SUBSIDIARY LEGISLATION 465.09

MANAGEMENT OF BATHING WATER QUALITY REGULATIONS

1st March, 2009*

LEGAL NOTICE 125 of 2008, as amended by Legal Notice 237 of 2011.

Citation and purpose

1. (1) The title of these regulations is the Management of Bathing Water Quality Regulations.

(2) The purpose of these regulations is to preserve, protect and improve the quality of the environment and to protect human health by implementing Directive 2000/60/EC of the European Parliament and of the Council and to transpose the provisions of Directive 2006/7/EC of the European Parliament and of the Council.

Objective.

2. (1) These regulations lay down provisions for:

(*a*) the monitoring and classification of bathing water quality;

(*b*) the management of bathing water quality; and

(*c*) the provision of information to the public on bathing water quality.

(2) These regulations shall apply to any element of surface water where the Superintendent expects a large number of people to bathe and where he has not imposed a permanent bathing prohibition, or issued permanent advice against bathing.

(3) These regulations shall not apply to:

(*a*) swimming pools and spa pools;

(*b*) confined waters subject to treatment or used for therapeutic purposes;

(*c*) artificially created confined water separated from surface water and groundwater.

Definitions.
Amended by: L.N. 237 of 2011.

3. (1) In these regulations, unless the context otherwise requires:

"abnormal situation" means an event or combination of events impacting on bathing water at the location concerned and not expected to occur on average more than once every four years;

"authorised officer" includes environmental health officer, or any person engaged by, detailed for duty with, or in any manner whatsoever performing duties for or on behalf of the Superintendent;

"bathing season" means the period during which a large number of bathers can be expected;

*see regulation 1(2) of these Regulations, as originally promulgated, and Legal Notice 112 of 2009.

"bathing water" means surface water where the Superintendent expects a large number of people to bathe and where he has not imposed a permanent bathing prohibition, or issued permanent advice against bathing;

"bathing water quality assessment" means the process of evaluating bathing water quality, using the assessment method defined in Schedule II;

"cyanobacterial proliferation" means an accumulation of cyanobacteria in the form of a bloom, mat or scum;

"the Directive" means Directive 2006/7/EC of the European Parliament and of the Council of 15 February, 2006 concerning the management of bathing water quality and repealing Directive 76// 160/EEC;

"large number" means, in relation to bathers, a number that the Superintendent considers to be large having regard, in particular, to past trends or to any infrastructure or facilities provided, or other measures taken, to promote bathing;

"management measures" means any of the following:

(*a*) establishing and maintaining a bathing water profile;

(*b*) establishing a monitoring calendar;

(*c*) monitoring bathing water;

(*d*) assessing bathing water quality;

(*e*) classifying bathing water;

(*f*) identifying and assessing causes of pollution that might affect bathing waters and impair bathers' health;

(*g*) giving information to the public;

(*h*) taking action to prevent bathers' exposure to pollution;

(*i*) taking action to reduce the risk of pollution;

"permanent" means, in relation to bathing prohibition or advice against bathing, lasting for at least one whole bathing season;

"pollution" means the presence of microbiological contamination or other organisms or waste affecting bathing water quality and presenting a risk to bathers' health as referred to in regulations 13 and 14 and Schedule I, column A;

"public concerned" has the same meaning as in Council Directive 85/337/EEC of the 27th June 1985 on the assessment of the effects of certain public and private projects on the environment;

"set of bathing water quality data" means data obtained in accordance with regulation 4;

"short-term pollution" means microbiological contamination as referred to in Schedule I, column A, that has clearly identified causes, is not normally expected to affect bathing water quality for more than approximately seventy-two hours after the bathing water quality is first affected and for which the Superintendent has established procedures to predict and deal with as set out in regulations 7 and 8 and in Schedule II;

"the Superintendent" means the Superintendent of Public Health;

"surface water", "groundwater", "inland water", "transitional waters", "coastal water" and "river basin" have the same meaning as in Directive 2000/60/EC.

