

Bathing water results 2008 – Portugal

1. Introduction

This report gives a general overview of bathing water quality in Portugal during the 2008 bathing season.

Portugal reported 6 parameters under the Directive 76/160/EEC (1 Total coliforms, 2 Faecal coliforms, 3 Faecal streptococci, 8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices)).

The parameters to be taken into account for assessment according to the assessment rules of the Directive 76/160/EEC are microbiological (1 Total coliforms, 2 Faecal coliforms) and physico-chemical (8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices)).

The bathing waters are classified in the following categories:

- Compliant with mandatory values of the Directive for the 5 parameters (class CI)
- Compliant with mandatory and more stringent guide values of the Directive for the 5 parameters (class CG)
- Not compliant with mandatory values of the Directive for the 5 parameters (class NC)
- Banned (temporarily closed) or closed throughout the season (class B)

2. Length of bathing season and number of bathing waters

The bathing season started from 1 June to 1 July and ended in September 2008 for coastal bathing waters. This includes the Azores and Madeira. The bathing season lasted four months, from 1 June to 30 September 2008, for freshwater bathing waters.

A total of 533 bathing waters were monitored in Portugal during the 2008 bathing season, of which 436 were coastal bathing waters (409) or in estuaries (27) and 97 freshwater bathing waters (87 on rivers; 10 on lakes). The frequency of sampling was reduced by a factor of two for bathing waters that were compliant with at least the mandatory values for the two previous years.

With 533 bathing waters Portugal accounts for about 2.5% of the reported bathing waters of the European Union.

The evolution of the reported number of bathing waters since monitoring of the water quality began under the Directive 76/160/EEC is presented in Table 1. Remarkably is the increase in number of coastal bathing waters since the start of the reporting from 160 in 1991 to 436 in 2008. In 2008, nine new bathing waters were added to the list compared to the previous year. Similarly, the number of freshwater bathing waters also increased significantly from 23 in 1993 to 97 in 2008. In 2008, five new bathing waters were added to the list compared to the previous year.

3. Results of bathing water quality

The results of the bathing water quality in Portugal for the period 1991-2007 as reported in 2008 report and for the bathing season of 2008 are presented in Figure 1.

The graphs show, for coastal and freshwater bathing waters separately:

- The percentage of bathing waters that comply with the guide values (class CG, blue line)
- The percentage of bathing waters that comply with the mandatory values (class CI, green line)
- The percentage of bathing waters that do not comply with the mandatory values (class NC, red line)
- The percentage of bathing waters that are banned (temporarily closed) or closed throughout the season (class B, grey line)

Table 1 and Table 2 show the same information in absolute numbers and in percentages separately for coastal and freshwater bathing waters. Table 3 shows the bathing water quality results for 2008 season in Portugal for all bathing waters.

Map 1 shows the location of the reported bathing waters in Portugal. The location of the bathing waters is based on the geographic coordinates reported by the Portuguese authorities.

