



River Test, Long Parish



NRA

National Rivers Authority

Guardians of
the Water Environment

**NATIONAL RIVERS
AUTHORITY
Southern Region**

**ENVIRONMENTAL PROTECTION
SCIENCE GROUP**

**REPORT ON THE QUALITY OF BATHING WATERS IN HAMPSHIRE,
SUSSEX, KENT AND THE ISLE OF WIGHT.
1992 BATHING SEASON.**

**January 1993
Report Number DL/bw3/93**

SUMMARY

- 1 In England and Wales the NRA is the competent authority for the EC Directive concerning the Quality of Bathing Waters (76/160/EEC). This report lists the bathing water quality results for Hampshire, Sussex, Kent and the Isle of Wight for the 1992 bathing season. The report also includes the results of marine algal monitoring and beach aesthetic surveys carried out at the same time or at the same sites.
- 2 The NRA Southern Region sampled 67 EC bathing waters weekly between 1st May and the end of September. A minimum of 20 samples were collected for coliform and faecal streptococci analysis and two samples were collected for *Salmonella* and Enterovirus analysis. 43 other bathing waters were sampled weekly for coliforms and faecal streptococci. On each visit sampling officers also recorded a range of physical and chemical parameters.
- 3 The UK Government currently uses the mandatory faecal coliform and total coliform standards as the basis for determining compliance with the Directive. This year 51 EC bathing waters in the Region (76%) conformed with the coliform standards, compared with 78.8% for all bathing waters in the UK. This was an increase of 9% compared with 1991 and is partly in response to completed remedial schemes and partly due to changes in analytical methods.
- 4 *Salmonella* and enterovirus were monitored on two occasions at every EC bathing water. *Salmonella* were not detected at 55 bathing waters (82%) and enteroviruses were not detected at 31 bathing waters (46%).
- 5 Compliance to EC guideline standards for coliforms and faecal streptococci are not a requirement of the Directive. However, new schemes are currently being designed to achieve this objective and in 1992 30 bathing waters (45%) conformed with total coliform guideline standards, 12 bathing waters (18%) with faecal coliform guideline standards and 22 bathing waters (33%) with faecal streptococci guideline standards.
- 6 All EC bathing waters in the Region complied with the other mandatory physico-chemical standards listed in the Directive.
- 7 Marine algal blooms were generally restricted to the Kent coast where a widespread *Phaeocystis* bloom was observed during the first week in May. A series of other phytoplankton blooms occurred along the Kent

coastline at regular intervals throughout the summer.

- 8 Aesthetic surveys were carried out to determine levels of sewage related debris on bathing beaches throughout the Region. Highest levels of sewage debris were recorded in parts of Kent, lowest levels in Sussex and Hampshire.
- 9 All EC bathing waters in the Region are required to comply with the requirements of the Directive by 1995. Certain remedial schemes planned by Southern Water Services are now required to include effluent treatment, a requirement of the EC Urban Waste Water Directive .

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1 INTRODUCTION

The EC Directive concerning the Quality of Bathing Waters (76/160/EEC), agreed by all Community Members in December 1975, is intended to safeguard amenity, public health and the environment by reducing pollution of bathing waters and protecting them against further deterioration.

The Directive lists a range of water quality parameters which should be monitored, identifies standards which should be achieved in waters subject to the Directive and indicates the required monitoring frequency and period.

The NRA is the competent authority with respect to the Bathing Water and a number of other EC Directives and so is responsible for sampling and analysis. In 1992 the NRA Southern Region monitored the quality of bathing waters at 110 sites around the coasts of Hampshire, Sussex, Kent and the Isle of Wight. This included 67 EC beaches which are identified by the Department of the Environment for monitoring under the EC Directive (Figure 1) and 43 other beaches which were monitored because they were locally important, or, were additional monitoring sites on EC beaches included for pollution investigation purposes. This report lists these results in full and also details the timetable of remedial schemes to be carried out Southern Water Services to ensure all EC beaches comply with the Directive by 1995. The report also includes the results of marine algal monitoring and beach aesthetic surveys carried out at the same time or at the same sites.

2 SAMPLING AND ANALYSIS.

EC beaches were sampled weekly between 1st May and the end of September, which includes two weeks sampling prior to the UK Bathing Season identified by the Department of the Environment (15th May - 30th September). A minimum of 20 samples were collected for coliform and faecal streptococci analysis and two samples were collected for *Salmonella* and Enterovirus during the bathing season. Other beaches were sampled weekly for coliforms and faecal streptococci only. On each visit sampling officers also recorded a range of physical and chemical parameters.

The following non-identified bathing waters were monitored in addition to those listed in last years report.

Brook Bay	Isle of Wight
Brighstone Bay	Isle of Wight
Thorness Bay	Isle of Wight
Portsmouth, Victoria Pier	Hampshire
Cuckmere Haven Beach	Sussex
Dumpton Gap	Kent
Reculver Beach	Kent
Tankerton Beach	Kent
Hampton Pier	Kent
Kingsdown Beach	Kent

All coliform and faecal streptococci analyses were undertaken by NRA Laboratories at Waterlooville and at Canterbury. All samples were analysed for coliforms and faecal streptococci within 6 hours of collection.

In previous years coliform numbers have been determined on a presumptive basis. Confirmatory tests had never been undertaken because of cost, time delays before results are available for reporting , and because a very high proportion of presumptive coliforms are subsequently confirmed (80-90% of faecal coliforms, 70-90% of total coliforms). The Annex to the EC Bathing Waters Directive requires that suspect coliforms are subcultured and identified. To this end all NRA regions reported confirmed coliform results during the 1992 bathing season, all regions had reported only presumptive results during 1991.

The results of bacteriological analyses are listed in full in Appendix A.

3 BACTERIOLOGICAL AND OTHER STANDARDS

The EC Directive details 19 different pollution parameters to be monitored of which five are microbiological. Standards for those parameters for which they are set fall into two categories, imperative (I) and guideline (G) and details of the requirements for compliance are given in the Annex to the Directive (Appendix B). Compliance with imperative standards must be achieved within ten years of a bathing water being identified for the purposes of the Directive; most UK bathing waters were identified in 1985, only 27 were identified earlier. To prevent confusion the imperative standards will be referred to as the mandatory standards for the remainder of this report. The Directive also recommends that Member States endeavour to achieve guideline standards in bathing waters but this is not a requirement.

The "I" standards most commonly applied relate to faecal coliform and total coliform bacteria and require that 95% of all samples taken at a minimum fortnightly intervals through the bathing season should contain no more than 2,000 faecal coliform per 100ml. seawater and 10,000 total coliforms per 100ml. seawater. The UK Government currently uses the mandatory faecal coliform and total coliform standards as the basis for determining UK compliance with the Directive but ultimately it is the EC which makes the final assessment.

Additional microbiological "I" standards concern the occurrence of *Salmonella* and Enteroviruses, and "G" standards are set for faecal Streptococci, faecal coliform and total coliforms. The five microbiological parameters and compliance requirements are detailed in Table 1.

Total and faecal coliforms are bacteria of the human gut, occur in very high numbers in sewage and so are a valuable indicator of sewage pollution. Human faeces also contains faecal Streptococci, *Salmonella* and Enteroviruses which are pathogenic to man and there is a proven risk, albeit very small, of contracting minor illnesses from bathing in seawater contaminated by sewage. Such minor infections include gastro-enteritis, ear, eye, and nose infections and skin rashes. There are no official statements relating EC standards to risk to health of bathers, the standards have not been derived from epidemiological study and appear primarily as a desire to harmonise conditions between Member States.

The results for 425 UK bathing waters covering the 1987 bathing season have been assessed for compliance against six water quality standards used by European and North American agencies (Kay et al, 1990). The EC mandatory standards proved to be the least stringent and the EC guideline standards the most stringent; certain of the North American standards tested were derived from epidemiological study.

TABLE 1 MICROBIOLOGICAL QUALITY REQUIREMENTS OF THE EC BATHING WATER DIRECTIVE.

PARAMETER	UNIT	STANDARDS	
		G value	I value
Total Coliform	per 100ml.	500	10,000
Faecal Coliform	per 100ml.	100	2,000
Faecal Streptococci	per 100ml.	100	-
Salmonella	per litre	-	0
Enterovirus	per 10 litres	-	0

Compliance levels: I, 95%, or G, 80% (faecal streptococci 90%) for samples taken during the bathing season.

4 COMPLIANCE WITH MANDATORY COLIFORM STANDARDS.

Coliform results of samples collected during 1992 are summarised in Table 2 which lists the number of samples collected, the numbers failing to meet EC standards and statistical information for each beach. This year 51 EC beaches conformed with the coliform standards of the Directive. This represents 76% of bathing waters in the Region which is in line with the national figure of 78.8% for the United Kingdom.

This summer 33 of the 43 other beaches monitored would also have conformed with the mandatory coliform standards of the Directive if such standards applied to these bathing waters. EC bathing water standards do not apply to these 'other' beaches and there are currently no statutory requirements for compliance to any such standards at these beaches.

Previously, EC beaches were monitored once every two weeks during the bathing season, in 1988 some beaches were monitored weekly and others fortnightly and in 1989 all beaches were monitored weekly. In the past a beach was judged to conform with the EC Directive if no more than one sample from 12 exceeded the mandatory standards in the Directive. In 1988 and subsequently compliance has been based on a true 95% basis allowing no more than one failure in 20 samples, if fewer samples were collected all had to meet the standard. Compliance, calculated on this basis, with EC mandatory coliform standards between 1986 and 1992 is shown in Table 3. In 1986 41 beaches and in 1987 38 beaches conformed with the EC standards compared to 27 in 1988, 45 in 1989, 48 in 1990 and 45 in 1991 when the stricter assessment of compliance was applied for the first time.

Sewerage work connecting West Cowes to the Cowes long sea outfall was completed at the end of May 1992. No samples failed bacteriological standards after this date although the beach failed to comply with EC standards over the season due to the very poor results in May. The application of ultra-violet disinfection on certain inland sewage discharges which pollute bathing waters has resulted in bathing water quality improvements at Dymchurch.

Elsewhere, improvements in coliform compliance are not simply related to remedial sewage disposal schemes, 12 bathing waters which failed in 1991 passed this year and six bathing waters which passed in 1991 failed this year. Overall, 9% more bathing waters complied with EC standards compared to 1991, partly in response to remedial schemes and partly due to changes in analytical methods. If compliance were assessed with

respect to presumptive coliform results, the analytical method applied in all previous years in Southern Region, then only 3% more bathing waters would have complied with EC standards compared to 1991.

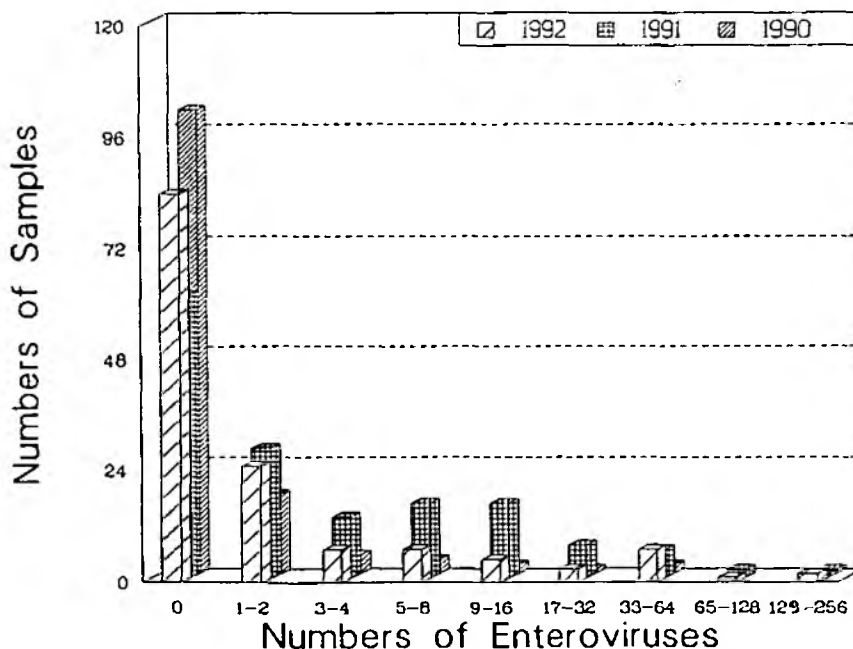
5 COMPLIANCE WITH MANDATORY VIRUS AND *SALMONELLA* STANDARDS.

Virus and *Salmonella* samples were collected on two occasions from each EC beach and results are summarised in Table 4. *Salmonella* were detected at 12 beaches (82% comply), Enteroviruses were detected at 36 beaches (46% comply) and one or both of these pathogens were found at 38 beaches (43% comply).

Salmonella are only infrequently found in bathing waters in the Southern Region and when enumerated numbers have proved to be very low such that they are unlikely to pose a health risk to bathers. Enteroviruses were less widely distributed in 1992 compared to 1991 but were more frequent than during the drier summer of 1990. In the June 1990 survey they were detected in 25 bathing waters throughout the Southern Region compared to 6 bathing waters in the July 1990 survey. In 1991 enteroviruses were present in 40 waters during the June survey and 33 during the July survey, whereas in 1992 they were present in 21 waters during the June survey and 29 during the July survey.

Enteroviruses are determined as plaque forming units per ten litres of seawater and numbers are usually extremely low (Figure 2).

FIGURE 2 THE DISTRIBUTION OF NUMBERS OF ENTEROVIRUSES IN SAMPLES COLLECTED FROM BATHING WATERS IN THE NRA SOUTHERN REGION DURING SUMMERS 1990, 1991 and 1992.



Previous studies have shown that the distribution of *Salmonella* and Enteroviruses in bathing waters do not correlate with that of coliforms or faecal streptococci. The reason is that these pathogens survive much longer in seawater, Enteroviruses surviving days, weeks or months compared to coliforms which only survive a few hours on a sunny, mid-summer day.

Because Enteroviruses occur in such low densities in seawater they need to be isolated and enumerated using tissue culture methods. Appropriate methods have only been developed for a few types and strains and none of these are associated with gastro-enteritis in swimmers. The Enterovirus data presented can be regarded as indicative of the distribution of other viruses but their occurrence should not be regarded as demonstrating a health risk.

6 COMPLIANCE WITH GUIDELINE COLIFORM AND STREPTOCOCCI STANDARDS.

Article 3 of the Directive requires member states to set bathing water quality standards no less stringent than those specified as "I" values in the Annex to the Directive and also requires member states to endeavour to observe "G" values as guidelines, whether or not there is a corresponding "I" value.

To comply with these guideline standards the Directive requires that 90% of samples conform with "G" values (80% in the case of total and faecal coliform) and that those 10% (or 20%) not complying must not be consecutive samples.

The proportions of samples determined for total coliform, faecal coliform and faecal streptococci complying to relevant mandatory "I" and guideline "G" standards are listed in Table 5. If the consecutive sample rule is ignored then overall, 39 (58%) of EC Beaches conformed with the total coliform guideline standards, 21 (31%) conformed with the faecal coliform guideline standards and 25 (37%) conformed with the faecal streptococci guideline standards.

Compliance to guideline standards for each county is summarised in Table 6, in which compliance has been assessed strictly using both "G" values and the consecutive day rule. Overall compliance on this basis is 45% for total coliforms, 18% for faecal coliform and 33% for faecal streptococci.

TABLE 6 SUMMARY OF COMPLIANCE TO THE GUIDELINE STANDARDS (INCLUDING CONSECUTIVE SAMPLE RULE) FOR TOTAL COLIFORMS, FAECAL COLIFORMS AND FAECAL STREPTOCOCCI.

County	Number of EC Bathing Waters	No's of bathing waters Complying to Guideline Standards		
		Total Coliform	Faecal Coliform	Faecal Strepts
Hampshire	12	9	3	10
Sussex	22	3	1	3
Kent	20	11	5	5
Isle of Wight	13	7	3	4
TOTAL	67	30	12	22

7 COMPLIANCE WITH OTHER PHYSICO - CHEMICAL STANDARDS.

The Directive lists a number of other parameters for which mandatory standards are set but the Annex to the Directive provides that these parameters do not have to be measured in every case. These parameters include pH, transparency, colour, mineral oils, surface active substances and phenols. All except pH are determined by observational assessment of the visual and/or olfactory quality of water in the vicinity of the sampling site.

- Colour - No change from normal for the prevailing weather and tidal conditions at time of sampling.
- Mineral Oils - No film or odour present.
- Surface Active Substances - No lasting foam.
- Phenols - No specific odour.
- Transparency - Depth to which a Secchi disc remains visible. In Southern Region this is determined by whether the sampler can see his/her feet whilst wading to collect the sample, but waivers are in force for this parameter at all our EC bathing waters.

In all cases of a positive field observation for colour, mineral oils, surface active substances or phenols a sample was collected for laboratory confirmation.

Article 8 states that the Directive may be waived in the case of certain parameters. In the Southern Region the Directive has been waived for transparency at all sites and colour at three sites on the grounds of geographical conditions. These waivers are likely to be permanent.

Table 7 contains a numerical summary of the results for these parameters, parameters with waivers are indicated with an asterisk. No bathing waters in our Region failed to comply with the requirements of the Directive for any of these parameters.

8 NATIONAL BEACH AWARD SCHEMES

8.1 The European Blue Flag Scheme

The European Blue Flag awards are organised in the UK by the Tidy Britain Group. In order to achieve a blue flag coastal resorts must achieve the following standards for beach cleanliness, bathing water quality and provision of services and amenities:

- Bathing Water Quality must comply with the guideline value of the appropriate microbiological parameters of the EC Bathing Water Directive (EC/160/EEC).
- There must be an absence of litter both on land and in the sea.
- There must be no oil pollution.
- Beaches must be cleaned up after each day.
- There must be no unauthorised camping or dumping and there must be safe and adequate access to the beach.
- Dogs must be banned from part of the beach.

Blue flags are awarded in June each year using water quality statistics compiled for the previous bathing season. The official water quality statistics are those collected by the NRA.

New, more stringent, criteria were agreed for the 1992 Blue Flag Awards by the 12 European countries participating in the scheme. A significant change was that water quality must comply with the Guideline(G) values of the appropriate microbiological parameters of the EC Bathing Water Directive, whereas previously compliance to mandatory standards was acceptable.

In 1992 blue flag were awarded to 17 coastal resorts in the UK compared to 35 in 1991 when the less stringent microbiological standards applied. Sheerness and West Beachlands (West Hayling) from Southern Region were successful.

During the bathing season the NRA provided results of bacteriological analysis to the successful local authorities who are required to display this information publicly as a condition of the award.

Details of the European Blue Flag Award criteria are reproduced in Appendix C.

8.2 The Tidy Britain Group - Seaside Award Scheme.

The Seaside Award was a new scheme for 1992, introduced and administered by the Tidy Britain Group, that recognises resorts and beaches that have attained high standards of facilities and management, beach cleanliness, and water quality. The award has been designed to complement the European Blue Flag Award, and to compensate for the loss of the Golden Starfish Award that was pilot tested in the UK and Greece in 1990/91 for rural beaches.

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

Within each category, two levels of water quality are acknowledged: one that meets the mandatory(I) standards for the faecal and total coliform parameters of the EC Bathing Water Directive, and also complies with 28 land-based criteria - this will be known as the Seaside Award; and one that meets the Directive's more stringent guideline(G) standards for the same parameters, and also complies with the same 28 land-based criteria - this will be known as the "Premier" Seaside Award.

Eleven beaches in Southern Region were successful in obtaining seaside awards. The beaches and type of award are listed below:

Resort Beaches	- Bexhill	
	- Eastbourne	
	- Ryde East	
	- Sheerness	Premier Award
	- Southsea	
Rural Beaches	- Lepe Country Park	Premier Award
	- Pevensey Bay	
	- Springvale	
	- St Helens	Premier Award
	- West Beachlands (West Hayling)	Premier Award
	- Winchelsea	

Details of the Seaside Award criteria for Resort and Rural beaches are reproduced in Appendix C.

9 MONITORING OF MARINE ALGAE

Marine algal blooms most commonly cause aesthetic nuisance in bathing waters and on beaches, through production of large amounts of foam or scum. This may be present on the surface of the water or be deposited on the beach, and can result in offensive smells as the bloom decays. *Phaeocystis* is the most common "bloom" phytoplankton in NRA Southern Region waters.

Some algae can cause skin irritation when bathers come into contact with bloom concentrations. Blooms of toxic dinoflagellates can also occur, resulting in localised mass mortalities of marine biota, or contamination with biotoxins of commercially fished shellfish and Crustacea, rendering them dangerous to human health.

In view of the increasing international and national concern at the effects of eutrophication, and the apparent increase in incidents of algal blooms around the UK coastline, the NRA have established a reporting procedure for the occurrence of exception marine algal blooms.

On all routine visits to bathing waters in our region water quality officers:

- observe the strandline and record the presence or absence of any evidence of bloom deposited by the previous tide, such as slime, scum, gelatinous sludge, localised dark patches in the sand, or sulphurous smells.
- observe the seawater at the waters edge for any evidence of algal bloom such as excessive foam, colour change, smell etc, and record presence or absence.
- observe the sea offshore for signs of slicks, windrows, or foaming indicative of algal blooms, and record presence or absence.

Positive observations for the beach or waters edge are supported by samples which are examined in the laboratory to identify and enumerate the dominant species.

Beaches were sampled weekly from the first week in May until the end of September and the results are summarised in Table 8. During that period there were a few positive records, the majority of these were at Kent beaches with a few at Sussex beaches.

