

Bathing water results 2009 – The Czech Republic

1. Introduction

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

The Czech Republic reported 13 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, 13 Tarry residues and floating materials).

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

Bathing waters opened from 5 May to 30 June 2009, except for two bathing waters opened in April and seven bathing waters opened in July. Most bathing waters opened in June. Bathing waters closed from 17 August to 15 September 2009, except for six bathing waters closed in June or July.

A total of 187 bathing waters were reported in the Czech Republic during the 2009 bathing season. All of these bathing waters are freshwater bathing waters on lakes. Four bathing waters were not monitored and two bathing waters were insufficiently sampled. One bathing water was monitored with reduced frequency according to the Directive 76/160/EEC.

With 187 bathing waters the Czech Republic accounts for about 0.9% 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 freshwater bathing waters increased since the start of the reporting from 176 freshwater bathing waters in 2004 to 188 in 2006 and remained the same till 2008. In 2009, one bathing water was de-listed compared to the previous year and 11 bathing waters were re-opened after a ban (closure) in the previous year.

3. Results of bathing water quality

The results of the bathing water quality in the Czech Republic for the period 2004–2008 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 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 or closed (temporarily or throughout the season) (class B, grey line).

Table 1 shows the same information in absolute numbers and in percentages freshwater bathing waters.

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

Figure 1: Results of bathing water quality in the Czech Republic from 2004 to 2009

Freshwater bathing waters (CZ)

% of bathing waters

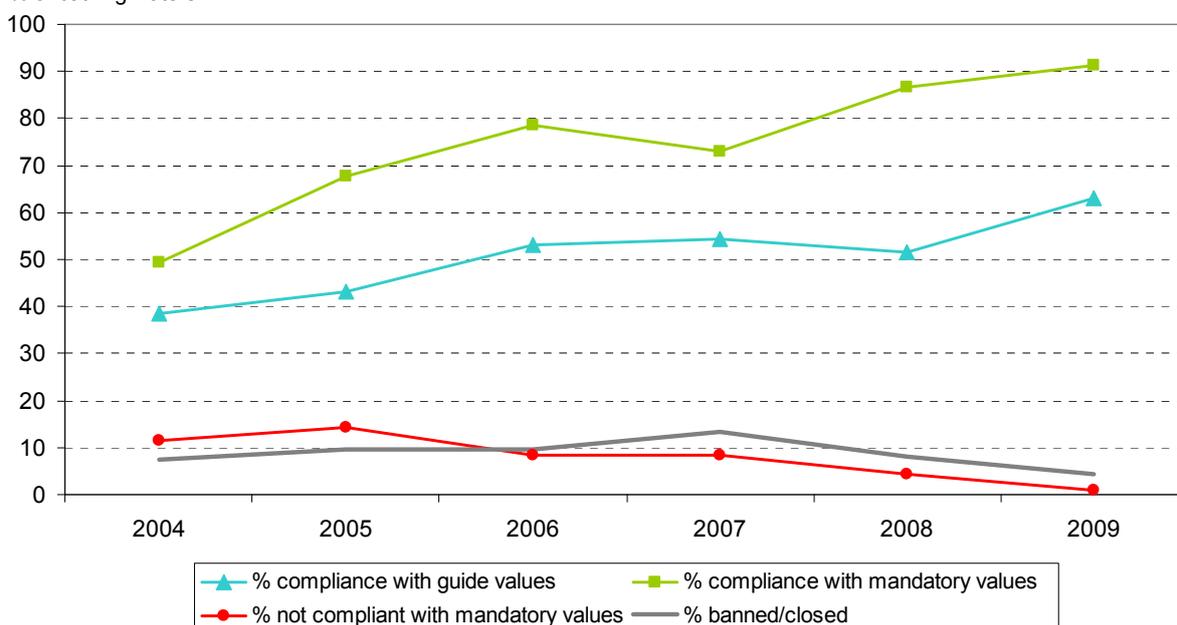


Table 1: Results of bathing water quality in the Czech Republic from 2004 to 2009

		CZ								
		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	%
Freshwater bathing waters	2004	176	68	38.6	87	49.4	20	11.4	13	7.4
	2005	176	76	43.2	119	67.6	25	14.2	17	9.7
	2006	188	100	53.2	148	78.7	16	8.5	18	9.6
	2007	188	102	54.3	137	72.9	16	8.5	25	13.3
	2008	188	97	51.6	163	86.7	8	4.3	15	8.0
	2009	187	118	63.1	171	91.4	2	1.1	8	4.3

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. Bathing waters which were compliant with the guide values were also compliant with the mandatory values.

