

BWD Report For the Bathing Season 2014

The Czech Republic

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 The Czech Republic.

1. BWD reporting in the season 2014

In 2014 bathing season, 152 bathing waters have been reported in The Czech Republic. For each bathing water, five groups of parameters have been delivered²:

- *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 The Czech Republic in 2014	
Total reported	152
Max season period	113 days 12 May to 22 Sep
Samples taken	803
Share of bathing waters with good or excellent water quality	90 %
New BWD implemented in	2012

The authorities of The Czech Republic report data according to the new BWD (2006/7/EC) since the season 2012. The data for the season 2014 were delivered to the European Commission by **7 January 2015**.

Altogether, **152 bathing waters** have been reported – 0.7% of all bathing waters in Europe. Out of all bathing waters in The Czech Republic, 1.32% have been newly identified in 2014 season. All bathing waters in The Czech Republic are of inland type. **803 samples** were taken at bathing waters throughout the season – 5 per bathing water on average.

¹ Directive BWD 2006/7/EC, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>

² See the BWD Data Dictionary for detailed explanations: <http://dd.eionet.europa.eu/datasets/3151#tables>

Maximum bathing season period was from 12 May to 22 September, i.e. 113 days. Season duration varies between bathing waters.

Detailed information on bathing waters is available from national portal at http://www.mzcr.cz/verejne/obsah/koupani-ve-volne-prirode_1071_5.html.

2. Assessment methodology³

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.

The monitoring requirements under the New Bathing Water Directive are:

- taking of a pre-season sample (taken shortly before the start of the bathing season) ⁴;
- a minimum of four samples per season⁵;
- a minimum of one sample per month⁶.

The conditions described above must be met for all bathing waters. If these rules are satisfied, the bathing water is categorised as 'sampling frequency satisfied'. If not all monitoring requirements are fulfilled the bathing water is categorised as 'sampling frequency not satisfied'. 92.1% of bathing waters met the described monitoring requirements set by the Directive, while the rest did not satisfy monitoring requirements or was either new, changed or closed. Table 1 shows the statistics of bathing waters according to satisfied BWD monitoring requirements.

³ The methodology used by the EC and the EEA is described here, while results of assessment by national authorities may somewhat differ. However, the provisions of the Directive should be followed in any case.

⁴ A pre-season sample is taken into account at total number of samples per season.

⁵ Three samples are sufficient if the season does not exceed eight weeks or the region is subject to special geographical constraints.

⁶ If, for any reason, it is not possible to take the sample at the scheduled date, a delay of four extra days is allowed. Thus, the interval between two samples should not exceed 31 + 4 days.

Table 1: Bathing waters in 2014 according to compliance with BWD monitoring provisions

	Count	Share of total [%]
BWs with sampling frequency satisfied and are not new, have no changes or were not closed in 2014 These bathing waters have been monitored according to BWD provisions (monitoring frequency satisfied and have pre-season sample. They have been quality-classified (excellent, good, sufficient, poor).	142	93.4%
BWs with sampling frequency not satisfied and that are not new, have no changes or were not closed in 2014. These bathing waters have not been monitored according to BWD provisions (monitoring frequency not satisfied). They may be quality-classified if there is a reasonable volume of samples available.	2	1.3%
BWs that are new, changed or closed in 2014 These bathing waters are new or have been subject to changes that could affect bathing water quality.	8	5.3%
Total number of bathing waters in 2014	152	100%

Bathing waters where sampling frequency was not satisfied can still be quality assessed if at least four samples per season (three samples if the season does not exceed eight weeks or the region is subject to special geographical constraints) are available and are more or less equally distributed throughout the season. Assessment of bathing water quality is possible when the bathing water sample dataset is available for four consecutive seasons. Bathing waters are accordingly classified to one of the bathing water quality classes (excellent, good, sufficient, or 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.

Quality assessment is not possible for all bathing waters. In these cases, they are instead classified as either:

- not enough samples⁷;
- new⁸;
- changes⁹;
- closed¹⁰.

⁷ Not enough samples have been provided for the 2014 season or throughout the whole assessment period.

⁸ Classification not yet possible because bathing water is newly identified and a complete set of samples is not yet available.

⁹ Classification is not yet possible after changes affecting bathing water quality have been implemented.

¹⁰ Bathing water is closed temporarily or throughout the bathing season.

3. Bathing water quality

The results of the bathing water quality in The Czech Republic as reported in the past reporting years and for the bathing season of 2014 are presented in Figure 1. The previous reports are available on the European Commission's bathing water quality website¹¹ and the European Environment Agency's bathing water website¹².