The most significant problems on Sussex beaches were related to accumulations of rotting seaweed, particularly at Bognor, Middleton, Felpham and Worthing.

A very widespread phytoplankton bloom was recorded on Kent beaches in the first week in May. This bloom of *Phaeocystis* extended from Margate to Ramsgate but had disappeared by the following week. A series of other phytoplankton blooms occurred along the Kent coastline at regular intervals throughout the summer.

The most visible blooms were associated with *Noctiluca scintillans* which colours the sea salmon pink. One bloom was noted at Margate and is reported to have extended across the Thames estuary to Maplin Sands, another bloom extended between Folkestone and Dungeness but remained offshore.

Another large bloom was observed between Tankerton and Palm Bay at the end of July. The bloom consisted of *Dunaliella* and some other Diatom spp. and was associated with a soft brown floccular scum on the surface of the water.

10 BATHING BEACH AESTHETIC SURVEYS

Most beach users find the presence of recognisable sewage related debris on beaches to be grossly objectionable and this criteria may be more important in beach selection than is the bacteriological quality of the bathing water. The importance of this factor is clearly recognised in the blue flag and seaside award schemes.

Sewage related debris enters the sea from unscreened crude sewage outfalls and storm overflows and also from small boats. Certain plastic and rubber items may persist for a very long time and can be dispersed over very large distances by the tides.

Planned and recently completed remedial sewage treatment schemes include the fine screening of all sewage discharged through long sea outfalls and increased water retention capacity within the sewerage network. Sewerage systems for coastal towns in the Southern Region are now being designed to allow no more than one storm water spillage per bathing season. As remedial sewage treatment schemes are progressed it is expected that the amounts of sewage related debris found on beaches will reduce significantly.

NRA Southern Region commenced pilot - scale bathing beach aesthetic surveys in 1991 to meet three objectives:

- to monitor reductions in sewage related debris resulting from remedial sewage treatment schemes.
- to monitor the efficiency of preliminary treatment (screening and maceration) of sewage discharged to the sea via long sea outfalls.
- to monitor the frequency and impact of storm overflows discharging to bathing waters.

Full scale surveys were carried out in 1992 following an objective assessment method developed by Garber. Most bathing waters were assessed by water quality officers once per month during the bathing season, although beaches between Brighton and Hythe (Kent) were visited less frequently due to staffing difficulties. More frequent surveys were carried out at some Kent beaches because of the perceived scale of the problem.

On each visit a minimum of 100 metres length of the beach was inspected at the water's edge, along the strandline and mid - way between the two. At each of

these locations the quantities of six categories of sewage related debris were determined using the following scale:

0	-	Absent
1	-	Trace quantities present
2	-	Some debris at intervals
3	-	Sufficient to be objectionable

The results of bathing beach aesthetic surveys undertaken during the 1992 bathing season are summarised in Table 9. The total of all scores on all visits are recorded for each category of sewage related debris for each beach. The average score per visit has also been calculated for comparative purposes.

Intact faeces were observed rarely and were most probably of canine origin. Other recognisable sewage debris was also observed rarely except along parts of the Kent coast in Sandwich Bay and around the Thanet Peninsula. Contraceptives, tampon applicators and sanitary towels were recorded the most frequently with the highest frequencies recorded in parts of Kent.

In general terms the lowest levels of sewage debris were observed along the Sussex and Hampshire coasts, with more occurring on the Isle of Wight shorelines and the most occurring in Kent. To some extent this reflects the location and numbers of unscreened crude sewage outfalls discharging to the sea.

Aesthetic surveys of this type are difficult to apply in a consistent objective manner because of the subjective nature of the observations being recorded. Levels of sewage related debris recorded along the Sussex coasts are suspiciously low and may be an artefact of inaccurate sampling. Special attention will be paid to the Sussex coast during the 1993 programme.

11 REMEDIAL SEWAGE TREATMENT SCHEMES

In 1989 Southern Water Services identified the need for remedial schemes to give compliance at 35 non-compliant waters, and an additional 11 waters were considered by SWS to be at risk of non-compliance. Three non-compliant waters near Bognor were under investigation to determine the cause of failure. Schemes covering all non-compliant and at risk waters are scheduled for completion by 1995.

The timetable of capital works expenditure planned by Southern Water Services is detailed in Table 10 and this provides a useful guide as to when remedial schemes will be complete. These schemes require the approval of the NRA who issue the consent to discharge the effluent. The NRA has not received details of final plans for a number of these schemes, progress being slowed while SWS modify plans to incorporate the requirements of the EC Urban Waste Water Directive which makes effluent treatment mandatory for discharges exceeding a certain size.

Notification has been received from the Department of the Environment that effluent treatment must be included in schemes for the following sites:

- Dover
- Folkestone/Sandgate
- Pennington
- Sandwich/Deal
- Eastbourne/Pevensy Bay
- Worthing/Portslade

These are to be completed by the end of 1995 at the latest.

The NRA has compiled a regional bathing water improvement plan which was circulated to Southern Water Services in February 1992. The plan identifies discharges affecting designated and non-designated bathing waters which require improvements involving major schemes (ie. long sea outfalls), major sewerage network improvements, diversions of flows from existing outfalls, limited works or other actions.

A number of remedial schemes have now been completed but the bathing waters continue to fail to comply with EC standards (eg Gurnard). The NRA has commenced investigations to determine the reasons for such non - compliance, summaries of these investigations will be included in future reports.

12 FUTURE MONITORING STRATEGY.

The NRA Southern Region are committed to monitoring all important coastal bathing waters in our region irrespective as to whether these are identified for the purposes of the EC Directive. It is hoped to expand monitoring, by stages, to include 50 other beaches (non-EC) by 1993. This will involve an additional 7 bathing waters in the coming 1993 bathing season and these will be selected strictly on the basis of popularity of usage.

13 REFERENCES

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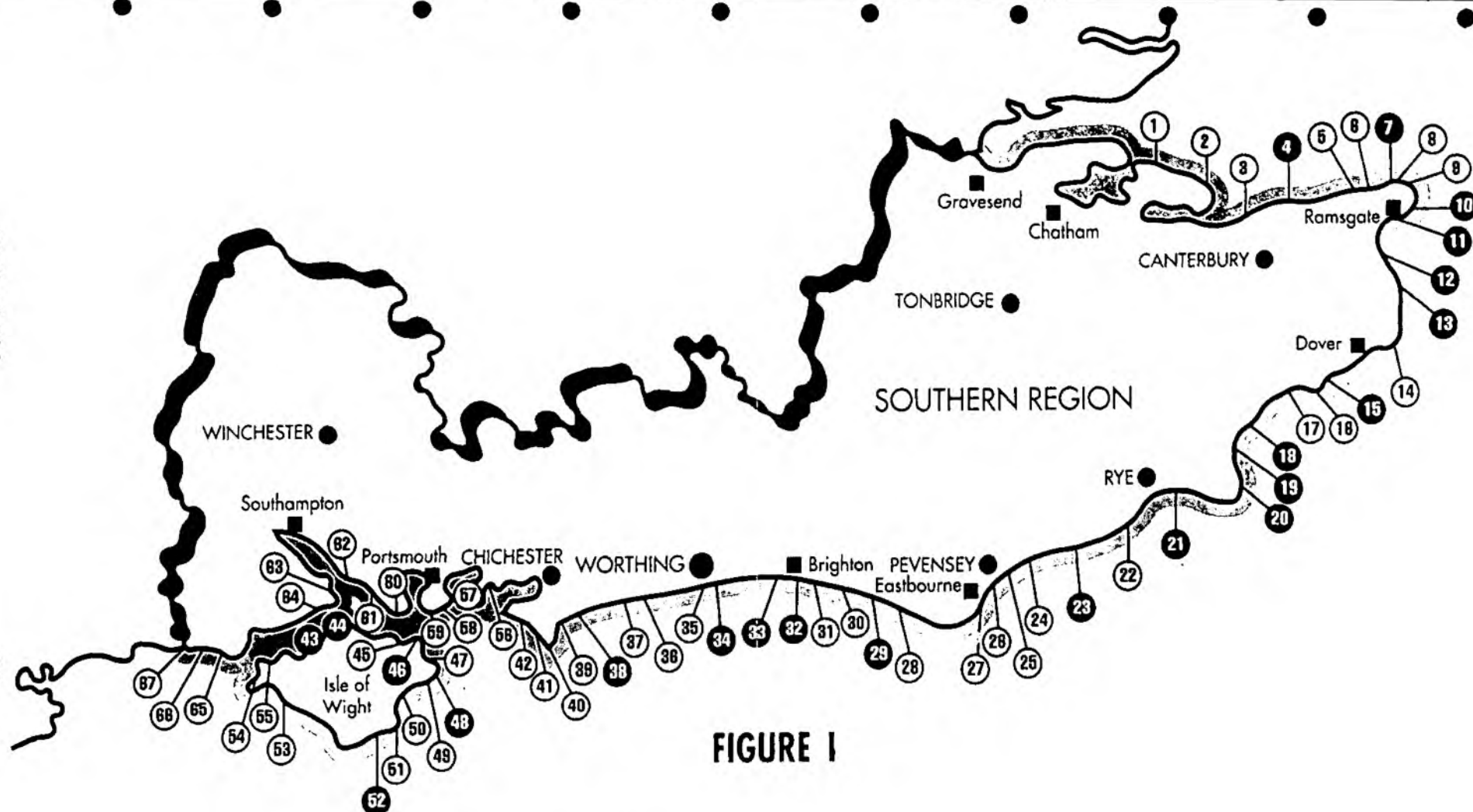


FIGURE 1

Bathing Water

- 1 Sheerness
- 2 Leysdown
- 3 West Beach
- 4 Herne Bay
- 5 Minnis Bay
- 6 St Mildred's Bay
- 7 Margate The Bay
- 8 Margate Fulsham Rock
- 9 Joss Bay
- 10 Broadstairs

Bathing Water

- 11 Ramsgate
- 12 Sandwich Bay
- 13 Deal Castle
- 14 St Margaret's Bay
- 15 Folkestone
- 16 Sandgate
- 17 Hythe
- 18 Dymchurch
- 19 St Mary's Bay
- 20 Littlestone

Bathing Water

- 21 Camber
- 22 Winchelsea
- 23 Hastings
- 24 Bexhill
- 25 Norman's Bay
- 26 Pevensey Bay
- 27 Eastbourne
- 28 Seaford
- 29 Newhaven
- 30 Saltdean

Bathing Water

- 31 Brighton
- 32 Hove
- 33 Southwick
- 34 South Lancing
- 35 Worthing
- 36 Littlehampton
- 37 Middleton-on-Sea
- 38 Bognor Regis
- 39 Pagham
- 40 Selsey

Bathing Water

- 41 Bracklesham Bay
- 42 West Wittering
- 43 Gurnard
- 44 Cowes West
- 45 Ryde East
- 46 Seagrove
- 47 St Helens
- 48 Bembridge
- 49 Whitecliff Bay
- 50 Sandown

Bathing Water

- 51 Shanklin
- 52 Ventnor
- 53 Compton Bay
- 54 Totland Bay
- 55 Colwell Bay
- 56 West of Eastoke
- 57 West Hayling
- 58 Eastney
- 59 Southsea
- 60 Stokes Bay

Bathing Water

- 61 Lee-on-Solent
- 62 Hillhead
- 63 Calshot
- 64 Lepe
- 65 Milford-on-Sea
- 66 Christchurch Bay
- 67 Highcliffe

TABLE 2a

ISLE OF WIGHT - BATHING WATER BACTERIOLOGICAL SUMMARY RESULTS 1992

Sampling Point	Map Reference	No. of Samples	TOTAL COLIFORMS				FAECAL COLIFORMS			
			Number of Failures	Arithmetic Mean	Median	Max Count	Number of Failures	Arithmetic Mean	Median	Max Count
<u>EC Beaches</u>										
Ryde - East	SZ 601 927	21	0	227	82	1500	0	104	45	530
Seagrove	SZ 632 912	21	1	1174	120	11500	3	933	90	10200
St Helens	SZ 637 892	21	0	1169	140	10000	2	324	45	2200
Bembridge	SZ 657 881	21	0	258	45	3400	0	140	25	1600
Whitecliff Bay	SZ 641 862	21	0	417	95	4600	0	186	35	2000
Sandown	SZ 601 843	21	1	745	75	11000	1	296	25	3400
Shanklin	SZ 585 811	21	1	2411	110	42300	1	1028	60	17100
Ventnor	SZ 502 773	21	1	3070	1700	21600	3	1025	520	5700
Compton Bay	SZ 377 841	21	0	98	10	1700	0	79	8	1400
Totland Bay	SZ 322 871	21	0	335	45	3100	1	212	15	2200
Colwell Bay	SZ 328 879	21	0	445	50	7400	1	246	25	4100
Gurnard	SZ 477 959	21	1	2134	260	31000	3	910	150	9000
Cowes - West	SZ 488 967	21	2	2246	330	18600	4	1194	170	10600
<u>Other Beaches</u>										
East Cowes	SZ 506 964	21	++	849	60	15000	++	585	50	10300
Woodside	SZ 548 933	21	1	603	150	5400	1	381	10	6600
Ryde West	SZ 585 930	20/21	0	915	177	5400	3	640	80	4700
Spring Vale	SZ 617 921	21	0	3000	40	335	0	156	40	800
Yaverland (Sandown)	SZ 611 849	21	0	335	40	3000	0	313	40	2000
Shanklin (Welcome Beach)	SZ 589 827	21	0	174	80	850	0	71	30	400
Brook Bay	SZ 383 835	21	3	5136	1300	29600	9	2416	920	10400
Brighstone Bay	SZ 419 817	21	3	2722	620	10900	3	853	180	6700
Norton	SZ 347 898	21	0	305	250	700	0	174	130	510
Thorness Bay	SZ 450 933	21	1	699	35	12000	1	228	20	3600

Directive I values: 10,000 Total Coliforms / 100ml, 2,000 Faecal Coliforms / 100ml

++ Not EC bathing waters, compliance statistic strictly illustrative

TABLE 2b

HAMPSHIRE - BATHING WATER BACTERIOLOGICAL SUMMARY RESULTS 1992

Sampling Point	Map Reference	No. of Samples	TOTAL COLIFORMS				FAECAL COLIFORMS			
			Number of Failures	Arithmetic Mean	Median	Max Count	Number of Failures	Arithmetic Mean	Median	Max Count
<u>EC Beaches</u>										
West of Eastoke	SZ 729 984	21	0	93	40	360	0	42	20	240
West Hayling	SZ 705 987	21	0	52	25	390	0	28	10	200
Eastney	SZ 675 988	21	1	869	90	13500	1	560	35	9800
Southsea	SZ 653 982	21	1	778	170	10500	1	625	70	8700
Stokes Bay	SZ 600 979	21	0	124	110	340	0	56	35	280
Lee-on-Solent	SU 562 005	21	0	156	100	880	0	88	35	810
Hillhead	SU 540 022	21	0	107	60	560	0	49	25	200
Calshot	SU 481 012	21	0	155	60	1000	0	76	20	470
Lepe	SZ 456 985	21	0	192	35	1900	0	99	25	730
Milford-on-Sea	SZ 283 915	21	0	1507	720	7000	2	790	480	4400
Christchurch Bay	SZ 239 928	21	0	313	200	1700	0	140	80	320
Highcliffe	SZ 216 931	21	0	142	20	1100	0	55	6	580
<u>Other Beaches</u>			++				++			
Calshot - Activ. Centre	SU 478 023	21	0	361	230	2800	0	122	85	380
Weston Hard, Woolston	SU 441 098	21	2	3986	1700	32000	8	19567	790	14700
Solent Breezes	SU 506 038	21	0	91	55	570	0	57	17	550
Portsmouth										
Victoria Pier	SZ 631 992	21	0	150	140	530	0	78	55	260

Directive I values: 10,000 Total Coliforms / 100ml, 2,000 Faecal Coliforms / 100ml

++ Not EC bathing waters, compliance statistic strictly illustrative

TABLE 2c

SUSSEX - BATHING WATER BACTERIOLOGICAL SUMMARY RESULTS 1992

Sampling Point	Map Reference	No. of Samples	TOTAL COLIFORMS				FAECAL COLIFORMS			
			Number of Failures	Arithmetic Mean	Median	Max Count	Number of Failures	Arithmetic Mean	Median	Max Count
<u>EC Beaches</u>										
West Wittering	SZ 768 980	21	0	80	30	480	0	63	20	480
Bracklesham Bay	SZ 805 963	21	0	435	30	5700	1	362	30	5000
Selsey	SZ 868 937	21	0	331	75	2900	0	166	40	750
Pagham	SZ 892 972	21	0	360	120	1400	0	265	70	1100
Bognor Regis	SZ 923 985	21	0	678	170	4600	1	296	100	2300
Middleton on Sea	SZ 985 999	21	1	1409	140	15000	2	965	75	8600
Littlehampton	TQ 040 013	21	0	271	120	1100	0	159	55	720
Worthing	TQ 139 021	21	2	2855	380	19000	3	1178	300	8900
South Lancing	TQ 183 036	21	2	4834	160	58500	4	1026	35	6700
Southwick	TQ 242 048	21	0	1475	490	9900	1	508	330	3100
Hove	TQ 288 043	21	3	2974	310	17600	3	1225	65	8000
Brighton	TQ 323 034	20	0	424	75	3600	0	153	40	840
Saltdean	TQ 381 018	20	0	270	50	2700	0	152	14	1700
Newhaven	TV 449 988	20	1	1930	640	15500	0	338	175	1370
Seaford	TV 488 982	20	0	475	120	4000	0	165	52	1400
Eastbourne	TV 614 982	20	0	530	133	7000	1	259	82	2970
Pevensey Bay	TQ 657 037	20	0	432	155	2200	0	319	82	1953
Normans Bay	TQ 682 053	20	0	741	455	3600	0	238	155	770
Bexhill	TQ 737 068	20	0	361	147	2300	0	110	63	680
Hastings	TQ 819 092	20	1	3934	230	63000	2	847	107	10000
Winchelsea	TQ 912 154	20	0	293	50	2700	0	168	50	1500
Camber	TQ 973 184	21	0	392	120	2200	0	209	90	1100
<u>Other Beaches</u>										
Felpham	SZ 949 993	21	++	495	200	2900	++	210	125	1600
Worthing East	TQ 168 029	21	2	3596	320	33500	4	1622	320	12000
Shoreham by Sea	TQ 214 044	21	2	2029	75	21600	2	769	40	7400
Shoreham-Kingston Beach	TQ 235 046	21	0	847	310	6600	2	663	260	6100
Brighton-Palace Pier	TQ 314 038	20	0	670	320	3700	0	441	185	1800
Seaford-Dane Road	TV 478 989	20	0	172	68	860	0	61	23	370
Cuckmere Haven Beach	TV 520 976	20	0	126	32	1400	0	68	20	380
Birling Gap	TV 552 960	20	0	55	15	600	0	34	15	240
Eastbourne (Redoubt)	TV 625 998	20	0	897	155	7000	2	443	75	4000
St Leonards	TQ 797 087	20	0	502	125	2600	0	191	55	1100
Bulver Hythe	TQ 784 086	20	2	8403	285	102500	6	2535	120	25000
Hastings (Fairlight Glen)	TQ 862 108	20	0	246	24	1500	0	65	11	480

Directive I values: 10,000 Total Coliforms / 100ml, 2,000 Faecal Coliforms / 100ml

++ Not EC bathing waters, compliance statistic strictly illustrative

TABLE 2d (i)

KENT - BATHING WATER BACTERIOLOGICAL SUMMARY RESULTS 1992

Sampling Point	Map Reference	No. of Samples	TOTAL COLIFORMS				FAECAL COLIFORMS			
			Number of Failures	Arithmetic Mean	Median	Max Count	Number of Failures	Arithmetic Mean	Median	Max Count
<u>EC Beaches</u>										
Littlestone	TR 084 239	21	0	100	200	9500	1	715	200	7600
St Marys Bay	TR 093 277	21	0	206	130	780	0	126	65	430
Dymchurch-Martello Tower	TR 113 304	21	0	238	120	1000	0	172	100	610
Hythe - West Parade	TR 160 340	21	0	189	55	750	0	149	35	1100
Sandgate-Princes Parade	TR 188 348	21	2	2553	250	25000	2	1411	60	18800
Folkestone	TR 237 363	21	2	2941	1000	21000	2	796	480	3700
St Margarets Bay	TR 368 444	21	0	190	100	820	0	98	50	400
Deal Castle	TR 378 527	21	0	1273	860	5000	1	589	432	2200
Sandwich Bay	TR 358 590	21	2	4783	990	58000	4	1696	770	17000
Ramsgate - Western Undercliff	TR 372 640	21	5	9190	3400	103500	7	2200	1600	9000
Broadstairs - Viking Bay	TR 398 677	21	0	617	240	4200	0	283	100	2000
Joss Bay	TR 399 702	21	0	68	40	340	0	34	23	120
Margate - Fulsam Rock	TR 356 715	21	0	127	30	1000	0	91	10	880
Margate - The Bay	TR 347 708	21	0	415	40	5000	1	198	25	2500
St Mildreds Bay	TR 328 705	21	0	310	40	5000	1	286	35	5000
Minnis Bay	TR 286 697	21	0	75	25	520	0	521	15	320
Herne Bay	TR 186 686	21	0	1511	800	6500	2	619	370	2800
West Beach	TR 098 660	21	0	168	30	1400	0	77	10	540
Leysdown	TR 034 708	21	0	229	110	1200	0	87	25	700
Sheerness	TQ 925 750	21	0	35	15	230	0	19	8	80

