

Bathing water results 2009 – Portugal

1. Introduction

This report gives a general overview of bathing water quality in Portugal during the 2009 bathing season.

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

2. Length of bathing season and number of bathing waters

Coastal bathing waters opened from 16 May to 1 July 2009, except for three bathing waters opened in April, and closed from 1 September to 31 October 2009. This includes the Azores and Madeira. Most coastal bathing waters opened in June and closed in September. Freshwater bathing waters opened on 1 or 15 June 2009, except for two bathing waters opened on 15 May and on 1 July respectively. These bathing waters closed on 15 or 30 September 2009, except for two bathing waters closed on 31 August.

A total of 540 bathing waters were monitored in Portugal during the 2009 bathing season, of which 443 were coastal bathing waters (417) or in estuaries (26) and 97 freshwater bathing waters (87 on rivers; 10 on lakes). 113 bathing waters (109 coastal and four freshwater) were monitored with reduced frequency according to the Directive 76/160/EEC.

With 540 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 443 in 2009. There were seven more coastal bathing waters in 2009 than in the previous year: 10 new bathing waters were added to the list and three were de-listed. Similarly, the number of freshwater bathing waters also increased significantly from 23 in 1993 to 97 in 2008 and 2009.

3. Results of bathing water quality

The results of the bathing water quality in Portugal for the period 1991-2008 as reported the past reporting years and for the bathing season of 2009 are presented in Figure 1. The previous reports are available on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html; Water and Health/Bathing Water/ 2005-2009 reports) and the European Environment Agency's bathing water website (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>; reports for 2008 bathing season).

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

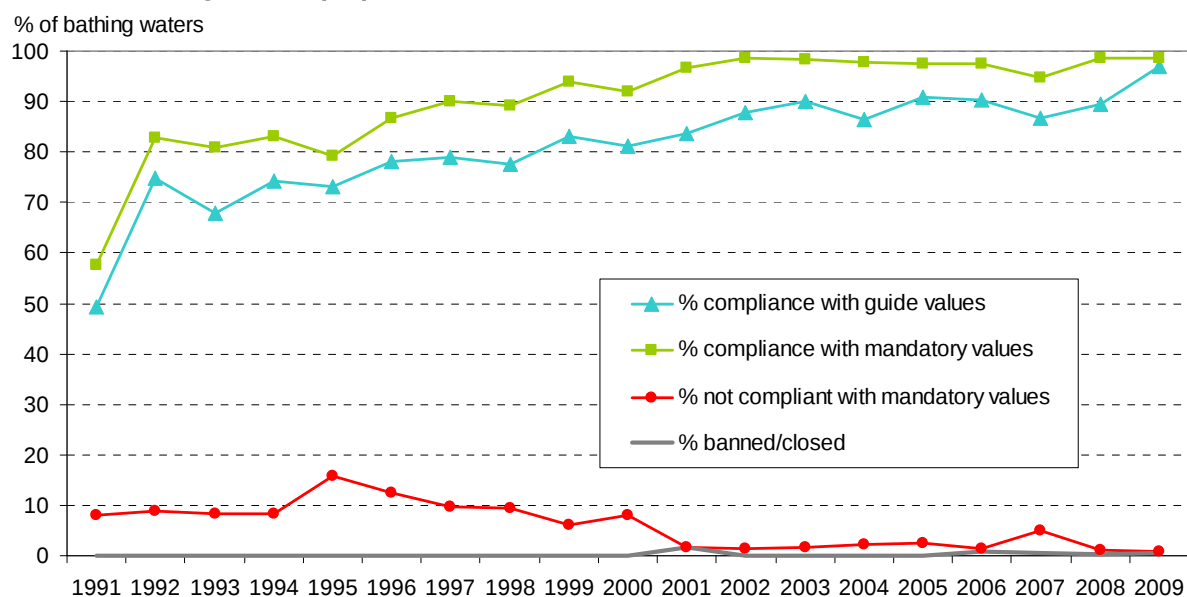
- The percentage of bathing waters that comply with the guide values (class CG, blue line);
- The percentage of bathing waters that comply with the mandatory values (class CI, green line);
- The percentage of bathing waters that do not comply with the mandatory values (class NC, red line);
- The percentage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

