

Bathing water results 2009 – Italy

1. Introduction

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

Italy reported 12 parameters under the Directive 76/160/EEC (1 Total coliforms, 2 Faecal coliforms, 3 Faecal streptococci, 4 Salmonella, 5 Enteroviruses, 6 pH, 7 Colour, 8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices), 11 Transparency, 12 Dissolved oxygen).

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

For all bathing waters the bathing season lasted 4.5 months, from 15 May to 30 September 2009.

A total of 5 691 bathing waters were reported in Italy during the 2009 bathing season, of which 4 921 were coastal bathing waters and 770 freshwater bathing waters (60 on rivers; 710 on lakes). Six coastal bathing waters and 134 freshwater bathing waters were not monitored. 18 coastal bathing waters and one freshwater bathing water were insufficiently sampled. 1 459 bathing waters (1 441 coastal and 18 freshwater) were monitored with reduced frequency according to the Directive 76/160/EEC.

With 5 691 bathing waters Italy accounts for about 26.4% 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. The number of coastal bathing waters increased since the start of the reporting from 3 791 in 1990 to 4 929 in 2006 and 2007. It decreased slightly afterwards (4 921 in 2009). Similarly, the number of freshwater bathing waters increased from 614 in 1990 to 777 in 2007 and decreased slightly afterwards (770 in 2009). There were four more coastal and three more freshwater bathing waters in 2009 than in the previous year. In total, 15 new bathing waters were added to the list compared to the previous year, eight were re-introduced banned bathing waters and 16 were de-listed. Four coastal and two freshwater bathing waters were re-opened after a ban (closure) in the previous year(s).

3. Results of bathing water quality

The results of the bathing water quality in Italy for the period 1990-2008 as reported in 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:

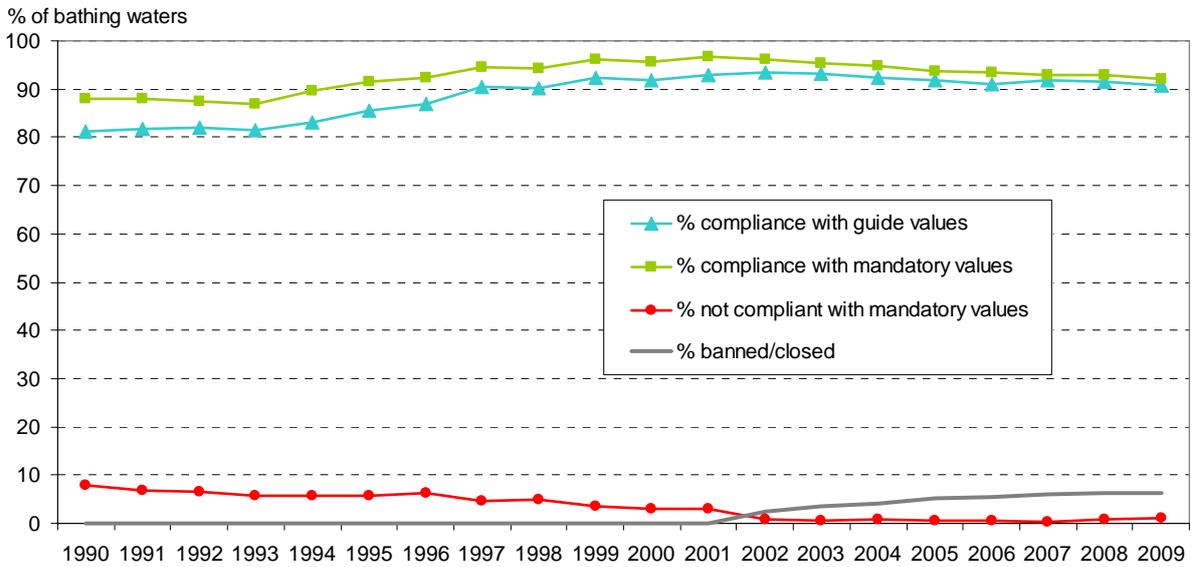
- The percentage of bathing waters that comply with the guide values (class CG, blue line);
- The percentage of bathing waters that comply with the mandatory values (class CI, green line);
- The percentage of bathing waters that do not comply with the mandatory values (class NC, red line);
- The percentage 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 Italy for all bathing waters.