(2) For the purposes of these regulations, any reference to Directives of the European Parliament and of the Council, shall be read and construed as if reference is made to the provisions of the regulations transposing the provisions of such directive into Maltese law.

Monitoring.

4. (1) The Superintendent shall before the start of the first bathing season after 24th March 2008 annually identify all bathing waters and define the length of the bathing season.

(2) The Superintendent shall ensure that monitoring of the parameters set out in Schedule I, column A are in accordance with Schedule IV.

(3) The monitoring points shall be the location within the bathing water where -

(*a*) most bathers are expected; or

(*b*) the greatest risk of pollution is expected, according to the bathing water profiles.

(4) A monitoring calendar for each bathing water shall be established before the start of each bathing season and for the first time before the start of the third full bathing season after entry into force of these regulations. Monitoring shall take place no later than four days after the date specified in the monitoring calendar.

(5) (*a*) The Superintendent may introduce monitoring of the parameters set out in Schedule I, column A during the first full bathing season following the entry into force of these regulations.

(*b*) Such monitoring shall take place at least with the frequency specified in Schedule IV and the results may be used to build up the sets of bathing water quality data referred to in regulation 5.

(*c*) When monitoring in virtue of these regulations commences, monitoring of parameters set out in the Schedule to the Quality of Bathing Water Regulations, 2003* shall cease.

(6) Samples taken during short-term pollution may be disregarded and shall be replaced by samples taken in accordance with Schedule IV.

(7) During abnormal situations, the monitoring calendar referred to above may be suspended and shall be resumed as soon as possible after the end of such situations when new samples shall be taken.

(8) The Superintendent shall report any suspension of the

*revoked by Legal Notice 40 of 2011.

monitoring calendar to the Commission, giving the reasons for the suspension and shall provide such reports on the occasion of the next annual report at the latest.

(9) (*a*) The Superintendent shall ensure that the analysis of bathing water quality takes place in accordance with the reference methods specified in Schedule I and the rules set out in Schedule V.

(*b*) The Superintendent may however permit the use of other methods or rules if they can demonstrate that the results obtained are equivalent to those obtained using the methods specified in the said Schedules I and V.

(*c*) If the alternative methods or rules referred to in paragraph (*b*) are used, then the Superintendent shall provide the Commission with all relevant information about the methods or rules used and their equivalence.

Bathing water quality assessment. *Amended by: L.N. 237 of 2011.*

5. (1) The Superintendent shall ensure that sets of bathing water quality data are complied with through the monitoring of the parameters set out in Schedule I, column A.

(2) Bathing water quality assessment shall be carried out:

(*a*) in relation to each bathing water;

(*b*) after the end of each bathing season;

(*c*) on the basis of the set of bathing water quality data compiled in relation to that bathing season and the three preceding bathing seasons; and

(*d*) in accordance with the procedure set out in Schedule II.

(3) However, the Superintendent may decide to carry out bathing water quality assessments on the basis of the set of bathing water quality data complied in relation to the preceding three bathing seasons only. If the Superintendent so decides, he shall notify the Commission beforehand. The Superintendent shall also notify the Commission if he subsequently decides to revert to carrying out assessments on the basis of four bathing seasons. The Superintendent may not change the applicable assessment period more than once every five years.

(4) Sets of bathing water data used to carry out bathing water quality assessments shall always comprise at least 16 samples or, 12 samples in the special circumstances referred to in paragraph 2 of Schedule IV.

(5) However, either the requirement of the preceding sub-regulation shall be satisfied, or in the case of bathing waters with a bathing season not exceeding eight weeks, the set of bathing water data used to carry out the assessment shall comprise at least eight samples. A bathing water quality assessment may be carried out on the basis of a set of bathing water quality data relating to fewer than four bathing seasons if:

(*a*) the bathing water is newly identified;

(*b*) any changes have occurred that are likely to affect the

classification of the bathing water in accordance with regulation 6, in which case the assessment shall be carried out on the basis of a set of bathing water quality data consisting solely of the results for samples collected since the changes occurred; or

(*c*) the bathing water had already been assessed in accordance with Directive 76/160/EEC, in which case equivalent data gathered under that Directive shall be used and, for this purpose, parameters 2 and 3 of the Annex to Directive 76/160/EEC shall be deemed to be equivalent to parameters 2 and 1 of column A of Schedule I.

