18300360	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	0
Worthing	TQ13900210	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Littlehampton	TQ04000130	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Middleton-on-sea	SZ98509990	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Bognor Regis	SZ92309850	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Pagham	SZ89209720	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	0
Selsey	SZ86809370	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Bracklesham Bay	SZ80509630	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
West Wittering	SZ76809800	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
West of Eastoke	SZ72909840	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
West Hayling	SZ70509870	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Eastney	SZ67509880	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Southsea	SZ65309820	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Stokes Bay	SZ60009790	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Lee-on-Solent	SU56200050	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Hillhead	SU54000220	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Calshot	SU48100120	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Lepe	SZ45609850	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Milford-on-sea	SZ28309150	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Christchurch Bay	SZ23909280	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Highcliffe	SZ21609310	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Compton Bay	SZ37708410	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Totland Bay	SZ32208710	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0

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Bathing water	National Grid Reference	Other Parameters									
		pH	Trans- parency	Salmonella	Entero- viruses	Colour	Mineral oils	Surface active substances	Phenols		
		F	F	F	F	F	F	F	F		
Colwell Bay	SZ32808790	2 0	20 0*	2 0	2 1	20 0	20 0	20 0	20 0		
Gurnard	SZ47709590	1 0	20 0*	2 0	2 0	20 0	20 0	20 0	20 0		
Cowes	SZ48809670	2 0	20 0*	2 0	2 0	20 0	20 0	20 0	20 0		
Ryde	SZ60109270	2 0	20 0*	2 0	2 0	20 0	20 0	20 0	20 0		
Seagrove	SZ63209120	2 0	20 0*	2 0	2 0	20 0	20 0	20 0	20 0		
Port Helens	SZ63708920	2 0	20 0*	2 0	2 1	20 0	20 0	20 0	20 0		
Bembridge	SZ65708810	2 0	20 0*	2 0	2 1	20 0	20 0	20 0	20 0		
Whitecliff Bay	SZ64108620	2 0	20 0*	2 0	2 0	20 0	20 0	20 0	20 0		
Sandown	SZ60108430	2 0	20 0*	2 1	2 1	20 0	20 0	20 0	20 0		
Shanklin	SZ58508110	2 0	20 0*	2 0	2 1	20 0	20 0	20 0	20 0		
Ventnor	SZ56207730	2 0	20 0*	2 2	2 1	20 0	20 0	20 0	20 0		
SOUTH WESTERN REGION											
Christchurch Highcliffe Castle	SZ20009290	4 0	21 0*	2 0	0 0	21 0	21 0	21 0	20 0		
Christchurch Friar's Cliff	SZ19209252	2 0	21 0*	2 1	0 0	21 0	21 0	21 0	20 0		
Christchurch Avon Beach	SZ18889223	0 0	20 0*	1 0	2 0	20 0	20 0	20 0	19 0		
Christchurch Muford	SZ18259121	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Landbank East											
Bournemouth	SZ17009060	2 0	20 0*	2 1	0 0	20 0	20 0	20 0	19 0		
Hengistbury East											
Bournemouth Fisherman's Walk	SZ12809130	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Bournemouth Boscombe Pier	SZ11209110	2 0	20 0*	2 1	0 0	20 0	20 0	20 0	20 0		
Bournemouth Pier	SZ08859065	2 0	20 0*	2 0	2 0	20 0	20 0	20 0	20 0		
Bournemouth Durley Chine	SZ07859030	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Poole Shore Rd Sandbanks	SZ05108830	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	19 0		
Poole Harbour Sandbanks	SZ04908850	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Poole Harbour Lake Sands	SY98329040	2 0	21 0*	2 1	0 0	21 0	21 0	21 0	19 0		
Poole Harbour Rockley	SY97209080	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 1		
Weymouth Bay North	SZ03708660	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Studland Knoll House	SZ03488353	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Swanage Central	SZ03297910	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	19 0		
Kimmeridge Bay	SY90707905	2 0	20 0*	2 0	2 1	20 0	20 0	20 0	19 0		
Lulworth Cove	SY82477995	2 0	20 0*	2 0	2 1	19 0	20 0	20 0	20 0		
Durdle Door East	SY80808030	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Durdle Door West	SY80408030	2 0	20 0*	2 0	0 0	19 0	20 0	20 0	20 0		
Ringstead Bay	SY75198132	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Bowleaze Cove	SY70428189	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Church Ope Cove	SY69767100	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Weymouth Lodmoor	SY68806710	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		
Weymouth Central	SY68107940	2 0	20 0*	2 0	0 0	20 0	20 0	20 0	20 0		

