



Bathing water results 2012 – Bulgaria

1. Reporting and assessment

In 2012 the Bulgarian authorities reported under Directive 2006/7/EC provisions a list of their bathing waters, start and end of bathing season for each bathing water, short term pollution events, events impacting bathing water quality and measured values of concentrations of two microbiological parameters — intestinal enterococci and *Escherichia coli* (also known as *E. coli*). This report gives a general overview of bathing water quality in Bulgaria for the 2012 bathing season. Bulgaria has reported under the Directive 2006/7/EC since 2011.

The Annex IV of the new Directive requires a sample to be taken shortly before the start of the bathing season. Sampling dates are to be distributed throughout the bathing season, with the interval between sampling dates never exceeding one month. Taking into account one pre-season sample, no fewer than four samples are to be taken and analysed per bathing season. Three samples need be taken and analysed per bathing season in the case of a bathing water that either has a bathing season not exceeding eight weeks or is situated in a region subject to special geographical constraints. The result of such monitoring is used to build up the sets of bathing water quality data. Before the necessary data set for assessment of bathing water quality under the Directive 2006/7/EC is compiled (data for four consecutive years) the rules for transition period assessment are applied. This means that the classification of bathing waters is defined on the basis of concentrations of intestinal enterococci and *Escherichia coli* that are reported under the Directive 2006/7/EC in 2012.

Bathing water quality in 2012 season in Bulgaria is assessed under the transition period rules, where the new Directive monitoring frequency requirements should be fulfilled. One pre-season sample should be available and the interval between sampling dates in 2012 should never exceed 35 days, provided that the next sampling is done according to the monitoring calendar.

The limit values for the classification are taken from the Directive 76/160/EEC. For the conversion of reported parameters under the Directive 2006/7/EC, Article 13.3 of the Directive 2006/7/EC foresees that the parameter *Escherichia coli*, reported under the Directive 2006/7/EC, is assumed to be equivalent to the parameter faecal coliforms of the Directive 76/160/EEC. The parameter intestinal enterococci reported under the Directive 2006/7/EC is assumed to be equivalent to the parameter faecal streptococci.

The results are classified in the following categories:

- **Class CI:** Compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli* and not compliant with the guide values of the Directive 76/160/EEC for *Escherichia coli* or intestinal enterococci;
- **Class CG:** 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 NC:** Not compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli*;
- **Class B:** Banned or closed;
- **Class NF:** Insufficiently sampled;
- **Class NS:** Not sampled.

2. Length of bathing season and number of bathing waters

The bathing season started between 15 May and 25 June 2012 and ended between 31 August and 30 September 2012 for coastal bathing waters. Inland bathing waters opened on 1 or 18 June 2012 and closed on 30 or 31 August 2012.