(6) The Superintendent may subdivide or group together existing bathing waters in the light of bathing water quality assessments only if these waters:

(*a*) are contiguous;

(*b*) received similar assessments for the preceding four years in accordance with sub-regulations (2), (3) and (5)(*c*); and

(*c*) have bathing water profiles all of which identify common risk factors or the absence thereof.

Classification and quality status of bathing waters.

6. (1) The Superintendent shall classify bathing water, in accordance with the criteria set out in Schedule II of the Directive, as:

(*a*) 'poor';

(*b*) 'sufficient';

(*c*) 'good'; or

(*d*) 'excellent'.

(2) The first classification in virtue of these regulations shall be completed by the end of the 2015 bathing season.

(3) The Superintendent shall ensure that, by the end of 2015 bathing season, all bathing waters are at least 'sufficient' and shall adopt those measures deemed appropriate to increase the quantity of bathing waters classified as 'excellent' or 'good'.

(4) (a) In those cases where bathing waters are temporarily classified as 'poor', the Superintendent shall ensure that the following conditions taken with effect from the bathing season that follows its classification are satisfied:

(i) adequate management measures, including a bathing prohibition or advice against bathing, with a view to preventing bathers' exposure to pollution;

(ii) identification of the causes and reasons for the failure to achieve 'sufficient' quality status;

(iii) adequate measures to prevent, reduce or eliminate the causes of pollution; and

(iv) alerting the public by a clear and simple warning sign and informing them of the causes of the pollution and measures taken, on the basis of the bathing water profile.

(*b*) If a bathing water is classified as 'poor' for five consecutive years, a permanent bathing prohibition or permanent advice against bathing shall be introduced.

(*c*) However, the Superintendent may introduce a permanent bathing prohibition or permanent advice against bathing before the end of five-year period if he considers that the achievement of 'sufficient' quality would not be feasible or would be disproportionately expensive.

Temporary closure of bathing areas.

7. The Superintendent shall temporarily close a particular bathing area or part thereof when:

(*a*) inspections by an authorised officer reveals that there is a discharge or probable discharge of substances likely to deteriorate the quality of the bathing water:

Provided that the Superintendent shall after the discharge is eliminated, collect samples for analysis of any parameter he deems fit;

(*b*) additional sampling results reveal that there is deterioration in the water quality;

(*c*) samples analysed for Intestinal enterococci counts result in more than 500 cfu/100 ml and the result is confirmed by repeat sample;

(*d*) samples analysed for Escherichia coli counts result in more than 1000 cfu/100 ml and is confirmed by repeat sample.

Withdrawal of temporary closure.

8. The Superintendent shall withdraw the temporarily closure of a particular bathing area or part thereof when:

(*a*) at least three consecutive sample results collected daily indicate that Intestinal enterococci counts are less than 500 cfu/100 ml, and, or the Escherichia coli counts are less than 1000 cfu/100 ml;

(*b*) when the Superintendent determines that the water quality is within the acceptable level:

Provided that the Superintendent shall inform the public of any such withdrawal.

Temporary closure signs.

9. (1) The Superintendent shall put up and maintain warning notices at those bathing areas temporarily closed and shall additionally inform the public of any such areas by any means whatsoever:

Provided that in the case of a private beach lying in the vicinity of an area temporarily closed by the Superintendent, it shall be the responsibility of the person in charge of such beach to affix warning notices and inform his patrons that bathing is not

recommended.

(2) For the purpose of this regulation, "private beach" shall include any beach concession.

Warning notices.