Map 1 shows the locations of the reported bathing waters in Italy. The location of the bathing waters is based on the geographic coordinates reported by the Italian authorities.

Figure 1: Results of bathing water quality in Italy from 1990 to 2009

Coastal bathing waters (IT)



Freshwater bathing waters (IT)

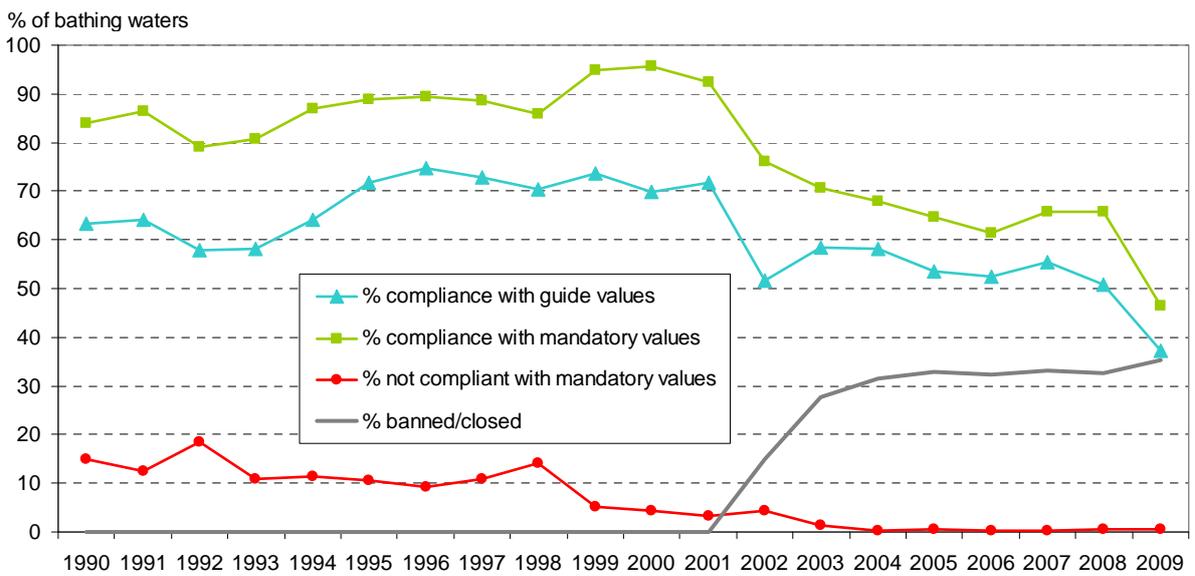


Table 1: Results of bathing water quality in Italy from 1990 to 2009

IT										
		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	1990	3791	3083	81.3	3340	88.1	300	7.9	0	0.0
	1991	3823	3128	81.8	3367	88.1	257	6.7	0	0.0
	1992	4034	3311	82.1	3533	87.6	265	6.6	0	0.0
	1993	4286	3493	81.5	3729	87.0	246	5.7	0	0.0
	1994	4541	3775	83.1	4073	89.7	263	5.8	0	0.0
	1995	4592	3924	85.5	4200	91.5	257	5.6	0	0.0
	1996	4688	4077	87.0	4333	92.4	297	6.3	0	0.0
	1997	4836	4369	90.3	4576	94.6	225	4.7	0	0.0
	1998	4868	4396	90.3	4593	94.4	240	4.9	0	0.0
	1999	4811	4445	92.4	4623	96.1	169	3.5	0	0.0
	2000	4819	4427	91.9	4607	95.6	138	2.9	0	0.0
	2001	4824	4481	92.9	4662	96.6	145	3.0	0	0.0
	2002	4850	4534	93.5	4663	96.1	39	0.8	125	2.6
	2003	4853	4527	93.3	4630	95.4	30	0.6	173	3.6
	2004	4884	4510	92.3	4627	94.7	35	0.7	196	4.0
	2005	4918	4521	91.9	4616	93.9	24	0.5	256	5.2
	2006	4929	4491	91.1	4605	93.4	22	0.4	262	5.3
	2007	4929	4521	91.7	4580	92.9	18	0.4	300	6.1
	2008	4917	4496	91.4	4563	92.8	42	0.9	302	6.1
	2009	4921	4467	90.8	4536	92.2	51	1.0	310	6.3
Freshwater bathing waters	1990	614	388	63.2	515	83.9	92	15.0	0	0.0
	1991	614	394	64.2	530	86.3	76	12.4	0	0.0
	1992	621	360	58.0	491	79.1	114	18.4	0	0.0
	1993	667	387	58.0	538	80.7	73	10.9	0	0.0
	1994	681	437	64.2	592	86.9	77	11.3	0	0.0
	1995	695	498	71.7	618	88.9	74	10.6	0	0.0
	1996	697	520	74.6	624	89.5	65	9.3	0	0.0
	1997	740	538	72.7	655	88.5	81	10.9	0	0.0
	1998	737	518	70.3	632	85.8	104	14.1	0	0.0
	1999	724	534	73.8	686	94.8	38	5.2	0	0.0
	2000	711	497	69.9	681	95.8	30	4.2	0	0.0
	2001	726	521	71.8	671	92.4	24	3.3	0	0.0
	2002	762	393	51.6	580	76.1	34	4.5	113	14.8
	2003	775	452	58.3	547	70.6	10	1.3	215	27.7
	2004	779	454	58.3	529	67.9	2	0.3	245	31.5
	2005	766	411	53.7	496	64.8	5	0.7	252	32.9
	2006	776	408	52.6	477	61.5	3	0.4	251	32.3
	2007	777	430	55.3	510	65.6	2	0.3	258	33.2
	2008	767	390	50.8	505	65.8	5	0.7	251	32.7
	2009	770	287	37.3	357	46.4	5	0.6	273	35.5

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. 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 Italy in 2009