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Bathing water	National Grid Reference	Other Parameters															
		pH		Trans- parency		Salmonella		Entero- viruses		Colour		Mineral oils		Surface active substances		Phenols	
		F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
South Western Region – continued																	
Portland Harbour Castle Cove	SY67607750	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Portland Harbour	SY67307720	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Sandsfoot Castle																	
West Bay (West)	SY45909040	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Weymouth	SY44689100	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seatown	SY41879165	2	0	19	0*	2	0	2	0	20	0	20	0	20	0	19	0
Charmouth West	SY36309300	2	0	20	0*	2	0	2	0	19	0	20	0	20	0	19	0
Lyme Regis Church Beach	SY34369212	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Lyme Regis Cobb	SY33909185	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seaton (Devon)	SY24508985	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seaton	SY23158910	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Sidmouth Town	SY12708720	2	0	20	0*	2	0	2	0	20	1	20	0	20	0	20	0
Sidmouth Jacobs Ladder	SY11908695	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Ladram Bay	SY09728515	2	0	20	0*	2	1	0	0	20	1	20	0	20	0	20	1
Mudlip Salterton	SY06958190	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Sandy Bay	SY03357980	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	1
Seaton	SY00987995	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Dawlish Warren	SX98307875	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Dawlish Town	SX96557680	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Dawlish Coryton Cove	SX96117606	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Teignmouth Holcombe	SX95657461	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Teignmouth Town	SX94307285	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Shaldon	SX93507230	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Ness Cove	SX93857170	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Maidencombe	SX92786850	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Watcombe	SX92626730	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Maidcombe	SX92656585	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Babbacombe	SX93006545	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Redgate	SX93506480	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Meadfoot	SX93056305	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seaton Cove	SX91956307	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Torre Abbey	SX90956351	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Hollicombe	SX89806215	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Paignton Preston Sands	SX89646177	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Paignton Paignton Sands	SX89496063	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Goodrington	SX89355940	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seaton Sands	SX89705745	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Shoalstone	SX93205662	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
St Mary's Bay	SX93205510	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Dartmouth Castle and Sugary Cove	SX88655020	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Seaton Sands	SX85504785	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0

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Bathing water	National Grid Reference	Other Parameters															
		pH		Trans- parency		Salmonella		Enter- viruses		Colour		Mineral oils		Surface active substances		Phenols	
		F		F		F		F		F		F		F		F	
Slapton Sands Monument	SX82954430	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Slapton Sands Torcross	SX82354195	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Mill Bay	SX74073825	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Salcombe North Sands	SX73103820	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Salcombe South Sands	SX72853775	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Hope Cove	SX67553975	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Thurlestone South	SX67654170	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Thurlestone North	SX67404210	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Bantham	SX66234380	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Bigbury-on-Sea South	SX65104415	2	1	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Bigbury-on-Sea North	SX64954430	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Challaborough	SX64924480	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Mothecombe	SX61054734	2	1	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Wembury	SX51604850	2	0	21	0*	2	0	0	0	21	1	21	0	21	0	21	0
Bovisand	SX49305050	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Plymouth Hoe East	SX47805370	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Plymouth Hoe West	SX47505370	2	0	21	0*	2	0	2	2	21	0	21	0	21	0	21	0
Portwrinkle	SX35905380	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Downderry	SX31405380	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seaton (Cornwall)	SX30305430	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Millendreath	SX26805410	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
East Looe	SX25705320	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Readymoney	SX11805110	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Polkerris	SX09105230	2	0	19	0*	2	0	0	0	20	1	20	0	20	0	20	0
Par	SX08305330	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Crinnis Golf Links	SX06305220	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Crinnis Leisure Centre	SX05605210	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Charlestown	SX04205160	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Duporth	SX03505120	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Porthpean	SX03205070	2	0	20	0*	2	0	0	0	20	2	20	0	20	0	20	1
Pentewan	SX01804670	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Polstreath	SX01704540	2	0	20	0*	2	1	0	0	20	1	20	0	20	0	20	0
Port Mellon	SX01604390	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Gorran Haven Little	SX01304170	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Perhaver																	
Gorran Haven (Vault)	SX01004080	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Porthluney	SW97304130	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Pendower	SW90503830	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Gyllyngvase	SW80903160	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	1
Swanpool	SW80303130	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Maen Porth	SW79002960	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0

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		pH		Trans- parency		Salmonella		Entero- viruses		Colour		Mineral oils		Surface active substances		Phenols	
		F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
South Western Region – continued																	
Porthallow	SW79702330	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Porthoustock	SW80702170	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Coverack	SW78301840	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Kennack Sands	SW73401650	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
Pollurian Cove	SW66801870	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Poldhu Cove	SW66501980	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Gunwalloe Cove	SW65402250	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Porthleven East	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Porthleven West	SW63202530	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Praa Sands East	SW58502760	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Praa Sands West	SW57702810	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Perran Sands	SW53902930	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Mounts Bay L Holgus	SW51303100	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	1
Mounts Bay Heliport	SW48503110	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	1
Mounts Bay Penzance	SW47502980	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Mounts Bay Wherry Town	SW46702940	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Porthcurno	SW38702230	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Sennen	SW35522645	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Porthmeor	SW51504103	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Porth Gwidden	SW52204110	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Porthminster	SW52204025	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Carbis Bay Station Beach	SW52803890	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Carbis Bay Porth Kidney Sands	SW54003850	2	0	20	0*	2	0	0	0	20	1	20	0	20	0	20	0
The Towans (Hayle)	SW56303950	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
The Towans (Godrevy)	SW58104170	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Portreath	SW65304550	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Porthtowan	SW68904790	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Trevaunance Cove	SW72305170	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Perranporth Village End	SW75705480	2	0	20	0*	2	0	0	0	20	1	20	1	20	0	20	0
Perranporth Penhale Sands	SW76205700	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Holywell Bay	SW76505950	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Crantock	SW78406080	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Fistral	SW79606230	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Towan	SW81006205	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Watergate	SW84106490	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Mawgan Porth	SW84806740	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Porthcothan	SW85707202	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Treyarnon Bay	SW85707390	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Constantine Bay	SW85807480	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Mother Ivey's Bay	SW86307600	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0