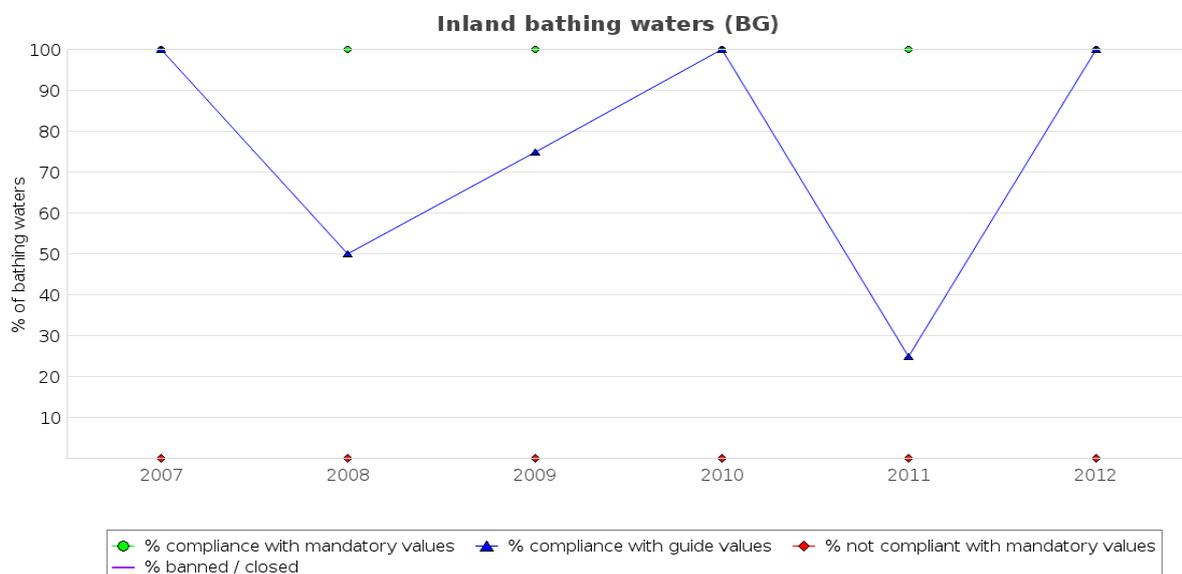
A total of 93 bathing waters were monitored in Bulgaria during the 2012 bathing season, of which 89 were coastal bathing waters and four were inland bathing waters (0 on rivers; four on lakes). There are very few inland bathing waters due to lack of tradition to bath on rivers or lakes.

With 93 reported bathing waters Bulgaria accounts for about 0.4 % of the reported bathing waters of the European Union.

3. Bathing water quality

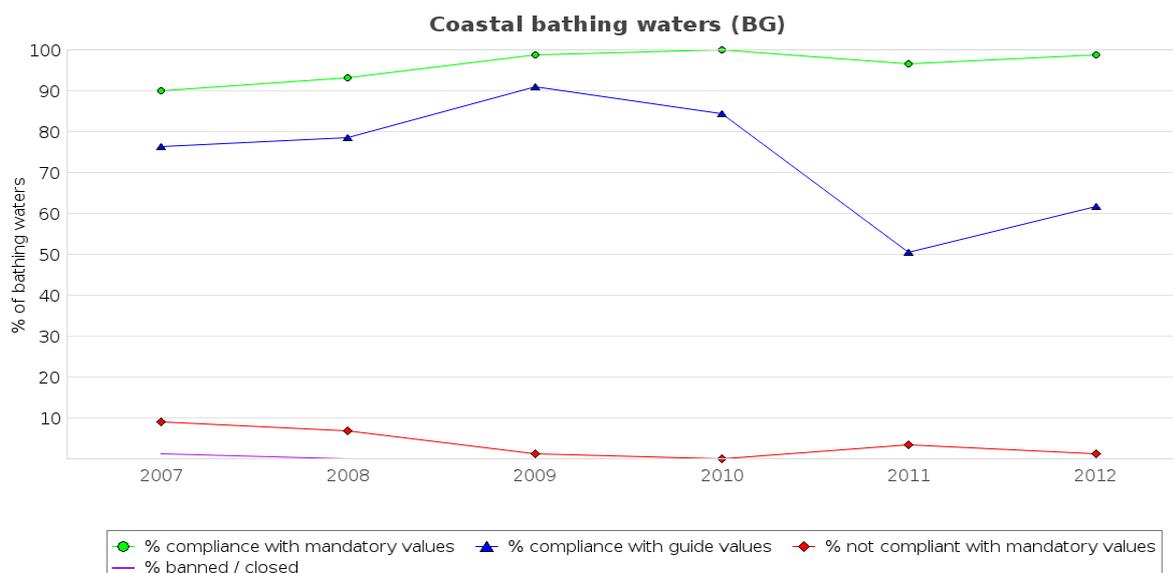
The results of the bathing water quality in Bulgaria for the period 2007-2012 are presented in Figure 1¹. The previous reports are available on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html) and the European Environment Agency's bathing water website (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>).

Figure 1: Results of bathing water quality in Bulgaria from 2007 to 2012.



¹ The graphs show, for coastal and inland 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 (class B, violet line).