10. No person shall remove, alter, temper or otherwise damage in any way, any warning notice put up by the Superintendent.

Bathing water profiles. *Amended by: L.N. 237 of 2011.*

11.(1)(*a*) The Superintendent shall ensure that bathing water profiles are established in accordance with Schedule III.

(*b*) Each bathing water profile may cover a single bathing water or more than one contiguous bathing waters.

(*c*) Bathing water profiles shall be established for the first time by 24th March 2011.

(2) Bathing water profiles shall be reviewed and updated as provided for in Schedule III.

(3) When establishing, reviewing and updating bathing water profiles, adequate use shall be made of data obtained from monitoring and assessments carried out pursuant to Directive 2000/60/EC that are relevant to these regulations.

Management measures in exceptional circumstances.

12. The Superintendent shall ensure that timely and adequate management measures are taken when unexpected situations that have, or could reasonably be expected to have, an adverse impact on bathing water quality and on bathers' health, occur. Such measures shall include information to the public and, if necessary, a temporary bathing prohibition as referred to in the previous regulations.

Cyanobacterial risks.

13. (1) When the bathing water profile indicates a potential for cyanobacterial proliferation, appropriate monitoring shall be carried out to enable timely identification of health risks.

(2) When cyanobacterial proliferation occurs and health risk has been identified or presumed, adequate management measures including information to the public shall be taken immediately to prevent exposure.

Other parameters. *Amended by: L.N. 237 of 2011.*

14. (1) When the bathing water profile indicates a tendency for proliferation of macro-algae and, or marine phytoplankton, investigations shall be undertaken to determine the presence of any health risks and adequate management measures shall be implemented, including information to the public.

(2) Bathing waters shall be inspected visually for pollution and when such pollution is found, adequate management measures shall be taken, including, if necessary, information to the public.

Public participation. *Substituted by: L.N. 237 of 2011.*

15. (1) The Superintendent shall encourage public participation in the implementation of these regulations and shall ensure that the public concerned is provided with opportunities -

(*a*) to find out how to participate, and

(*b*) to formulate suggestions, remarks or complaints.

(2) The provisions of sub-regulation (1) shall relate, in particular, to the establishment, review and updating of the list of bathing waters in accordance with regulation 4(1). The Superintendent shall take due account of any information he obtains.

Information to the public.
Amended by: L.N. 237 of 2011.

16. (1) The following shall be actively disseminated and promptly made available during the bathing season in an easily accessible place in the near vicinity of each bathing water:

(*a*) the current bathing water classification and any bathing prohibition or advice against bathing referred to in this regulation by means of a clear and simple sign or symbol;

(*b*) a general description of the bathing water, in non-technical language, based on the bathing water profile established in accordance with Schedule III;

(*c*) in the case of bathing waters subject to short-term pollution:

(i) notification that the bathing water is subject to short-term pollution;

(ii) an indication of the number of days on which bathing is prohibited or advised against during the preceding bathing season because of such pollution; and

(iii) a warning whenever such pollution is predicted or present;

(*d*) information on the nature and expected duration of abnormal situations during such events;

(*e*) whenever bathing is prohibited or advised against, a notice advising the public and giving reasons;

(*f*) whenever a permanent bathing prohibition or permanent advice against bathing is introduced, the fact that the area concerned is no longer a bathing water and reasons for its declassification; and

(*g*) an indication of sources of more complete information in accordance with the following sub-regulation.

(2) The Superintendent shall use appropriate media and information technologies, including the internet, to disseminate actively and promptly the information concerning bathing waters referred to in sub-regulation (1) and also the following information in several languages, when appropriate:

(*a*) a list of bathing waters available yearly before the start of the bathing season;

(*b*) the classification of each bathing water over the last three years and its bathing water profile, including the results of monitoring carried out in accordance with these regulations since the last classification;

(*c*) in the case of bathing waters classified as being ‘poor’, information on the causes of pollution and measures

taken with a view to preventing bathers' exposure to pollution and to tackle its causes as referred to in regulation 6(4); and

(*d*) (i) in the case of bathing waters subject to short-term pollution, general information on the conditions likely to lead to short-term pollution, the likelihood of such pollution and its likely duration and the causes of the pollution and measures taken with a view to preventing bathers' exposure to pollution and to tackle its causes.