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Bathing water	National Grid Reference	Other Parameters															
		pH		Trans- parency		Salmonella		Entero- viruses		Colour		Mineral oils		Surface active substances		Phenols	
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
Harlyn Bay	SW87707550	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Trevone Bay	SW89207610	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Rock	SW93607550	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Daymer Bay	SW92807760	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Polzeath	SW93607920	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Widemouth Sand	SS19800240	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Bude Summerleaze	SS20400660	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Bude Crooklets	SS20300720	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Bude Sandy Mouth	SS20200990	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Hartland Quay	SS22302485	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Westward Ho!	SS43252940	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Instow	SS47173044	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Saunton Sands	SS44553760	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Croyde Bay	SS43473930	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Woolacombe Putsborough	SS44754085	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Woolacombe Village	SS45624370	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Ilfracombe Tunnels Beach	SS51454780	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Ilfracombe Capstone (Wildersmouth)	SS51824790	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Ilfracombe Hele	SS53554792	2	0	20	0*	2	1	2	1	20	0	20	0	20	0	20	0
Combe Martin	SS57724732	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	1
Lynmouth	SS72504975	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Porlock Weir	SS86404790	2	0	21	0*	2	0	0	0	21	0*	21	0	21	0	21	0
Minehead Terminus	SS97304650	2	0	21	0*	2	1	0	0	21	0*	21	0	21	0	21	0
Dunster North West	SS99704550	3	0	21	0*	2	1	0	0	21	0*	21	0	21	0	21	0
Blue Anchor West	ST02304350	1	0	21	0*	2	0	0	0	21	0*	21	0	21	0	21	0
Burnham Jetty	ST30204880	2	0	21	0*	2	1	0	0	21	0*	21	0	21	0	21	0
Berrow North of Unity Farm	ST29305450	2	0	22	0*	2	0	0	0	22	0*	22	0	22	0	22	0
Brean	ST29605850	2	0	21	0*	2	0	0	0	21	0*	21	0	21	0	21	0
Weston-s-Mare Uphill Slipway	ST31205880	2	0	20	0*	2	0	2	0	20	0*	20	0	20	0	20	0
Weston-s-Mare Grand Pier	ST31606070	2	0	20	0*	2	0	0	0	20	0*	20	0	20	0	20	0
Weston-s-Mare Sand Bay	ST33006350	2	0	20	0*	2	0	0	0	20	0*	20	0	20	0	20	0
Clevedon Swimming Pool	ST39807120	2	0	20	0*	2	2	2	2	20	0*	20	0	20	0	20	0

WELSH REGION

Jacksons Bay Barry	ST12206657	3	0	19	0*	2	1	2	2	19	0	19	0	19	0	19	0
Whitmore Bay Barry	ST11456625	3	0	19	0*	2	1	2	2	19	0	19	0	19	0	19	0
Cold Knap Barry	ST09656640	3	0	20	0*	2	1	0	0	19	0	20	0	20	0	20	0
Southerndown	SS88407290	2	0	19	0*	2	0	0	0	18	0	19	0	18	0	18	0
Trecco Bay Porthcawl	SS83107630	2	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	0

