

Bathing water results 2008 – Slovakia

1. Introduction

This report gives a general overview of bathing water quality in Slovakia during the 2008 bathing season. Slovakia 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

For all bathing waters the bathing season lasted three months, from 15 June to 15 September 2008. However, the actual beginning and end is set by the bathing area operator depending on weather, water quality, technical state and visit rate of the bathing area.

A total of 38 freshwater bathing waters on lakes were monitored in Slovakia during the 2008 bathing season. There are no coastal bathing waters in Slovakia.

With 38 bathing waters Slovakia accounts for about 0.2% 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. The number of reported bathing waters decreased since the start of the reporting from 67 in 2004 to 38 in 2008. In 2008, the same number of bathing waters was reported as in two previous years.

3. Results of bathing water quality

The results of the bathing water quality in Slovakia for the period 2004-2007 as reported in 2008 report and for the bathing season of 2008 are presented in Figure 1.

The graph shows, for freshwater bathing waters:

- 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 for freshwater bathing waters.

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

Figure 1: Results of bathing water quality in Slovakia from 2004 to 2008

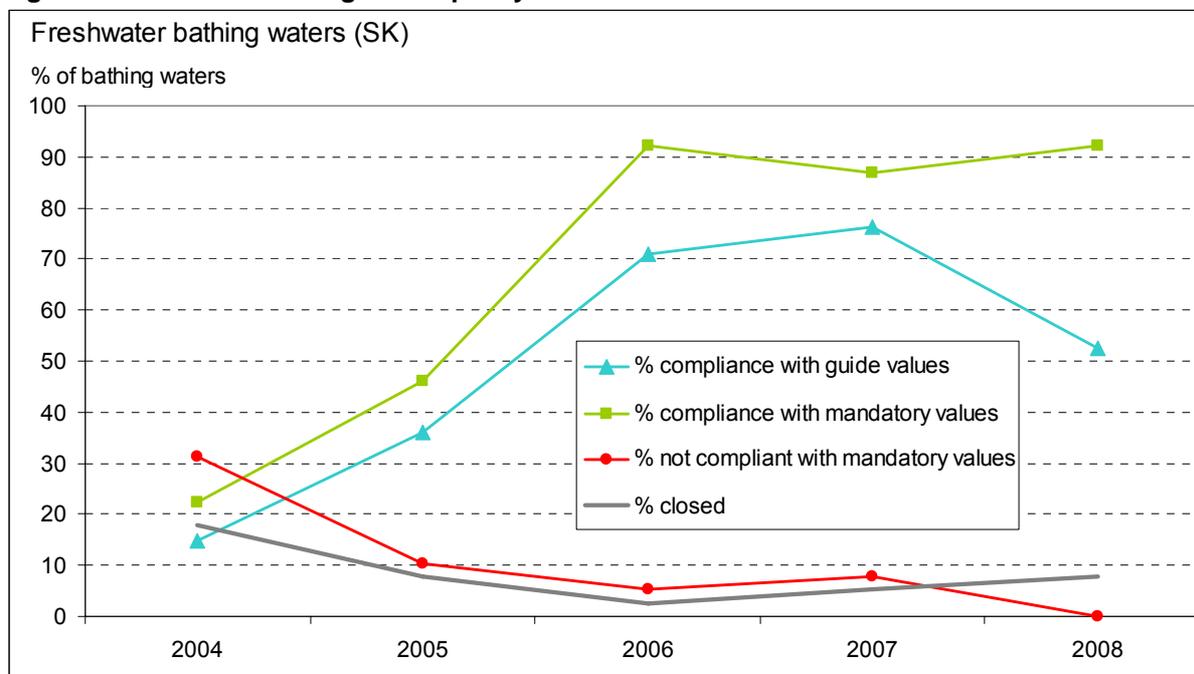


Table 1: Results of bathing water quality in Slovakia from 2004 to 2008 as absolute numbers

	Year	Total number of bathing waters	Compliance with guide values	Compliance with mandatory values	Not compliant	Banned/closed throughout the season
		SK				
Fresh water bathing waters	2004	67	10	15	21	12
	2005	39	14	18	4	3
	2006	38	27	35	2	1
	2007	38	29	33	3	2
	2008	38	20	35	0	3

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 Slovakia from 2004 to 2008 as percentages

	Year	Total number of bathing waters	% compliance with guide values	% compliance with mandatory values	% not compliant	% banned/closed throughout the season
		SK				
Fresh water bathing waters	2004	67	14.9	22.4	31.3	17.9
	2005	39	35.9	46.2	10.3	7.7
	2006	38	71.1	92.1	5.3	2.6
	2007	38	76.3	86.8	7.9	5.3
	2008	38	52.6	92.1	0.0	7.9

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%.