(ii) The list referred to in paragraph (*a*) shall be available each year before the start of the bathing season. The results of the monitoring referred to in paragraph (*b*) shall be made available on the internet upon completion of the analysis.

(3) The information referred to in sub-regulations (1) and (2) shall be disseminated as soon as it is available and with effect from the start of the bathing season after 24th March 2008.

Bathing Water Quality Management Committee.

17. (1) The Superintendent shall appoint a Committee, to be known as the Bathing Water Quality Management Committee, which shall be made up of stakeholders so identified by the Superintendent to form part of this Committee.

(2) This Committee shall be chaired by the Superintendent or his appointed representative.

(3) The main functions of this Committee shall be to foresee the requirements of the directive for the implementation of bathing water quality management as required by the Directive.

Responsibility of third parties.

18. (1) No person shall collect, transport or otherwise make use of seawater for any type of recreational facilities, when such water derives from any site in respect of which bathing is not recommended by the Superintendent.

(2) When any person, company or entity due to its actions is found to be discharging any foul water, sewage or any other material and, or any substance within a bathing area which may have an impact on the bathing water quality, that person, company or entity shall be guilty of an offence under these regulations and the court, besides awarding punishment, shall order the accused to pay the due fees for any costs suffered by the Superintendent and to order any person, company or entity to rectify any damage caused at its own expense.

(3) (*a*) In those cases where any person, company or entity fails to carryout the works ordered by court and the Superintendent deems a serious risk to bathers, then the Superintendent may order that the said works be carried out at the expense of such person, company or entity.

(*b*) The aforementioned expenses shall be deemed a civil

debt.

Bathing of animals.

19. (1) No animals may be taken into the sea at any time within those areas indicated by the Superintendent as being bathing areas under the provisions of these regulations.

(2) Domestic pets such as dogs are not to be taken on sandy beaches at any time, however these may be taken on rocky beaches and the owner of such pets should not cause any nuisance to other bathers and to clean any fouling made by their pets.

SCHEDULE I

For inland waters

	A	B	C	D	E
	Parameter	Excellent quality	Good quality	Sufficient	Reference methods of analysis
1	Intestinal enterococci (cfu/100 ml)	200 (*)	400 (*)	330 (**)	ISO 7899-1 or ISO 7899-2
2	Escherichia coli (cfu/100 ml)	500 (*)	1,000 (*)	900 (**)	ISO 9308-3 or ISO 9308-1
(*) Based upon a 95-percentile evaluation. See Schedule II.					
(**) Based upon a 90-percentile evaluation. See Schedule II.					

For coastal waters and transitional waterss

	A	B	C	D	E
	Parameter	Excellent quality	Good quality	Sufficient	Reference methods of analysis
1	Intestinal enterococci (cfu/100 ml)	100 (*)	200 (*)	185 (**)	ISO 7899-1 or ISO 7899-2
2	Escherichia coli (cfu/100 ml)	250 (*)	500 (*)	500 (**)	ISO 9308-3 or ISO 9308-1
(*) Based upon a 95-percentile evaluation. See Schedule II.					
(**) Based upon a 90-percentile evaluation. See Schedule II.					

SCHEDULE II

Bathing water assessment and classification

1. Poor quality

Bathing waters are to be classified as ‘poor’ if, in the set of bathing water quality data for the last assessment period ([a]), the percentile values ([b]) for microbiological enumerations are worse ([c]) than the ‘sufficient’ values set out in Schedule I, column D.