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		pH		Trans- parency		Salmonella		Entero- viruses		Colour		Mineral oils		Surface active substances		Phenols	
		F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
Welsh Region – continued																	
Sandy Bay Porthcawl	SS82407650	2	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	0
Rest Bay Porthcawl	SS80007790	2	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	0
Aberafan	SS73908960	2	0	19	0*	2	0	0	0	19	0	19	0	19	0	19	0
Swansea Bay	SS64409210	2	0	20	0*	2	2	0	0	20	0	20	0	20	0	20	0
Bracelet Bay	SS63008710	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Limeslade Bay	SS62508700	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Langland Bay	SS60608710	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0z
Caswell Bay	SS59108740	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Oxwich Bay	SS50708620	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Port Eynon Bay	SS47208480	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Rhossili	SS41409000	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Pembrey	SS40009980	2	0	19	0*	2	1	0	0	19	0	19	0	19	0	19	0
Pendine	SN23800740	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Amroth	SN16700680	2	0	19	0*	2	1	0	0	19	0	19	0	19	0	19	0
Saundersfoot	SN14100470	3	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Tenby North	SN13450080	3	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Tenby South	SS13259985	3	0	20	0*	2	1	2	0	19	0	20	0	20	0	20	0
Broadhaven	SM86101380	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Newgale	SM84602170	2	0	20	0*	2	0	1	0	20	0	20	0	20	0	20	0
Whitesands	SM73002700	2	0	20	0*	2	1	1	0	20	0	20	0	20	0	20	0
Newport	SN05304070	2	0	20	0*	2	1	2	0	20	0	18	0	20	0	20	0
Aberporth	SN25805170	2	0	20	0*	2	0	2	0	19	0	20	0	20	0	20	0
Tresaith	SN27805170	2	0	20	0*	2	0	0	0	19	0	20	0	20	0	20	0
Traeth Gwyn New Quay	SN39805970	2	0	20	0*	2	0	2	1	20	0	20	0	20	0	20	0
Aberystwyth South	SN57908140	2	0	21	0*	2	0	2	0	21	0	21	0	21	0	21	0
Aberystwyth North	SN58308220	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Borth	SN60609010	2	0	21	0*	2	0	0	0	21	0	20	0	21	0	21	0
Aberdyfi	SN60729580	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Tywyn	SH57670032	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Fairbourne	SH60911307	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Barmouth	SH60841590	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Tal-y-bont	SH57752110	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Dyffryn (Llanendwyn)	SH56712258	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Llandanwg	SH56692818	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Harlech	SH56763148	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Morfa Bychan	SH54213595	2	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	0
Criccieth	SH50333807	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Pwllheli	SH37103407	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Abersoch	SH31682772	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Morfa Dinlle	SH43495669	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0

* Denotes waiver granted because of geographical conditions. 1st column under each heading shows number of observations for each parameter: 2nd column F = Number of Failures

Bathing water	National Grid Reference	Other Parameters															
		pH		Trans- parency		Salmonella		Enteroviruses		Colour		Mineral oils		Surface active substances		Phenols	
		F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
Rhosneigr	SH32377212	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Trearddur Bay	SH25567891	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Benllech	SH52688256	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Penmaenmawr	SH71807693	2	0	21	0*	2	0	0	0	21	0	21	0	21	0	21	0
Llandudno West Shore	SH76558165	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
Llandudno North Shore	SH79188227	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Colwyn Bay	SH85847917	2	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Kinmel Bay (Sandy Cove)	SH97808060	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Rhyl	SJ00208260	2	0	20	0*	2	1	0	0	20	0	20	0	20	0	20	0
Prestatyn	SJ05408390	2	0	20	0*	2	0	2	0	20	0	20	0	20	0	20	0
West Kirby	SJ21008680	3	0	20	0*	2	1	2	0	20	0	20	0	20	0	20	0
NORTH WEST REGION																	
Meols	SJ23009060	3	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Moreton	SJ25709180	3	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
New Brighton	SJ28709370	3	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Formby	SD27701000	1	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Ainsdale	SD29701290	1	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Southport	SD32201790	1	0	20	0*	2	2	2	2	20	0	20	0	20	0	20	0
St Annes	SD31802830	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
St Annes North	SD30403050	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Blackpool South	SD30403380	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Blackpool Central	SD30603560	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Blackpool North	SD30503640	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Bispham	SD30703970	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Cleveleys	SD31204330	2	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Fleetwood	SD33604850	2	0	20	0*	2	2	2	2	20	0	20	0	20	0	20	0
Heysham - Half Moon Bay	SD41306180	1	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Morecambe South	SD42206360	1	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Morecambe North	SD44106500	1	0	20	0*	2	2	2	2	20	0	20	0	20	0	20	0
Bardsea	SD30007400	1	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Aldingham	SD28307090	1	0	20	0*	2	0	3	2	20	0	20	0	20	0	20	0
Newbiggin	SD27306940	1	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Walney Biggar Bank	SD17806730	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Walney Sandy Gap	SD17506810	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Walney West Shore	SD17007000	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Roan Head	SD19807580	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Askam-in-Furness	SD20907820	2	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Haverigg	SD16007780	1	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
Silecroft	SD12008120	1	0	20	0*	2	0	0	0	20	0	20	0	20	0	20	0
Seascale	NY03400100	1	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0
St Bees	NX95901170	1	0	20	0*	2	1	2	2	20	0	20	0	20	0	20	0
Allonby South	NY06604060	4	0	20	0*	2	0	2	2	20	0	20	0	20	0	20	0

* Denotes waiver granted because of geographical conditions. 1st column under each heading shows number of observations for each parameter: 2nd column F = Number of Failures

Bathing water	National Grid Reference	Other Parameters							
		pH	Trans- parency	Salmonella	Entero- viruses	Colour	Mineral oils	Surface active substances	Phenols
		_____	_____	_____	_____	_____	_____	_____	_____
		F	F	F	F	F	F	F	F