4. Development of bathing water quality

In the Czech Republic, 91.4% of the freshwater bathing waters met the mandatory values in 2009. This is an increase of 4.7% compared to the previous year. The rate of compliance with the guide values increased significantly from 51.6% to 63.1%. The number of non-compliant bathing waters with the mandatory values decreased from eight (4.3%) to two bathing waters (1.1%). The number of closed (banned) bathing waters also decreased from 15 (8%) to eight bathing waters (4.3%).

At the beginning of the monitoring in 2004, the number of freshwater bathing waters that complied with the mandatory values was rather low due to the high number of insufficiently sampled bathing waters. From 2004 to 2009, the compliance with the mandatory values increased from below 50% to above 90%. Similarly, the compliance with the more stringent guide values increased from below 40% to above 60%. The percentage of closed (banned) bathing waters varied from 4.3% in 2009 to 13.3% in 2007.

5. General information as provided by the Czech Republic authorities

De-listing of bathing water

The Czech Republic authorities reported the list of bathing waters before the start of the 2009 bathing season. The bathing site VN Michal (CZ0413560286410701) was de-listed since the dam "Michal" have been fenced and the access to the water for public is only from the other side of the dam which remain to be monitored as the bathing site VN Michal - koupaliště na levém břehu (CZ0413560286410751).

Communication to the public

Central web pages (<http://www.mzcr.cz/>; <http://www.szu.cz/tema/zivotni-prostredi/koupani-ve-volne-prirode>; so far only in Czech) were created to keep the public informed about water quality, offering general information focused mostly on potential health risks of bathing in natural water bodies, as well as recommendations on how to limit those risks. The pages also contain links to web pages of the relevant regional Public Health Authorities where information about the current quality of water on particular sites is published. Moreover, current information about water quality of bathing places is displayed at the map server of the Portal of the Public Administration (<http://geoportal.cenia.cz>) and at the maps of several other tourist portals. A set of symbols was designed for simple and clear communication with the public. Information concerning water quality is also published in press (mostly regional) and occasionally in other media (radio and TV stations), and in the summer bathing season, were sent in regular week intervals by the Ministry of Health to the Czech Press Agency a summary of actual water quality report for every bathing place.

Water quality

Water quality problems were most frequently related to mass proliferation of cyanobacteria. The WHO recommendation was adopted for the limit value of the "cyanobacteria" indicator, i.e. a three-level water quality assessment with the ban imposed if a visual inspection reveals the presence of water bloom. In the 2009 bathing season there were seven bathing bans due to mass occurrence of cyanobacteria, while one bathing water (koupaliště Zákupy) was banned due to outbreak of cercarial dermatitis (swimmers itch). Bathing waters were temporarily banned (a part of the bathing season). Rybník Olšovec was banned only for four days and koupaliště Zákupy was banned for 13 days. Slepé rameno Moravy - Pahrbek was banned for more than one month. VN Plumlov, VN Luhačovice - pláž u hráze and VN Luhačovice - pláž u kempu were banned for two months. Koupaliště Peklo was banned for more than 50 days and VN Skalka - u ATC Podhoří was banned for more than 70 days.

Corrective measures

Unsatisfactory water quality was identified on certain bathing sites and during certain part of the bathing season. This was mostly due to cyanobacteria. Measures to reduce eutrophication of waters in the Czech Republic, including bathing waters, are adopted under the programmes implementing the Directive 91/271/EEC concerning urban waste-water treatment and the Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources.

