

Bathing Water Directive report 2013

Italy

The report gives a general overview of information acquired from the reported data, based on provisions of the Bathing Water Directive¹. The reporting process is described below, as well as state and trends of bathing water quality in Italy.

1. BWD reporting in 2013 season

In 2013 bathing season, 5511 bathing waters have been reported in Italy. For each bathing water, five groups of parameters have been delivered:

- *basic identification data* – including name, location, geographic type of bathing water and availability to bathers;
- *seasonal data* – including season start and end, national quality classification in present season, potential management measures and changes in quality;
- *monitoring results* – disaggregated numerical values of two microbiological parameters – intestinal enterococci and Escherichia coli (also known as E. coli), recorded at each water sample taken;
- *abnormal situation periods* – periods of unexpected situations that have, or could reasonably be expected to have, an adverse impact on bathing water quality and on bathers' health; reporting is optional;
- *short-term pollution periods* – identifiable events that adversely affect water quality by faecal contamination; reporting is optional;

Bathing waters of Italy in 2013	
Total reported	5511
Coastal	4867
Inland	644
Season period	152 / 212 days
Coastal	1 Apr to 30 Oct
Inland	1 May to 30 Sep
Samples taken	37411
Share of bathing waters with good or excellent water quality	93 %
New BWD implemented in	2010

The authorities of Italy initiated new BWD (2006/7/EC) reporting in 2010 season. The 2013 season data were delivered to the European Commission by **31 December 2013**, with additional deliveries on 4 February 2014, 6 February 2014, 19 February 2014 and 18 March 2014.

Altogether, **5511 bathing waters** have been reported – 25.0% of all bathing waters in Europe. Out of all bathing waters in Italy, 21 (0.38%) have been newly identified in 2013 season. 19 bathing waters have been delisted². 88% of bathing waters in Italy are of coastal type; the other 12% are inland. **37,411 samples** were taken at bathing waters throughout the season – seven per bathing water on average.

¹ Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>

² Bathing waters which were identified in 2012 season, but not in 2013 season

The bathing season period was from 1 April to 30 October for coastal bathing waters, i.e. 212 days altogether. Season duration varies for coastal bathing waters. Inland bathing season period was from 1 May to 30 September, i.e. 152 days. Season duration varies for inland bathing waters.

In 2013, bathing waters of Italy have been assessed according to rules of the BWD (2006/7/EC) for the first time. The authorities have also reported corrected data for previous seasons.

568 bathing waters (10 % of all bathing waters) have been reported in a total of 240 groups.

Abnormal situations have been reported at six bathing waters. Additionally, 158 short-term pollution events have been reported at 142 bathing waters.

Detailed information on individual bathing waters is available from national bathing water profiles at <http://www.portaleacqua.salute.gov.it/PortaleAcquePubblico/home.do>.

2. Assessment methodology

During the bathing season, water samples are taken and analysed for two bacteria, *Escherichia coli* and intestinal enterococci which may indicate the presence of pollution, usually originating in sewage or livestock waste. The results of the analysis are used to assess the quality of the bathing waters concerned and to provide information to the public on the quality of the water in the bathing sites concerned.

According to the BWD, the bathing water sample dataset should satisfy the following conditions:

- a minimum of one sample per month³
- a minimum of four samples per season⁴
- a minimum of 16 samples in total⁵
- four consecutive seasons⁶
- a pre-season sample⁷

The monitoring took place at all identified bathing waters, while 94% of bathing waters satisfied the described sampling frequency rules set by the Directive. Table 1 shows the share of bathing waters that did not satisfy monitoring frequency, as well as corresponding reasons.