4. Development of bathing water quality

In Slovakia, 92.1% of the freshwater bathing waters (35) met the mandatory water quality in 2008. This is an increase compared to the previous year (+ 5.3%). The compliance with the guide values, however, decreased significantly by 23.7%, reaching 52.6% of the bathing waters (20). In 2008 the difference between the percentage of the bathing waters that met the mandatory value for *Escherichia coli* and the more stringent guide values increased (+ 39.5%). No bathing water was non-compliant with the mandatory values compared to three bathing waters in the previous year. Three bathing waters (7.9%) had to be closed during the season, which is one more than in 2007.

In 2004 a large number of bathing waters, almost 30%, could not be assessed because they were insufficiently sampled. However, of the bathing waters that could be assessed, about half was not compliant to the mandatory values. Since 2005, there has been a strong reduction of the percentage of non-compliant bathing waters and a strong increase of the compliance rate, both for mandatory values as for guide values. The number of closed bathing waters also decreased. In 2008, however, the compliance with the guide values decreased.

5. General information as provided by the Slovakian authorities

The Directive 2006/7/EC was transposed into the national legislation by the Government Regulation No. 87/2008, valid from 5 March 2008. On the basis of long-term monitoring and assessment of water quality 35 natural water sites were declared as being suitable for bathing. They are gravel or sand pits or water reservoirs on rivers and streams.

Public information

To ensure public awareness about the quality of bathing water and the operation of bathing waters during the 2008 season the Information System on the quality of bathing water was entered into service. Before the start of the bathing season, the Public Health Authority of the Slovak Republic (ÚVZ SR) prepared a report on the preparedness of natural and artificial bathing waters for the summer tourist season (STS). Before the start of the bathing season, the list of waters suitable for bathing was published on the website of the Public Health Authority of the Slovak Republic for the purpose of ensuring public participation in updating the list of waters suitable for bathing under the Article 11 of Directive 2006/7/EC. The public had no comments on the proposed list. During the course of the summer tourist season the regional public health authorities provided actual data on water quality on natural and artificial bathing waters on the information system at weekly intervals. On the basis of the documents processed by the Public Health Authority of the Slovak Republic, scientific and popular-scientific articles on possible health risks from the use of defective water bodies for bathing were published in the media. The staff of the environment and public health participated in the discussion sessions on television and radio. At the end of the season, ÚVZ SR processed the report of the validated documents obtained from the regional public health authorities. This information is available on the website of the Information System on the quality of bathing water (<http://vodanakupanie.sazp.sk/>), which is available on the website of the Public Health Authority of the Slovak Republic (<http://www.uvzsr.sk>). Reports on the quality of bathing waters, submitted to the European Commission, are available on the website of the Slovak Environmental Agency (<http://www.sazp.sk>).

Water protection measures

The basic water-management legislation consists of the Water Act No 364/2004, which provides for comprehensive protection of waters including aquatic ecosystems, improvement of water status and sustainable exploitation of waters. Water quality is affected by natural processes and human activity. There are various sources of pollution of bathing waters, the main ones being populated areas and agricultural activity. The following measures have been taken to improve water status:

- programme to reduce water pollution by harmful and hazardous substances;
- agricultural activities programme and the Code of Good Farming Practice;
- water monitoring programme;

- guidelines for the work of the regional environmental authorities on bathing waters.

The following are under preparation:

- river-basin management plans and programmes of measures under the terms of the Water Framework Directive;
- updated implementation programme for Directive 91/271/EEC concerning urban waste water treatment;
- compilation and maintenance of bathing-water profiles.

Work is under way on constructing waste water collection and drainage systems and treatment facilities and on stepping up wastewater treatment processes. Measures are being implemented under the Farming Activities Programme.

Monitoring the quality of bathing water in the Slovak Republic

Bathing water quality and sanitary conditions of natural recreational sites as well as artificial bathing waters in Slovakia is pursued by the Slovak Public Health Authority (ÚVZ SR) and 36 regional public health authorities (RÚVZ). Within their remit they act as public health surveillance authorities, monitor water quality for bathing, issue instructions to correct deficiencies detected, levy payments and impose penalties. Act No. 355/2007 on the protection, promotion and development of public health and amending some laws as amended by Law No. 140/2008, as well as the Governmental Regulation No. 87/2008 of the requirements for natural bathing waters, gave the responsibility for ensuring the monitoring of water suitable for bathing to the ÚVZ SR and RÚVZ and site operators, the monitoring to be carried out at frequencies and using methods in line with Directive 2006/7/EC.

