

Bathing water results 2008 – Spain

1. Introduction

This report gives a general overview of bathing water quality in Spain during the 2008 bathing season. Spain reported under the Directive 2006/7/EC.

During the transition period, samples of Intestinal enterococci and Escherichia coli are reported under the Directive 2006/7/EC, but assessment is done according to the assessment rules of Directive 76/160/EEC. For the conversion of reported parameters under Directive 2006/7/EC, Article 13.3 of the Directive 2006/7/EC foresees that the parameter Escherichia coli, reported under Directive 2006/7/EC, is assumed to be equivalent to the parameter Faecal coliforms of Directive 76/160/EEC. The parameter Intestinal enterococci reported under Directive 2006/7/EC is assumed to be equivalent to the parameter Faecal streptococci. This means that the parameters Intestinal enterococci and Escherichia coli are evaluated according to the guide and mandatory standards defined in the Annex to Directive 76/160/EEC for the parameters Faecal streptococci and Faecal coliforms respectively.

The results are classified in the following categories:

- Compliant with the mandatory value of the Directive 76/160/EEC for Escherichia coli and not compliant with the guide value of the Directive 76/160/EEC for Intestinal enterococci (class CI)
- Compliant with the mandatory value of the Directive 76/160/EEC for Escherichia coli and the more stringent guide values for the Escherichia coli and Intestinal enterococci (class CG)
- Not compliant with the mandatory value of the Directive 76/160/EEC for Escherichia coli (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 varies by locations. In the Canarias, it started on 1 March or 1 June 2008 and closed on 30 September or 30 November 2008. In the Baleares, it opened on 1 May 2008 and closed on 16 October 2008. In mainland Spain it started in May or June 2008 for most coastal bathing waters and closed in September 2008 for all of them. It opened in June or July 2008 for most freshwater bathing waters and closed between late August and the end of September 2008 for all of them.

A total of 2,085 bathing waters were reported in Spain during the 2008 bathing season, of which 1,899 were coastal (1,887) or transitional bathing waters (12) and 186 freshwater bathing waters (105 on rivers; 21 on lakes; 60 on reservoirs). Three coastal bathing waters and three freshwater bathing waters were not monitored. One coastal bathing water was insufficiently sampled.

With 2,085 bathing waters Spain accounts for about 9.7% 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 and Directive 2006/7/EC is presented in Table 1. There is a significant increase in number of coastal bathing waters since the start of the reporting from 1,189 in 1990 to 1,901 in 2007. There were two less coastal waters in 2008 than in the previous year: 90 new were added to the list and 92 were de-listed. The number of freshwater bathing waters, however, decreased from 217 in 1990 to 174 in 2007. There were 12 more freshwater bathing waters in 2008 than in the previous year: 46 new bathing waters were added to the list and 34 were de-listed.

3. Results of bathing water quality

The results of the bathing water quality in Spain for the period 1990-2007 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 Spain for all bathing waters.