Figure 1: Results of bathing water quality in Portugal from 1991 to 2008

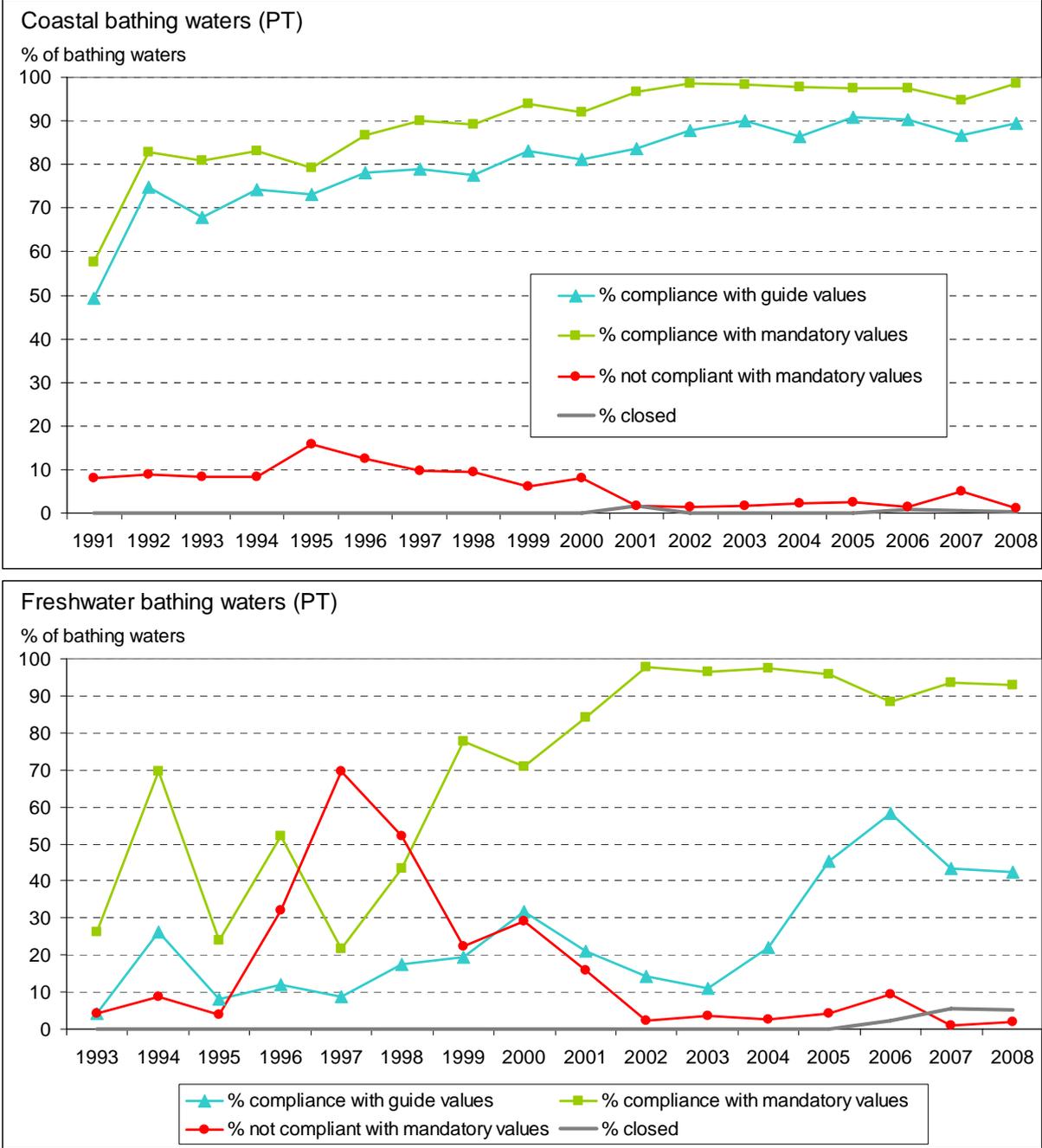


Table 1: Results of bathing water quality in Portugal from 1991 to 2008 as absolute numbers

		PT				
		Total number of bathing waters	Compliance with guide values	Compliance with mandatory values	Not compliant	Banned/closed throughout the season
Coastal bathing water	1991	160	79	92	13	0
	1992	226	169	187	20	0
	1993	313	212	253	26	0
	1994	316	235	263	26	0
	1995	334	244	265	53	0
	1996	339	265	294	42	0
	1997	337	266	303	33	0
	1998	343	266	306	32	0
	1999	343	285	322	21	0
	2000	346	281	318	28	0
	2001	366	306	354	6	6
	2002	373	328	368	5	0
	2003	384	346	378	6	0
	2004	400	346	391	9	0
	2005	414	376	404	10	0
	2006	422	381	412	6	4
	2007	427	370	404	21	2
2008	436	390	430	5	1	
Fresh water bathing water	1993	23	1	6	1	0
	1994	23	6	16	2	0
	1995	25	2	6	1	0
	1996	25	3	13	8	0
	1997	23	2	5	16	0
	1998	23	4	10	12	0
	1999	36	7	28	8	0
	2000	41	13	29	12	0
	2001	38	8	32	6	0
	2002	42	6	41	1	0
	2003	55	6	53	2	0
	2004	73	16	71	2	0
	2005	73	33	70	3	0
	2006	86	50	76	8	2
	2007	92	40	86	1	5
2008	97	41	90	2	5	

