

Bathing water results 2009 – Bulgaria

1. Introduction

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

Bulgaria reported 14 parameters under the Directive 76/160/EEC (1 Total coliforms, 2 Faecal coliforms, 3 Faecal streptococci, 4 Salmonella, 6 pH, 7 Colour, 8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices), 12 Dissolved oxygen, 13 Tarry residues and floating materials, 14 Ammonia, 17 Heavy metals, 19 Nitrates and phosphates).

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

The bathing season started on 1 or 15 June and ended from 1 to 30 September 2009 for coastal bathing waters, except for three bathing waters opened on 15 May and eight bathing waters opened on 1 July. The bathing season started on 1 or 15 June and ended on 31 August or 1 September 2009 for freshwater bathing waters.

A total of 93 bathing waters were monitored in Bulgaria during the 2009 bathing season, of which 89 were coastal bathing waters and four freshwater bathing waters on lakes. The limited number of freshwater bathing waters is due to several reasons.

With 93 bathing waters Bulgaria accounts for about 0.4% 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. Since the start of the reporting in 2007, the number of coastal bathing waters remained the same. Similarly, the number of freshwater bathing waters remained stable. It started with three in 2007 and increased to four in 2008 and 2009.

3. Results of bathing water quality

The results of the bathing water quality in Bulgaria for 2007 and 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:

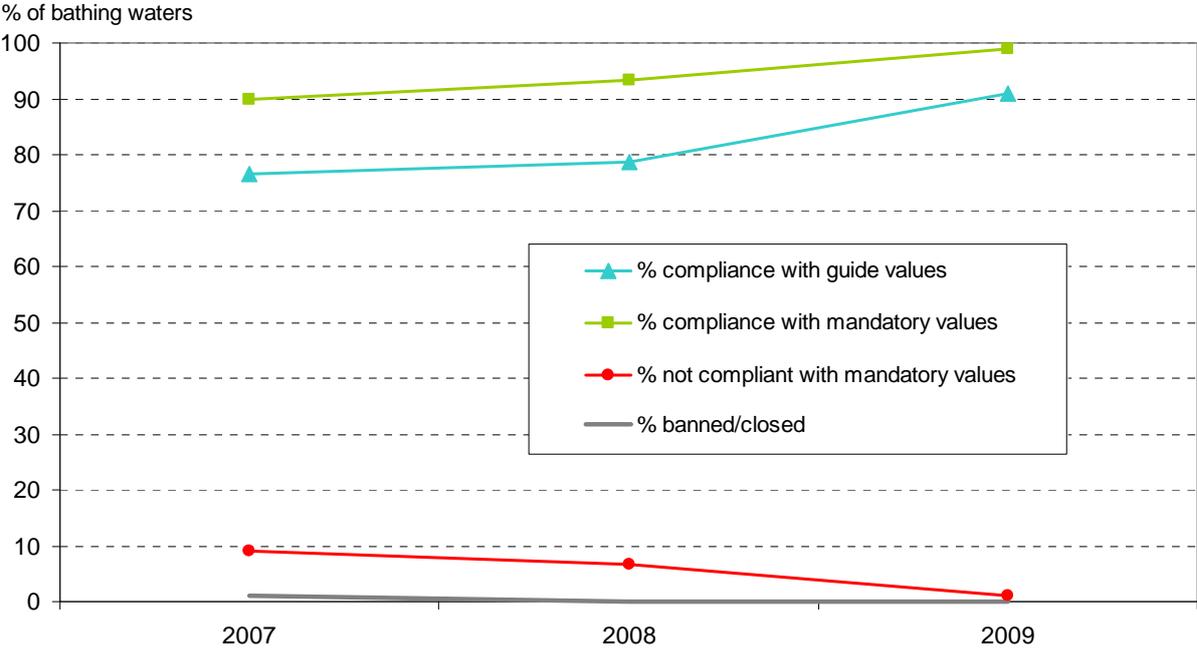
- The percentage of bathing waters that comply with the guide values (class CG, blue line);
- The percentage of bathing waters that comply with the mandatory values (class CI, green line);
- The percentage of bathing waters that do not comply with the mandatory values (class NC, red line);
- The percentage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

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

Figure 1: Results of bathing water quality in Bulgaria from 2007 to 2009

Coastal bathing waters (BG)



Freshwater bathing waters (BG)