IT										
		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	5691	4754	83.5	4893	86.0	56	1.0	583	10.2

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. 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 Italy, 92.2% of the coastal bathing waters met the mandatory values and 90.8% of the coastal bathing waters met the more stringent guide values in 2009. This is a slight decrease of 0.6% compared to the previous year in terms of both the mandatory values and the guide values. The number of non-compliant bathing waters with the mandatory values increased slightly from 42 (0.9%) to 51 (1%). 310 coastal bathing waters (6.3%) were closed (banned) during the season compared to 302 (6.1%) in 2008.

For the coastal bathing waters in Italy, both the compliance rate with the mandatory values and guide values increased from 1990 to 1999, and then stayed relatively stable above 90%. Since 2005, the rates stayed approximately the same, but below the highest rates from 1999 to 2003. Since 2002, the number of bathing waters that were closed (banned) during the season increased from 125 (2.6%) to 310 (6.3%) in 2009.

Freshwater bathing waters

46.4% of the freshwater bathing waters met the mandatory values in 2009. This is a significant decrease of 19.4% compared to the previous year. The compliance with the guide values was 37.3%, which is a decrease of 13.5%. Five bathing waters (0.6%) were not compliant with the mandatory values, the same as in 2008. 273 freshwater bathing waters (35.5 %) were closed (banned) during the season compared to 251 (32.7%) in 2008.

Overall, the compliance rate of the freshwater bathing waters with the mandatory values and guide values decreased since 1990. The rate of compliance with the mandatory values was the highest (more than 92%) from 1999 to 2001. More than 70% of the bathing waters met the guide values from 1995 to 2001. Since 2002, the compliance rate decreased due to the large percentage of closed (banned) bathing waters during the season. Similarly as for the coastal bathing waters, the number of closed freshwater bathing waters increased. There were 113 closed bathing waters (14.8%) in 2002 compared to 273 (35.5 %) in 2009. The compliance rate of freshwater bathing waters in Italy can still be improved by reducing the number of closed (banned) bathing waters.