³ The interval between two samples should not exceed 31 + 4 days, provided that the next sampling is done according to the monitoring calendar; exception applies for temporarily closed bathing waters

⁴ Three samples if the season does not exceed eight weeks or the region is subject to special geographical constraints

⁵ 12 samples if the season does not exceed eight weeks or the region is subject to special geographical constraints

⁶ The condition does not apply if the bathing water is newly identified or any changes have occurred that are likely to affect the classification

⁷ A pre-season sample is taken into account at total number of samples per season

Table 1: Number of assessed bathing waters in 2013

Total number of bathing waters in 2013	Bathing waters with sampling frequency satisfied	Bathing waters with sampling frequency not satisfied			
		Insufficiently sampled	Closed	Not sampled	Total
5511	5153	356	2	0	358

However, in pursue of maximum possible count of bathing waters to be taken into account for statistical purposes, limited number of other bathing waters have been assessed as well. This includes all bathing waters that have set of samples for a competent quality classification, but lack pre-season sample or frequency between sample dates is larger than defined in the directive. However, samples have to be equally distributed throughout the season.

Bathing waters are accordingly classified to one of the BWD quality classes:

- excellent
- good
- sufficient
- poor

The classification is based on pre-defined percentile values for microbiological enumerations, falling in the certain class given in Annex I of the Directive. This defines different limit values for coastal and inland waters.

3. Bathing water quality

The results of the bathing water quality in Italy for the period of 2010–2013 as reported in the past reporting years and for the bathing season of 2013 are presented in Figure 1 (for coastal bathing waters) and Figure 2 (for inland bathing waters). The previous reports are available on the European Commission's bathing water quality website⁸ and the European Environment Agency's bathing water website⁹.

3.1 Coastal bathing waters

In Italy, 96.6% of coastal bathing waters met at least sufficient water quality in 2013. No coastal bathing waters had to be closed during the bathing season. See Appendix 1 for numeric data.