North West Region – continued

Allonby	NY07804240	4	0	20	0*	2	0	2	2	20	0	20	0	20	0
Milloth	NY09405280	4	0	20	0*	2	0	2	2	20	0	20	0	20	0
Skinburness	NY12605650	4	0	20	0*	2	1	2	2	20	0	20	0	20	0

* Denotes waiver granted because of geographical conditions. 1st column under each heading shows number of observations for each parameter; 2nd column F = Number of Failures

APPENDIX B

UPDATE ON BATHING WATER IMPROVEMENT SCHEMES IN ENGLAND AND WALES

The 1990, 1992 and 1994 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 data supplied by the Department of the Environment. This information was provided to the Department of the Environment by the Water Service Companies and show the situation with regards to the schemes as at June 1995. The data were forwarded to the European Commission in December 1995 by the DoE. 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 1995; 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 1995.

Section 1 - Schemes completed by June 1995

By June 1995 the total number of schemes completed in the UK since the start of the bathing water improvement programme reached 50, covering 70 bathing waters (40 schemes covering 60 bathing waters in England and Wales).

Region	Scheme	Bathing Waters
Anglian	Heacham/Hunstanton	Heacham Hunstanton
	West Runton	Cromer Sheringham
	Cleethorpes Mablethorpe/Sutton-on-Sea	Cleethorpes Mablethorpe
Northumbria & Yorkshire	Guisborough Newbiggin	Saltburn 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
	Berwick	Spittal
	Whitburn	Whitburn North Roker/Whitburn South
	Limekiln Gill	Crimdon Park

Region	Scheme	Bathing Waters
North West	Bardsea	Bardsea
	Newbiggin	Newbiggin
	Skinburness	Skinburness
	Allonby	Allonby West Winds Allonby S at Salt Pans
	Askham in Furness	Askham in Furness
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
	Calshot	Calshot
	Deal	Deal Castle
	Ramsgate/Weatherlees Hill	Sandwich Bay Ramsgate
South Western	Clevedon Swimming Pool	Clevedon Beach
	Minehead Terminus/Dunster North West	Dunster North West Minehead Terminus
	Weston-Super-Mare	W-S-M Main W-S-M Sand Bay W-S-M Uphill Slipway
	Bude	Bude Crooklets Bude Sandymouth Bude Summerleaze
	Paignton	Paignton Sands
	St Austell: Par	Charlestown Crinnis Golflinks Crinnis Leisure Centre Duporth Par
	Teign Estuary	Ness Cove Shaldon Teignmouth Holcombe Teignmouth Town
	Thurlestone South/Thurlestone North	Thurlestone North Thurlestone South
	Lyme Regis	Lyme Regis Cobb Lyme Regis Church
	Salcombe	Salcombe South Salcombe North Mill Bay
	Gorran Haven	Little Perhaver Vault Beach
	Fowey	Readymoney Cove
	St Mawgan (St Columb)	Mawgan Porth

Region	Scheme	Bathing Waters
Welsh	Kinmel Bay and Rhyl	Kinmel Bay/Sandy Cove Rhyl
	Sandy Bay Porthcawl	Sandy Bay Porthcawl
	Southerndown	Southerndown
	Tenby North	Tenby North
	Aberystwyth	Aberystwyth South Aberystwyth North
	Benllech	Benllech
	Criccieth	Criccieth

Section 2 - Update on scheme details (where changed since 1994 NRA Report)

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.

Details of some of the schemes are understood to have changed since the Department of the Environment compiled these data based on information supplied in June 1995.

Northumbria & Yorkshire Region

Scheme:	Seaham
Bathing Waters:	Seaham Beach, Seaham Remand Home
Expected Date of Compliance:	Early 1996
Description:	Construction of interceptor sewer to transfer foul flows to new preliminary treatment works discharging effluent through new long sea outfall required for bathing water compliance. Further treatment and major sewerage work will follow under UWWTD.
Scheme Completion:	04/96
Note:	Delays in obtaining land and planning approval have caused the scheme to slip. Major improvements will be achieved by the interception of the foul flows. Work on the storm discharges is programmed to follow immediately after.
Scheme:	Langbaugh Phase II
Bathing Waters:	Saltburn
Expected Date of Compliance:	1995
Description:	The scheme involves the interception of flows to two short sea outfalls and the transfer of foul flows to Marske STW and long sea outfall for bathing water compliance.
Scheme Completion:	10/95

North West Region

Scheme:	Fylde Coast
Bathing Waters:	Blackpool South, Blackpool Central, Blackpool North, Bispham, Cleveleys, Fleetwood
Expected Date of Compliance:	Early 1996
Description:	The solution is to transfer flows northward to a new secondary treatment plant at Fleetwood. Discharge through long outfall into edge of Morecambe Bay. Storm storage and management with infrequent storm discharges along Fylde Coast.
Scheme completion:	04/96
Note:	Difficulties with excavation of transfer/storage due to unusual ground conditions will cause some delay to part of the scheme.