Note: Bathing waters which were insufficiently sampled or not sampled according to the Bathing Water Directive were not included in this table. Therefore, in some cases, the sum of the different categories will not be equal to the total number of bathing waters.

Table 2: Results of bathing water quality in Portugal from 1991 to 2008 as percentages

		PT				
		Total number of bathing waters	% compliance with guide values	% compliance with mandatory values	% not compliant	% banned/closed throughout the season
Coastal bathing water	1991	160	49.4	57.5	8.1	0.0
	1992	226	74.8	82.7	8.8	0.0
	1993	313	67.7	80.8	8.3	0.0
	1994	316	74.4	83.2	8.2	0.0
	1995	334	73.1	79.3	15.9	0.0
	1996	339	78.2	86.7	12.4	0.0
	1997	337	78.9	89.9	9.8	0.0
	1998	343	77.6	89.2	9.3	0.0
	1999	343	83.1	93.9	6.1	0.0
	2000	346	81.2	91.9	8.1	0.0
	2001	366	83.6	96.7	1.6	1.6
	2002	373	87.9	98.7	1.3	0.0
	2003	384	90.1	98.4	1.6	0.0
	2004	400	86.5	97.8	2.3	0.0
	2005	414	90.8	97.6	2.4	0.0
	2006	422	90.3	97.6	1.4	0.9
	2007	427	86.7	94.6	4.9	0.5
2008	436	89.4	98.6	1.1	0.2	
Fresh water bathing water	1993	23	4.3	26.1	4.3	0.0
	1994	23	26.1	69.6	8.7	0.0
	1995	25	8.0	24.0	4.0	0.0
	1996	25	12.0	52.0	32.0	0.0
	1997	23	8.7	21.7	69.6	0.0
	1998	23	17.4	43.5	52.2	0.0
	1999	36	19.4	77.8	22.2	0.0
	2000	41	31.7	70.7	29.3	0.0
	2001	38	21.1	84.2	15.8	0.0
	2002	42	14.3	97.6	2.4	0.0
	2003	55	10.9	96.4	3.6	0.0
	2004	73	21.9	97.3	2.7	0.0
	2005	73	45.2	95.9	4.1	0.0
	2006	86	58.1	88.4	9.3	2.3
	2007	92	43.5	93.5	1.1	5.4
2008	97	42.3	92.8	2.1	5.2	

Note: Bathing waters which were insufficiently sampled or not sampled according to the Bathing Water Directive are not included in this table. Therefore, in some cases, the sum of the percentages is not equal to 100%.

Table 3: Results of bathing water quality for all bathing waters in Portugal in 2008

		PT				
		Total number of bathing waters	Compliance with guide values	Compliance with mandatory values	Not compliant	Banned/closed throughout the season
Bathing Waters	2008	533	431	520	7	6

4. Development of bathing water quality

Coastal bathing waters

In Portugal, 98.6% of the coastal bathing waters (430) met the mandatory values in 2008. This is an increase compared to the previous year (+ 4%). The rate of compliance with the more stringent guide values also increased by 2.8%, reaching 89.4% (390 bathing waters). The difference between the rate of compliance with the mandatory and guide values is only 9.2%. The number of non-compliant bathing waters decreased from 21 (4.9%) to 5 (1.1%). One coastal bathing water had to be closed during the season compared to two bathing waters in the previous year.