⁸ http://ec.europa.eu/environment/water/water-bathing/index_en.html

⁹ <http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>

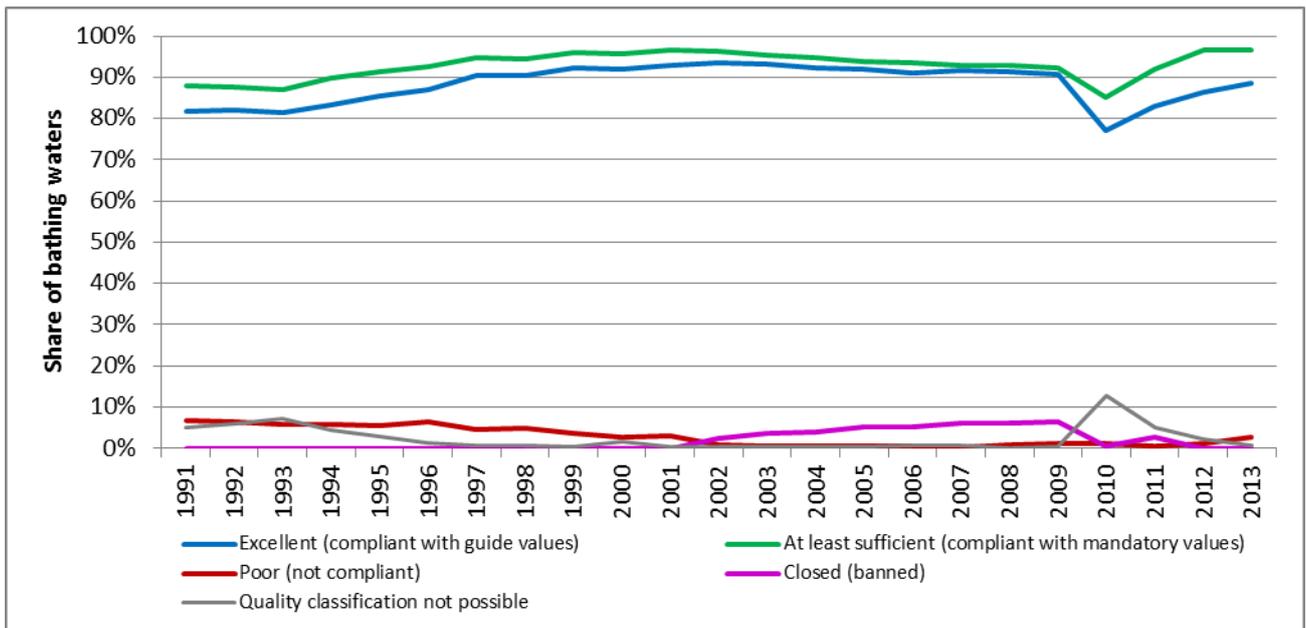


Figure 1: Coastal bathing water quality trend in Italy. Note: the “At least sufficient” class also includes bathing waters of “Excellent” quality class, the sum of shares is therefore not 100%.

3.2 Inland bathing waters

81.2% of the inland bathing waters met at least sufficient water quality in 2013. 0.3% of bathing waters had to be closed during the bathing season. See Appendix 1 for numeric data.

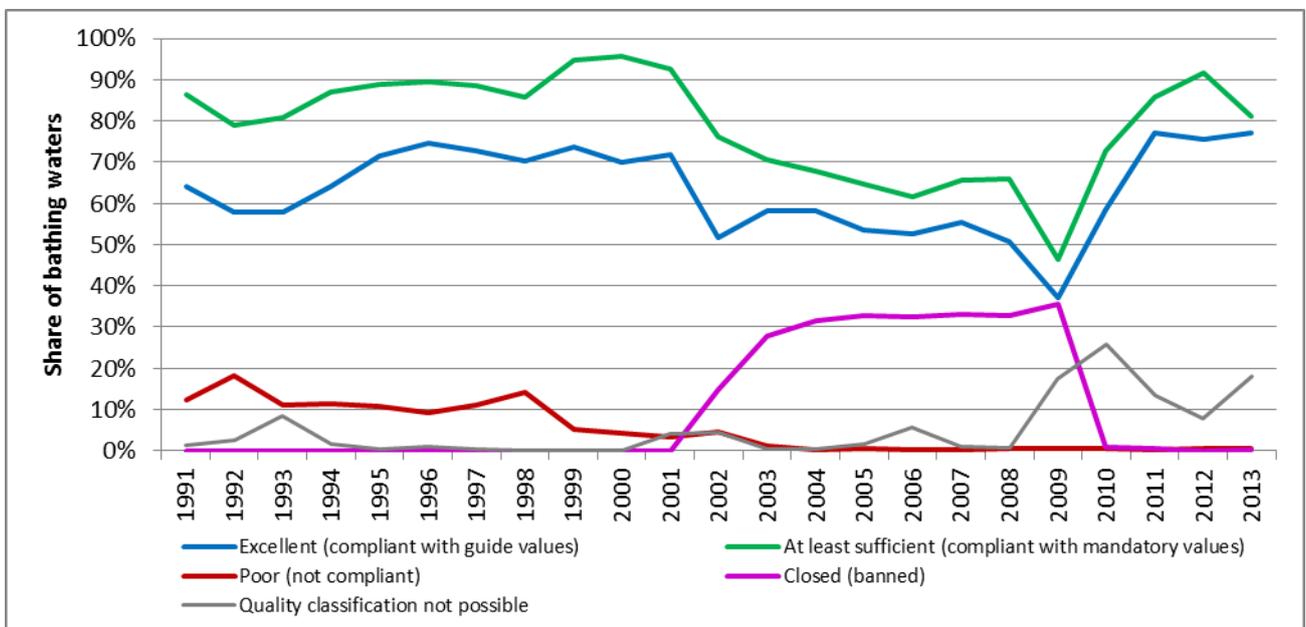


Figure 2: Inland bathing water quality trend in Italy. Note: the “At least sufficient” class also includes bathing waters of “Excellent” quality class, the sum of shares is therefore not 100%.

4. Information regarding management and other issues

The Ministry of Health informs the citizens about bathing water quality. This includes analytical results of the monitoring for each bathing water; the status of bathing water area, with indication of the temporary and permanent prohibition, revocations of the prohibition; established bathing water profiles; maps of bathing areas; regarding citizens' reports and answering their questions, forwarding their reports to the competent regional authorities; and publishing relevant documentation to inform citizens about the management measure of bathing water.