North West Region - continued

Scheme:	Morecambe
Bathing Waters:	Heysham - Half Moon Bay, Morecambe South, Morecambe North
Expected Date of Compliance:	Early 1997
Description:	Divert flows from Morecambe to a separate new treatment facility at Middleton in Morecambe with a new outfall. Storm water storage and management with discharge through new/refurbished outfall to Morecambe Bay. Further work to determine whether the new site needs to make provision for Heysham and Lancaster flows. Justification for completion dates contained in earlier reports.
Scheme Completion:	04/97
Note:	Lancaster will now form a separate project for compliance under the UWWTID.
Scheme:	Seascale
Bathing Waters:	Seascale
Expected Date of Compliance:	End 1995
Description:	New outfall to well beyond low water for stormwater and treated effluent. New primary treatment, screening and stormwater storage and management. Transfer pumping station. Sewerage works to eliminate storm sewage overflow.
Scheme Completion:	04/96
Note:	Small delay caused by review of detailed design and site investigation work.
Scheme:	St Bees
Bathing Waters:	St Bees
Expected Date of Compliance:	Usually complies
Description:	Stormwater storage and management will be provided.
Scheme Completion:	04/96
Note:	Small delay caused by review of detailed design and site investigation work.

Southern Region

Scheme:	Bembridge
Bathing Waters:	Bembridge, Whitecliffe Bay
Expected Date of Compliance:	Usually comply
Description:	Sewerage transfer to Sandown STW
Scheme Completion:	12/98
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. Revised scheme requires review of design and planning approval.
Scheme:	Dover and Folkestone
Bathing Waters:	Folkestone, Sandgate
Expected Date of Compliance:	One usually complies; the other expected to comply by early 1999.
Description:	Primary settlement and long sea outfall
Scheme Completion:	04/99
Note:	Planning application was refused September 1992. New application approved December 1993 for a combined scheme serving both Dover and Folkestone. Land acquisition difficulties experienced in respect of major pumping stations. Delays experienced in obtaining NRA discharge consents.

Southern Region - continued

Scheme:	Herne Bay May St. STW
Bathing Waters:	Herne Bay
Expected Date of Compliance:	Mid 1995
Description:	New inland sewage treatment works and sewage transfer.
Scheme Completion:	Mid 1995
Note:	Small delay caused by construction difficulties
Scheme:	Pevensy Bay: Langney Point Outfall
Bathing Waters:	Pevensy Bay, Eastbourne
Expected Date of Compliance:	Usually complies
Description:	Primary settlement and long sea outfall
Scheme Completion:	04/96
Note:	Long sea outfall temporarily in use for 1995 Bathing Season.
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:	03/96
Note:	During late 1994 additional catchment studies were undertaken to satisfy NRA regarding storage tank volume. Consent issued August 1995.
Scheme:	Ventnor
Bathing Waters:	Ventnor
Expected Date of Compliance:	End 1998
Description:	Sewage transfer to Sandown WTW
Scheme Completion:	12/98
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. Interim disinfection of the main discharge at Ventnor is being developed for 1996, 1997 and 1998 bathing seasons, subject to both planning and NRA consents.
Scheme:	Shoreham Area Sewage Disposal
Bathing Waters:	Southwick, South Lancing.
Expected Date of Compliance:	All waters by end 1995
Description:	Primary treatment works, long sea outfall and transfer.
Scheme Completion:	01/96
Note:	Temporary disinfection of normal flows undertaken in 1995 Bathing Season.
Scheme:	Camber Inland STW Modifications
Bathing Waters:	Camber
Expected Date of Compliance:	Usually complies
Description:	Improvement to existing inland wastewater treatment works. UV Disinfection proposed as solution.
Scheme Completion:	03/96
Note:	Delay caused by planning problems
Scheme:	Hove - Portobello: Storm Overflows
Bathing Waters:	Brighton, Hove
Expected Date of Compliance:	Early 1997
Description:	Provision of detention tunnel, drop shafts and pumping facilities. Diversion of combined storm overflow to storage tunnel to avoid frequent storm overflow.
Scheme Completion:	05/97
Note:	Difficulties with tunnel boring machine are the principal cause of the delay in completion.

Southern Region - continued

Scheme:	Pennington Outfall Improvement
Bathing Waters:	Milford on Sea, Christchurch Bay
Expected Date of Compliance:	Christchurch Bay already complies. Milford-on-Sea usually complies.
Description:	Primary settlement followed by secondary treatment at Pennington and sewage transfer.
Scheme Completion:	03/97
Note:	An alternative site had to be selected for Pennington waste water treatment works due to planning objections. Planning application in February 1994, permission given February 1995. Delays also due to consent to discharge negotiations and appeal against NRA consent lodged with DoE.