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

Figure 1: Results of bathing water quality in Spain from 1990 to 2008

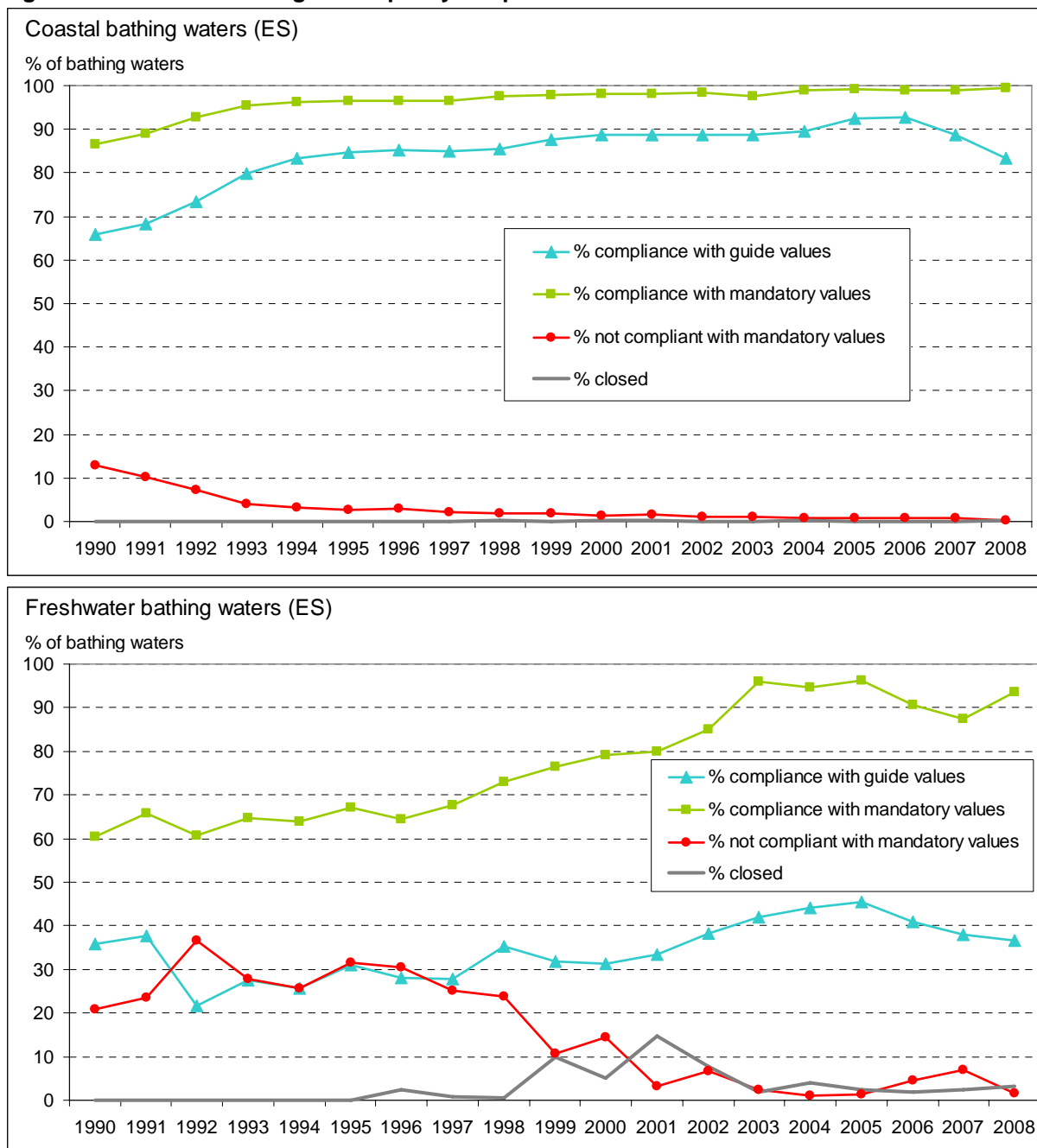


Table 1: Results of bathing water quality in Spain from 1990 to 2008 as absolute numbers

		ES				
		Total number of bathing waters	Compliance with guide values	Compliance with mandatory values	Not compliant	Banned/closed throughout the season
Coastal bathing waters	1990	1189	782	1028	155	0
	1991	1302	889	1157	132	0
	1992	1334	979	1238	96	0
	1993	1404	1120	1340	58	0
	1994	1489	1242	1431	47	0
	1995	1517	1284	1465	41	0
	1996	1571	1340	1516	46	0
	1997	1587	1349	1531	33	0
	1998	1596	1366	1558	30	4
	1999	1623	1424	1587	31	2
	2000	1634	1451	1603	24	3
	2001	1638	1453	1605	26	4
	2002	1773	1571	1743	20	1
	2003	1779	1576	1737	21	1
	2004	1826	1634	1806	14	4
	2005	1824	1685	1808	14	1
	2006	1863	1727	1843	13	0
	2007	1901	1686	1883	17	1
2008	1899	1584	1887	4	4	
Fresh-water bathing waters	1990	217	78	131	45	0
	1991	271	102	178	64	0
	1992	301	65	183	110	0
	1993	312	86	202	87	0
	1994	346	89	221	89	0
	1995	222	69	149	70	0
	1996	302	85	195	92	7
	1997	251	70	170	63	2
	1998	215	76	157	51	1
	1999	213	68	163	23	21
	2000	202	63	160	29	10
	2001	185	62	148	6	27
	2002	181	69	154	12	14
	2003	171	72	164	4	3
	2004	170	75	161	2	7
	2005	165	75	159	2	4
	2006	171	70	155	8	3
	2007	174	66	152	12	4
2008	186	68	174	3	6	