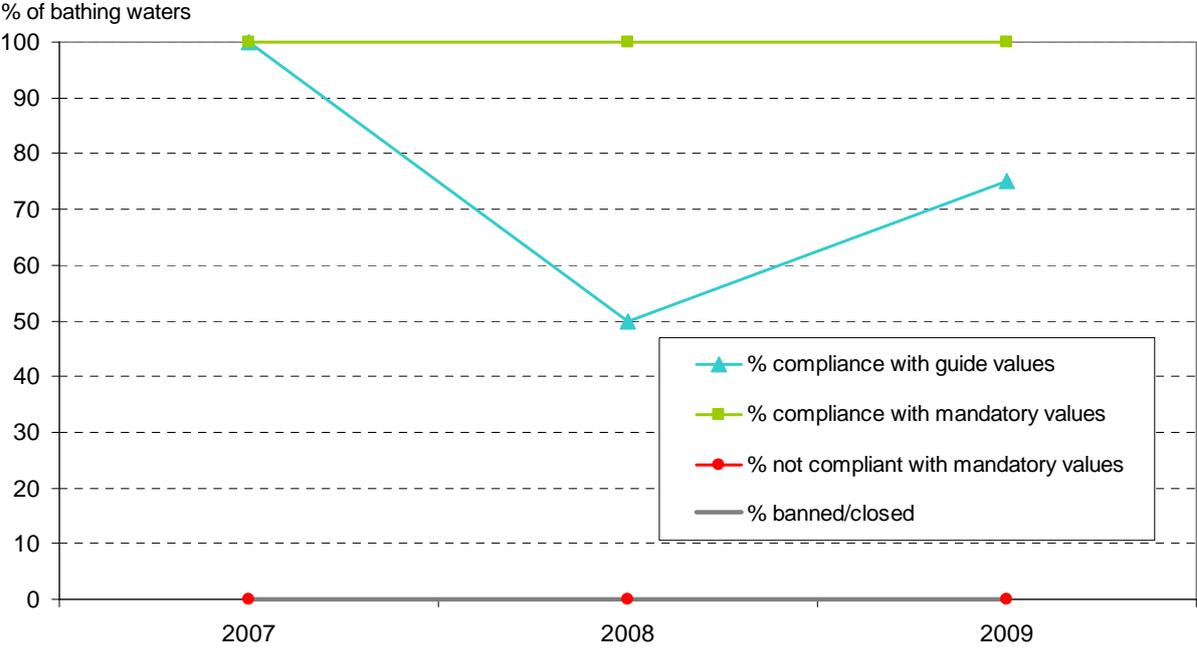


Table 1: Results of bathing water quality in Bulgaria from 2007 to 2009

BG										
		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	2007	89	68	76.4	80	89.9	8	9.0	1	1.1
	2008	89	70	78.7	83	93.3	6	6.7	0	0.0
	2009	89	81	91.0	88	98.9	1	1.1	0	0.0
Freshwater bathing waters	2007	3	3	100.0	3	100.0	0	0.0	0	0.0
	2008	4	2	50.0	4	100.0	0	0.0	0	0.0
	2009	4	3	75.0	4	100.0	0	0.0	0	0.0

Note: 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 Bulgaria in 2009

BG										
		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	93	84	90.3	92	98.9	1	1.1	0	0.0

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 Bulgaria, 98.9% of the coastal bathing waters complied with the mandatory values in 2009. This is an increase of 5.6% compared to the previous year. The rate of compliance with the guide values increased significantly from 78.7% to 91%. Only one bathing waters (1.1%) did not comply with the mandatory values compared to six bathing waters (6.7%) in 2008. No coastal bathing water had to be closed during the season, the same as in 2008.

The water quality of coastal bathing waters has improved from 2007 to 2009, both in terms of compliance with the mandatory values (+ 9%) and the guide values (+ 14.6%).

Freshwater bathing waters

All four reported freshwater bathing waters were in compliance with the mandatory values, the same as in the previous year. Three bathing waters met the guide values (75%) compared to two bathing waters (50%) in 2008. Since the start of reporting in 2007, no freshwater bathing water had to be closed during the season.

Since 2007, all freshwater bathing waters complied with the mandatory values. The rate of compliance with the guide values decreased from 100% in 2007 to 50% in 2008 and increased to 75% in 2009.

5. General information as provided by the Bulgarian authorities

During 2009 bathing season 89 coastal and four freshwater bathing zones were monitored. The limited number of Bulgarian freshwater bathing areas is due to several reasons – lack of interest by the communities to establish and maintain inland bathing waters zones according to all requirements, lack of tradition in the Bulgarian population to visit such places and very strict national legislation on Water Live Saving Service which prohibits bathing in all areas where there is no such service.

The competent authorities concerning bathing water are the Ministry of Health at national level and its 28 Regional Inspectorates on Public Health Protection and Control that carry out sampling and monitoring of bathing waters. The samples are analyzed in the regional CA's laboratories and the analytical methods used are ISO, EN or BDS relevant to the methods laid down in the Annex of the Directive.

Information for the public

The results from bathing water quality monitoring are made public through websites of the regional CAs and through the media (local press, radio and TV). During the bathing season every week the regional CAs give press conference incl. the current bathing water quality status on their territory. There is also a practice the actual information for bathing water quality to be made available to the guests of the big sea hotels.

Wastewater treatment

In order to achieve the objectives of Directive 91/271/EEC concerning urban wastewater treatment Republic of Bulgaria developed an Implementation Program with detailed Action Plan consisting of a set of coordinated measures and deadlines. Bulgaria has identified a part of the national territory as a sensitive area according to the requirements of the Directive. The whole Bulgarian Black Sea Region is identified as sensitive area and under the above mentioned Program priority measures intended for the bathing water quality improvement are envisaged. The implementation program has been updated, identifying all the agglomerations within the scope of the Directive. The updated information is included also in River Basin Plans.

38 waste water treatment plants exist in the Black Sea Region, out of which 34 are operational, which serve 43 agglomerations. For the rest 59 agglomerations in the Black Sea basin with no treatment, the necessary treatment should be provided in the years until the end of 2014.

The necessary investment costs for the construction of the waste water collection systems and WWTPs to comply with the goals laid down in the Directive are estimated on 3 523 MI EURO for the whole country. Full implementation of the Directive is expected by 31 December 2014, in line with the transition periods granted to Bulgaria for the implementation of the Directive.

Treatment of diffuse sources of pollution

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 the following:

- defining in 2004 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;
- adoption in 2005 of the Code of Good Agricultural Practice;
- adoption in 2006 of the Action Program;
- development of Training program for farmers on how to implement measures of the Code of GAP.

Although, significant pollution of the superficial waters and significant level of eutrophication have not been ascertained on the national territory, the above mentioned Action Program 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.

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 Bulgaria



Bathing water quality			No data
Bathing waters on rivers	Bathing waters on lakes	Coastal/transitional bathing waters	Outside data coverage (data available, not presented on the map)
▲ 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, CCM GISCO; Bathing waters data and coordinates: Bulgarian authorities