South Western Region

Scheme:	Ilfracombe Sewerage and Sewage Treatment
Bathing Waters:	Ilfracombe Tunnels Pool, Capstone and Hele
Expected Date of Compliance:	End 1996
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:	10/96
Note:	Completion now four months later than previously advised due to specific requirements for sequential construction avoiding peak summer visitor periods set by the County Council as planning authority. Access routes to be completed prior to starting STW construction.
Scheme:	Lynmouth Sewerage and Sewage Treatment
Bathing Waters:	Lynmouth
Expected Date of Compliance:	Mid 1996
Description:	Resewerage and provision of storage. Pump flows to remote STW for secondary treatment and UV disinfection. Discharge via extended existing outfall.
Scheme Completion:	06/96
Note:	Planning approval date is best current estimate following change in scope of scheme, requested by NRA.
Scheme:	Penzance Regional Sewerage and Sewage Treatment
Bathing Waters:	St. Ives (Porthgwidden, Porthminster, Porthmeor), Mounts Bay (Little Holgus, Heliport, Penzance, Wherry Town), Carbis Bay (Station and Porth Kidney)
Expected Date of Compliance:	1995 (End 1995 for Porthgwidden)
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:	Complete except St Ives pumping station due end 1995
Note:	St Ives section subject to planning delays, planning approval granted in January 1994.
Scheme:	Perranporth STW
Bathing Waters:	Perranporth (Village and Penhale Sands)
Expected Date of Compliance:	End 1995
Description:	Resewerage and storage, uprate pumping stations, new rising main to new STW - chemically enhanced settlement. Discharge through existing outfall with extension.
Scheme Completion:	12/95
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:	12/98
Note:	Slight delays have been caused by land acquisition difficulties

South Western Region - continued

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:	04/97
Note:	Delays are due to continued planning consent problems
Scheme:	St Agnes
Bathing Waters:	Trevaunance Cove
Expected Date of Compliance:	Early 1997
Description:	Collect and pump sewage to new STW. Provide secondary treatment. Relocate outfall.
Scheme Completion:	04/97
Note:	Delays caused by land acquisition problems.
Scheme:	Taw/Torridge - Southern Area
Bathing Waters:	Saunton Sands, Instow, Westward Ho!
Expected Date of Compliance:	Instow 1998, Others already comply
Description:	Southern area of Taw Torridge Scheme. 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:	05/98
Note:	Delayed in completion caused by complications in compulsory purchase procedures.
Scheme:	Taw/Torridge - Northern Area
Bathing Waters:	Saunton Sands, Instow, Westward Ho!
Expected Date of Compliance:	Instow 1998, Others already comply
Description:	Northern area of Taw Torridge Scheme. 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:	05/97
Scheme:	Trevone Regional
Bathing Waters:	Mother lvey's Bay, Harlyn Bay, Trevone Bay, Rock Beach, Daymer Bay, Polzeath
Expected Date of Compliance:	All expected to comply by mid 1997
Description:	Intercept discharges and bring to new STW in estuary. Some resewerage. Treat to secondary and UV disinfect. New outfall to estuary. Transfer west area flows for treatment at uprated coastal works for marine discharge.
Scheme Completion:	06/97
Note:	Completion now 6 months later than previous date due to an appeal against the NRA's proposed discharge consent.
Scheme:	Porthleven Sewerage and Sewage Treatment
Bathing Waters:	Porthleven East, Porthleven West.
Expected Date of Compliance:	Late 1996
Description:	Transfer flows to inland STW, full treatment and disinfection, effluent dispersed via sewers to coast and medium sea outfall extension.
Scheme Completion:	11/96
Note:	Delay caused by land acquisition difficulties.

Welsh Region

Scheme:	Llandudno West Shore
Bathing Waters:	Llandudno West Shore
Expected Date of Compliance:	End 1995
Description:	Construction of preliminary treatment works, long sea outfall, and associated pumping station. Construction of pipelines and several transfer pumping stations.
Scheme Completion:	12/95
Note:	It was thought 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:	08/98
Note:	Severe land and planning difficulties have led to substantial delays.
Scheme:	Saundersfoot
Bathing Waters:	Saundersfoot
Expected Date of Compliance:	Late 1995
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:	09/97
Note:	When work on this scheme commenced, old mine workings 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. Transfer of sewage from Saundersfoot to Tenby delayed by judicial review of NRA discharge consent, but can now proceed. As far as improvements are concerned at Saundersfoot the relevant aspects of the scheme were complete by 09/95.
Scheme:	Swansea Bay
Bathing Waters:	Swansea Bay, Bracelet Bay, Limeslade Bay, Langland Bay, Caswell Bay, Oxwich Bay
Expected Date of Compliance:	Some already comply; all expected to comply by 1997
Description:	Provision of sewage treatment works and sea outfall, interceptor sewers, transfer sewers and pumping stations, modern storm sewer overflow facilities.
Scheme Completion:	12/97
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:	09/95