Directive I values: 10,000 Total Coliforms / 100ml, 2,000 Faecal Coliforms / 100ml

TABLE 2d (ii)

KENT - BATHING WATER BACTERIOLOGICAL SUMMARY RESULTS 1992 (cont)

Sampling Point	Map Reference	No. of Samples	TOTAL COLIFORMS				FAECAL COLIFORMS			
			Number of Failures	Arithmetic Mean	Median	Max Count	Number of Failures	Arithmetic Mean	Median	Max Count
<u>Other Beaches</u>			++				++			
Greatstone	TR 082 229	21	0	767	250	5100	2	658	250	5400
Dymchurch - Car Park	TR 101 290	21	0	621	126	6500	1	391	60	5000
Dymchurch - Hythe Road	TR 128 319	21	0	487	110	5000	1	424	90	5000
Sandgate - Town Centre	TR 203 351	21	2	3672	220	36900	4	1633	100	13200
Dover Harbour	TR 321 412	21	0	515	180	5600	1	328	68	5000
Ramsgate Sands	TR 387 649	21	0	528	130	2000	0	260	65	1000
Broadstairs - East Cliff	TR 401 688	21	0	327	55	4000	1	202	34	3120
Botany Bay	TR 391 712	21	0	66	25	330	0	40	21	150
Palm Bay	TR 373 714	21	0	203	55	2100	0	170	45	1900
Westgate Bay	TR 320 702	21	0	202	35	1800	0	171	30	1700
Westbrook Bay	TR 341 706	21	0	112	25	1200	1	157	20	2400
Walpole Bay	TR 365 715	21	0	56	20	530	0	45	15	290
Dumpton Gap	TR 397 667	21	0	346	140	1600	0	164	100	740
Reculver Beach	TR 226 694	21	0	294	24	4000	0	85	8	1000
Tankerton Beach	TR 127 674	21	0	149	35	900	0	39	20	250
Hampton Pier	TR 158 684	21	0	528	130	3600	0	210	50	1600
Kingsdown Beach	TR 380 485	21	0	262	75	2100	0	186	50	1900

Directive I values: 10,000 Total Coliforms / 100ml, 2,000 Faecal Coliforms / 100ml

++ Not EC bathing waters, compliance statistic strictly illustrative

TABLE 3a

ISLE OF WIGHT BEACHES -
COMPLIANCE TO EC DIRECTIVE

	1986	1987	1988	1989	1990	1991	1992
Ryde	F	F	F	F	P	P	P
Seagrove	P	P	F	F	F	F	F
St Helens	P	P	F	F	P	P	F
Bembridge	F	F	F	F	P	F	P
Whitecliff Bay	P	P	F	F	P	P	P
Sandown	P	P	P	P	P	P	P
Shanklin	P	P	P	P	P	P	P
Ventnor	F	P	F	F	P	F	F
Compton Bay	P	P	P	P	P	P	P
Totland Bay	F	P	P	P	P	P	P
Colwell Bay	F	P	F	P	P	P	P
Gurnard	F	F	F	P	F	F	F
Cowes	F	P	F	F	F	F	F

P = Pass F = Fail

Compliance tested on coliforms only

TABLE 3b

HAMPSHIRE BEACHES -
COMPLIANCE TO EC DIRECTIVE

	1986	1987	1988	1989	1990	1991	1992
Highcliffe	P	P	P	P	P	P	P
Christchurch Bay	P	P	F	P	P	P	P
Milford-on-Sea	P	F	F	F	P	P	F
Lepe	P	P	P	P	P	P	P
Calshot	P	P	F	P	P	P	P
Lee-on-Solent	P	P	P	P	P	P	P
Hillhead	-	-	-	-	P	P	P
Stokes Bay	P	P	P	P	P	P	P
Southsea	P	P	F	P	P	P	P
Eastney	P	P	F	P	P	P	P
West Hayling	P	P	P	P	P	P	P
West of Eastoke	P	P	P	P	P	P	P

P = Pass F = Fail

Compliance tested on coliforms only

TABLE 3c

SUSSEX BEACHES -
COMPLIANCE TO EC DIRECTIVE

	1986	1987	1988	1989	1990	1991	1992
West Wittering	P	P	P	P	P	P	P
Bracklesham Bay	P	P	P	P	P	P	P
Selsey	P	F	F	P	F	P	P
Pagham	P	P	F	P	P	P	P
Bognor Regis	P	P	P	P	P	F	P
Middleton on Sea	P	P	F	P	P	P	F
Littlehampton	P	F	F	P	P	P	P
Worthing	F	F	F	P	P	P	F
South Lancing	F	F	F	F	F	F	F
Southwick	P	F	F	P	F	F	P
Hove	F	F	F	F	F	F	F
Brighton	P	P	F	P	F	P	P
Saltdean	P	P	P	P	P	P	P
Newhaven	P	F	F	F	F	F	P
Seaford	F	F	F	F	F	P	P
Eastbourne	P	P	P	P	P	P	P
Pevensey Bay	P	F	P	P	F	P	P
Normans Bay	P	P	P	P	P	P	P
Bexhill	P	P	P	P	P	P	P
Hastings	P	F	F	P	P	F	F
Winchelsea	P	P	P	P	P	P	P
Camber	P	F	P	P	P	F	P

P = Pass F = Fail

Compliance tested on coliforms only

TABLE 3d

KENT BEACHES -
COMPLIANCE TO EC DIRECTIVE

	1986	1987	1988	1989	1990	1991	1992
Littlestone	F	P	F	F	P	F	P
St Mary's Bay	F	F	F	P	P	F	P
Dymchurch	F	F	F	F	F	F	P
Hythe	F	F	F	P	F	P	F
Sandgate	F	F	F	P	P	P	F
Folkestone	F	F	F	F	F	F	P
St Margaret's Bay	F	P	P	P	P	P	P
Deal Castle	F	F	F	F	F	F	P
Sandwich Bay	F	F	F	F	F	F	F
Ramsgate	P	F	F	F	F	F	F
Broadstairs	F	F	F	P	P	F	P
Joss Bay	F	F	F	P	P	P	P
Margate - Fulsam Rock	F	P	P	P	P	P	P
Margate - The Bay	P	P	P	P	P	F	P
St Mildreds Bay	P	F	P	P	P	P	P
Minnis Bay	P	P	P	P	P	P	P
Herne Bay	P	F	F	F	F	F	F
West Beach	P	P	P	P	P	P	P
Leysdown	F	P	P	F	P	P	P
Sheerness	-	-	-	-	P	P	P

P = Pass F = Fail

Compliance tested on coliforms only

TABLE 4a

ISLE OF WIGHT BEACHES
VIRUS AND SALMONELLA RESULTS 1992

	VIRUS (PFU/10 litres)		SALMONELLA (Present=1 Absent=0)	
	24 June	22 July	24 June	22 July
<u>E C Beaches</u>				
Ryde - East	0	0	0	0
Seagrove	0	0	0	0
St Helens	5	2*	0	1
Bembridge	3	2	0	0
Whitecliff Bay	2	0	0	0
Sandown	0	0	0	0
Shanklin	10	0	0	1
Ventnor	26	29	0	0
Compton Bay	0	0	0	0
Totland Bay	0	1	0	0
Colwell Bay	1	0	0	0
Gurnard	1	1	0	0
Cowes - West	0	0*	0	0

* Sample lost, resampled 29th July.

The EC Directive requires that bathing waters are free from viruses and Salmonella.

TABLE 4d

KENT BEACHES -
VIRUS AND SALMONELLA RESULTS 1992

	VIRUS (PFU/10 litres)		SALMONELLA (Present=1 Absent=0)	
	23 June	21 July	23 June	21 July
<u>E C Beaches</u>				
Littlestone	0	0	0	0
St Marys Bay	0	2	0	0
Dymchurch - Mart. Tower	0	0	0	0
Hythe - West Parade	0	1	0	0
Sandgate-Princes Parade	0	90	0	1
Folkestone	13	20	0	1
St Margarets Bay	0	3	0	0
Deal Castle	49	22	1	0
Sandwich Bay	4	21	0	1
Ramsgate - Western U'C	82	22	1	0
Broadstairs - Viking Bay	1	0	0	0
Joss Bay	0	0	0	0
Margate - Fulsam Rock	0	0	0	0
Margate - The Bay	0	0	0	0
St Mildreds Bay	0	0	0	0
Minnis Bay	0	0	0	0
Herne Bay	2	32	0	0
West Beach	0	0	0	0
Leysdown	0	8	0	0
Sheerness	0	0	0	0

The EC Directive requires that bathing waters are free from viruses and Salmonella.

Sites sampled on two adjacent days each week, first date reported.

TABLE 4c

SUSSEX BEACHES -
VIRUS AND SALMONELLA RESULTS 1992

	VIRUS (PFU/10 litres)		SALMONELLA (Present=1 Absent=0)	
	25 June	23 July	25 June	23 July
<u>E C Beaches</u>				
West Wittering	0	2	0	0
Bracklesham Bay	0	0	0	0
Selsey	0	0	0	0
Pagham	0	1	0	0
Bognor Regis	0	0	0	0
Middleton on Sea	0	0*	0	0
Littlehampton	0	2	0	0
Worthing	0	2	0	1
South Lancing	0	0	0	0
Southwick	6	7	0	0
Hove	0	0	0	0
Brighton	2	0	0	1
Saltdean	0	1	0	0
Newhaven	1	0	0	0
Seaford	2	1	0	0
Eastbourne	0	3	0	0
Pevensey Bay	0	1	0	0
Normans Bay	0	0	0	0
Bexhill	0	0	0	0
Hastings	0	0	0	1
Winchelsea	0	0	0	0
Camber	0	0	0	0

* Sample lost, resampled 29th July

The EC Directive requires that bathing waters are free from viruses and Salmonella.

TABLE 4b

HAMPSHIRE BEACHES -
VIRUS AND SALMONELLA RESULTS 1992

	VIRUS (PFU/10 litres)		SALMONELLA (Present=1 Absent=0)	
	23 June	21 July	23 June	21 July
<u>E C Beaches</u>				
Highcliffe	0	0	0	0
Christchurch Bay	0	0	0	0
Milford on Sea	3	5	1	0
Lepe	0	0	0	1
Calshot	0	0	0	0
Hillhead	0	0	0	0
Lee on Solent	0	0	0	0
Stokes Bay	1	0	0	0
Southsea	2	2	0	0
Eastney	2	3	0	0
West Hayling	0	10	0	0
West of Eastoke	0	3	0	0

The EC Directive requires that bathing waters are free from viruses and Salmonella.

TABLE 5a

ISLE OF WIGHT BEACHES - COMPLIANCE TO MANDATORY AND
GUIDELINE BACTERIOLOGICAL STANDARDS 1992

Sampling Point	Map Reference	TOTAL COLIFORMS			FAECAL COLIFORMS			FAECAL STREPS	
		Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing guideline standards G-value
<u>EC Beaches</u>									
Ryde - East	SZ 601 927	21	100%	86%	21	100%	67%	21	90%
Seagrove	SZ 632 912	21	95%	81%	21	86%	57%	21	52%
St Helens	SZ 637 892	21	100%	81%	21	90%	62%	21	86%
Bembridge	SZ 657 881	21	100%	90%	21	100%	81%	21	86%
White Cliff Bay	SZ 641 862	21	100%	90%	21	100%	81%	21	90%
Sandown	SZ 601 843	21	95%	86%	21	95%	86%	21	86%
Shanklin	SZ 585 811	21	95%	71%	21	95%	62%	21	67%
Ventnor	SZ 502 773	21	95%	19%	21	86%	14%	21	67%
Compton Bay	SZ 377 841	21	100%	95%	21	100%	95%	21	95%
Totland Bay	SZ 322 871	21	100%	86%	21	95%	81%	21	90%
Colwell Bay	SZ 328 879	21	100%	90%	21	95%	86%	21	90%
Gurnard	SZ 477 959	21	95%	62%	21	86%	38%	21	71%
Cowes - Bay	SZ 488 967	21	90%	71%	21	81%	48%	21	62%
<u>Other Beaches</u>									
			++	++		++	++		++
East Cowes	SZ 506 964	21	95%	95%	21	95%	62%	21	90%
Woodside	SZ 548 933	21	100%	90%	21	95%	81%	21	86%
Ryde - West	SZ 585 930	20	100%	76%	21	85%	62%	21	71%
Yaverland - (Sandown)	SZ 611 849	21	100%	76%	21	100%	67%	21	86%
Norton	SZ 347 898	21	100%	81%	21	100%	38%	21	90%
Spring Vale	SZ 617 921	21	100%	76%	21	100%	57%	21	81%
Shanklin (Welcome Beach)	SZ 589 827	21	100%	90%	21	100%	76%	21	90%
Brook Bay	SZ 383 835	21	86%	19%	21	57%	14%	21	38%
Thorness Bay	SZ 450 933	21	95%	86%	21	95%	81%	21	95%
Brightstone Bay	SZ 419 817	21	86%	48%	21	86%	38%	21	71%

The Directive requires that 95% of samples must conform with the following I-values; total coliforms 10000 per 100ml seawater, faecal coliforms 2000 per 100ml.

The Directive also requires that EC member states endeavour to observe G-values of 500 per 100ml for total coliforms and 100 per 100ml for faecal coliforms in 80% of samples and 100 per 100ml for faecal streptococci in 90% of samples.

++ Not EC Bathing Waters, compliance statistics strictly illustrative.

TABLE 5b

**HAMPSHIRE BEACHES - COMPLIANCE TO MANDATORY
AND GUIDELINE BACTERIOLOGICAL STANDARDS 1992**

		TOTAL COLIFORMS			FAECAL COLIFORMS			FAECAL STREPS	
Sampling Point	Map Reference	Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing guideline standards G-value
<u>EC Beaches</u>									
Highcliffe	SZ 216 931	21	100%	95%	21	100%	90%	21	100%
Christchurch - Bay	SZ 239 928	21	100%	76%	21	100%	52%	21	100%
Milford on Sea	SZ 283 915	21	100%	29%	21	90%	24%	21	67%
Lepe	SZ 456 985	21	100%	90%	21	100%	76%	21	95%
Calshot	SU 481 012	21	100%	90%	21	100%	86%	21	95%
Lee on Solent	SU 562 005	21	100%	95%	21	100%	86%	21	95%
Hillhead	SU 540 022	21	100%	95%	21	100%	86%	21	90%
Stokes Bay	SZ 600 979	21	100%	100%	21	100%	90%	21	90%
Southsea	SZ 653 982	21	95%	81%	21	95%	52%	21	86%
Eastney	SZ 675 988	21	95%	81%	21	95%	76%	21	90%
West Hayling	SZ 705 987	21	100%	100%	21	100%	95%	21	90%
West of East-Stoke	SZ 729 984	21	100%	100%	21	100%	86%	21	90%
<u>Other Beaches</u>									
			++	++		++	++		++
Calshot - Activity	SU 478 023	21	100%	90%	21	100%	57%	21	100%
Weston	SU 441 098	21	90%	19%	21	62%	10%	21	43%
Solent Breezes	SU 506 038	21	100%	95%	21	100%	90%	21	90%
Portsmouth - Victoria Pier		21	100%	95%	21	100%	81%	21	100%

The Directive requires that 95% of samples must conform with the following I-values; total coliforms 10000 per 100ml seawater, faecal coliforms 2000 per 100ml.

The Directive also requires that EC member states endeavour to observe G-values of 500 per 100ml for total coliforms and 100 per 100ml for faecal coliforms in 80% of samples and 100 per 100ml for faecal streptococci in 90% of samples.

++ Not EC Bathing Waters, compliance statistics strictly illustrative.

TABLE 5c

**SUSSEX BEACHES - COMPLIANCE TO MANDATORY
AND GUIDELINE BACTERIOLOGICAL STANDARDS 1992**

		TOTAL COLIFORMS			FAECAL COLIFORMS			FAECAL STREPS	
Sampling Point	Map Reference	Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing guideline standards G-value
<u>EC Beaches</u>									
West Wittering	SZ 768 980	21	100%	100%	21	100%	90%	21	95%
Bracklesham Bay	SZ 805 963	21	100%	90%	21	95%	86%	21	76%
Selsey	SZ 868 937	21	100%	76%	21	100%	76%	21	71%
Pagham	SZ 892 972	21	100%	71%	21	100%	57%	21	76%
Bognor Regis	SZ 923 985	21	100%	71%	21	95%	57%	21	81%
Middleton on Sea	SZ 985 999	21	95%	66%	21	90%	52%	21	66%
Littlehampton	TQ 040 013	21	100%	86%	21	100%	62%	21	86%
Worthing	TQ 139 021	21	90%	52%	21	86%	43%	21	66%
South Lancing	TQ 183 036	21	90%	66%	21	81%	62%	21	71%
Southwick	TQ 242 048	21	100%	52%	21	95%	29%	21	62%
Hove	TQ 288 043	21	86%	57%	21	86%	52%	21	66%
Brighton	TQ 323 034	20	100%	80%	20	100%	75%	21	66%
Saltdean	TQ 381 018	20	100%	80%	20	100%	70%	21	86%
Newhaven	TV 449 988	20	95%	45%	20	100%	35%	21	86%
Seaford	TV 488 982	20	100%	75%	20	100%	65%	21	90%
Eastbourne	TV 614 982	20	100%	90%	20	95%	65%	21	86%
Pevensey Bay	TQ 657 037	20	100%	75%	20	100%	55%	20	65%
Normans Bay	TQ 682 053	20	100%	50%	20	100%	35%	21	90%
Bexhill	TQ 737 068	20	100%	85%	20	100%	70%	21	81%
Hastings	TQ 819 092	20	95%	65%	20	90%	50%	20	65%
Winchelsea	TQ 912 154	20	100%	90%	20	100%	65%	21	76%
Camber	TQ 973 184	21	100%	71%	21	100%	50%	21	76%
<u>Other Beaches</u>									
			++	++		++	++		++
Felpham	SZ 949 993	21	100%	76%	21	100%	48%	21	66%
Worthing East	TQ 168 029	21	90%	57%	21	81%	43%	21	66%
Shoreham by Sea	TQ 214 044	21	90%	62%	21	90%	62%	21	66%
Shoreham- Kingston Beach	TQ 235 046	21	100%	66%	21	90%	43%	21	76%
Brighton - Palace Pier	TQ 314 038	20	100%	62%	20	100%	43%	21	52%
Seaford - Dane Road	TV 478 989	20	100%	90%	20	100%	85%	21	90%
Cuckmere Haven Beach	TV 520 976	20	100%	95%	20	100%	85%	21	100%
Birling Gap	TV 552 960	20	100%	95%	20	100%	90%	21	100%
Eastbourne (Redoubt)	TV 625 998	20	100%	75%	20	90%	60%	21	76%
St Leonards	TQ 797 087	20	100%	80%	20	100%	70%	21	71%
Bulver Hythe	TQ 784 086	20	90%	55%	20	70%	50%	21	57%
Hastings (Fairlight Glen)	TQ 862 108	20	100%	80%	20	100%	85%	21	86%

The Directive requires that 95% of samples must conform with the following I-values; total coliforms 10000 per 100ml seawater, faecal coliforms 2000 per 100ml.

The Directive also requires that EC member states endeavour to observe G-values of 500 per 100ml for total coliforms and 100 per 100ml for faecal coliforms in 80% of samples and 100 per 100ml for faecal streptococci in 90% of samples.

++ Not EC Bathing Waters, compliance statistics strictly illustrative.

TABLE 5d KENT BEACHES - COMPLIANCE TO MANDATORY AND GUIDELINE BACTERIOLOGICAL STANDARDS 1992

		TOTAL COLIFORMS			FAECAL COLIFORMS			FAECAL STREPS	
Sampling Point	Map Reference	Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing mandatory standards I-value	% passing guideline standards G-value	Number of Sample	% passing guideline standards G-value
EC Beaches									
Littlestone	TR 084 239	21	100%	62%	21	95%	43%	21	62%
St Marys Bay	TR 093 277	21	100%	81%	21	100%	57%	21	71%
Dymchurch - Mart. Tower	TR 113 304	21	100%	86%	21	100%	57%	21	48%
Hythe West-Parade	TR 160 340	21	100%	81%	21	100%	76%	21	67%
Sandgate-Princess Parade	TR 188 348	21	90%	71%	21	90%	67%	21	71%
Folkestone	TR 237 363	21	90%	24%	21	90%	10%	21	62%
St Margarets-Bay	TR 368 444	21	100%	90%	21	100%	71%	21	90%
Deal Castle	TR 378 527	21	100%	29%	21	95%	33%	21	57%
Sandwich Bay	TR 358 590	21	90%	24%	21	81%	5%	21	48%
Ramsgate-Western UC.	TR 372 640	21	76%	10%	21	67%	0%	21	33%
Broadstairs-Viking Bay	TR 398 677	21	100%	76%	21	100%	52%	21	76%
Joss Bay	TR 399 702	21	100%	100%	21	100%	95%	21	100%
Margate-Fulsam-Rock	TR 356 715	21	100%	95%	21	100%	76%	21	76%
Margate-The Bay	TR 347 708	21	100%	86%	21	95%	76%	21	95%
St Mildreds Bay	TR 328 705	21	100%	90%	21	95%	86%	21	86%
Minnis Bay	TR 286 697	21	100%	95%	21	100%	86%	21	95%
Herne Bay	TR 186 686	21	100%	43%	21	90%	24%	21	52%
West Beach	TR 098 660	21	100%	90%	21	100%	81%	21	90%
Leysdown	TR 034 708	21	100%	81%	21	100%	86%	21	90%
Sheerness	TQ 925 750	21	100%	100%	21	100%	100%	21	90%
Other Beaches									
			++	++		++	++		++
Greatstone	TR 082 229	21	100%	57%	21	90	43%	20	70%
Dymchurch-Car-Park	TR 101 290	21	100%	86%	21	95%	71%	21	67%
Dymchurch-Hythe Road	TR 128 319	21	100%	76%	21	95%	62%	21	67%
Sandgate-Town Centre	TR 203 351	21	90%	62%	21	81%	52%	21	67%
Dover Harbour	TR 321 412	21	100%	76%	21	95%	67%	21	95%
Ramsgate Sands	TR 387 649	21	100%	67%	21	100%	62%	21	76%
Broadstairs-East Cliff	TR 401 688	21	100%	86%	21	95%	76%	21	86%
Botany Bay	TR 391 712	21	100%	100%	21	100%	90%	21	100%
Palm Bay	TR 373 714	21	100%	90%	21	100%	71%	21	76%
Westgate Bay	TR 320 702	21	100%	90%	21	100%	76%	21	86%
Westbrook Bay	TR 341 706	21	100%	95%	21	95%	81%	21	95%
Walpole Bay	TR 365 715	21	100%	95%	21	100%	90%	21	90%
Dumpton Gap	TR 397 667	21	100%	71%	21	100%	57%	21	81%
Reculver Beach	TR 226 694	21	100%	90%	21	100%	90%	21	100%
Tankerton Beach	TR 127 674	21	100%	90%	21	100%	90%	21	90%
Hampton Pier	TR 158 684	21	100%	71%	21	100%	67%	21	86%
Kingsdown Beach	TR 380 485	21	100%	90%	21	100%	81%	21	95%

The Directive requires that 95% of samples must conform with the following I-values; total coliforms 10000 per 100ml seawater, faecal coliforms 2000 per 100ml.