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 Spain from 1990 to 2008 as percentages

		ES				
		Total number of bathing waters	% compliance with guide values	% compliance with mandatory values	% not compliant	% banned/closed throughout the season
Coastal bathing waters	1990	1189	65.8	86.5	13.0	0.0
	1991	1302	68.3	88.9	10.1	0.0
	1992	1334	73.4	92.8	7.2	0.0
	1993	1404	79.8	95.4	4.1	0.0
	1994	1489	83.4	96.1	3.2	0.0
	1995	1517	84.6	96.6	2.7	0.0
	1996	1571	85.3	96.5	2.9	0.0
	1997	1587	85.0	96.5	2.1	0.0
	1998	1596	85.6	97.6	1.9	0.3
	1999	1623	87.7	97.8	1.9	0.1
	2000	1634	88.8	98.1	1.5	0.2
	2001	1638	88.7	98.0	1.6	0.2
	2002	1773	88.6	98.3	1.1	0.1
	2003	1779	88.6	97.6	1.2	0.1
	2004	1826	89.5	98.9	0.8	0.2
	2005	1824	92.4	99.1	0.8	0.1
	2006	1863	92.7	98.9	0.7	0.0
	2007	1901	88.7	99.1	0.9	0.1
2008	1899	83.4	99.4	0.2	0.2	
Fresh-water bathing waters	1990	217	35.9	60.4	20.7	0.0
	1991	271	37.6	65.7	23.6	0.0
	1992	301	21.6	60.8	36.5	0.0
	1993	312	27.6	64.7	27.9	0.0
	1994	346	25.7	63.9	25.7	0.0
	1995	222	31.1	67.1	31.5	0.0
	1996	302	28.1	64.6	30.5	2.3
	1997	251	27.9	67.7	25.1	0.8
	1998	215	35.3	73.0	23.7	0.5
	1999	213	31.9	76.5	10.8	9.9
	2000	202	31.2	79.2	14.4	5.0
	2001	185	33.5	80.0	3.2	14.6
	2002	181	38.1	85.1	6.6	7.7
	2003	171	42.1	95.9	2.3	1.8
	2004	170	44.1	94.7	1.2	4.1
	2005	165	45.5	96.4	1.2	2.4
	2006	171	40.9	90.6	4.7	1.8
	2007	174	37.9	87.4	6.9	2.3
2008	186	36.6	93.5	1.6	3.2	

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 Spain in 2008

		ES				
		Total number of bathing waters	Compliance with guide values	Compliance with mandatory values	Not compliant	Banned/closed throughout the season
Bathing waters	2008	2085	1652	2061	7	10

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

4. Development of bathing water quality

Coastal bathing waters

In Spain, 99.4% of the coastal bathing waters (1887) met the mandatory water quality in 2008. This is approximately the same as in the previous year (+ 0.3%). The rate of the compliance with the guide values decreased by 5.3% to 83.4% of the bathing waters (1584). The number of non-compliant bathing waters with the mandatory values was four (0.2%) compared to 17 (0.9%) in the previous year. Four coastal bathing waters (0.2%) were also closed during the season compared to only one in the previous year.

Since 1990, bathing water quality improved in the Spanish coastal bathing waters. During the last five years 99% of the bathing waters met the mandatory water quality, which is a very good result. The compliance with the guide values reached above 90% in 2005 and 2006 and decreased by 10% in 2008. Since 1998, less than 0.5% of bathing waters were closed during the season, except for the 2006 season with no closed bathing water.