Section 3 - Schemes in progress after June 1995

In general, progress on the 49 remaining improvement schemes in England and Wales is on schedule. Completion of some schemes has had to be re-phased 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
Anglian	Great Yarmouth	12/96	Hemsby Caister Point Great Yarmouth South Great Yarmouth Pier Great Yarmouth North Gorleston
	Harwich and Dovercourt	06/97	Dovercourt
	West Mersea STW Improvements	12/95	West Mersea
Northumbria & Yorkshire	Seaham	04/96	Seaham Beach Seaham Remand Home
	Whitley Bay	03/96	Tynemouth King Edwards Bay Tynemouth Long Sands South Tynemouth Long Sands North Tynemouth Cullercoats Whitley Bay
	Langbaurgh Phase II	10/95	Saltburn
North West	Barrow in Furness	03/96	Aldingham Newbiggin
	Fylde Coast	04/96	Bispham Cleveleys Fleetwood Blackpool South Blackpool North Blackpool Central
	Haverigg	03/96	Haverigg
	Morecambe	04/97	Morecambe North Morecambe South Heysham
	Seascale	04/96	Seascale
	Silloth	03/96	Silloth
	Southport	03/96	Southport
	St Annes	03/96	St Annes North St Annes
	St Bees	04/96	St Bees
Southern	Bembridge Sewage Disposal	12/98	Bembridge Whitecliff Bay
	Camber Inland STW Modifications	03/96	Camber
	Herne Bay May St. STW	10/95	Herne Bay

Region	Scheme	Scheme completion date	Bathing Waters
<i>Southern - continued</i>	Dover and Folkestone: Sewage Disposal	04/99	Sandgate Folkestone
	Hove - Portobello: Storm Overflows	05/97	Brighton Hove
	Pennington Outfall Improvements	03/97	Milford-on-Sea Christchurch Bay
	Pevensey Bay: Langney Point Outfall	04/96	Pevensey Bay Eastbourne
	Shoreham Area Sewage Disposal	01/96	Southwick South Lancing
	Ventnor Sewage Disposal	12/98	Ventnor
	St Helens Outfall Improvements	03/96	St Helens
	Worthing Area Sewage Disposal	03/96	Worthing South Lancing Southwick
South Western	Combe Martin	08/95	Combe Martin
	Ilfracombe	11/96	Ilfracombe (Tunnels) Ilfracombe (Hele) Ilfracombe (Capstone)
	Lynmouth	06/96	Lynmouth
	Penzance Regional Sewerage and S.T	12/95	Porthmeor St Ives Porthgidden St Ives Porthminster St Ives
	Perranporth STW	12/95	Perranporth (Village End) Perranporth (Penhale Sands)
	Plymouth	12/98	Plymouth Hoe (East) Plymouth Hoe (West)
	Porthallow Sewage Treatment	no date	Porthallow
	Porthleven Sewerage and S.Treatment	11/96	Porthleven (West) Porthleven (East)
	Seaton and Downterry	04/97	Downterry Seaton (Cornwall)
	St Agnes	04/97	Trevaunance Cove
	St Austell Menagwins STW	03/96	Pentewan
	Taw/Torridge - Southern Area	05/98	Instow Westward Ho! Saunton Sands
	Taw/Torridge - Northern Area	05/97	Instow Westward Ho! Saunton Sands
	Thriven Regional	06/97	Polzeath Trevone Bay Mother Ivey's Bay Rock Harlyn Bay Daymer Bay
Thames	Southend-on-Sea	03/98	Thorpe Bay Westcliff Bay Shoeburyness

Region	Scheme	Scheme completion date	Bathing Waters
Welsh	Jacksons Bay	12/97	Whitmore Bay Jacksons Bay Cold Knap
	Llandudno West Shore	12/95	West Shore Llandudno
	Rhosneigr	08/98	Rhosneigr
	Saundersfoot	09/97	Saundersfoot (aspects affecting water quality complete 09/95)
	Swansea Bay	12/97	Oxwich Bay Limeslade Bay Bracelet Bay Langland Bay Swansea Bay Caswell Bay
	Tywyn and Aberdyfi	09/95	Tywyn Aberdyfi



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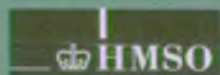
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The NRA is committed to the principles of stewardship and sustainability. In addition to pursuing its statutory responsibilities as Guardians of the Water Environment, the NRA will aim to establish and demonstrate wise environmental practice throughout all its functions.

Bathing Water Quality in England and Wales - 1995

This report is the sixth annual report on Bathing Water Quality in England and Wales by the NRA. The report presents the results of the 1995 bathing water survey. The data, as assessed by the DoE in accordance with the EC Bathing Water Directive, show that compliance with the mandatory coliform standards in 1995 was 89.2%, an improvement of 6.7% over the previous year. The report also details an analysis of bathing waters meeting the water quality requirements for the European Blue Flag and Tidy Britain Group Award schemes. Progress with capital schemes in the Water Service Companies' Bathing Water improvement programme is also given.



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