Table 1 shows the same information in absolute numbers and in percentages separately for coastal and freshwater bathing waters. Table 2 shows the bathing water quality results for 2009 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 2009

Coastal bathing waters (PT)



Freshwater bathing waters (PT)

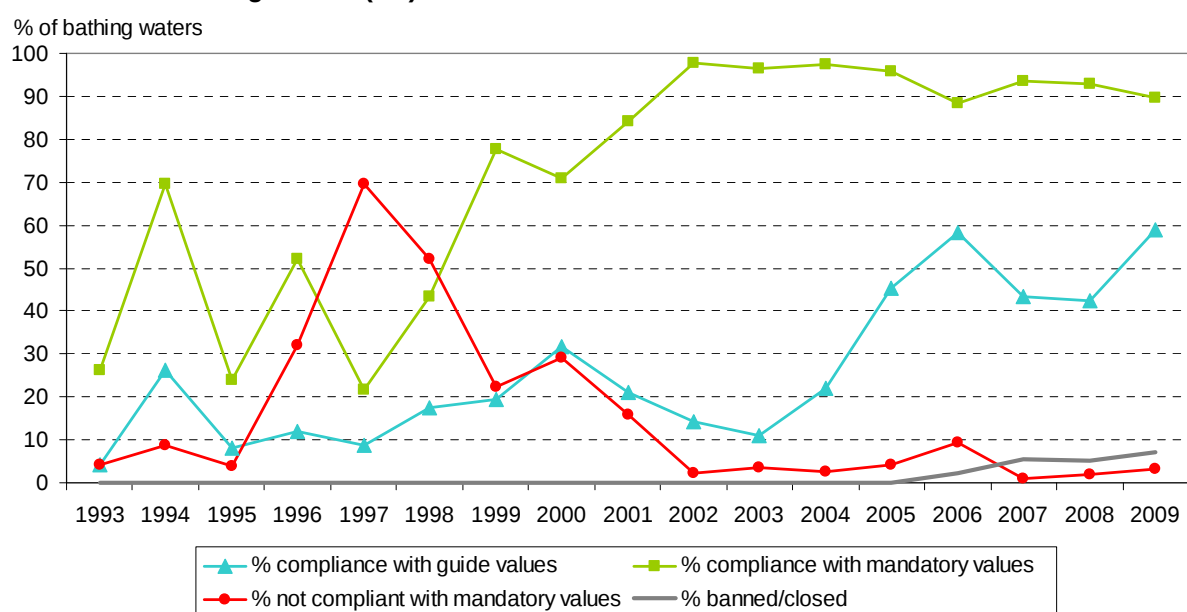


Table 1: Results of bathing water quality in Portugal from 1991 to 2009

PT										
		Total number of bathing waters	Compliance with guide values		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%
Coastal bathing waters	1991	160	79	49.4	92	57.5	13	8.1	0	0.0
	1992	226	169	74.8	187	82.7	20	8.8	0	0.0
	1993	313	212	67.7	253	80.8	26	8.3	0	0.0
	1994	316	235	74.4	263	83.2	26	8.2	0	0.0
	1995	334	244	73.1	265	79.3	53	15.9	0	0.0
	1996	339	265	78.2	294	86.7	42	12.4	0	0.0
	1997	337	266	78.9	303	89.9	33	9.8	0	0.0
	1998	343	266	77.6	306	89.2	32	9.3	0	0.0
	1999	343	285	83.1	322	93.9	21	6.1	0	0.0
	2000	346	281	81.2	318	91.9	28	8.1	0	0.0
	2001	366	306	83.6	354	96.7	6	1.6	6	1.6
	2002	373	328	87.9	368	98.7	5	1.3	0	0.0
	2003	384	346	90.1	378	98.4	6	1.6	0	0.0
	2004	400	346	86.5	391	97.8	9	2.3	0	0.0
	2005	414	376	90.8	404	97.6	10	2.4	0	0.0
	2006	422	381	90.3	412	97.6	6	1.4	4	0.9
	2007	427	370	86.7	404	94.6	21	4.9	2	0.5
	2008	436	390	89.4	430	98.6	5	1.1	1	0.2
	2009	443	429	96.8	437	98.6	4	0.9	2	0.5
Freshwater bathing waters	1993	23	1	4.3	6	26.1	1	4.3	0	0.0
	1994	23	6	26.1	16	69.6	2	8.7	0	0.0
	1995	25	2	8.0	6	24.0	1	4.0	0	0.0
	1996	25	3	12.0	13	52.0	8	32.0	0	0.0
	1997	23	2	8.7	5	21.7	16	69.6	0	0.0
	1998	23	4	17.4	10	43.5	12	52.2	0	0.0
	1999	36	7	19.4	28	77.8	8	22.2	0	0.0
	2000	41	13	31.7	29	70.7	12	29.3	0	0.0
	2001	38	8	21.1	32	84.2	6	15.8	0	0.0
	2002	42	6	14.3	41	97.6	1	2.4	0	0.0
	2003	55	6	10.9	53	96.4	2	3.6	0	0.0
	2004	73	16	21.9	71	97.3	2	2.7	0	0.0
	2005	73	33	45.2	70	95.9	3	4.1	0	0.0
	2006	86	50	58.1	76	88.4	8	9.3	2	2.3
	2007	92	40	43.5	86	93.5	1	1.1	5	5.4
	2008	97	41	42.3	90	92.8	2	2.1	5	5.2
	2009	97	57	58.8	87	89.7	3	3.1	7	7.2

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. Bathing waters which were compliant with the guide values were also compliant with the mandatory values.

Table 2: Results of bathing water quality for all bathing waters in Portugal in 2009

PT										
		Total number of bathing waters	Compliance with guide values		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%
Bathing waters	2009	540	486	90.0	524	97.0	7	1.3	9	1.7

Note: Bathing waters which were compliant with the guide values were also compliant with the mandatory values.

4. Development of bathing water quality

Coastal bathing waters