The Directive also requires that EC member states endeavour to observe G-values of 500 per 100ml for total coliforms and 100 per 100ml for faecal coliforms in 80% of samples and 100 per 100ml for faecal streptococci in 90% of samples.

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TABLE 7a

ISLE OF WIGHT BEACHES - COMPLIANCE TO PHYSICO -
CHEMICAL PARAMETERS 1992

	PH	Transp- arency	Colour	Mineral Oils	Surface Active Substances	Phenols
Number of Observations (Number of Failures)						
<u>E C Beaches</u>						
Ryde - East	2(0)	21(0)*	21(0)	21(0)	21(0)	21(0)
Seagrove	2(0)	21(2)*	21(0)	21(0)	21(0)	21(0)
St Helens	2(0)	21(0)*	21(0)	21(0)	21(0)	21(0)
Bembridge	2(0)	21(0)*	21(0)	21(0)	21(0)	21(0)
Whitecliff Bay	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Sandown	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Shanklin	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Ventnor	2(0)	21(2)*	21(0)	21(0)	21(0)	21(0)
Compton Bay	2(0)	21(4)*	21(0)	21(0)	21(0)	21(0)
Totland Bay	2(0)	21(2)*	21(0)	21(0)	21(0)	21(0)
Colwell Bay	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Gurnard	2(0)	21(9)*	21(0)	21(0)	21(0)	21(0)
Cowes - West	2(0)	21(4)*	21(0)	21(0)	21(0)	21(0)
<u>Other Beaches</u>						
East Cowes	2(0)	21(3)*	21(0)	21(0)	21(0)	21(0)
Woodside	2(0)	21(4)*	21(0)	21(0)	21(0)	21(0)
Ryde - West	2(0)	21(5)*	21(0)	21(0)	21(0)	21(0)
Yaverland (Sandown)	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Norton	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Spring Vale	2(0)	21(2)*	21(0)	21(0)	21(0)	21(0)
Shanklin (Welcome)	4(0)	21(0)*	21(0)	21(0)	21(0)	21(0)
Brook Bay	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
Brightsone Bay	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
Thorncress Bay	2(0)	21(8)*	21(0)	21(0)	21(0)	21(0)

* Denotes waiver granted because of geographical conditions

TABLE 7b

HAMPSHIRE BEACHES - COMPLIANCE TO PHYSICO -
CHEMICAL PARAMETERS 1992

	PH	Transp- arency	Colour	Mineral Oils	Surface Active Substances	Phenols
Number of Observations (Number of Failures)						
<u>E C Beaches</u>						
Highcliffe	2(0)	21(2)*	21(0)	21(0)	21(0)	21(0)
Christchurch						
Bay	2(0)	21(3)*	21(0)	21(0)	21(0)	21(0)
Milford on Sea	2(0)	21(4)*	21(0)	21(0)	21(0)	21(0)
Lepe	2(0)	21(2)*	21(0)	21(0)	21(0)	21(0)
Calshot	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Lee on Solent	2(0)	21(3)*	21(0)	21(0)	21(0)	21(0)
Hillhead	2(0)	21(4)*	21(0)	21(0)	21(0)	21(0)
Stokes Bay	2(0)	21(4)*	21(0)	21(0)	21(0)	21(0)
Southsea	2(0)	21(5)*	21(0)	21(0)	21(0)	21(0)
Eastney	2(0)	21(5)*	21(0)	21(0)	21(0)	21(0)
West Hayling	2(0)	21(5)*	21(0)	21(0)	21(0)	21(0)
West of						
Eastoke	2(0)	21(5)*	21(0)	21(0)	21(0)	21(0)
<u>Other Beaches</u>						
Calshot						
Activity	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Centre	2(0)	21(1)*	21(0)	21(0)	21(0)	21(0)
Weston	2(0)	21(3)*	21(0)	21(0)	21(0)	21(0)
Solent Breezes						
Portsmouth,	2(0)	21(5)	21(0)	21(0)	21(0)	21(0)
Victoria Pier						

* Denotes waiver granted because of geographical conditions

TABLE 7c

SUSSEX BEACHES - COMPLIANCE TO PHYSICIO -
CHEMICAL PARAMETERS 1992

	PH	Transp- arency	Colour	Mineral Oils	Surface Active Substances	Phenols
Number of Observations (Number of Failures)						
<u>E C Beaches</u>						
West Wittering	2(0)	21(7)*	21(0)	21(0)	21(0)	21(0)
Bracklesham Bay	2(0)	21(11)*	21(0)	21(0)	21(0)	21(0)
Selsey	2(0)	21(4)*	21(0)	21(0)	21(0)	21(0)
Pagham	2(0)	21(6)*	21(0)	21(0)	21(0)	21(0)
Bognor Regis	2(0)	21(11)*	21(0)	21(0)	21(0)	21(0)
Middleton-On-Sea	2(0)	21(8)*	21(0)	21(0)	21(0)	21(0)
Littlehampton	2(0)	21(9)*	21(0)	21(0)	21(0)	21(0)
Worthing	2(0)	21(10)*	21(0)	21(0)	21(0)	21(0)
South Lancing	2(0)	21(8)*	21(0)	21(0)	21(0)	21(0)
Southwick	2(0)	21(8)*	21(0)	21(0)	21(0)	21(0)
Hove	2(0)	21(9)*	21(0)	21(0)	21(0)	21(0)
Brighton	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
Saltdean	2(0)	21(12)*	21(0)*	21(0)	21(0)	21(0)
New Haven	2(0)	21(15)*	21(0)	21(0)	21(0)	21(0)
Seaford	2(0)	21(13)*	21(0)	21(0)	21(0)	21(0)
Eastbourne	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
Pevensey Bay	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
Normans Bay	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Bexhill	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Hastings	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
Winchelsea	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
Camber	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
<u>Other Beaches</u>						
Worthing East	2(0)	21(9)*	21(0)	21(0)	21(0)	21(0)
Shoreham by-Sea	2(0)	21(10)*	21(0)	21(0)	21(0)	21(0)
Shoreham - Kingston Beach	2(0)	21(9)*	21(0)	21(0)	21(0)	21(0)
Brighton - Palace Pier	2(0)	21(12)*	21(0)	21(0)	21(0)	21(0)
Seaford - Dane Road	2(0)	21(8)*	21(0)	21(0)	21(0)	21(0)
Birling Gap	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
St Leonards	2(0)	21(15)*	21(0)	21(0)	21(0)	21(0)
Eastbourne (Redoubt)	2(0)	21(15)*	21(0)	21(0)	21(0)	21(0)
Bulver Hythe	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Hastings - Fairlight Glen	2(0)	0 *	0 *	0 *	0 *	0 *
Felpham	2(0)	21(13)*	21(0)	21(0)	21(0)	21(0)
Cuckmere - Haven Beach	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)

* Denotes waiver granted because of geographical conditions

TABLE 7d

KENT BEACHES - COMPLIANCE TO PHYSICO -
CHEMICAL PARAMETERS 1992

	PH	Transp- arency	Colour	Mineral Oils	Surface Active Substances	Phenols
Number of Observations (Number of Failures)						
<u>E C Beaches</u>						
Littlestone	2(0)	21(20)*	21(0)	21(0)	21(0)	21(0)
St Marys Bay	2(0)	21(19)*	21(0)	21(0)	21(0)	21(0)
Dymchurch Mart Tower	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
Hythe - West Parade	2(0)	21(13)*	21(0)	21(0)	21(0)	21(0)
Sandgate - Princes Parade	2(0)	21(18)*	21(0)	21(0)	21(0)	21(0)
Folkestone	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
St Margarets Bay	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Deal Castle	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Sandwich Bay	2(0)	21(19)*	21(0)	21(0)	21(0)	21(0)
Ramsgate - Western U'C Broadstairs -	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Viking Bay	2(0)	21(20)*	21(0)	21(0)	21(0)	21(0)
Joss Bay	2(0)	21(18)*	21(0)	21(0)	21(0)	21(0)
Margate - Fulsam Rock	2(0)	21(8)*	21(0)*	21(0)	21(0)	21(0)
Margate - The Bay	2(0)	21(8)*	21(0)*	21(0)	21(0)	21(0)
St Mildreds Bay	2(0)	21(15)*	21(0)	21(0)	21(0)	21(0)
Minnis Bay	2(0)	21(12)*	21(0)	21(0)	21(0)	21(0)
Herne Bay	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
West Beach	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Leysdown	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Sheerness	2(0)	21(15)	21(0)	21(0)	21(0)	21(0)
<u>Other Beaches</u>						
Dymchurch - Car Park	2(0)	21(18)*	21(0)	21(0)	21(0)	21(0)
Dymchurch - Hythe Road	2(0)	21(12)*	21(0)	21(0)	21(0)	21(0)
Sandgate - Town Centre	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
Dover Harbour	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
Ramsgate Sands	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Broadstairs - East Cliif	2(0)	21(20)*	21(0)	21(0)	21(0)	21(0)
Botany Bay	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
Palm Bay	2(0)	21(15)*	21(0)	21(0)	21(0)	21(0)
Westgate Bay	2(0)	21(13)*	21(0)	21(0)	21(0)	21(0)
Greatstone	2(0)	21(19)*	21(0)	21(0)	21(0)	21(0)
Westbrook Bay	2(0)	21(13)*	21(0)	21(0)	21(0)	21(0)
Walpole Bay	2(0)	21(6)*	21(0)	21(0)	21(0)	21(0)
Dumpton Gap	2(0)	21(20)*	21(0)	21(0)	21(0)	21(0)
Reculver Beach	2(0)	21(17)*	21(0)	21(0)	21(0)	21(0)
Tankerton Beach	2(0)	21(16)*	21(0)	21(0)	21(0)	21(0)
Hampton Pier	2(0)	21(14)*	21(0)	21(0)	21(0)	21(0)
Kingsdown Beach	2(0)	21(19)*	21(0)	21(0)	21(0)	21(0)

* Denotes waiver granted because of geographical conditions

TABLE 8a ISLE OF WIGHT BEACHES - MARINE ALGAL MONITORING RESULTS, 1992

	-- NUMBER OF OBSERVATIONS --- (number of failures)			REASON FOR FAILURE
	Strandline	Seawater waters edge	Sea Offshore	
<u>E C Beaches</u>				
Ryde East	21(0)	21(0)	21(0)	
Seagrove	21(0)	21(0)	21(0)	
St Helens	21(0)	21(0)	21(0)	
Bembridge	21(0)	21(0)	21(0)	
Whitecliff Bay	21(0)	21(0)	21(0)	
Sandown	21(0)	21(0)	21(0)	
Shanklin	21(0)	21(0)	21(0)	
Ventnor	21(0)	21(0)	21(0)	
Compton Bay	21(0)	21(0)	21(0)	
Totland Bay	21(0)	21(0)	21(0)	
Colwell Bay	21(0)	21(0)	21(0)	
Gurnard	21(0)	21(0)	21(0)	
Cowes	21(0)	21(0)	21(0)	
<u>Other Beaches</u>				
East Cowes	21(0)	21(0)	21(0)	
Woodside	21(0)	21(0)	21(0)	
Ryde - West	21(0)	21(1)	21(0)	5
Yaverland (Sandown)	21(0)	21(0)	21(0)	
Norton	21(0)	21(0)	21(0)	
Springvale	21(0)	21(0)	21(0)	
Shanklin (Welcome Beach)	21(0)	21(0)	21(0)	
Brook Bay	21(0)	21(0)	21(0)	
Brighstone Bay	21(0)	21(0)	21(0)	
Thorness Bay	21(0)	21(0)	21(0)	

Reasons for failure - code

- | | |
|--|----------------------------------|
| 1 Strandline - scum present | 5 Water's Edge - excessive foam |
| 2 Strandline - slime present | 6 Water's Edge - abnormal colour |
| 3 Strandline - dark patches
in sand | 7 Water's Edge - smell |
| 4 Strandline - sulphurous smell | 8 Sea Offshore - visible slicks |
| | 9 Sea Offshore - foam |

TABLE 8b HAMPSHIRE BEACHES - MARINE ALGAL MONITORING RESULTS, 1992

	-- NUMBER OF OBSERVATIONS --- (number of failures)			REASON FOR FAILURE
	Strandline	Seawater waters edge	Sea Offshore	
<u>E C Beaches</u>				
Highcliffe	21(0)	21(0)	21(0)	
Christchurch Bay	21(0)	21(0)	21(0)	
Milford on Sea	21(0)	21(0)	21(0)	
Lepe	21(0)	21(0)	21(0)	
Calshot	21(0)	21(0)	21(0)	
Lee on Solent	21(0)	21(0)	21(0)	
Hillhead	21(0)	21(0)	21(0)	
Stokes Bay	21(0)	21(0)	21(0)	
Southsea	21(0)	21(0)	21(0)	
Eastney	21(0)	21(0)	21(0)	
West Hayling	21(0)	21(0)	21(0)	
West of Eastoke	21(0)	21(0)	21(0)	
<u>Other Beaches</u>				
Calshot Activs Centre	21(0)	21(0)	21(0)	
Weston	21(0)	21(0)	21(0)	
Solent Breezes	21(0)	21(0)	21(0)	
Portsmouth, Victoria P.	21(0)	21(0)	21(0)	

Reasons for failure - code

- | | |
|--|----------------------------------|
| 1 Strandline - scum present | 5 Water's Edge - excessive foam |
| 2 Strandline - slime present | 6 Water's Edge - abnormal colour |
| 3 Strandline - dark patches
in sand | 7 Water's Edge - smell |
| 4 Strandline - sulphurous smell | 8 Sea Offshore - visible slicks |
| | 9 Sea Offshore - foam |

TABLE 8c SUSSEX BEACHES - MARINE ALGAL MONITORING RESULTS, 1992

	-- NUMBER OF OBSERVATIONS --- (number of failures)			REASON FOR FAILURE
	Strandline	Seawater waters edge	Sea Offshore	
<u>E C Beaches</u>				
West Wittering	21(0)	21(0)	21(0)	5 6
Bracklesham Bay	21(0)	21(1)	21(0)	
Selsey	21(0)	21(0)	21(0)	
Pagham	21(0)	21(0)	21(0)	2,3,6,7 2,5,6
Bognor Regis	21(2)	21(2)	21(0)	
Middleton on Sea	21(1)	21(2)	21(0)	
Littlehampton	21(0)	21(0)	21(0)	2,6
Worthing	21(1)	21(2)	21(0)	
South Lancing	21(0)	21(0)	21(0)	
Southwick	21(0)	21(0)	21(0)	2,6

Reasons for failure - code

- | | |
|--|----------------------------------|
| 1 Strandline - scum present | 5 Water's Edge - excessive foam |
| 2 Strandline - slime present | 6 Water's Edge - abnormal colour |
| 3 Strandline - dark patches
in sand | 7 Water's Edge - smell |
| 4 Strandline - sulphurous smell | 8 Sea Offshore - visible slicks |
| | 9 Sea Offshore - foam |

TABLE 8d KENT BEACHES - MARINE ALGAL MONITORING RESULTS, 1992

	-- NUMBER OF OBSERVATIONS --- (number of failures)			REASON FOR FAILURE
	Strandline	Seawater waters edge	Sea Offshore	
<u>E C Beaches</u>				
Littlestone	21(1)	21(0)	21(0)	1
St Marys Bay	21(0)	21(1)	21(0)	5
Dymchurch - Mart Tower	21(0)	21(1)	21(0)	6
Hythe - West Parade	21(0)	21(0)	21(0)	
Sandgate - Princes Par.	21(0)	21(0)	21(1)	8
Folkestone	21(0)	21(0)	21(0)	
St Margarets Bay	21(0)	21(0)	21(0)	
Deal Castle	21(0)	21(1)	21(0)	5
Sandwich Bay	21(0)	21(1)	21(0)	5
Ramsgate - Western U'C	21(0)	21(2)	21(0)	6
Broadstairs - Viking Bay	21(0)	21(1)	21(0)	6
Joss Bay	21(1)	21(1)	21(1)	1,6,8
Margate - Fulsam Rock	21(1)	21(1)	21(1)	1,5,8
Margate - The Bay	21(0)	21(1)	21(0)	5
St Mildreds Bay	21(0)	21(2)	21(1)	5,8
Minnis Bay	21(0)	21(0)	21(0)	
Herne Bay	21(0)	21(0)	21(0)	
West Beach	21(0)	21(1)	21(0)	5
Leysdown	21(0)	21(0)	21(0)	
Sheerness	21(0)	21(0)	21(0)	
<u>Other Beaches</u>				
Greatstone	21(1)	21(1)	21(0)	5
Dymchurch - Car Park	21(0)	21(2)	21(0)	5,6
Dymchurch - Hythe Road	21(0)	21(0)	21(0)	
Sandgate - Town Centre	21(0)	21(0)	21(0)	
Dover Harbour	21(0)	21(0)	21(0)	
Ramsgate Sands	21(0)	21(1)	21(0)	6
Broadstairs - East Cliff	21(0)	21(2)	21(0)	5,6
Botany Bay	21(0)	21(3)	21(1)	5,6,8
Palm Bay	21(1)	21(5)	21(1)	5,6,8
Westgate Bay	21(0)	21(1)	21(1)	5,8
Westbrook Bay	21(0)	21(0)	21(0)	
Walpole Bay	21(0)	21(3)	21(3)	5,6,8,9
Dumpton Gap	21(0)	21(2)	21(0)	5,6
Reculver Beach	21(0)	21(0)	21(1)	8
Tankerton Beach	21(0)	21(0)	21(0)	
Hampton Pier	21(0)	21(0)	21(0)	
Kingsdown Beach	21(0)	21(1)	21(0)	5

Reasons for failure - code

- | | |
|--|----------------------------------|
| 1 Strandline - scum present | 5 Water's Edge - excessive foam |
| 2 Strandline - slime present | 6 Water's Edge - abnormal colour |
| 3 Strandline - dark patches
in sand | 7 Water's Edge - smell |
| 4 Strandline - sulphurous smell | 8 Sea Offshore - visible slicks |
| | 9 Sea Offshore - foam |

TABLE 9a ISLE OF WIGHT - BATHING BEACH AESTHETIC SURVEY RESULTS,
1992

	Number of Surveys	Intact Faeces	Grease/Scum	Sewage Debris	Contraceptives Tampon Applicators	Sanitary Towels	Noxious Sewage Odours	Total Season Score	Average Score per Visit
<u>EC Beaches</u>									
Ryde, East	4				2			2	0.5
Seagrove	3				2	1		3	1.0
St Helens	4								0
Bembridge	4	1		1	3	1		6	1.5
Whitecliff Bay	4				4			4	1.0
Sandown	4				2			2	0.5
Shanklin	4				4			4	1.0
Ventnor	3				4			4	1.3
Compton Bay	5				2			2	0.4
Totland Bay	5			1	4	4		9	1.8
Colwell Bay	5	1			3	2		6	1.2
Gurnard	3			1	1	2		4	1.3
Cowes (West)	3			2	1	2		5	1.7
<u>Other Beaches</u>									
East Cowes	3					4		4	1.3
Woodside	4				4			4	1.0
Ryde West	4	1		1	1	1	3*	7	1.75
Sandown, Yaverland	4	1			3			4	1.0
Norton	5			2	1	6		9	1.8
Shanklin Welcome Beach	4				4			4	1.0
Spring Vale	4				6*			6	1.5
Thorness Bay	4					1		1	0.25
Brook Bay	5			1	5*	2	9*	17	3.4
Brighstone Bay	5		1	2	4	3		10	2.0