Regions are in charge of undertaking monitoring activities, sending data to the Ministry of Health and publishing it on their websites. The regions have meetings with citizens and other stakeholders for public participation.

Municipalities give orders and revocations of temporary prohibition as a result of communication made by ARPA (Regional Agency for Environmental Prevention) concerning exceeding limit values for the single sample as required by the Ministerial Decree of 30 March 2010. Municipalities also designate and sign the bathing water areas with all the information required by the Directive. Moreover, the Municipality sends the orders and revocations to the Ministry of Health, for publication on the portal Waters. Necessary interventions for environmental remediation of water of poor quality are also provided at the municipal level.

5. Interactive information on bathing water quality in Europe

The bathing water section of the Water Information System for Europe (WISE), which is accessible at the EEA bathing water website (<http://www.eea.europa.eu/themes/water/interactive/bathing/state-of-bathing-waters>), allows users to view the bathing water quality at more than 22 000 coastal beaches and inland sites across Europe. Data is aggregated and visualized on national and station level. Detailed information regarding specific bathing site are given in pop-up windows (can be activated with a click on a selected bathing location) and bathing water profiles which can be opened through hyperlinks in pop-up windows.

The data on bathing water quality in 2013 and previous years can also be viewed in WISE bathing water data viewer, an application prepared by TC Vode (<http://bwd.eea.europa.eu/>). The WISE bathing water quality data viewer combines text and graphical visualisation, providing a quick overview of the locations of coastal and inland bathing waters, as well as statistics on their quality. Specific bathing water locations can be observed on Google Earth, Google maps or Bing maps.

Appendix 1: Results of bathing water quality in Italy from 2010 to 2013

		Total	Excellent (compliant with guide values)		At least sufficient (compliant with mandatory values)		Poor (not compliant)		Closed (banned)		Quality classification not possible*	
			No	%	No	%	No	%	No	%	No	%
Coastal	2010	4896	3779	77.2	4174	85.3	57	1.2	33	0.7	632	12.9
	2011	4902	4069	83.0	4506	91.9	21	0.4	133	2.7	242	4.9
	2012	4880	4213	86.3	4712	96.6	61	1.3	1	0.0	106	2.2
	2013	4867	4309	88.5	4703	96.6	135	2.8	0	0.0	29	0.6
Inland	2010	596	348	58.4	433	72.7	4	0.7	5	0.8	154	25.8
	2011	647	499	77.1	555	85.8	2	0.3	4	0.6	86	13.3
	2012	629	475	75.5	576	91.6	4	0.6	0	0.0	49	7.8
	2013	644	497	77.2	523	81.2	3	0.5	2	0.3	116	18.0
Total	2010	5492	4127	75.1	4607	83.9	61	1.1	38	0.7	786	14.3
	2011	5549	4568	82.3	5061	91.2	23	0.4	137	2.5	328	5.9
	2012	5509	4688	85.1	5288	96.0	65	1.2	1	0.0	155	2.8
	2013	5511	4806	87.2	5226	94.8	138	2.5	2	0.0	145	2.6

Note: the "At least sufficient" class also includes bathing waters which are of excellent quality, the sum of shares is therefore not 100%. * This includes new bathing waters, bathing waters with changes that affect or could have affected bathing water quality, and bathing waters that do not have enough samples.

Appendix 2: Bathing water quality map

Map 1: Bathing waters reported during the 2013 bathing season in Italy



Bathing water quality

- Excellent water quality
- Good water quality
- Sufficient water quality
- Poor water quality
- Closed temporarily or throughout the season
- Quality classification not possible: new bathing waters / bathing waters with changes / not enough samples

□ No data

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

Source: National boundaries: EEA; Large rivers and lakes: EEA, WFD Article 3; Bathing waters data and coordinates: Italian authorities