Note: Data until 2008 are available in the previous reports at http://ec.europa.eu/environment/water/water-bathing/index_en.html

Table 1 shows the same information in absolute numbers and in percentages separately for inland and coastal and all bathing waters from 2008 on. The numbers and percentages of insufficiently sampled or not sampled bathing waters are also presented. A map given in Appendix 1 shows the location and quality of the bathing waters.

Coastal bathing waters

In Bulgaria, 98.9 % of the coastal bathing waters met the mandatory water quality in 2012. This is an increase of 2.3 % compared to the previous year. The rate of compliance with the guide values increased from 50.6 % to 61.8 %. One bathing water (1.1 %) was non-compliant with the mandatory value for *Escherichia coli* compared to three in 2011, which is a decrease of 2.3 %. As in 2011 no coastal bathing water had to be closed during the bathing season in 2012.

Inland bathing waters

All inland bathing waters met the mandatory water quality in 2012, the same as in the previous year. The rate of compliance with the guide values increased from 25.0 % to 100.0 %. As in 2011 no inland bathing water had to be closed during the bathing season in 2012.

Table 1: Results of bathing water quality in Bulgaria from 2008 to 2012

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		Total number of bathing waters	Compliance with guide and mandatory values*		Compliance with mandatory value		Not compliant		Banned/closed		Insufficiently sampled or not sampled	
			number	%	number	%	number	%	number	%	number	%
Coastal bathing waters	2008	89	70	78.7	83	93.3	6	6.7	0	0.0	0	0.0
	2009	89	81	91.0	88	98.9	1	1.1	0	0.0	0	0.0
	2010	90	76	84.4	90	100.0	0	0.0	0	0.0	0	0.0
	2011	89	45	50.6	86	96.6	3	3.4	0	0.0	0	0.0

	2012	89	55	61.8	88	98.9	1	1.1	0	0.0	0	0.0
Inland bathing waters	2008	4	2	50.0	4	100.0	0	0.0	0	0.0	0	0.0
	2009	4	3	75.0	4	100.0	0	0.0	0	0.0	0	0.0
	2010	4	4	100.0	4	100.0	0	0.0	0	0.0	0	0.0
	2011	4	1	25.0	4	100.0	0	0.0	0	0.0	0	0.0
	2012	4	4	100.0	4	100.0	0	0.0	0	0.0	0	0.0
All bathing waters	2008	93	72	77.4	87	93.5	6	6.5	0	0.0	0	0.0
	2009	93	84	90.3	92	98.9	1	1.1	0	0.0	0	0.0
	2010	94	80	85.1	94	100.0	0	0.0	0	0.0	0	0.0
	2011	93	46	49.5	90	96.8	3	3.2	0	0.0	0	0.0
	2012	93	59	63.4	92	98.9	1	1.1	0	0.0	0	0.0

*Bathing waters which were compliant with the guide values were also compliant with the mandatory values for five parameters under the Directive 76/160/EEC (2007-2012) or the mandatory value for Escherichia coli (2012).

4. Important information as provided by the Bulgarian authorities

The results from bathing water quality monitoring are made public through websites and through the media. Information is also available on the website of Ministry of Health (<http://www.mh.government.bg/Articles.aspx?lang=bg-BG&pageid=507>).

One bathing water in Bulgaria was classified Not compliant with the mandatory values: Zlatni Pyasatsi – Psov in the commune of Varna (BG3310610135003001).

Regarding Directive 91/271/EEC and related to Bathing Water Directive, Bulgaria has identified part of the national territory as a sensitive area according to the requirements of the Directive, including the whole Bulgarian Black Sea Region. **27 wastewater treatment plants** serving agglomerations of above 2000 p.e. exist in the Black Sea Region, which serve 33 agglomerations. For the rest 25 agglomerations of above 2000 p.e. in the Black Sea basin with no treatment, the necessary treatment should be provided in the years until the end of 2014.