Numbers denote Total Season Score

* One or more instances of objectionable levels of contamination

TABLE 9b HAMPSHIRE - BATHING BEACH AESTHETIC SURVEY RESULTS, 1992

	Number of Surveys	Intact Faeces	Grease/Scum	Sewage Debris	Contraceptives Tampon Applicators	Sanitary Towels	Noxious Sewage Odours	Total Season Score	Average Score per Visit
<u>EC Beaches</u>									
Highcliffe	5				1	2		3	0.6
Christchurch Bay	5								0
Milford on Sea	5				1	3		4	0.8
Lepe	5				2	1		3	0.6
Calshot	5					4		4	0.8
Lee on Solent	5				1	4		5	1.0
Stokes Bay	5			2	1	8		11	2.2
Southsea	5				1	2		3	0.6
Eastney	5					2		2	0.4
West Hayling	5				1	2		3	0.6
West of Eaststoke	5	1				1		2	0.4
Hillhead	5					3		3	0.6
<u>Other Beaches</u>									
Calshot Activity Centre	5	1		2	3	8		14	2.8
Weston	5				3	4		7	1.4
Solent Breezes	5					5		5	1.0
Portsmouth Victoria Pier	5					3		3	0.6

Numbers denote Total Season Score

* One or more instances of objectionable levels of contamination

TABLE 9c SUSSEX - BATHING BEACH AESTHETIC SURVEY RESULTS, 1992

	Number of Surveys	Intact Faeces	Grease/Scum	Sewage Debris	Contraceptives Tampon Applicators	Sanitary Towels	Noxious Sewage Odours	Total Season Score	Average Score per Visit
<u>EC Beaches</u>									
West Wittering	4							0	0
Bracklesham Bay	4							0	0
Selsey	4							0	0
Pagham	4							0	0
Bognor Regis	4					1		1	0.25
Middleton on Sea	4					2		2	0.5
Littlehampton	4					2		2	0.5
Worthing	4					4		4	1.0
South Lancing	4							0	0
Southwick	4					1		1	0.25
Hove	4					3		3	0.75
Brighton									
Saltdean	4							0	0
Newhaven	4							0	0
Seaford	4							0	0
Eastbourne	4							0	0
Pevensy Bay	4							0	0
Normans Bay	4							0	0
Bexhill	4							0	0
Hastings	4							0	0
Winchelsea	4							0	0
Camber									
<u>Other Beaches</u>									
Worthing East	4					1		1	0.25
Shoreham-by-Sea	4			1		2		3	0.75
Shoreham, Kingston Beach	4					2		2	0.5
Brighton, Palace Pier	4							0	0
Seaford, Dane Road									
Birling Gap									
St Leonards									
Sovereign Yatch Club									
Felpham Yatch Club	4				1			1	0.25
Bulverhythe									
Hastings Fairlight Glen									
Cuckmere Haven Beach									

Numbers denote Total Season Score

TABLE 9d KENT - BATHING BEACH AESTHETIC SURVEY RESULTS, 1992

	Number of Surveys	Intact Faeces	Grease/Scum	Sewage Debris	Contraceptives Tampon Applicators	Sanitary Towels	Noxious Sewage Odours	Total Season Score	Average Score per Visit
<u>EC Beaches</u>									
Littlestone	1							0	0
St Mary's Bay	1	5 ^a						5 ^a	5.0 ^a
Dymchurch, Martello Tower	1	4 ^a						4 ^a	4.0 ^a
Hythe, West Parade	1	2 ^a						2 ^a	2.0 ^a
Sandgate, Princes Parade	3							0	0
Folkestone	3							0	0
St Margaret's Bay	4			1		1		2	0.5
Deal Castle	4			3	1	2		6	1.5
Sandwich Bay	4			11*	4	11		26	6.5
Ramsgate Western Undercliff	20			31*	19*	50*	1	101	5.1
Broadstairs, Viking Bay	20			33*	18*	63*		114	5.7
Joss Bay	19			24*	18*	42*		84	4.4
Margate, Fulsam Rocks	15		1	6*	1	14*		22	1.5
Margate, The Bay	17		1	8	3	24*		36	2.1
St Mildred's Bay	19		2	11	6	40*	1	60	3.2
Minnis Bay	14			23*	13*	44*		80	5.7
Herne Bay	3			2	1	4		7	2.3
West Beach	3			2		2		4	1.3
Leysdown	3					3		3	1.0
<u>Other beaches</u>									
Dymchurch, car park	1	2 ^a						2 ^a	2.0 ^a
Dymchurch, Hythe Road	1							0	0
Sandgate, town centre	3					1		1	0.3
Dover, Harbour	4							0	0
Ramsgate, Sands	20			2	3	5		10	0.5
Broadstairs, Eastcliff	19			17	13	29*		59	3.1
Botany Bay	19	1		5	5	13		24	1.3
Palm Bay	18		1	39*	35*	64*	4	143	7.9
Westgate Bay	16		1	16*	7*	42*		66	4.1
Sheerness	3			1	1	1		3	1.0
Greatstone	1							0	0
Westbrook Bay	21		2	1		18		21	1.0
Walpole Bay	15		1	6*	2	24*		33	2.2
Dumpton Gap	20			13	6	37*		56	2.8
Reculver Beach	3							0	0
Tankerton Beach	3							0	0
Hampton Pier	3			2		2		4	1.3
Kingsdown Beach	4					2		2	0.5

Numbers denote Total Season Score

* One or more instances of objectionable levels of contamination
a Probably of canine origin

TABLE 10 THE TIMETABLE OF CAPITAL WORKS EXPENDITURE
PLANNED BY SOUTHERN WATER SERVICES.

BATHING WATER	FINANCIAL YEAR				
	1990/91	91/92	92/93	93/94	94/95
West Beach	+	+	-	-	-
Herne Bay	+	+	-	-	-
Margate The Bay	-	+	-	-	-
Margate Fulsam Rk	-	+	-	-	-
Joss Bay	+	+	-	-	-
Broadstairs	+	+	-	-	-
Ramsgate	+	+	+	+	-
Sandwich Bay	+	+	+	+	+
Deal Castle	+	+	+	+	+
St Margaret's Bay	+	+	+	+	+
Folkestone	+	+	+	+	+
Sandgate	+	+	+	+	+
Hythe	+	+	-	-	-
Dymchurch	+	+	-	-	-
St Mary's Bay	-	-	+	+	+
Littlestone	-	-	+	+	+
Camber	-	-	+	+	+
Pevensey Bay	+	+	+	+	+
Eastbourne	+	+	+	+	+
Seaford	+	+	+	-	-
Newhaven	+	+	+	-	-
Saltdean	+	+	+	+	+
Brighton	+	+	+	+	+
Hove	+	+	+	+	+
Southwick	+	+	+	+	+
South Lancing	+	+	+	+	+
Worthing	+	+	+	+	+
West Hayling	+	+	+	-	-
Eastney	+	+	+	-	-
Southsea	+	+	+	-	-
Lee-on-Solent	+	+	-	-	-
Calshot	+	+	-	-	-
Lepe	+	+	-	-	-
Milford on Sea	+	+	+	-	-
Christchurch Bay	+	+	+	-	-
Highcliffe	+	+	+	-	-
Compton Bay	+	-	-	-	-
Totland Bay	+	-	-	-	-
Colwell Bay	+	-	-	-	-
Cowes	+	-	-	-	-
Ryde	+	+	-	-	-
Seagrove	+	+	-	-	-
Bembridge	-	+	+	+	+
Ventnor	-	+	+	+	+

The NRA does not have details on timing of expenditure on remedial actions for Bracklesham, Selsey, Pagham, Middleton.

APPENDIX A

THE RESULTS OF BACTERIOLOGICAL ANALYSIS OF SAMPLES
COLLECTED AT 110 BATHING WATERS IN HAMPSHIRE, SUSSEX, KENT
AND THE ISLE OF WIGHT BETWEEN 1st MAY AND THE END OF
SEPTEMBER 1992.

DL/bw3/93

Isle of Wight Beaches

TOTAL COLIFORMS

	6 May	13 May	20 May	27 May
E C BEACHES				
Ryde, East	660	110	10 <	20
Seagrove	10	10 <	10 <	4000
St. Helens	140	100	4600	140
Bembridge	10	80	10 <	240
Whitecliff Bay	30	60	10 <	35
Sandown	100	20	30	80
Shanklin	280	180	10 <	80
Ventnor	2300	750	420	2800
Compton Bay	10 <	10 <	35	10 <
Totland Bay	80	55	10 <	10 <
Colwell Bay	80	30	10 <	160
Gurnard	270	110	10	130
Cowes (West)	7000	3400	13500	18600
OTHER BEACHES				
East Cowes	60	10 <	40	60
Woodside	10 <	20	10 <	20
Ryde West		50	10 <	10 <
Spring Vale	10	85	10 <	55
Sandown, Yaverland	60	30	10	100
Shanklin Welcome Beach	20	50	10 <	160
Brook Bay	220	2500	1000	630
Brightstone Bay	4800	260	1200	300
Norton	240	95	90	150
Thorncroft Bay	570	10 <	10 <	15

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FAECAL COLIFORMS

FAECAL STREPTOCOCCI

6 May 13 May 20 May 27 May

6 May 13 May 20 May 27 May

50 60 1 < 15
7 10 < 1 < 2500
35 35 1200 35
1 < 75 1 60
15 15 3 20
65 6 4 20
260 100 1 < 60
530 230 60 940
5 2 35 5
15 20 7 1 <
15 25 1 < 75
70 40 1 < 40
2500 3200 5900 10600

15 55 4 10
1 < 20 1 150
15 9 200 80
6 35 1 10
20 25 7 40
110 50 10 30
55 210 3 15
110 90 35 80
7 1 5 3
25 2 5 1 <
15 1 < 1 < 50
30 46 1 < 15
700 450 2000 4100

10 7 15 20
1 < 3 2 2
40 20 1 20
1 < 35 1 < 55
35 10 9 40
4 30 5 70
70 2500 920 300
400 25 300 40
150 10 30 130
20 1 1 < 15

1 < 3 1 < 2
1 < 10 1 < 1
15 20 100 5
1 9 1 < 50
70 70 15 30
20 20 1 25
15 20 200 65
230 20 15 20
25 15 15 20
5 1 < 1 < 3

Isle of Wight Beaches

TOTAL COLIFORMS

3 June 10 June 17 June 24 June

E C BEACHES

Ryde, East	120	10 <	10	10
Seagrove	120	10	250	20
St. Helens	30	10	160	35
Bembridge	55	9	60	10 <
Whitecliff Bay	50	10 <	55	10
Sandown	75	9	9	10 <
Shanklin	10	10 <	20	10 <
Ventnor	890	200	1800	30
Compton Bay	20	20	10	10 <
Totland Bay	45	10 <	10 <	20
Colwell Bay	10 <	20	10 <	10
Gurnard	550	170	160	30
Comes (West)	410	9	330	10

OTHER BEACHES

East Comes	290	30	440	40
Woodside	35	10	35	10 <
Ryde West	175	10	3100	40
Spring Vale	10 <	10 <	30	9
Sandown, Yaverland	200	10	60	10 <
Shanklin Welcome Beach	20	10 <	530	10 <
Brook Bay	8700	29600	4900	560
Brightstone Bay	10500	10200	20	10
Horton	70	40	390	270
Thorncress Bay	10	30	10	10

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Monthly Report on the Quality of Bathing Waters JUNE 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

3 June 10 June 17 June 24 June

3 June 10 June 17 June 24 June

15 1 < 5 8
120 1 120 4
6 1 30 7
35 5 60 6
25 4 15 1
15 2 7 1 <
5 2 7 2
470 65 800 20
2 20 8 6
35 5 1 1
6 15 1 < 3
160 150 50 15
70 2 75 10

7 2 3 1
360 2 70 1 <
2 4 25 3
8 20 15 1
10 30 20 15
10 5 40 1 <
20 3 15 2
35 10 70 15
6 30 1 < 10
20 70 4 1
5 5 1 3
25 20 45 10
25 2 5 7

290 9 430 20
25 1 35 3
80 3 2200 40
2 1 < 15 9
140 2 7 3
7 1 < 400 1 <
3400 10400 3400 460
2000 3400 4 10
35 25 170 130
2 2 4 1

80 1 20 4
100 1 3 1 <
10 1 70 10
15 1 25 2
50 6 50 5
15 3 270 5
750 3000 260 110
270 300 7 1
5 5 25 45
1 20 10 2

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Monthly Report on the Quality of Bathing Waters JULY 1992

Isle of Wight Beaches	TOTAL COLIFORMS					FAECAL COLIFORMS					FAECAL STREPTOCOCCI				
	1 July	8 July	15 July	22 July	29 July	1 July	8 July	15 July	22 July	29 July	1 July	8 July	15 July	22 July	29 July
E C BEACHES															
Ryde, East	1500	45	55	520	40	530	45	55	350	40	630	15	20	30	25
Seagrove	220	40	130	30	2600	230	40	110	25	2000	1400	7	180	20	2300
St. Helens	40	60	60	10000	390	25	45	15	2200	170	6	8	3	280	90
Bembridge	55	20	10	15	45	20	9	10	15	25	15	3	5	10	15
Whitecliff Bay	140	90	160	20	390	25	20	100	5	210	55	50	45	15	45
Sandown	20	10	2600	60	560	15	5	1900	20	310	85	25	790	20	45
Shanklin	42300	30	410	1500	720	17100	9	330	410	440	9700	25	50	220	650
Ventnor	890	320	1200	690	3400	330	110	500	520	500	75	15	60	65	130
Compton Bay	1700	10	9	10	10	1400	10	7	4	10	750	4	3	2	10
Totland Bay	1600	460	10	190	40	1600	170	6	15	40	440	45	4	8	4
Colwell Bay	7400	50	50	60	55	4100	40	20	15	15	1400	20	3	10	5
Gurnard	3700	380	110	2000	20	2200	310	110	2000	15	2100	45	25	25	20
Cowes (West)	200	120	80	350	380	90	55	45	210	350	330	4	15	3	210
OTHER BEACHES															
East Cowes	350	120	40	10	15000	110	50	30	8	10300	55	9	45	10	5100
Woodside	160	35	30	20	9100	160	35	10	1	6600	130	4	5	1	1100
Ryde West	180	60	200	220	460	110	40	65	90	330	920	20	45	15	250
Spring Vale	3000	300	30	20	170	800	70	25	7	170	800	15	40	3	45
Sandown, Yaverland	55	2800	150	65	5400	30	1500	25	65	2000	55	1300	25	45	510
Shanklin Welcome Beach	20	35	80	310	410	7	2	7	70	240	10	10	15	45	20
Brook Bay	16500	4300	18900	500	1100	7000	1200	8900	250	650	6200	310	1100	35	240
Brighstone Bay	25	4000	3200	4500	100	20	1100	720	660	25	4	170	100	90	10
Norton	360	270	220	190	250	360	80	120	65	70	110	25	30	15	2
Thorness Bay	590	130	10	430	20	190	80	10	340	2	15	15	4	1	1

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Isle of Wight Beaches

TOTAL COLIFORMS

5 Aug 12 Aug 19 Aug 26 Aug

E C BEACHES

Ryde, East	20	240	130	320
Seagrove	55	11500	140	4700
St. Helens	140	45	560	280
Bembridge	40	200	350	35
Whitecliff Bay	340	4600	2100	95
Sandown	260	150	85	70
Shanklin	110	70	640	95
Ventnor	3600	9500	3000	970
Compton Bay	30	35	10	30
Totland Bay	30	130	140	35
Colwell Bay	30	140	20	95
Gurnard	1300	2800	260	600
Cowes (West)	230	740	85	500

OTHER BEACHES

East Cowes	30	180	55	180
Woodside	10	75	30	760
Ryde West	125	1100	15	4700
Spring Vale	10	360	40	630
Sandown, Yaverland	75	410	980	980
Shanklin Welcoae Beach	140	230	160	140
Brook Bay	760	640	4200	30
Brightstone Bay	10900	3900	110	35
Morton	350	400	700	180
Thorness Bay	35	400	70	70

NATIONAL RIVERS AUTHORITY

Monthly Report on the Quality of Bathing Waters AUGUST 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

5 Aug 12 Aug 19 Aug 26 Aug

5 Aug 12 Aug 19 Aug 26 Aug

5 180 45 270
55 10200 70 3500
100 45 160 65
15 200 240 35
300 2000 850 75
50 55 80 25
50 55 380 60
2700 3400 1300 500
20 30 2 15
10 55 70 15
30 60 20 40
830 2600 110 220
170 460 60 500

4 75 15 30
8 5700 30 7000
15 9 25 10
4 750 4 15
45 110 280 30
25 30 30 45
15 10 90 20
75 1200 140 45
3 10 2 6
3 9 5 6
5 1100 8 7
200 1300 10 1600
20 650 9 40

6 180 55 85
3 75 8 730
100 680 15 3600
2 360 15 620
35 140 350 880
50 230 110 45
340 440 2900 25
6700 1000 110 10
340 280 370 70
15 290 55 25

2 60 6 45
1 25 4 530
15 790 4 7100
4 4800 5 65
4 35 80 110
15 50 25 20
30 590 340 15
790 240 7 5
40 20 45 20
15 30 4 10

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Isle of Wight Beaches

TOTAL COLIFORMS

	2 Sept	9 Sept	16 Sept	23 Sept
E C BEACHES				
Ryde, East	420	320	15	300
Seagrove	400	35	100	280
St. Helens	340	250	6900	260
Beabridge	560	170	45	3400
Whitecliff Bay	120	150	110	210
Sandown	11000	200	70	230
Shanklin	3300	30	160	670
Ventnor	21600	1700	3000	5400
Compton Bay	35	65	10	10
Totland Bay	230	10	3100	840
Colwell Bay	650	65	30	400
Gurnard	31000	230	60	930
Cowes (West)	790	95	110	240
OTHER BEACHES				
East Cowes	390	220	45	240
Woodside	290	230	10	150
Ryde West	2000	320	130	5400
Spring Vale	520	1500	40	210
Sandown, Yaverland	600	150	300	330
Shanklin Welcone Beach	310	850	80	80
Brook Bay	4800	10	6700	1300
Brightstone Bay	460	15	620	2000
Norton	520	250	680	700
Thorness Bay	170	60	30	12000

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Monthly Report on the Quality of Bathing Waters SEPTEMBER 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

2 Sept 9 Sept 16 Sept 23 Sept

2 Sept 9 Sept 16 Sept 23 Sept

250 210 15 110
370 35 100 90
220 150 2100 130
480 25 30 1600
35 70 55 55
3400 100 40 90
1700 10 85 530
5700 520 1300 960
15 60 1 5
70 10 2200 130
550 50 30 300
9000 230 40 930
420 55 50 240

110 40 5 50
360 25 210 230
35 60 170 20
40 210 5 9100
60 40 75 60
810 45 65 80
1300 760 20 240
1700 100 150 600
2 2 4 1
65 5 780 70
100 6 3 65
6000 60 6 4650
65 6 4 360

150 220 45 240
95 140 1 80
1100 160 50 4700
330 560 40 110
310 15 180 300
160 1 15 40
2800 4 3800 770
180 15 180 410
310 110 510 290
80 50 25 3600

20 320 3 20
30 70 1 10
270 70 10 930
35 260 25 20
35 15 40 140
500 15 10 20
430 2 940 65
40 1 35 95
70 20 110 70
25 60 25 370

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Monthly Report on the Quality of Bathing Waters MAY 1992

Hampshire Beaches

TOTAL COLIFORMS

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

	5 May	12 May	19 May	26 May	5 May	12 May	19 May	26 May	5 May	12 May	19 May	26 May
E C BEACHES												
Highcliffe	10 <	210	10 <	20	1 <	65	1 <	7	1 <	4	1 <	2
Christchurch Bay	200	720	55	230	200	260	10	230	20	6	6	5
Milford on Sea	520	1600	85	230	230	250	40	15	70	7	20	20
Lepe	10 <	50	120	230	4	15	35	230	1 <	15	10	3
Calshot	260	20	45	10	90	8	15	9	10	35	2	4
Millhead	40	140	35	60	20	25	10	60	20	25	4	2
Lee on Solent	130	65	140	45	30	20	35	7	15	30	15	3
Stokes Bay	120	50	110	25	30	45	50	3	15	35	3	1
Southsea	30	60	20	290	20	25	1	120	70	35	3	15
Eastney	30	90	10 <	160	15	45	4	130	60	35	1 <	30
West Hayling	20	390	10 <	30	1	60	1 <	25	1	20	1	8
West of Eastoke	30	350	10 <	40	1	25	1 <	20	1 <	30	1	10
OTHER BEACHES												
Calshot Activity Centre	320	110	330	370	180	65	170	15	25	9	10	30
Weston	1700	620	870	5400	1300	130	360	2700	210	140	55	490
Solent Breezes	150	120	10 <	90	15	9	1 <	60	50	25	1	4
Portsmouth Victoria Pier	210	40	45	110	45	40	30	105	7	15	10	20

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Monthly Report on the Quality of Bathing Waters JUNE 1992

Hampshire Beaches	TOTAL COLIFORMS					FAECAL COLIFORMS					FAECAL STREPTOCOCCI				
	2 June	9 June	16 June	23 June	30 June	2 June	9 June	16 June	23 June	30 June	2 June	9 June	16 June	23 June	30 June
F. C. BEACHES															
Highcliffe	230	10 <	10 <	10	20	70	1 <	2	2	1	25	1	1 <	1	9
Christchurch Bay	30	15	55	30	35	15	15	40	10	35	6	4	8	6	6
Milford on Sea	180	550	230	2900	190	140	400	85	1000	70	30	75	40	290	75
Lepe	1900	30	10 <	15	20	750	30	5	15	20	210	3	1 <	7	1
Calshot	15	60	20	10	75	15	15	20	9	15	5	2	6	1 <	30
Hillhead	55	10 <	50	190	75	15	1	15	30	65	15	3	4	25	30
Lee on Solent	100	220	130	130	25	60	2	25	15	25	60	2	30	45	15
Stokes Bay	120	100	180	310	40	25	3	100	20	20	10	1 <	130	2	15
Southsea	60	10	150	10	170	55	4	70	10	140	40	7	9	15	35
Eastney	35	10 <	260	10	130	15	4	20	7	95	6	7	15	2	20
West Hayling	30	10 <	45	10 <	55	30	1	45	1	25	9	4	30	1 <	30
West of Eastoke	240	10	55	10 <	20	240	1	30	4	20	7	2	20	1 <	25
OTHER BEACHES															
Calshot Activity Centre	400	210	130	2800	170	90	85	95	120	65	10	15	2	35	20
Weston	200	4600	95	4100	75	200	1300	40	2400	40	35	550	4	260	30
Solent Breezes	45	10 <	40	20	65	15	9	15	4	70	15	15	1	9	20
Portsmouth Victoria Pier	90	35	60	40	210	35	30	20	40	55	7	10	9	20	20

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Hampshire Beaches.