Results of monitoring are the basis for the specific measures needed to improve the quality. In 2008 the limit values for Intestinal enterococci were exceeded at Počúvadlianske jazero (2 samples), Vindšachtské jazero (2 samples), Slnčné jazero (1 sample), Ružiná - near the village Ružiná (1 sample) and Zemplínska Šírava - Horka (1 sample). Limit values for Escherichia coli were exceeded at Počúvadlianske jazero (1 sample) and Veľký Draždiak (1 sample).

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

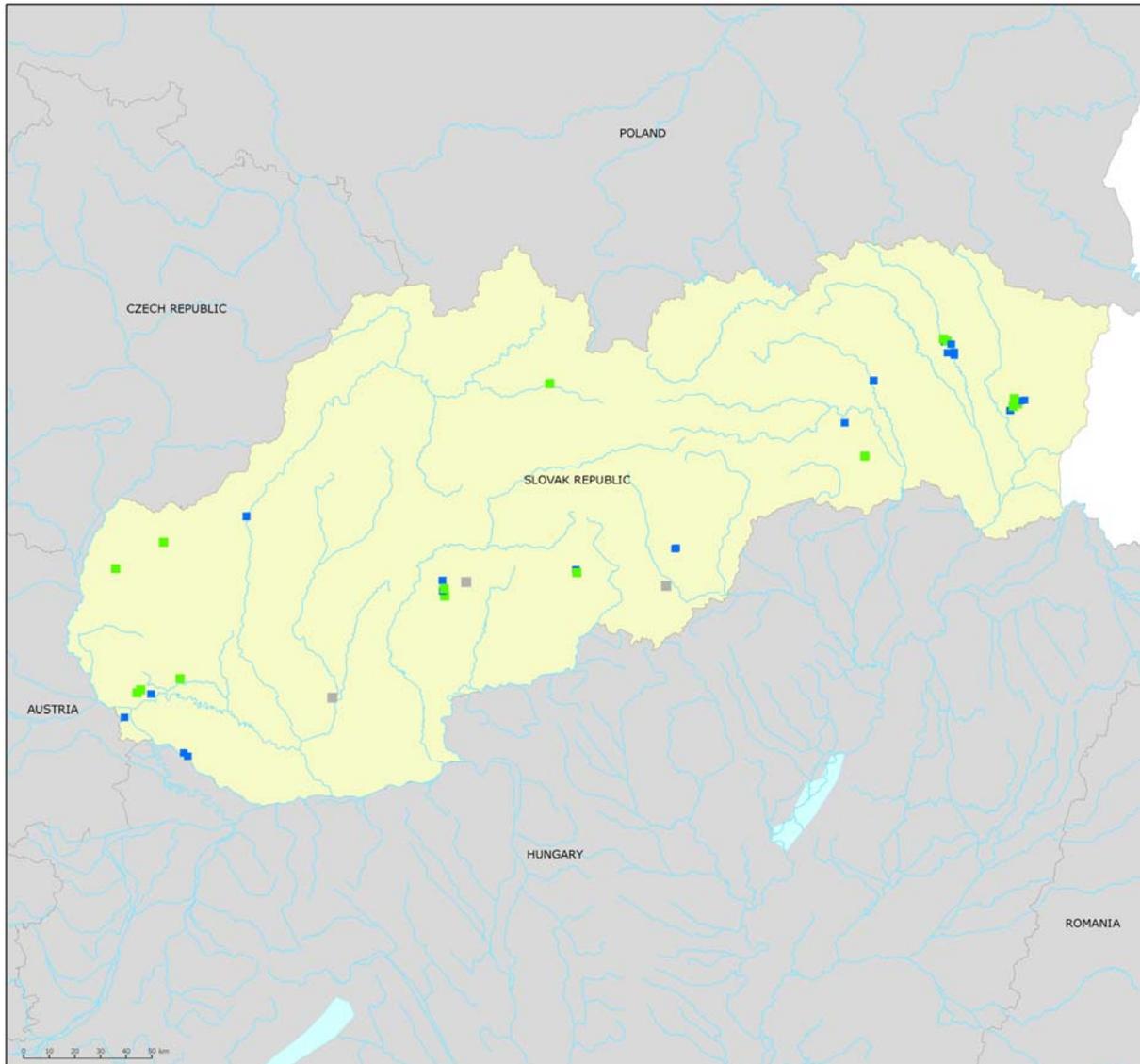
More information on bathing water quality in the European Member States, including the reports for 27 Member States and the EU summary report, can be found on the bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html).

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 Slovakia



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

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: Slovakian authorities