Freshwater bathing waters

93.5% of the freshwater bathing waters (174) met the mandatory water quality in 2008. This is an increase compared to the previous year (+ 6.2%). The rate of the compliance with the guide values decreased slightly by 1.4%, reaching 36.6% of the bathing waters (68). The percentage of the bathing waters that met the mandatory value for *Escherichia coli* is much larger as for the more stringent guide values (+ 57%). The number of non-compliant bathing waters with the mandatory values decreased from 12 (6.9%) to three bathing waters (1.6%). Six bathing waters (3.2%) have to be closed during the season compared to four in the previous year.

From 1990 onward there is an overall increase in the bathing water quality. The compliance with the mandatory values decreased in 2006 and 2007. This can be explained by the increasing number of freshwater bathing waters that did not comply with mandatory values. However, the compliance rate increased again in 2008, almost reaching the level of around 95% as in the 2003, 2004 and 2005 seasons. The percentage of bathing waters compliant with the more stringent guide values is fluctuating around 40% since 2002. Since 1996, the number of freshwater bathing waters being closed during the season fluctuated between one (0.5%) in 1998 and 27 (14.6%) in 2001.

5. General information as provided by the Spanish authorities

Introduction

In Spain, during the implementation of new legislation and as a tool for managing the quality of bathing waters and to facilitate the collection of information, the Ministry of Health has developed a national information system of bathing waters called "Nayade" [<http://nayade.msc.es>] supported by a web application, which was launched in January 2008 to be used by the competent authorities during the 2008 season and subsequent.

The data have been provided by the regional authorities responsible for monitoring the quality of bathing water in its territory, solely through the information system "Nayade".

Development of the basic and complementary legislation on water

The legislative action taken to reduce emissions of contaminants to the aquatic environment and thereby to help to improve the quality of bathing water has involved major amendments to the Water Act and the Regulation on Public Water Resources, which constitute the basic legislation on water, and the drafting of complementary legislation on the control and management of waste water discharges to the aquatic environment.

“Action plan” for zero tolerance on waste water discharges

In April 2005 the Environment Ministry launched an “Action plan” for waste water discharges. This consists of providing the Water Boards with the appropriate human, material and technical resources and setting priorities according to the volume of discharges and the danger they pose so that the action to be taken is as effective as possible and quickly benefits the receiving environment. These measures also make it possible to review discharge permits more quickly with a view to bringing them into line with the current legislation.

Initially, a budget of €2,752,704.89 was set aside for the “Action plan”, and the work was planned to be carried out over a period of 12 months. Subsequently, this period was extended to 24 months and the budget was increased to €8,327,806.97. In addition, a scheme has been launched for the inspection of all urban waste water discharges in every catchment area, with a budget of approximately €1.5 million per annum.

National water quality plan: Waste-water disposal and treatment 2007-2015

In cooperation with the Autonomous Communities, the Environment Ministry has drawn up the National water quality plan: waste-water disposal and treatment 2007-2015.

With this plan it will be possible to achieve a good status, in compliance with the requirements of the Water Framework Directive and the Environment Ministry’s Programme for the management and use of water (Programa A.G.U.A.).

The National water quality plan forms part of a series of measures aimed at full compliance with Directive 91/271/EEC and is intended to contribute to achieving the objective of good status by 2015 as provided for in the Water Framework Directive. The total budget estimation for the National water quality plan 2007-2015 is €19 007 million.