In Portugal, 98.6% of the coastal bathing waters met the mandatory values in 2009, the same as in the previous year. The rate of compliance with the more stringent guide values was 96.8%, which is an increase of 7.4%. The number of non-compliant bathing waters with the mandatory values decreased from five (1.1%) to four (0.9%). Two coastal bathing waters (0.5%) were closed (banned) during the season compared to one (0.2%) in 2008.

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

89.7% of the freshwater bathing waters met the mandatory values in 2009. This is a decrease of 3.1% compared to the previous year. 58.8% of the bathing waters met the more stringent guide values, which is a significant increase of 16.5%. Three bathing waters (3.1%) were non-compliant with the mandatory values compared to two (2.1%) in 2008. Seven bathing waters (7.2%) were closed (banned) during the season, which is an increase of two bathing waters compared to 2008 (5.2%).

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 in 2006 (88.4%) and 2009 (89.7%). Since 2005, the bathing waters compliant with the more stringent guide values were fluctuating between 42.3% in 2008 and 58.8% in 2009. Since 2006, the number of bathing waters that were closed (banned) during the season increased from two (2.3%) to seven (7.2%) in 2009.

5. General information as provided by Portuguese authorities

De-listing of bathing waters

Three coastal bathing waters (Lagoa de Santo Andre, Pocas Norte dos Mosteiros, Lombo Gordo) were de-listed in 2009 bathing season due to small number of bathers in regard to past trends, no infrastructure or facilities provided, neither other measures taken to promote bathing.

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 EU summary report, the reports for 27 Member States, Croatia and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html) and the European Environment Agency's bathing water website (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>). The reports for the bathing seasons of 2008 and 2009 have been produced by the Institute for Water of the Republic of Slovenia (IWRS), a partner in the EEA European Topic Centre on Water (ETC/W). Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

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. Malta and the Netherlands started to report in 2009 bathing season under the new requirements. Sweden and Malta also sent data for three previous bathing seasons under the new requirements. Luxembourg started to monitor under the new requirements in 2006 bathing season, while reported for the first time 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 Bathing Water Quality 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 2009 bathing season in Portugal