2. Sufficient quality

Bathing waters are to be classified as ‘sufficient’:

1. if, in the set of bathing water quality data for the last assessment period, the percentile values for microbiological enumerations are equal to or better ([d]) than the ‘sufficient’ values set out in Schedule I, column D; and
2. if the bathing water is subject to short-term pollution, on condition that:
   (i) adequate management measures are to being taken, including surveillance, early warning systems and monitoring, with a view to preventing bathers’ exposure by means of a warning or, where

necessary, a bathing prohibition;

(ii) adequate management measures are being taken to prevent, reduce or eliminate the causes of pollution; and

(iii) the number of samples disregarded in accordance with regulation 4(6) because of short-term pollution during the last period represented no more than 15% of the total number of samples provided for in the monitoring calendars established for that period, or no more than one sample per bathing season, whichever is the greater.

3. Good quality

Bathing waters are to be classified as 'good':

1. if, in the set of bathing water quality data for the last assessment period, the percentile values for microbiological enumerations are equal to or better ([d]) than the 'good quality' values set in Schedule I, column C; and

2. if the bathing water is subject to short-term pollution, on condition that:

(i) adequate management measures are being taken, including surveillance, early warning systems and monitoring, with a view to preventing bathers' exposure, by means of a warning or, where necessary, a bathing prohibition;

(ii) adequate management measures are being taken to prevent, reduce or eliminate the causes of pollution; and

(iii) the number of samples disregarded in accordance with regulation 4(6) because of short-term pollution during the last period represented no more than 15% of the total number of samples provided for in the monitoring calendars established for that period, or no more than one sample per bathing season, whichever is the greater.

4. Excellent quality

Bathing waters are to be classified as 'excellent':

1. if, in the set of bathing water quality data for the last assessment period, the percentile values for microbiological enumerations are equal to or better than the 'excellent quality' values set out in Schedule I, column B: and

2. if the bathing water is subject to short-term pollution, on condition that:

(i) adequate management measures are being taken, including surveillance, early warning systems and monitoring, with a view to preventing bathers' exposure, by means of a warning or, where necessary, a bathing prohibition;

(ii) adequate management measures are being taken to prevent, reduce or eliminate the causes of pollution; and

(iii) the number of samples disregarded in accordance with regulation 4(6) because of short-term pollution during the last period represented no more than 15% of the total number of samples provided for in the monitoring calendars established for that period, or no more than one sample per bathing season, whichever is the greater.

NOTES

([a]) 'Last assessment period' means the last four bathing seasons or, when applicable, the period specified in regulation 5(2) or (4).

([b]) Based upon percentile evaluation of the $\log_{10}$ normal probability density function of microbiological data acquired from the particular bathing water, the percentile value is derived as follows:

(i) Take the log10 value of all bacterial enumerations in the data sequence to be evaluated. (if a zero value is obtained, take the $\log_{10}$ value of the minimum detection limit of the analytical method used instead.)

(ii) Calculate the arithmetic mean of the $\log_{10}$ value (μ).

(iii) Calculate the standard deviation of the $\log_{10}$ values (σ).

The upper 90-percentile point of the data probability density function is derived from the following equation:

upper 90-percentile = antilog ($\mu + 1{,}282\sigma$).

The upper 95-percentile point of the data probability density function is derived from the following equation:

upper 95-percentile = antilog ($\mu + 1{,}65\sigma$).

([c]) 'Worse' means with higher concentration values expressed in cfu/100 ml.

([d]) 'Better' means with lower concentration values expressed in cfu/100 ml.

SCHEDULE III

Amended by:
L.N. 237 of 2011.

The bathing water profile

1. The bathing water profile referred to in regulation 11 is to consist of:

a. a description of the physical, geographical and hydrological characteristics of the bathing water, and of other surface waters in the catchment area of the bathing water concerned, that could be a source of pollution, which are relevant to the purpose of these regulations and as provided for in Directive 2000/60/EC;

b. an identification and assessment of causes of pollution that might affect bathing waters and impair bathers' health;

c. an assessment of the potential for proliferation of cyanobacteria;

d. an assessment of the potential for proliferation of macro-algae and/or phytoplankton;

e. if the assessment under point (b) shows that there is a risk of short-term pollution, the following information:

- the anticipated nature, frequency and duration of expected short-term pollution,
- details of any remaining causes of pollution, including management measures taken and the time schedule for their elimination,
- management measures taken during short-term pollution and the identity and contact details of bodies responsible for taking such action,

f. the location of the monitoring point.