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

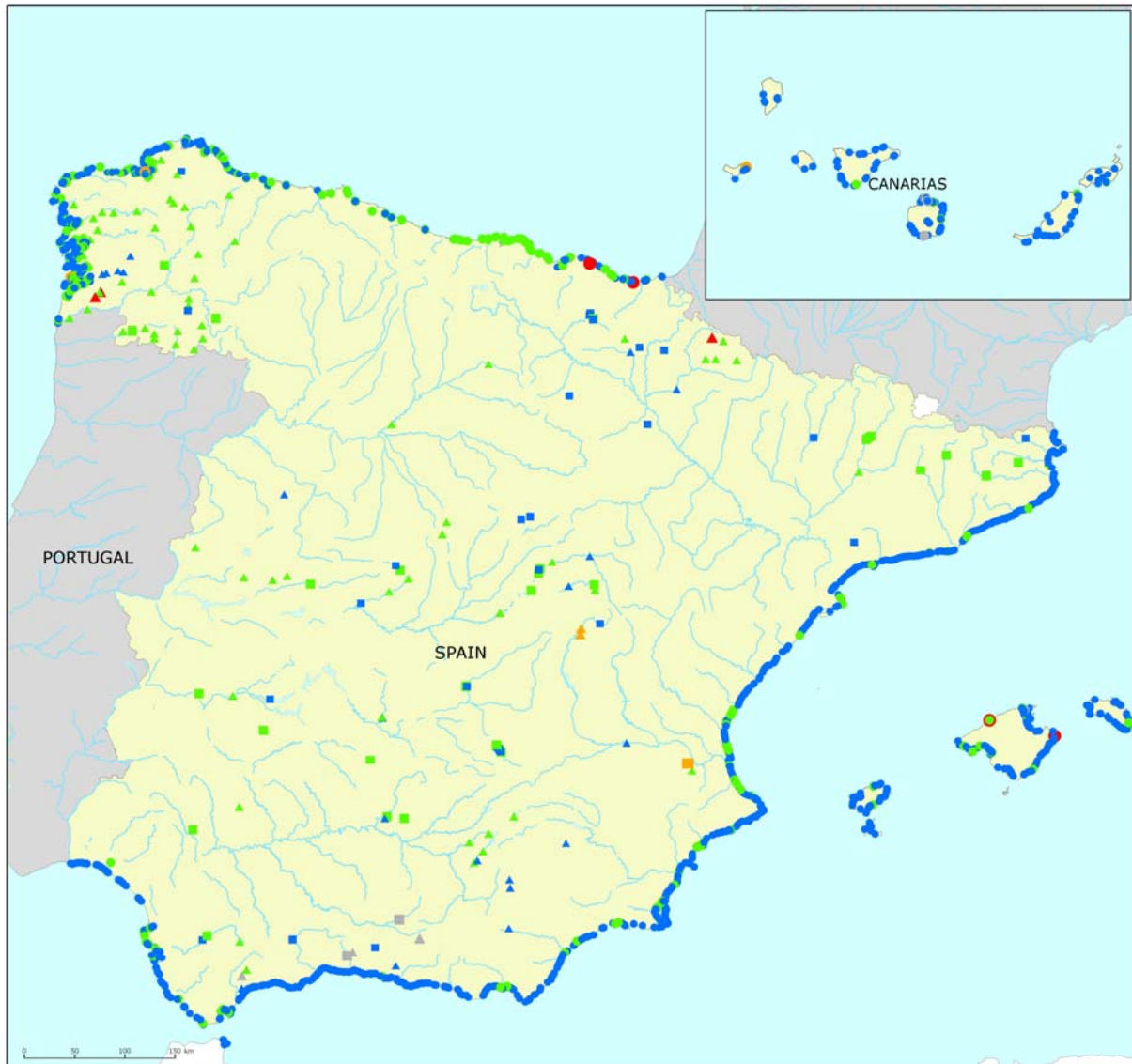
More information on bathing water quality in the European Member States, including the reports for 27 Member States and the EU summary report, can be found on the bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html).

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 Spain



Bathing water quality

Bathing waters on rivers

- ▲ Compliant with guide values
- ▲ Compliant with mandatory values
- ▲ Closed*
- ▲ Insufficiently sampled or not sampled
- ▲ Not compliant with mandatory values

Bathing waters on lakes

- Compliant with guide values
- Compliant with mandatory values
- Closed*
- Insufficiently sampled or not sampled
- Not compliant with mandatory values

Coastal/transitional bathing waters

- Compliant with guide values
- Compliant with mandatory values
- Closed*
- Insufficiently sampled or not sampled
- Not compliant with mandatory values

□ No data

■ Outside data coverage (data available, not presented on the map)

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: Spanish authorities