For decreasing the **diffuse pollution sources**, Republic of Bulgaria provides a system of measures, aiming full implementation of Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources that include defining the polluted water, the water in risk of pollution and the vulnerable zones. The area of vulnerable zones in Bulgaria is 34% of the whole territory. After the polluted water identification, Code of Good Agricultural Practice and action programme were adopted, together with training programme for farmers.

Although significant pollution of the superficial waters and significant level of eutrophication have not been ascertained on the national territory, the above mentioned action programme provides concrete measures for the prevention and the reduction of the surface waters' pollution from agricultural sources. The Black Sea Coast Law establishes two kinds of protection zones (up to 2.1 km from the sea coast and alongside the whole Bulgarian coast's length) where the use of mineral fertilizers and plant protection products is forbidden.

Further information on monitoring by Bulgarian authorities was made available in a separate document (http://cdr.eionet.europa.eu/bg/eu/nbwd/envuoxehw/Annex_to_ManMeas_BG_2012.doc).

5. General information on bathing water quality in Europe in 2012

From more than 22 000 bathing areas monitored throughout Europe in 2012, around two thirds were in coastal waters and the rest were in rivers and lakes. In the 2012 bathing season, the monitoring of bathing sites has been adjusted to the provisions in the EU's new bathing water directive (Directive 2006/7/EC). The sampling of water quality in most of the bathing water sites meets the frequency standards (this involves a pre-season sample of the water quality, followed up by monthly samples thereafter). As regards assessment, the provisions in the new bathing water directive have been applied in 19 European countries (Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Spain, Spain, Sweden). This involved taking data from four years of monitoring to make the 2012 assessment. For the remaining ten countries, the 2012 assessment has been carried out under a set of transitional rules that do not yet meet all the requirements of the new directive using the results from the 2012 monitoring.

In 2012, the quality of 94 % of all bathing waters met at least the minimum 'mandatory' level (corresponding to a rating of sufficient quality under the new directive). Bathing water quality improved at 1.8 % of sites in 2012 compared with 2011, and at 2.5 % of sites compared with 2010. There has also been a marked decline compared with 2011 in the number of bathing waters that were closed or that prohibited bathing.

In 2012, 95.3 % of coastal bathing waters in the EU-27 achieved the minimum quality standards requested by the EU directives — an increase of 2.0 % compared with 2011. The share of coastal bathing waters with excellent quality (or complying with the guide values) in 2012 reached 81.2 % (an increase of 0.9 % from 2011).

The percentage of inland bathing waters with excellent quality is 72 % in 2012, a 1.6 % increase from 2011. In 2012, 91 % of inland bathing waters in the European Union had good or sufficient quality. This is a 1.0 % point increase from 2011. Only 2.3 % of inland bathing waters in the EU did not satisfy the minimum quality level. This is 0.1 % decrease from the previous year, continuing the slow but steady reduction in the percentage of poor quality bathing waters.

The "European bathing water quality in 2012" report presents the results and trends in bathing water quality in 2012 in Europe (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>). More information on bathing water quality as prepared for all reporting countries can be found on the European Environment Agency's bathing water website. The reports for the 2012 season have been produced by TC Vode, European Topic Center ICM Waters partner with support of the Institute for Water of the Republic of Slovenia (IWRs). Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

6. 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/status-and-monitoring/state-of-bathing-water>), allows users to view the bathing water quality at more than 22 000 coastal beaches and inland sites across Europe. Users can check bathing water quality on an interactive map, download data for a selected country or region, and make comparisons with previous years. The Eye on Earth — Water Watch application (<http://eyeonearth.org/map/WaterWatch/>) allows users to zoom in on a section of coast, riverbank or lake, both in street map or, where available, bird's eye viewing formats. The data on bathing water quality in 2012 and previous years can also be viewed in WISE bathing water data viewer, an application prepared by TC Vode (<http://bwd.eea.europa.eu/>).

In order to make information to the public more effective, all EU countries have national or local web portals with detailed information for each bathing water site.

Appendix 1

Map 1: Bathing waters reported during the 2012 bathing season in Bulgaria



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