5. General information as provided by the Italian authorities

Information for the public

From April to September, every year, the monitoring of Italian bathing water is made according to the Directive 76/160/EEC, with two samples taken each month for about 5 000 stations.

Local and National authorities every year before the start of the bathing season, held a press conference with the aim to inform the public of the situation of bathing water of Italy and of the single Regions. Furthermore, the Ministry of Health has a web site <http://www.ministerosalute.it/balneazione/balneazione.jsp> through which the citizen have access to all the information concerning bathing water and the process of implementation of the Legislative Decree

of the Directive 2006/7/EC. In a peculiar way users can look over the areas where bathing is prohibited, download the annual report on bathing water monitoring and view the cartography.

In order to make information to the public more effective, Italy is going to publish a national web portal on water at www.portaleacqua.it. This web site with a simple access can be easily consulted from the public. It provides updated information and is able to incorporate users feedback. The citizens will be allowed to advance observations, proposals and claims in compliance with Article 11 of the Directive 2006/7/EC. The web portal was made in order to comply with the requirements of Article 12 paragraph 2 the Directive 2006/7/EC on public information and provide a real time and detailed information for each single bathing water area that can be view on Google Maps.

Local authorities, that have the duty to prepare, review, and update the Inventory of bathing water according to Article 3 paragraph 1 of the Directive 2006/7/EC, have pursuit public participation by implementing and increasing the actions for the definition, delimitation and assessment of the bathing water monitored stations and of the coastal stretches of the station. This work is made annually with the Comuni and the technical territorial structure for environment and health, and results in an official document for the classification of the bathing water.

This act is eventually transmitted with the aim to advertise and spread to all of the Comuni concerned and the public central authorities concerned the information.

Furthermore the web site of the each Regions have guided access to web-gis systems in which is possible to find bathing water stations together with georeferred information and quality assessments according to the Legislative Decree 155/99. To be updated soon according to the Legislative Decree 152/06 of implementation of the Directive 2000/60/EC.

Wastewater treatment

In compliance with Italian Legislation (Legislative Decree No. 152/2006) and the Water Framework Directive (2000/60/EC), water protection is carried out at the river basin level. The measures for the improvement of bathing waters are not limited to the coastal zone, but also include reduction of the pollution load from catchments area. With the emanation of the Decree 152/2006, several new sensitive areas have been designated as zones that needs particular measures to prevent pollution with reference to waste water treatment and to nutrients decrement. With particular reference to bathing waters, the Northern Adriatic coast is one of these new areas.

To optimise the improvement measures since 2002 the Italian Ministry of the Environment established an agreement, under the framework programme on the water protection with all the Italian Regions. These measures include wastewater treatment systems and other actions. The agreement provided for over 17 billion Euro to be invested in wastewater treatment systems. At present there are about 3 200 interventions, 65% have been completed or have to tested and the other are in advanced course of action.

Control of diffuse pollution sources

Concerning this issue, with reference to agriculture, all the Italian Regions that designated vulnerable zones on their territories, have implemented action programmes pursuant to Article 5 of the Directive 91/676/EEC also able to tackle particular local situations. Besides, the Italian legislation, through the Ministerial Decree 7th April 2006, lays down provisions also for non designated zones which are often as strict as those included in the regional action programmes, enabling a water protection from diffuse sources on whole national territory.

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 Italy



Bathing water quality			No data
Bathing waters on rivers	Bathing waters on lakes	Coastal/transitional bathing waters	No data
▲ Compliant with guide values	■ Compliant with guide values	● Compliant with guide values	□ No data
▲ Compliant with mandatory values	■ Compliant with mandatory values	● Compliant with mandatory values	■ Outside data coverage (data available, not presented on the map)
▲ Closed*	■ Closed*	● Closed*	
▲ Insufficiently sampled or not sampled	■ Insufficiently sampled or not sampled	● Insufficiently sampled or not sampled	
▲ Not compliant with mandatory values	■ Not compliant with mandatory values	● Not compliant with mandatory values	

Note: * banned or closed (temporarily or 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: EEA, WFD Article 3, Bathing waters data and coordinates: Italian authorities