2. In the case of bathing waters classified as ‘good’, ‘sufficient’ or ‘poor’, the bathing water profile is to be reviewed regularly to assess whether any of the aspects listed in paragraph 1 have changed. If necessary, it is to be updated. The frequency and scope of reviews is to be determined on the basis of the nature and severity of the pollution. However, they are to comply with at least the provisions and to take place at least at the frequency specified in the following table.

Bathing water classification	‘Good’	‘Sufficient’	‘Poor’
Review are to take place at least every	four years	three years	two years
Aspects to be reviewed (points of paragraph 1)	(a) to (f)	(a) to (f)	(a) to (f)

In the case of bathing waters previously classified as ‘excellent’, the bathing water profiles need to be reviewed and, if necessary, updated only if the classification changes to ‘good’, ‘sufficient’ or ‘poor’. The review is to cover all aspects mentioned in paragraph 1.

3. In the event of significant construction works or significant changes in the infrastructure in or in the vicinity of the bathing water, the bathing water profile is to be updated before the start of the next bathing season.

4. The information referred to in paragraph 1(a) and (b) is to be provided on a detailed map whenever practicable.

5. Other relevant information may be attached or included if the Superintendent considers it appropriate.

SCHEDULE IV

Bathing water monitoring

1. One sample is to be taken shortly before the start of each bathing season. Taking account of this extra sample and subject to paragraph 2, no fewer than four samples are to be taken and analysed per bathing season.

2. However, only three samples need to be taken and analysed per bathing season in the case of a bathing water that:

a. either has a bathing season not exceeding eight weeks;

b. or is situated in a region subject to special geographical constraints.

3. Sampling dates are to be distributed throughout the bathing season, with the interval between sampling dates never exceeding one month.

4. In the event of short-term pollution, one additional sample is to be taken to confirm that the incident has ended. This sample is not to be part of the set of bathing water quality data. If necessary to replace a disregarded sample, an additional sample is to be taken seven days after the end of the shprt-term pollution.

SCHEDULE V

Rules on the handling of samples for microbiological analyses

1. Sampling point

Where possible, samples are to be taken 30 centimetres below the water's surface and in water that is at least one metre deep.

2. Sterilisation of sample bottles

Sample bottles are:

- to undergo sterilisation in an autoclave for at least 15 minutes at 121ºC, or
- to undergo dry sterilisation at between 160ºC and 170ºC for at least one hour, or
- to be irradiated in sample containers obtained directly from manufacturer.

3. Sampling

The volume of the sampling bottle/container is to depend on the quantity of water needed for each parameter to be tested. The minimum content is generally 250ml.

Sample containers are to be of transparent and non-coloured material (glass, polythene or polypropylene).

In order to prevent accidental contamination of the sample, the sampler is to employ an aseptic technique to maintain the sterility of the sample bottles. There is no further need for sterile equipment (such as sterile surgical gloves or tongs or sample pole) if this is done properly.

4. Storage and transport of samples before analysis

Water samples are to be protected at all stages of transport from exposure to light, in particular direct sunlight.

The sample is to be conserved at a temperature of around 4ºC, in a cool box or refrigerator (depending on climate) until arrival at the laboratory. If the transport to the laboratory is likely to take more than four hours, then transport in a refrigerator is required.

The time between sampling and analysis is to be kept as short as possible. It is recommended that samples be analysed on the same working day. If this is not possible for practical reasons, then the samples shall be processed within no more than 24 hours. In the meantime, they shall be stored in the dark and at a temperature of 4ºC ± 3ºC.