TOTAL COLIFORMS

7 July 14 July 21 July 28 July

E C BEACHES

Highcliffe	10 <	320	10	10 <
Christchurch Bay	590	820	60	10
Milford on Sea	910	2200	960	5000
Lepe	10	190	120	15
Calshot	10 <	35	230	180
Hillhead	60	55	250	10 <
Lee on Solent	20	340	280	10
Stokes Bay	10	340	200	10
Southsea	120	170	330	30
Eastney	10 <	45	65	1900
West Hayling	10 <	35	65	10
West of Eastoke	9	60	360	10 <

OTHER BEACHES

Calshot Activity Centre	230	25	440	20
Weston	3100	1100	810	450
Solent Breezes	90	100	20	20
Portsmouth Victoria Pier	55	140	530	25

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Monthly Report on the Quality of Bathing Waters JULY 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

7 July 14 July 21 July 28 July

7 July 14 July 21 July 28 July

2	55	6	1 <
320	280	60	5
760	560	960	3000
10	55	40	15
9	25	20	70
40	45	180	5
20	210	160	5
10	260	40	5
25	70	160	20
5	30	35	45
1	30	30	10
2	30	30	1

1 <	25	2	1
55	35	20	1
150	95	110	800
7	40	20	1
1 <	20	1 <	170
35	65	35	1
2	430	90	1
1	210	20	1
15	100	45	6
9	7	70	9
20	40	6	10
8	35	420	6

150	25	130	20
2800	790	410	450
65	40	15	20
55	80	260	25

30	4	20	4
370	100	95	30
55	55	9	25
20	95	30	7

Hampshire Beaches

TOTAL COLIFORMS

	4 Aug	11 Aug	18 Aug	25 Aug
E C BEACHES				
Highcliffe	20	220	40	1100
Christchurch Bay	50	50	430	320
Millford on Sea	620	50	720	700
Lepe	25	45	20	35
Calshot	30	180	60	10
Hillhead	35	110	560	25
Lee on Solent	100	35	90	980
Stokes Bay	40	40	45	320
Southsea	10500	360	940	240
Eastney	13500	800	40	95
West Hayling	10	200	10	20
West of Eastoke	20	125	210	90
OTHER BEACHES				
Calshot Activity Centre	110	210	710	50
Weston	5500	4700	990	32000
Solent Breezes	40	130	65	570
Portsmouth Victoria Pier	220	180	210	150

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Monthly Report on the Quality of Bathing Waters AUGUST 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

4 Aug	11 Aug	18 Aug	25 Aug	4 Aug	11 Aug	18 Aug	25 Aug
20	55	6	560	1 <	5	2	15
40	25	290	80	2	5	30	10
180	50	720	370	60	10	60	15
25	45	15	20	3	6	7	7
7	85	60	3	15	90	30	1 <
20	50	200	15	2	15	1 <	10
40	10	40	370	55	5	9	220
35	5	30	280	55	3	5	70
9700	170	650	240	1500	60	90	65
9800	710	25	55	2300	510	5	20
10	200	3	20	25	510	1	4
2	125	210	50	15	600	1	30
55	80	360	25	2	15	25	6
2400	2300	520	14700	180	290	70	3500
8	60	25	550	1	10	15	270
55	90	100	85	65	35	10	15

Hampshire Beaches

TOTAL COLIFORMS

	1 Sept	8 Sept	15 Sept	22 Sept
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E C BEACHES

Highcliffe	500	200	10	40
Christchurch Bay	320	1700	340	520
Milford on Sea	3600	1190	7000	2300
Lepe	520	340	20	310
Calshot	1000	140	280	600
Millhead	230	15	170	75
Lee on Solent	240	85	55	150
Stokes Bay	110	130	140	160
Southsea	1700	180	1000	70
Eastney	140	520	350	50
West Hayling	25	70	30	20
West of Eastoke	110	30	140	35

OTHER BEACHES

Calshot Activity Centre	270	20	340	310
Weston	1900	2700	1500	11300
Solent Breezes	210	25	140	10
Portsmouth Victoria Pier	230	70	270	230

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Monthly Report on the Quality of Bathing Waters SEPTEMBER 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

1 Sept	8 Sept	15 Sept	22 Sept	1 Sept	8 Sept	15 Sept	22 Sept
190	50	6	30	25	9	3	10
320	260	240	210	25	40	30	45
1200	550	4400	1300	130	60	640	290
120	340	15	300	65	10	2	35
250	85	280	470	30	15	60	50
120	15	45	20	45	15	150	7
100	70	55	45	45	20	20	20
50	65	40	65	30	40	25	20
1400	180	1000	40	610	35	580	20
60	350	290	10	90	5	100	20
10	65	10	8	10	590	10	9
25	6	50	15	25	15	25	10
150	10	160	310	30	3	30	45
360	1100	790	4000	90	270	570	1100
70	25	120	4	20	10	120	10
80	30	190	180	35	15	25	15

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Monthly Report on the Quality of Bathing Waters MAY 1992

Sussex Beaches	TOTAL COLIFORMS				FAECAL COLIFORMS				FAECAL STREPTOCOCCI			
	7 May	14 May	21 May	28 May	7 May	14 May	21 May	28 May	7 May	14 May	21 May	28 May
E C BEACHES												
West Mittering	10 <	30	20	90	2	15	5	70	1 <	1 <	2	80
Bracklesham Bay	10	9	25	55	8	9	25	55	5	20	25	30
Selsey	10	130	10	10	6	100	3	5	2	140	1	4
Pagham	10 <	1100	10	110	1 <	1100	6	60	1 <	20	3	110
Bognor Regis	10 <	210	10 <	680	1	140	1 <	300	1	140	3	45
Middleton on Sea	10 <	15	10 <	20	1	15	1 <	7	3	45	1	1 <
Littlehampton	780	460	80	130	340	380	25	45	9	25	1	15
Worthing	30	1900	70	2400	30	320	35	1500	26	15	6	610
South Lancing	160	90	10 <	10	70	30	5	10	25	4	2	10
Southwick	40	420	150	50	10	250	30	15	15	20	30	20
Move	85	45	10 <	25	25	30	7	25	4	5	1 <	9
Brighton	17	138	7	87	20	9	0	28	60	10	10 <	310
Saltdan	4	102	158	24	2	112	200	14	10	10	10 <	10 <
Newhaven	472	6080	20	2268	63	1370	20	210	10	20	10 <	10 <
Seaford	1096	77	17	158	495	40	3	125	40	10 <	10 <	30
Eastbourne	58	39	126	105	28	23	72	59	10 <	10 <	20	20
Pevensey Bay	33	261	2200	114	14	252	1953	85	10 <	20	390	120
Normans Bay	116	576	290	24	53	380	72	10	10 <	30	10 <	10
Bexhill	97	41	32	58	54	29	90	38	10 <	10 <	10	10
Hastings	34	45	60	39	15	25	30	24	10 <	30	20	30
Winchelsea	2	12	0	6	1	1	1	3	10	10 <	10 <	40
Camber	182	1440	7	288	102	113	1	56	30	10	10 <	21
OTHER BEACHES												
Felpham Yacht Club	270	240	10	170	65	130	7	150	6	70	2	210
Worthing East	220	2100	10 <	30	50	1700	2	10	55	30	1 <	1
Shoreham-By-Sea	10 <	2990	30	45	1 <	270	30	25	1 <	40	1	7
Shoreham, Kingston Beach	250	500	40	110	75	420	15	30	2	10	2	30
Brighton, Palace Pier	168	130	610	30	70	51	720	26	60	30	60	10 <
Seaford, Dane Road	315	77	4	212	69	18	4	27	20	10 <	10	10 <
Cuckmere Haven Beach	185	57	0	15	192	54	0	9	10 <	10	10 <	40
Birling Gap	34	11	7	55	5	7	0	44	10 <	10 <	10 <	10 <
Eastbourne -Sovereign YC	590	900	160	216	216	780	36	103	10 <	330	30	10
St. Leonards	23	62	10	26	11	31	5	15	10 <	10	10 <	30
Bulverhythe	1350	70	105	35	390	24	77	21	230	10 <	50	10 <
Hastings Fairlight Glenn	22	24	20	6	8	4	0	5	10 <	10 <	10 <	10 <

Sussex Beaches

TOTAL COLIFORMS

	4 June	11 June	18 June	25 June
E C BEACHES				
West Mittering	30	10	55	10
Bracklesham Bay	5700	30	120	10
Selsey	10 <	880	90	10
Pagham	960	50	9	620
Bognor Regis	40	20	10 <	30
Middleton on Sea	10	10 <	10 <	10 <
Littlehampton	10 <	10 <	10	10 <
Worthing	55	50	30	30
South Lancing	10	10 <	20	20
Southwick	300	370	200	940
Hove	290	370	35	30
Brighton	65	55	60	3
Saltdean	5	30	1 <	1
Newhaven	3200	40	800	20
Seaford	770	55	120	3
Eastbourne	120	35	400	6
Pevensey Bay	60	20	120	20
Normans Bay	190	80	20	80
Bexhill	125	420	50	3
Hastings	200	940	90	2
Winchelsea	10	25	9	9
Camber	30	30	120	15
OTHER BEACHES				
Felpham Yacht Club	10 <	70	30	200
Worthing East	60	10 <	10 <	35
Shoreham-by-Sea	10	35	55	20
Shoreham, Kingston Beach	100	60	120	430
Brighton, Palace Pier	70	7	220	20
Seaford, Dane Road	25	10	9	7
Cuckmere Haven Beach	9	20	1 <	1 <
Birling Gap	30	1	10	6
Eastbourne -Sovereign YC	40	100	45	40
St. Leonards	65	320	320	9
Bulverhythe	860	320	130	3
Hastings Fairlight Glenn	90	25	2	2

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Monthly Report on the Quality of Bathing Waters JUNE 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

4 June 11 June 18 June 25 June

4 June 11 June 18 June 25 June

20 3 20 1
5000 30 50 10
1 550 2 10
920 20 2 570
35 4 5 15
1 1 < 1 < 1
2 1 < 3 1 <
15 20 15 10
6 2 15 1 <
100 210 45 330
65 50 20 4
40 15 50 1
1 10 1 2 <
910 30 410 10 <
260 30 45 6
85 40 280 7
40 20 80 20
240 60 10 65
90 160 30 2
100 160 50 3
10 15 3 3
6 20 110 15

10 3 2 1
2400 65 15 25
1 500 9 1 <
340 15 4 110
5 6 2 5
9 5 1 < 1
3 3 1 < 1
8 5 6 1 <
15 1 4 7
25 10 10 200
20 10 5 5
20 10 < 60 20
10 < 10 < 10 < 10 <
20 10 < 10 < 10 <
10 10 < 10 < 10 <
20 10 10 10 <
10 < 10 10 < 10 <
30 20 10 < 10 <
10 10 < 20 10 <
70 80 40 10 <
10 10 < 10 < 10 <
10 < 10 10 10 <

3 70 15 200
30 1 6 15
3 9 3 10
35 40 25 280
90 6 360 7
10 15 10 5
7 15 1 1 <
25 4 15 3
35 40 35 20
35 70 410 10
510 50 80 1
70 20 4 7

2 35 5 270
6 1 2 25
4 10 15 100
15 2 30 35
10 < 10 330 10 <
10 10 < 10 < 10 <
10 < 10 < 10 < 10 <
20 10 < 10 < 10 <
10 < 10 40 10 <
10 < 30 14300 10 <
60 50 10 10 <
30 10 < 10 < 10 <

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Monthly Report on the Quality of Bathing Waters JULY 1992

Sussex Beaches	TOTAL COLIFORMS					FAECAL COLIFORMS					FAECAL STREPTOCOCCI				
	2 July	9 July	16 July	23 July	30 July	2 July	9 July	16 July	23 July	30 July	2 July	9 July	16 July	23 July	30 July
E C BEACHES															
West Wittering	150	30	10 <	65	90	40	30	7	30	90	100	30	1	7	70
Bracklesham Bay	100	30	45	30	90	65	25	40	30	90	95	55	6	45	2200
Selsey	220	10 <	110	20	120	90	2	40	10	60	55	1	25	3	40
Pagham	310	120	20	75	200	170	60	8	50	80	55	30	5	35	80
Bognor Regis	200	170	80	3000	120	100	100	70	2300	50	65	40	25	40	30
Middleton on Sea	65	340	600	8600	580	35	120	340	8600	510	10	20	105	420	40
Littlehampton	70	75	25	470	140	55	60	15	270	40	50	10	4	150	9
Worthing	220	140	690	1300	75	110	65	320	300	45	35	10	60	75	25
South Lancing	250	130	1500	80	35	25	35	370	30	35	4	10	75	5	240
Southwick	3200	490	2400	1600	340	770	400	460	490	280	600	60	190	120	970
Hove	340	180	1900	220	140	170	40	370	50	65	70	5	80	25	10
Brighton	260	60	230	20	50	75	20	320	76	50	40	10	30	60	40
Saltdean	40	10	45	70	95	9	4	35	15	110	10	10	10 <	10 <	10 <
Newhaven	4000	90	1100	700	15500	980	25	530	150	450	70	30	10 <	20	80
Seaford	980	45	110	220	120	210	9	20	50	55	30	30	10 <	20	20
Eastbourne	360	45	170	290	200	110	25	85	210	30	20	10 <	10 <	60	20
Pevensey Bay	470	50	130	120	350	120	30	60	40	450	140	10	10 <	40	40
Normans Bay	380	200	1000	530	3600	120	80	610	400	160	20	20	30	40	10 <
Bexhill	400	5	95	420	65	130	5	45	110	70	140	10	20	70	10 <
Hastings	8000	55	190	520	260	3200	25	340	260	400	1300	20	280	230	110
Winchelsea	280	55	330	180	45	220	55	130	60	45	10 <	20	60	30	10 <
Camber	530	70	110	70	170	170	45	90	30	120	10	20	10	10 <	10
OTHER BEACHES															
Felpham Yacht Club	340	50	920	330	95	220	15	280	125	25	140	20	100	25	10
Worthing East	210	710	4000	170	320	130	550	870	65	320	80	100	120	5	35
Shoreham-by-Sea	760	60	140	100	30	150	20	40	55	30	380	10	40	6	10
Shoreham, Kingston Beach	310	1900	110	730	120	110	1000	55	260	50	35	200	8	10	20
Brighton, Palace Pier	2400	320	1000	380	600	1500	185	1400	210	690	210	40	230	280	190
Seaford, Dane Road	290	40	45	35	60	40	35	36	10	35	10	10	10	10 <	10
Cuckmere Haven Beach	330	9	25	40	50	380	4	20	55	50	50	10 <	20	20	10 <
Birling Gap	25	3	15	15	7	30	1	10	20	7	10 <	10 <	10 <	10	70
Eastbourne -Sovereign YC	7000	55	180	150	50	2200	50	65	40	25	790	10	10 <	10	10 <
St. Leonards	1900	50	45	410	65	350	40	30	100	40	80	100	10 <	30	10 <
Bulverhythe	9000	85	7000	250	70	2200	40	5000	150	55	1360	40	5000	30	20
Hastings Fairlight Glenn	15	9	10	120	15	15	3	6	25	8	10	10	10 <	10	10 <

Sussex Beaches

TOTAL COLIFORMS

	6 Aug	13 Aug	20 Aug	27 Aug
E C BEACHES				
West Wittering	10 c	50	390	480
Bracklesham Bay	25	30	55	190
Selsey	20	2900	75	850
Pagham	10 c	730	65	1400
Bognor Regis	20	620	40	410
Middleton on Sea	160	15000	35	1300
Littlehampton	15	460	120	500
Worthing	120	7700	19000	14100
South tancing	260	58500	5000	6600
Southwick	65	480	9900	990
Hove	310	13000	870	17200
Brighton	65	1300	85	420
Saltdean	9	600	270	670
Mewhaven	30	580	40	220
Seaford	10	310	4000	290
Eastbourne	360	140	7000	550
Pevensy Bay	45	720	890	550
Normans Bay	350	560	2200	1300
Bexhill	200	770	1500	2300
Hastings	340	450	63000	2800
Winchelsea	6	350	340	2700
Camber	55	600	65	1200
OTHER BEACHES				
Felpham Yacht Club	20	720	35	490
Worthing East	95	5400	33500	13500
Shoreham-By-Sea	9	630	75	10500
Shoreham, Kingston Beach	35	300	310	1300
Brighton, Palace Pier	500	2400	110	600
Seaford, Dane Road	9	860	110	350
Cuckmere Haven Beach	6	200	10	55
Birling Gap	30	60	70	90
Eastbourne -Sovereign YC	80	220	7000	600
St. Leonards	300	720	360	2500
Bulverhythe	5400	36000	102500	1200
Hastings Fairlight Glenn	40	770	30	700

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Monthly Report on the Quality of Bathing Waters AUGUST 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

6 Aug 13 Aug 20 Aug 27 Aug

6 Aug 13 Aug 20 Aug 27 Aug

2 50 300 480
20 30 30 120
10 480 50 680
1 < 460 20 870
10 550 40 410
160 7900 35 970
15 460 65 260
70 1800 8900 5200
210 4100 470 4300
45 330 3100 520
220 5800 680 8000
35 690 40 290
4 340 25 420
20 300 15 110
4 160 1400 100
400 85 2970 330
55 370 600 280
150 150 600 390
56 200 650 290
65 250 10000 1600
10 120 120 1500
30 470 75 800

1 < 4 30 200
75 10 40 560
3 50 4 490
2 40 9 2500
1 70 35 1100
150 2600 90 590
6 250 8 65
15 490 540 670
40 900 60 1300
10 15 440 65
30 440 200 840
10 < 170 40 200
10 < 40 40 580
10 10 20 10
20 30 930 10 <
20 50 1920 330
20 2590 100
20 90 240 100
20 70 220 110
40 60 1000
10 < 30 160 2000
30 320 10 < 600

5 200 25 490
55 1600 12000 6500
8 530 70 5900
30 270 310 920
150 960 70 460
3 370 20 110
4 80 20 35
25 20 30 180
70 180 4000 590
140 270 90 960
4640 10000 25000 370
25 250 15 250

3 50 10 460
10 790 630 8200
4 450 9800 560
4 15 25 750
120 10 50 270
10 < 50 10 < 40
10 < 10 10 < 10 <
10 < 10 30 70
40 100 4800 220
10 60 110 700
790 9000 10000 140
10 < 10 10 80

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Monthly Report on the Quality of Bathing Waters SEPTEMBER 1992

Sussex Beaches	TOTAL COLIFORMS				FAECAL COLIFORMS				FAECAL STREPTOCOCCI			
	3 Sept	10 Sept	17 Sept	24 Sept	3 Sept	10 Sept	17 Sept	24 Sept	3 Sept	10 Sept	17 Sept	24 Sept
E C BEACHES												
West Wittering	20	20	110	20	20	10	100	15	2	5	6	5
Bracklesham Bay	60	20	9	2500	45	5	5	1900	280	10	15	550
Selsey	55	10	840	590	55	2	750	590	120	1	400	1100
Pagham	220	240	120	1200	150	150	70	800	25	10	50	1700
Bognor Regis	250	4600	3000	720	120	630	760	520	65	240	50	1800
Middleton on Sea	1400	290	140	1000	490	290	75	710	260	20	15	1600
Littlehampton	120	740	370	1100	50	230	300	720	50	20	30	560
Worthing	5700	970	380	5000	2600	780	310	2000	670	95	1140	1100
South Lancing	5400	19100	230	4100	3700	6700	45	1400	480	500	30	980
Southwick	1500	3700	750	3100	790	1190	190	1200	100	220	65	550
Hove	17600	4000	1200	4100	5400	1990	900	1900	1300	550	140	670
Brighton	3600	950	1000		840	430	30		170	160	140	190
Saltdean	2700	55	520		1700	25	9		240	10	60	8200
Newhaven	440	1000	2000		200	820	140		60	10000	210	1320
Seaford	1000	80	45		220	60	8		40	30	10	250
Eastbourne	60	100	490		10	55	230		10	10	90	150
Pevensey Bay	180	390	2000		30	230	1600		10	250	690	590
Normans Bay	560	1900	860		280	770	160		70	90	30	1230
Bexhill	180	290	170		25	70	25		10	10	30	700
Hastings	750	95	820		180	90	115		200	50	60	2490
Winchelsea	1000	200	300		990	70	110		130	70	280	670
Camber	2200	210	110	750	1100	150	90	750	170	120	180	80
OTHER BEACHES												
Felpham Yacht Club	970	2500	40	2900	360	380	40	1600	210	150	20	1500
Worthing East	9000	2600	440	3100	3700	1500	360	2200	1100	320	30	2100
Shoreham-By-Sea	2300	2100	1200	21600	1100	140	350	7400	170	230	100	2000
Shoreham, Kingston Beach	2800	660	1000	6600	2500	530	770	6100	470	210	55	940
Brighton, Palace Pier	3700	700	100		1400	520	60		300	240	20	1090
Seaford, Dane Road	630	95	250		350	50	15		10	70	110	760
Cuckmere Haven Beach	1400	70	45		370	45	15		50	10	10	10
Birling Gap	600	8	15		240	5	15		20	10	10	100
Eastbourne -Sovereign YC	140	230	150		80	180	100		30	40	10	530
St. Leonards	2600	110	140		1100	100	10		170	20	10	1430
Bulverhythe	3400	140	150		2200	90	20		470	60	50	1200
Hastings Fairlight Glenn	1500	25	1500		480	8	100		110	30	800	1250