Bathing sites, based on the unsatisfactory quality results of the previous bathing seasons, have been included into the operational water monitoring program. Corrective measures will be adopted, in the frame of management plan of the concerned river basin, after collecting of the data and their evaluation.

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

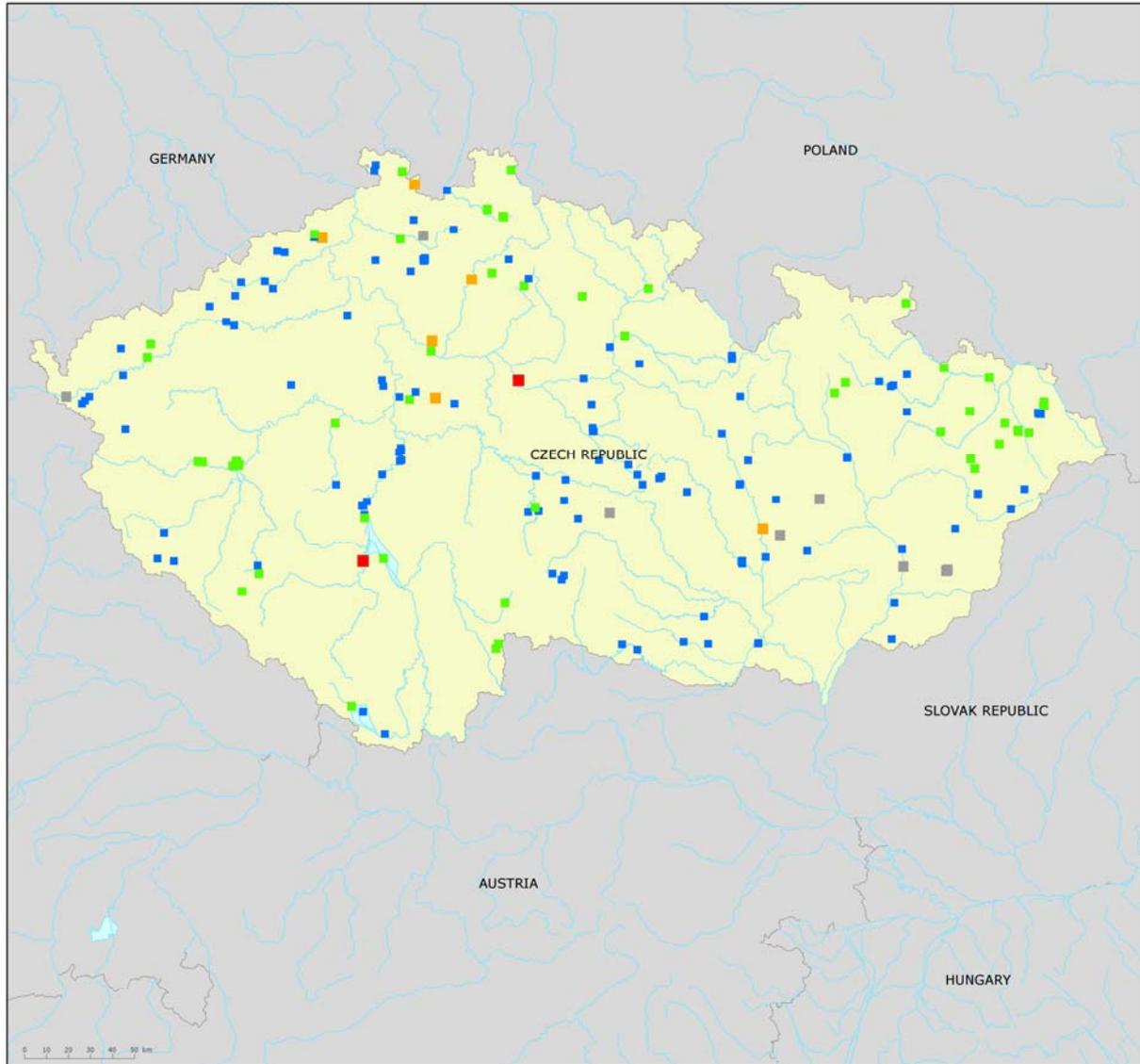
More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html)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



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