The Portuguese authorities have taken measures to improve the overall water quality. These resulted in the gradual improvement of the water quality as can be seen in the decreasing percentage of non-compliant bathing waters and increasing compliance rate. Since 1999, the compliance rate was met in more than 90% of bathing waters for mandatory values and in more than 80% of the bathing waters for guide values.

Freshwater bathing waters

92.8% of the freshwater bathing waters (90) met the mandatory values in 2008. This is a slight decrease compared to the previous year (- 0.7%). 42.3% of the bathing waters (41) met the more stringent guide values after a similar decrease by 1.2%. The percentage of bathing waters that met the mandatory values is much larger than the percentage of bathing waters that met the more stringent guide values (+ 50.5%). Two bathing waters (2.1%) were non-compliant compared to one bathing water in the previous year. Five bathing waters (5.2%) had to be closed during the season, the same as in 2007.

Contrary to the coastal bathing waters, the compliance rate was low for the freshwater bathing waters at the start of reporting (26.1% compliance with mandatory values). From 1998 onward we see a gradual increase in the water quality, although it took Portugal till the 2002 bathing season to reach a low level of non-compliant freshwater bathing waters below 5%, except for 2006 (9.3%). The percentage of non-compliant bathing waters was the lowest in 2007 (1.1%). The mandatory water quality was met in more than 90% of the bathing waters since 2002 with a dip for 2006 (88.4%). The bathing waters compliant with the more stringent guide values were fluctuating between 42 and 58% during the last four years. Since 2006, 2.3 to 5.4% of the bathing waters had to be closed during the season.

5. General information as provided by Portuguese authorities

Information for the public

The results of the monitoring programme are available online, on the Instituto da Água website at <http://snirh.pt/>. Signs indicating whether or not bathing is (temporarily or otherwise) safe or not are placed at the main entrances to bathing areas.

A national report is published every year and is available to the public on the Instituto da Água website, at <http://snirh.pt/>.

Programmes to improve the quality of bathing waters

The Bathing Water Quality Improvement Programmes form part of the Strategic Water Supply and Waste Water Treatment Plan for 2007-13 (PEAASAR II). The purpose of the Strategic Plan is to provide the public with guaranteed access to water supply and waste water treatment systems. One of the objectives of PEAASAR II is to provide public urban waste water treatment systems for around 90% of the country's total population, with each integrated waste water treatment system serving at least 70% of the population concerned. Under PEAASAR II, investments in supply systems are estimated at EUR 1 600 million. For distribution systems, priority investments for the period 2007-13 are estimated at EUR 2 200 million.

6. More information on bathing water quality in the European Union

More information on bathing water quality in the European Member States, including the reports for 27 Member States and the EU summary report, can be found on the bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html).

By 2015, Member States will have to comply with the stricter and more ambitious requirements laid out in the new Bathing Water Directive (Directive 2006/7/EC). This Directive requires more effective monitoring and management of bathing waters, greater public participation and improved information. More information on the new Directive can be found on the bathing water quality website and on <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>.

Cyprus, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Slovakia, Spain and Sweden started to report according to more stringent new requirements in 2008 bathing season, while Luxembourg already started in 2007 bathing season.

WISE - Water Information System for Europe (www.water.europa.eu) is a gateway to all water related information. Among other water related data, information on individual bathing water quality can be found in the WISE Map viewer and WISE Data viewer through interactive maps and graphs (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>).

Map 1: Bathing waters reported during the 2008 bathing season in Portugal



Note: * banned (temporarily closed) or closed throughout the season
 More data on bathing water quality on: <http://www.eea.europa.eu/themes/water/mapviewers/bathing>
Source: National boundaries: GISCO
 Large rivers and lakes: ESA, WFD Article 3
 Bathing waters data and coordinates: Portuguese authorities