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Kent Beaches

TOTAL COLIFORMS

	5 May	12 May	19 May	26 May
E C BEACHES				
Littlestone	50	96	16	40
St Mary's Bay	60	69	40	34
Dymchurch, Martello Twr	20	92	70	15
Hythe, West Parade	3	23	12	33
Sandgate, Princes Parade	320	14	630	15
Folkestone	486	630	350	240
St. Margarets Bay	40	359	14	5
Deal Castle	20	18	612	88
Sandwich Bay	376	256	752	120
Ramsgate Western U'cliff	600	840	1030	900
Broadstairs, Viking Bay	18	103	88	41
Joss Bay	5	1	6	19
Margate, Fulsam Rock	10	10	1	43
Margate, The Bay	8	11	1	1117
St. Mildreds Bay	6	6	0	111
Minnis Bay	17	2	1	86
Herne Bay	497	2697	440	230
West Beach	3	106	4	567
Leysdown	4	878	4	106
Sheerness	5	29	2	21
OTHER BEACHES				
Greatstone	12	240	8	61
Dymchurch Car Park	182	126	20	18
Dymchurch, Hythe Road	18	15	2	3
Sandgate, Town Centre	450	10	11	30
Dover Harbour	270	220	45	21
Ramsgate Sands	56	85	340	124
Broadstairs, Eastcliff	8	37	21	10
Botany Bay	2	0	1	20
Palm Bay	6	0	4	24
Westgate Bay	5	127	2	333
Westbrook Bay	8	5	5	270
Walpole Bay	9	6	0	37
Dumpton Gap	192	28	98	57
Reculver Beach	10	763	3	6
Tankerton Beach	10	24	16	58
Hampton Pier	248	80	72	41
Kingsdown Beach	50	124	48	1

NATIONAL RIVERS AUTHORITY

Monthly Report on the Quality of Bathing Waters MAY 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

5 May	12 May	19 May	26 May	5 May	12 May	19 May	26 May
12	71	20	51	10 <	20	30	3
23	51	23	37	20	60	30	2
99	88	30	8	20	180	10	0
3	13	7	16	10	10 <	10 <	1
500	14	570	2	20	30	11800	110
216	304	85	70	40	60	10	40
5	210	7	4	10 <	10	10 <	10 <
20	7	432	34	10	10	50	70
115	153	310	36	10 <	20	40	10 <
468	513	413	780	40	70	10 <	11
10	53	55	19	10 <	20	10	5
0	2	3	23	10 <	10 <	10 <	1
0	7	0	46	10 <	10 <	10 <	0
5	1	0	420	10 <	10 <	20	12
4	6	1	82	10 <	170	10 <	2
5	1	1	81	10 <	10 <	10 <	14
224	990	112	8	200	140	10 <	80
2	164	0	164	10 <	20	10 <	50
1	11	2	79	10 <	10 <	10	70
4	8	4	18	10 <	10 <	10 <	30
6	120	6	42	10 <	10	10 <	1
27	96	14	18	50	20	10	0
10	7	0	3	10 <	10 <	10 <	1
117	12	2	21	10	10 <	10	10
68	140	20	10	60	20	10	20
19	20	30	100	10 <	10 <	10 <	4
1	34	22	3	10	20	10 <	0
0	0	0	21	10 <	10 <	10 <	4
4	0	4	18	10 <	10 <	10 <	0
5	123	1	181	10 <	200	10 <	11
2	7	5	106	10	40	10 <	2
13	5	1	29	10	10	10 <	0
220	10	26	43	40	50	10 <	5
10 <	17	1	4	10	40	10 <	10 <
1	12	1	19	10 <	10 <	10	20
50	28	17	30	10 <	10	10 <	20
42	51	24	0	10 <	20	10 <	10 <

Kent Beaches

TOTAL COLIFORMS

	2 June	9 June	16 June	23 June	30 June
E C BEACHES					
Littlestone	25	45	55	20	200
St Mary's Bay	550	140	150	30	780
Dymchurch, Martello Twr	450	20	170	3	1000
Hythe, West Parade	730	10	210	50	210
Sandgate, Princes Parade	130	20	55	25	115
Folkestone	2500	390	1000	700	1100
St. Margarets Bay	170	40	60	100	70
Deal Castle	860	65	1800	5000	1610
Sandwich Bay	990	320	4400	950	2300
Ramsgate Western U'cliff	400	420	11200	4100	11600
Broadstairs, Viking Bay	200	25	430	15	500
Joss Bay	50	15	85	1	20
Margate, Fulsam Rock	30	2	100	10	40
Margate, The Bay	95	25	80	40	30
St. Mildreds Bay	5	40	50	9	75
Minnis Bay	30	1	25	15	55
Herne Bay	220	1100	170	200	550
West Beach	6	4	65	20	10
Laysdown	50	170	160	45	270
Sheerness	20	7	90	15	4

OTHER BEACHES

Greatstone	40	25	35	50	110
Dymchurch Car Park	45	80	140	10	340
Dymchurch, Rythe Road	85	650	200	10	1300
Sandgate, Town Centre	1500	10	85	20	175
Dover Harbour	810	40	40	5600	95
Ramsgate Sands	40	15	370	130	120
Broadstairs, Eastcliff	25	15	280	20	60
Botany Bay	45	55	330	4	15
Palm Bay	45	130	100	7	80
Westgate Bay	15	320	50	10	4
Westbrook Bay	2	15	35	25	5
Walpole Bay	8	1	70	6	15
Oumpton Gap	60	15	160	10	130
Reculver Beach	20	2	45	6	35
Tankerton Beach	15	5	85	6	10
Hampton Pier	115	60	990	1400	50
Kingsdown Beach	40	40	2100	100	30

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Monthly Report on the Quality of Bathing Waters JUNE 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

2 June 9 June 16 June 23 June 30 June 2 June 9 June 16 June 23 June 30 June

30	50	60	30	170	50	20	30	320	100
400	180	35	15	160	10	440	30	10	120
490	15	100	2	160	710	10 <	40	10 <	1770
1100	4	65	45	200	910	80	120	10 <	540
40	2	35	7	60	10 <	10 <	10	3	10
890	240	390	300	370	270	70	70	50	14
30	7	30	60	30	10	10 <	20	10 <	9
70	20	590	2200	960	10 <	10	110	500	170
770	160	950	200	1200	10	60	270	120	150
260	390	3600	2800	5600	90	90	560	350	930
50	20	240	15	90	20	10 <	30	10	10
10	10	80	2	10	10 <	10 <	10 <	1	10 <
30	2	60	9	10	120	10 <	10	1	40
30	15	45	20	25	10	20	10	10 <	30
9	35	35	5	35	10 <	10	10	100	30
20	2	20	6	45	20	10 <	1800	10 <	30
40	1300	70	90	370	10	30	120	10 <	20
4	4	60	10	2	10 <	10	30	10 <	1 <
25	10	60	50	300	10	40	50	80	340
15	6	80	10	3	10 <	390	170	10 <	1

30	25	35	25	100	50	30	20	10 <	50
25	30	60	16	61	90	320	80	40	100
100	510	90	10 <	890	40	10 <	10 <	10 <	1680
620	10 <	30	10	90	130	10 <	20	10 <	1 <
70	10	20	5000	35	10 <	10 <	10	5240	10
15	6	90	55	45	10	10	50	50	10
20	5	100	20	45	10 <	10 <	20	90	10
15	55	95	1 <	7	10	10 <	40	10 <	30
20	130	85	10	70	10	30	20	10 <	40
20	100	20	10	4	10 <	10 <	10 <	30	10
2	15	30	11	4	10 <	10	30	10	10
7	1	30	7	8	10 <	10 <	10	21	10 <
20	15	80	15	100	10 <	10 <	10 <	2	10 <
15	1 <	25	3	20	10 <	10 <	50	10 <	1
4	2	70	1	6	10	10 <	20	10	10
25	15	590	1000	30	10 <	10 <	140	170	50
4	4	1900	65	20	10 <	10 <	320	10 <	20

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Monthly Report on the Quality of Bathing Waters JULY 1992

Kent Beaches	TOTAL COLIFORMS				FAECAL COLIFORMS				FAECAL STREPTOCOCCI			
	7 July	14 July	21 July	28 July	7 July	14 July	21 July	28 July	7 July	14 July	21 July	28 July
E C BEACHES												
Littlestone	30	200	4000	400	30	220	1300	240	20	30	100	70
St Mary's Bay	60	65	200	220	50	35	35	120	20	30	10	40
Dymchurch, Martello Twr	10	440	80	50	30	610	30	30	10 <	830	10	140
Hythe, West Parade	65	750	20	70	20	610	8	65	10	360	10 <	190
Sandgate, Princes Parade	840	260	22300	290	260	80	7500	95	38	20	1600	20
Folkestone	820	2400	16000	80	650	980	3700	480	70	140	1650	100
St. Margarets Bay	230	360	210	10	230	140	20	3	18	37	31	1
Deal Castle	2500	1000	3500	680	1700	470	840	510	260	70	350	90
Sandwich Bay	2000	2100	5400	930	1200	1250	2300	160	40	260	300	120
Ramsgate Western U'cliff	4200	3400	2500	15600	1600	2100	760	7000	480	310	760	640
Broadstairs, Viking Bay	35	360	240	110	15	155	100	160	10	40	50	30
Joss Bay	10	60	150	120	8	90	15	80	10	80	10 <	10 <
Margate, Fulsam Rock	10	80	7	350	6	70	3	140	10 <	100	10 <	60
Margate, The Bay	1100	480	30	25	400	320	25	10	10 <	20	10 <	40
St. Mildreds Bay	40	55	75	20	30	40	40	20	10 <	20	40	10 <
Minnis Bay	90	7	7	10	95	2	9	15	10 <	10 <	40	10 <
Herne Bay	1100	6400	5100	290	370	2100	1960	120	64	550	440	250
West Beach	30	10	1400	380	10	4	540	350	2	4	98	110
Leysdown	8	580	180	7	2	10	35	6	10 <	10	10 <	11
Sheerness	8	30	120	15	6	6	40	8	5	2	13	9
OTHER BEACHES												
Greatstone	50	760	2300	250	40	580	800	250	20	30	80	110
Dymchurch Car Park	60	80	160	45	15	50	90	65	10 <	70	10 <	130
Dymchurch, Hythe Road	20	1100	60	5000	8	730	20	5000	10 <	50	10	860
Sandgate, Town Centre	1100	9500	18000	300	660	13200	2300	100	66	4400	1250	40
Dover Harbour	180	720	130	35	60	270	50	30	40	90	40	10 <
Ramsgate Sands	40	380	55	130	40	290	15	65	20	120	10 <	40
Broadstairs, Eastcliff	40	120	75	140	20	50	10	110	10 <	10	10 <	350
Botany Bay	25	80	7	190	10	45	3	150	10 <	10	10 <	40
Palm Bay	45	680	20	55	20	610	15	30	10 <	140	50	10 <
Westgate Bay	120	20	35	130	95	25	36	120	10 <	20	40	20
Westbrook Bay	85	100	80	25	30	90	40	15	20	10	10	10 <
Walpole Bay	70	10	20	130	70	15	7	150	10 <	10	10 <	50
Dumpton Gap	90	760	620	140	50	250	120	100	50	40	80	30
Reculver Beach	30	90	200	20	20	40	65	20	10	9	35	3
Tankerton Beach	160	20	4000	55	90	3	1000	40	8	18	180	50
Hampton Pier	3600	110	580	10	1600	50	150	3	260	20	30	7
Kingsdown Beach	1300	310	60	75	1100	140	20	75	100	100	10 <	26

Kent Beaches

TOTAL COLIFORMS

	4 Aug	11 Aug	18 Aug	25 Aug
E C BEACHES				
Littlestone	380	630	630	9500
St Mary's Bay	90	160	290	530
Dymchurch, Martello Twr	520	440	150	60
Hythe, West Parade	45	70	55	90
Sandgate, Princes Parade	30	70	80	2000
Folkestone	1200	800	1600	2000
St. Margarets Bay	150	40	60	630
Deal Castle	110	880	1800	90
Sandwich Bay	950	830	4300	11500
Ramsgate Western U'cliff	4200	10500	1100	2200
Broadstairs, Viking Bay	310	730	740	500
Joss Bay	40	40	20	160
Margate, Fulsam Rock	1	280	15	130
Margate, The Bay	5	130	35	5000
St. Mildreds Bay	60	110	15	5000
Minnis Bay	90	15	10	270
Herne Bay	420	960	800	140
West Beach	4	30	7	250
Leysdown	10	620	4	280
Sheerness	20	45	15	40
OTHER BEACHES				
Greatstone	550	5100	600	3000
Dymchurch Car Park	75	200	1100	6500
Dymchurch, Hythe Road	40	110	250	85
Sandgate, Town Centre	110	120	80	4700
Dover Harbour	190	160	80	450
Ramsgate Sands	850	820	120	930
Broadstairs, Eastcliff	230	50	15	4000
Botany Bay	10	25	15	50
Palm Bay	9	60	50	220
Westgate Bay	10	30	50	1800
Westbrook Bay	20	20	50	240
Walpole Bay	3	20	4	80
Dumpton Gap	85	730	90	1000
Reculver Beach	30	460	130	35
Tankerton Beach	80	70	7	70
Hampton Pier	4	280	330	90
Kingsdown Beach	35	220	50	230

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Monthly Report on the Quality of Bathing Waters AUGUST 1992

FAECAL COLIFORMS

FAECAL STREPTOCOCCI

4 Aug	11 Aug	18 Aug	25 Aug	4 Aug	11 Aug	18 Aug	25 Aug
200	650	570	7600	230	170	100	4000
110	190	230	430	1330	100	20	180
300	420	100	40	510	270	40	10
35	65	25	40	70	140	10	10
30	40	40	930	10 <	100	10 <	830
530	260	610	1100	150	30	100	260
170	45	40	400	34	20	15	240
30	390	700	10	3	70	110	40
340	520	2600	3800	40	60	360	540
2000	1200	740	2000	250	330	20	1170
150	210	330	200	130	10 <	10 <	150
30	60	15	120	40	10	10 <	80
1	260	3	65	10	250	10 <	30
1	80	9	2500	10 <	20	10 <	450
60	110	15	5000	10 <	10 <	10 <	1060
120	10	9	320	20	10 <	10 <	40
140	380	480	45	30	140	10	50
1 <	10	4	75	10 <	10 <	1 <	20
10	250	8	95	18	28	2 <	28
20	55	9	35	4	21	10 <	6
280	5400	530	2800	260	7000		600
45	120	350	5000	140	180	20	3450
75	75	250	45	70	110	800	10
60	60	25	2700	30	10	10 <	770
95	55	45	360	10 <	10 <	10 <	40
380	670	30	620	120	590	10 <	60
45	70	10	3120	50	20	10 <	590
8	40	1	70	10 <	30	10	10
4	50	45	110	10	10	30	160
10	30	30	1700	10 <	10	10 <	10000
20	20	30	280	10 <	20	10 <	80
1	35	2	40	10	10 <	10 <	30
90	380	30	740	20	170	10 <	960
10	160	20	20	3	33	10 <	10 <
95	25	7	7	40	10 <	10 <	8
2	70	120	20	1	6	11	23
20	60	10	180	10 <	40	10	70

NATIONAL RIVERS AUTHORITY

Monthly Report on the Quality of Bathing Waters SEPTEMBER 1992

Kent Beaches	TOTAL COLIFORMS				FAECAL COLIFORMS				FAECAL STREPTOCOCCI			
	1 Sept	8 Sept	15 Sept	22 Sept	1 Sept	8 Sept	15 Sept	22 Sept	1 Sept	8 Sept	15 Sept	22 Sept
E C BEACHES												
Littlestone	880	1100	610	2300	660	930	520	1600	220	1150	180	530
St Mary's Bay	590	90	40	130	240	65	35	30	180	130	10	60
Dymchurch, Martello Lwr	580	380	120	320	420	370	110	150	130	430	150	200
Hythe, West Parade	700	55	50	720	450	35	35	290	260	50	10	60
Sandgate, Princes Parade	25000	250	320	640	15000	90	20	520	3500	20	20	230
Folkestone	1700	670	6100	21000	510	320	1300	3400	150	40	400	2400
St. Margarets Bay	820	55	270	300	370	50	75	70	120	10	50	30
Deal Castle	680	1800	610	3000	270	1300	420	1400	110	190	70	370
Sandwich Bay	1400	370	2300	58000	1100	170	950	17000	120	30	300	2400
Ramsgate Western U'cliff	103500	1800	6800	6100	9000	390	2400	1700	480	260	460	1220
Broadstairs, Viking Bay	1300	110	4200	3100	730	45	1300	2000	590	120	60	700
Joss Bay	340	45	110	140	75	25	30	35	30	10	30	30
Margate, Fulsam Rock	25	1000	200	320	10	880	160	150	10	320	150	270
Margate, The Bay	250	30	40	180	130	25	45	60	60	10	40	30
St. Mildreds Bay	230	20	30	550	100	10	25	350	10	10 <	10 <	900
Minnis Bay	190	35	520	95	15	20	210	90	10	10 <	10 <	90
Kerne Bay	6500	1600	920	1400	2800	380	430	580	520	190	60	350
West Beach	90	50	20	480	75	40	10	80	85	12	106	50
Leysdown	110	120	8	1200	60	35	20	700	40	8	4	500
Sheerness	15	1	5	230	2	4	4	60	2	4	3	54
OTHER BEACHES												
Greatstone	610	580	310	1410	460	670	310	1300	70	230	60	210
Dymchurch Car Park	400	390	60	3000	300	280	55	1500	70	460	10	850
Dymchurch, Hythe Road	630	270	230	160	450	190	300	100	210	130	30	120
Sandgate, Town Centre	36900	220	1200	2600	12800	220	530	720	3200	20	220	380
Dover Harbour	590	130	640	370	170	90	200	110	20	10 <	70	80
Ramsgate Sands	1800	2000	780	1900	1000	930	220	750	100	200	50	320
Broadstairs, Eastcliff	600	55	260	900	170	25	120	250	30	90	100	110
Botany Bay	190	40	225	60	75	50	130	60	10	60	40	10
Pale Bay	170	2100	200	250	110	1900	100	210	120	370	210	90
Westgate Bay	20	10	60	1100	5	6	80	1000	20	10	10	450
Westbrook Bay	45	110	15	1200	30	140	10	2400	10	10 <	40	10000 >
Walpole Bay	50	60	55	530	30	60	40	390	20	20	690	120
Dumpton Gap	750	210	450	1600	270	110	200	580	50	250	90	320
Reculver Beach	900	160	160	30	250	55	35	30	60	20	10	40
Tankerton Beach	50	15	15	1400	20	7	2	360	10	7	10 <	160
Hampton Pier	2000	130	560	340	270	75	170	95	80	30	40	10
Kingsdown Beach	270	130	220	75	55	50	55	35	20	10	40	30

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APPENDIX B

THE EC DIRECTIVE CONCERNING THE QUALITY OF BATHING WATERS.

APPENDIX — EC BATHING WATER DIRECTIVE

Bathing water 1

COUNCIL DIRECTIVE of 8 December 1975 concerning the quality of bathing water (76/160/EEC)

(as amended by the Act of Accession of Greece of 28 May 1979 (OJ L 291, 19.11.79, p. 17); and the Act of Accession of Spain and Portugal of 12 June 1985 (OJ L 302, 15.11.85, p. 9))

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Articles 100 and 235 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament⁽¹⁾,

Having regard to the opinion of the Economic and Social Committee⁽²⁾,

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

Whereas surveillance of bathing water is necessary in order to attain, within the framework of the operation of the common market, the Community's objectives as regards the improvement of living conditions, the harmonious development of economic activities throughout the Community and continuous and balanced expansion;

Whereas there exist in this area certain laws, regulations or administrative provisions in Member States which directly

affect the functioning of the common market; whereas, however, not all the powers needed to act in this way have been provided for in the Treaty;

Whereas the programme of action of the European Communities on the environment⁽³⁾ provides that quality objectives are to be jointly drawn up fixing the various requirements which an environment must meet *inter alia* the definition of parameters for water, including bathing water;

Whereas, in order to attain these quality objectives, the Member States must lay down limit values corresponding to certain parameters; whereas bathing water must be made to conform to these values within 10 years following the notification of this Directive;

Whereas it should be provided that bathing water will, under certain conditions, be deemed to conform to the relevant parametric values even if a certain percentage of samples taken during the bathing season does not comply with the limits specified in the Annex;

Whereas, to achieve a certain degree of flexibility in the application of this Directive, the Member States must have the power to provide for derogations; whereas such derogations must not, however, disregard requirements essential for the protection of public health;

⁽¹⁾ OJ No C 128, 9. 6. 1975, p. 13.

⁽²⁾ OJ No C 286, 15. 12. 1975, p. 5.

⁽³⁾ OJ No C 112, 20. 12. 1973, p. 3.

Whereas technical progress necessitates rapid adaptation of the technical requirements laid down in the Annex; whereas, in order to facilitate the introduction of the measures required for this purpose, a procedure should be provided for whereby close cooperation would be established between the Member States and the Commission within a Committee on Adaptation to Technical Progress;

Whereas public interest in the environment and in the improvement of its quality is increasing; whereas the public should therefore receive objective information on the quality of bathing water,

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. This Directive concerns the quality of bathing water, with the exception of water intended for therapeutic purposes and water used in swimming pools.

2. For the purposes of this Directive:

(a) 'bathing water' means all running or still fresh waters or parts thereof and sea water, in which:

- bathing is explicitly authorized by the competent authorities of each member State, or
- bathing is not prohibited and is traditionally practised by a large number of bathers;

(b) 'bathing area' means any place where bathing water is found;

(c) 'bathing season' means the period during which a large number of bathers can be expected, in the light of local custom, and any local rules which may exist concerning bathing and weather conditions.

Article 2

The physical, chemical and microbiological parameters applicable to bathing water are indicated in the Annex which forms an integral part of this Directive.

Article 3

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

In the case of the parameters for which no values are given in the Annex, Member States may decide not to fix any values pursuant to the first sub-paragraph, until such time as figures have been determined.

2. The values set pursuant to paragraph 1 may not be less stringent than those given in column 1 of the Annex.

3. Where values appear in column G of the Annex, whether or not there is a corresponding value in column 1 of the Annex, Member States shall endeavour, subject to Article 7, to observe them as guidelines.

Article 4

1. Member States shall take all necessary measures to ensure that, within 10 years following the notification of this Directive, the quality of bathing water conforms to the limit values set in accordance with Article 3.

2. Member States shall ensure that, in bathing areas specially equipped for bathing to be created by the competent authorities of the Member States after the notification of this Directive, the 'I values' laid down in the Annex are observed from the time when bathing is first permitted. However, for bathing areas created during the two years following the notification of this Directive, these values need not be observed until the end of that period.

3. In exceptional circumstances Member States may grant derogations in respect of the 10-year time limit laid down in paragraph 1. Justifications for any such derogations based on plans for the management of water within the area concerned must be communicated to the Commission as soon as possible and not later than six years following the notification of this Directive. The Commission shall examine these justifications in detail and, where necessary, make appropriate proposals concerning them to the Council.

4. As regards sea water in the vicinity of frontiers and water crossing frontiers which affect the quality of the bathing water of another Member State, the consequences for the common quality objectives for bathing areas so affected shall be determined in collaboration by the riparian Member States concerned.

The Commission may participate in these deliberations.

Article 5

1. For the purposes of Article 4, bathing water shall be deemed to conform to the relevant parameters:

if samples of that water, taken at the same sampling point and at the intervals specified in the Annex, show that it conforms to the parametric values for the quality of the water concerned, in the case of:

- 95% of the samples for parameters corresponding to those specified in column 1 of the Annex;
- 90% of the samples in all other cases with the exception of the 'total coliform' and 'faecal coliform' parameters where the percentage may be 80%

and if, in the case of the 5, 10 or 20% of the samples which do not comply:

- the water does not deviate from the parametric values in question by more than 50%, except for microbiological parameters, pH and dissolved oxygen;
- consecutive water samples taken at statistically suitable intervals do not deviate from the relevant parametric values.

2. 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.

Article 6

1. The competent authorities in the Member States shall carry out sampling operations, the minimum frequency of which is laid down in the Annex.

2. Samples should be taken at places where the daily average density of bathers is highest. Samples should preferably be taken 30 cm below the surface of the water except for mineral oil samples which shall be taken at surface level. Sampling should begin two weeks before the start of the bathing season.

3. Local investigation of the conditions prevailing upstream in the case of fresh running water, and of the ambient conditions in the case of fresh still water and sea water should be carried out scrupulously and repeated periodically in order to obtain geographical and topographical data and to determine the volume and nature of all polluting and potentially polluting discharges and their effects according to the distance from the bathing area.

4. Should inspection by a competent authority or sampling operations reveal that there is a discharge or a probable discharge of substances likely to lower the quality of the bathing water, additional sampling must take place. Such additional sampling must also take place if there are any other grounds for suspecting that there is a decrease in water quality.

5. Reference methods of analysis for the parameters concerned are set out in the Annex. Laboratories which employ other methods must ensure that the results obtained are equivalent or comparable to those specified in the Annex.

Article 7

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

2. Member States may at any time fix more stringent values for bathing water than those laid down in this Directive.

Article 8

This Directive may be waived:

- (a) in the case of certain parameters marked (0) in the Annex, because of exceptional weather or geographical conditions;
- (b) when bathing water undergoes natural enrichment in certain substances causing a deviation from the values prescribed in the Annex.

Natural enrichment means the process whereby, without human intervention, a given body of water receives from the soil certain substances contained therein.

In no case may the exceptions provided for in this Article disregard the requirements essential for public health protection.

Where a Member State waives the provisions of this Directive, it shall forthwith notify the Commission thereof, stating its reasons and the periods anticipated.

Article 9

Such amendments as are necessary for adapting this Directive to technical progress shall relate to:

- the methods of analysis
- the G and I parameter values set out in the Annex.

They shall be adopted in accordance with the procedure laid down in Article 11.

Article 10

1. A Committee on Adaptation to Technical Progress (hereinafter called 'the committee') is hereby set up. It shall consist of representatives of the Member States and be chaired by a representative of the Commission.

2. The committee shall draw up its own rules of procedure.

Article 11

1. Where the procedure laid down in this Article is to be followed, matters shall be referred to the committee by the chairman, either on his own initiative or at the request of the representative of a Member State.

2. The representative of the Commission shall submit to the committee a draft of the measures to be adopted. The committee shall deliver its opinion on the draft within a time limit set by the chairman having regard to the urgency of the matter. Opinions shall be adopted by a majority of 54 votes, the votes of the Member States being weighted as provided in Article 148 (2) of the Treaty. The chairman shall not vote.

3. (a) The Commission shall adopt the measures envisaged where they are in accordance with the opinion of the committee.

(b) Where the measures envisaged are not in accordance with the opinion of the committee, or if no opinion is adopted, the Commission shall without delay propose to the Council the measures to be adopted. The Council shall act by a qualified majority.

(c) If, within three months of the proposal being submitted to it, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 12

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive within two years of its notification. They shall forthwith inform the Commission thereof.

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

Article 13

Member States shall, four years following the notification of this Directive and at regular intervals thereafter, submit a comprehensive report to the Commission on their bathing water and the most significant characteristics thereof.

After prior consent has been obtained from the Member State concerned the Commission may publish the information obtained.

Article 14

This Directive is addressed to the Member States.

Done at Brussels, 8 December 1975.

For the Council
The President
M. PEDINI

Ed. note: The deadline for compliance with this Directive has been extended for Portugal until 1 January 1989. (Act of Accession of Spain and Portugal of 12.6.85, Annex XXXVI Chap. III.2 (OJ L 302, 15.11.85, p. 9))

ANNEX

QUALITY REQUIREMENTS FOR BATHING WATER

	Parameters	C	I	Minimum sampling frequency	Method of analysis and inspection
1	Microbiological Total coliforms /100 ml	500	10 000	Fortnightly (1)	Fermentation in multiple tubes. Sub-culturing of the positive tubes on a confirmation medium. Count according to MPN (most probable number) or membrane filtration and culture on an appropriate medium such as Tergitol lactose agar, endo agar, 0.4% Teepol broth, subculturing and identification of the suspect colonies. In the case of 1 and 2, the incubation temperature is variable according to whether total or faecal coliforms are being investigated.
2	Faecal coliforms /100 ml	100	2 000	Fortnightly (1)	
3	Faecal streptococci /100 ml	100	—	(2)	Litsky method. Count according to MPN (most probable number) on filtration on membrane. Culture on an appropriate medium.
4	Salmonella /1 litre	—	0	(2)	Concentration by membrane filtration. Inoculation on a standard medium. Enrichment — subculturing on isolating agar — identification.
5	Enteroviruses PFU/10 litres	—	0	(2)	Concentrating by filtration, flocculation or centrifuging and confirmation.
6	Physico-chemical: pH	—	6 to 9 (0)	(2)	Electrometry with calibration at pH 7 and 9.
7	Colour	— —	No abnormal change in colour (0) —	Fortnightly (1) (2)	Visual inspection or photometry with standards on the Pt.Co scale.

	Parameters	G	I	Minimum sampling frequency	Method of analysis and inspection
8	Mineral oils mg/litre	— ≤ 0.3	No film visible on the surface of the water and no odour —	Fortnightly (1) (2)	Visual and olfactory inspection or extraction using an adequate volume and weighing the dry residue.
9	Surface-active substances (lauryl-sulfate) mg/litre	— ≤ 0.3	No lasting foam —	Fortnightly (1) (2)	Visual inspection or absorption spectrophotometry with methylene blue.
10	Phenols (phenol indices) mg/litre C ₆ H ₅ OH	— ≤ 0.005	No specific odour ≤ 0.05	Fortnightly (1) (2)	Verification of the absence of specific odour due to phenol or absorption spectrophotometry 4-aminoantipyrine (4 AAP) method.
11	Transparency m	2	1 (0)	Fortnightly (1)	Secchi's disc.
12	Dissolved oxygen % saturation O ₂	80 to 120	—	(2)	Winkler's method or electrometric method (oxygen meter).
13	Tarry residues and floating materials such as wood, plastic articles, bottles, containers of glass, plastic, rubber or any other substance. Waste or splinters	Absence		Fortnightly (1)	Visual inspection.
14	Ammonia mg/litre NH ₃			(3)	Absorption spectrophotometry, Nessler's method, or indophenol blue method.
15	Nitrogen Kjeldahl mg/litre N			(3)	Kjeldahl method.
16	Other substances regarded as indications of pollution Pesticides (parathion, HCH, dieldrin) mg/litre			(2)	Extraction with appropriate solvents and chromatographic determination.

	Parameters	G	I	Minimum sampling frequency	Method of analysis and inspection
17	Heavy metals such as: - arsenic mg/litre As - cadmium Cd - chrome VI Cr VI - lead Pb - mercury Hg			(2)	Atomic absorption possibly preceded by extraction
18	Cyanides mg/litre Cn			(2)	Absorption spectrophotometry using a specific reagent
19	Nitrates and phosphates mg/litre NO ₃ PO ₄			(2)	Absorption spectrophotometry using a specific reagent

G = guide.

I = mandatory.

- (0) Provision exists for exceeding the limits in the event of exceptional geographical or meteorological conditions.
- (1) When a sampling taken in previous years produced results which are appreciably better than those in this Annex and when no new factor likely to lower the quality of the water has appeared, the competent authorities may reduce the sampling frequency by a factor of 2.
- (2) Concentration to be checked by the competent authorities when an inspection in the bathing area shows that the substance may be present or that the quality of the water has deteriorated.
- (3) These parameters must be checked by the competent authorities when there is a tendency towards the eutrophication of the water.

APPENDIX C

TIDY BRITAIN GROUP - EUROPEAN BLUE FLAG AND SEASIDE AWARD
CRITERIA 1992

APPENDIX — TIDY BRITAIN GROUP — EUROPEAN BLUE FLAG CRITERIA 1992

EUROPEAN BLUE FLAG

CRITERIA FOR 1992

The European Blue Flag for beaches is awarded annually and is only valid for one year. To be eligible for the Blue Flag a bathing beach has to fulfil all requirements. The Blue Flag should be removed whilst any criterion is no longer satisfied.

WATER QUALITY

- 1 The water must comply with the Guideline value of the appropriate microbiological parameters of the EC Bathing Water Directive 76/160/EC.
- 2 No industrial or sewage discharges affecting the beach area.

BEACH AND INTERTIDAL AREA

- 3 No gross pollution by sewage related or other waste including glass and litter and no discharge of industrial or urban waste.
- 4 No algal or other vegetation materials accumulating or decaying.
- 5 No oil pollution.

MANAGEMENT

- 6 The beach must be actively managed by the owners (local authority or private) as a tourist resort.
- 7 Local emergency plans to cope with pollution incidents.
- 8 Easy and safe access to the beach for all including disabled people where this is possible.
- 9 Prohibition of unauthorised driving, dumping and camping.
- 10 Manage the conflicting and incompatible needs of different users e.g. zoning for swimmers, windsurfers, nature conservation.
- 11 Dogs must be banned throughout the summer season.
- 12 A source of drinking water.
- 13 Public telephones within easy access to the beach.
- 14 Clean and regularly maintained toilet facilities.
- 15 All buildings and equipment must be maintained to a high standard and there must be safe confinement of all construction work which must not detract from the enjoyment of the beach user.

CLEANSING

- 16 Provide regular and adequate cleansing of the beach.
- 17 Litter bins in adequate numbers, properly secured and regularly maintained/emptied.

SAFETY

- 18 Safe bathing under all normal weather conditions.
- 19 Life guard(s) on duty during the summer season and/or adequate safety provision including lifesaving equipment.
- 20 Clearly signposted First Aid facilities.

INFORMATION AND EDUCATION

- 21 Prompt public warning if the beach or part thereof has or is expected to become grossly polluted or unsafe.
- 22 Evidence that the interests of protected sites and rare or protected species have been addressed with close liaison with recognised local conservation organisations.
- 23 Laws covering beach use and code of conduct easily available to the public (including in tourist offices, town hall).
- 24 Public display of — Bathing Water Quality poster with updated information of water quality and location of sampling points
— the Blue Flag Criteria.
- 25 The responsible authority should be able to demonstrate at least five educational activities relating to the coastal environment in the area.

APPENDIX — TIDY BRITAIN GROUP — SEASIDE AWARD CRITERIA 1992

SEASIDE AWARD

RESORT BEACH CRITERIA FOR 1992

The awards for beaches attaining these high standards are only valid for one year. To be eligible a bathing beach has to fulfil all requirements. The flag should be removed whilst any criterion is not satisfied.

WATER QUALITY

- 1 The SEASIDE AWARD will be given to beaches which have bathing water of the mandatory standard (Bathing Water Directive 76/160/EC) and fulfil 28 land-based criteria.

The "Premier" SEASIDE AWARD will be given to beaches which have bathing water of the guideline standard (Bathing Water Directive 76/160/EC) and fulfil 28 land-based criteria.

Mandatory Bathing Water must meet the mandatory standards for the faecal and total coliform parameters of the EC Bathing Water Directive 76/160/EC. Guideline Bathing Water must meet the mandatory and guideline standards for the same parameters.

- 2 No industrial or sewage discharges affecting the beach area. The Seaside Awards Office should be notified of any discharge points within one mile.

BEACH AND INTERTIDAL AREA

- 3 No gross pollution by sewage related or other waste matter including litter and no discharge of industrial or urban waste.
- 4 No algal or other vegetation materials accumulating or decaying.
- 5 No oil pollution.

MANAGEMENT

- 6 The beach must be actively managed by the owners (local authority or private) as a tourist resort.
- 7 Local emergency plans to cope with pollution incidents.
- 8 Easy and safe access to the beach for all including disabled people where this is possible.
- 9 Prohibition of unauthorised driving, dumping and camping.
- 10 Manage the conflicting and incompatible needs of different users e.g. zoning for swimmers, surfers, windsurfers, motorised craft, nature conservation.
- 11 Dogs must be banned throughout the summer season.

- 12 Dog refuse bins must be available along the seafront where all dogs should be kept on a lead and under control at all times (or evidence that bye-law applications are being submitted).
- 13 A clearly marked and protected source of drinking water.
- 14 Public telephones, which must be checked daily, within easy access (5 minutes' walk) from the beach.
- 15 Adequate toilet facilities, cleaned and maintained daily, including facilities for disabled people.
- 16 All buildings and equipment must be maintained to a high standard and, where practicable, there must be safe confinement of all construction work which must not detract from the enjoyment of the beach user.
- 17 Adequate access and parking facilities with marked spaces and suitable access for disabled people. Where it is necessary to park on the beach it must be safe and clearly marked and defined.

CLEANSING

- 18 Adequate daily cleansing of the beach.
- 19 Appropriate litter bins in adequate numbers (at least every 25 metres along the seafront), properly secured and regularly maintained, emptied at least daily.

SAFETY

- 20 The area patrolled by lifeguards should be clearly defined and marked.
- 21 Lifeguard(s) on duty during the summer season and/or adequate safety provision including lifesaving equipment.
- 22 Clearly sign-posted First Aid facilities must be available on the seafront.
- 23 Some daily beach supervision throughout the holiday season between 10.00 am and 6.00 pm. This may be through attendant lifeguards, first aid officer, beach officer or a combination.
- 24 A record should be kept of all emergency incidents and the Seaside Awards office notified of any significant incidents.

INFORMATION AND EDUCATION

- 25 Prompt public warning if the beach or part thereof has or is expected to become grossly polluted or unsafe.
- 26 Evidence that the interests of protected sites and rare or protected species have been addressed with close liaison with recognised local conservation organisations.
- 27 Laws covering beach use and appropriate codes of conduct easily available to the public (including in Tourist Information centres and civic offices).

- 28 Public display of – Bathing Water Quality Poster with updated information of water quality
- Car parks
 - The Award Criteria
 - The Seaside Awards Office address
 - Map delineating the area of the awarded beach and location of sampling points.

29 The responsible authority should be able to demonstrate that it encourages promotional/ educational activities relating to the coastal environment in the area.

WATER QUALITY CRITERIA

Water quality will be judged on the results of water analyses during the summer season of 1991.

Mandatory Bathing Water must meet the mandatory standards for the faecal and total coliform parameters of the EC Bathing Water Directive 76/160/EC.

- [a] Total coliform < 10,000 per 100ml
- [b] Faecal coliform < 2,000 per 100ml

There should be at least 20 samples, taken at regular intervals throughout the summer season, of which 95% must comply with each of the above two parameters.

Guideline Bathing Water must meet the guideline standards for the faecal and total coliform parameters and the mandatory standard for the faecal and total coliform parameters of the EC Bathing Water Directive 76/160/EC.

- [a] Total coliform < 500 per 100ml
- [b] Faecal coliform < 100 per 100ml

There should be at least 20 samples, taken at regular intervals throughout the summer season, of which 80% must comply with each of the above two parameters.

A beach will be eligible for the SEASIDE AWARD where the bathing water meets the mandatory standards.

A beach will be eligible for the "Premier" SEASIDE AWARD where the bathing water meets the guideline standards.

AWARD ENTRY FEES

The fee includes all administration, judging and certificate/flag costs.

Those beaches entering for the Tidy Britain Group's SEASIDE AWARD can also enter for the European Blue Flag for an additional fee of £200.

SEASIDE AWARD for resort beaches:	£300
SEASIDE AWARD for rural beaches:	£100
EUROPEAN BLUE FLAG for resort beaches:	£500

SEASIDE AWARD

RURAL BEACH CRITERIA FOR 1992

This award is open to any rural beach which has limited facilities and has not been actively managed and developed as a resort. The aim of the award is to acknowledge those beaches for their undeveloped qualities whilst at the same time promoting considerate use by visitors.

The awards for beaches attaining these high standards are only valid for one year. To be eligible for the award a bathing beach has to fulfil all the requirements. The award should be removed whilst any criterion is no longer satisfied.

WATER QUALITY

- 1 The SEASIDE AWARD will be given to beaches which have bathing water of the mandatory standard (Bathing Water Directive 76/160/EC) and fulfil 8 land-based criteria.

The "Premier" SEASIDE AWARD will be given to beaches which have bathing water of the guideline standard (Bathing Water Directive 76/160/EC) and fulfil 8 land-based criteria.

Mandatory Bathing Water must meet the mandatory standards for the faecal and total coliform parameters of the EC Bathing Water Directive 76/160/EC. Guideline Bathing Water must meet the mandatory and guideline standards for the same parameters.

BEACH AND INTERTIDAL AREA

- 2 No gross pollution by sewage related debris or other waste including oil, glass and litter and no discharge of industrial or urban waste or decaying vegetation.

MANAGEMENT

- 3 The beach must be actively managed under a scheme of "guardianship" by a local group, school, parish or individual.
- 4 Access must be safe and well maintained.
- 5 Discouragement of unauthorised driving, dumping and camping.
- 6 Any buildings and equipment must be adequately maintained and there must be safe confinement of all construction work which must not detract from the enjoyment of the beach user.

CLEANSING

- 7 Provision of properly secured litter bins in adequate numbers where appropriate.

SAFETY

- 8 Beach users should be warned that if they swim they do so at their own risk.

INFORMATION AND EDUCATION

An Information Point with advice about nearest:

- telephone
- hospital/surgery
- first aid
- police
- coastguard
- local hazards

and

map delineating the appropriate area of the beach, sampling points and facilities if appropriate.

Each entry should be accompanied by:

Evidence to show a scheme of "guardianship" of the beach; this may be a local school, parish council or even individual who has undertaken to keep an eye on the beach, alert authorities to problems and even do some litter picking and maintenance of notices.

Evidence that visitors are actively encouraged to protect and conserve the beach and that there has been consultation and liaison with recognised local conservation organisations.

A map and a short (2 page) summary of plans for the coastal area and denoting areas of site fragility which are not suitable to carry large numbers of visitors.



NRA

*National Rivers Authority
Southern Region*

Regional Office
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(0903) 820692