3.1 Coastal bathing waters

There are no coastal bathing waters in The Czech Republic.

3.2 Inland bathing waters

91.4% of all existing inland bathing waters met at least sufficient water quality in 2014. See Appendix 1 for numeric data.

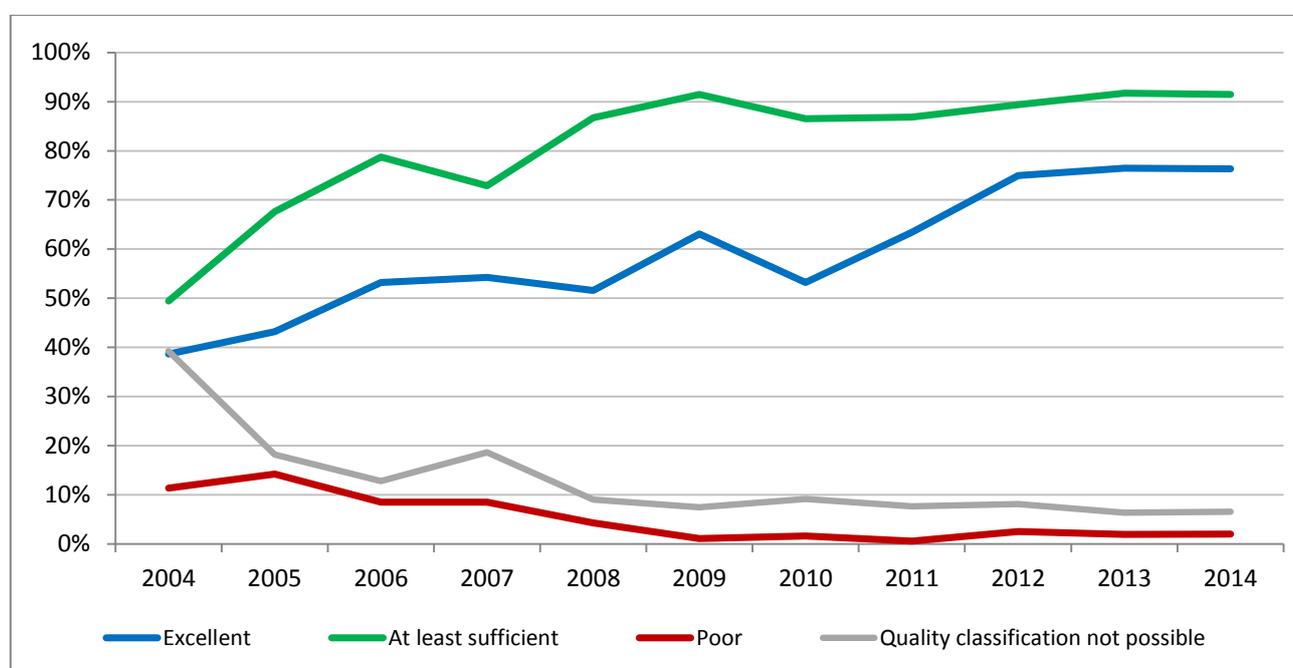


Figure 1: Inland bathing water quality trend in The Czech Republic. Note: the “At least sufficient” class also includes bathing waters of “Excellent” quality class, the sum of shares is therefore not 100%.

¹¹ http://ec.europa.eu/environment/water/water-bathing/index_en.html

¹² <http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>

4. Information regarding management and other issues

The Czech Republic held the process of transposition of Directive 2006/7/EC, at the end of the adoption of new national regulations for bathing water. The new regulations have brought many innovations for bathing waters and were first applied in 2012 bathing season.

From the list of bathing waters in 2013, 5 bathing waters were delisted, 2 bathing waters were newly identified and 3 bathing waters changed the BWName. The list of annually updated bathing waters is presented to public with invitation to submit comments and proposals to the Ministry of Health of the Czech Republic.

Bathing water profiles were created, the information was published online and in media. Information boards were placed in an easily accessible place in the near vicinity of each bathing water. Sampling was carried out according to the bathing water monitoring calendar at least once per month. In some cases there was also an increase in the frequency of monitoring, where any exceeding of the national limit for parameters *Escherichia coli*, Intestinal enterococci or cyanobacteria occurred.

The most important implemented management measures are:

- Sediment removal;
- Intensification/reconstruction/construction of wastewater treatment plant and sewer construction in the immediate vicinity or in the basin of bathing waters clearly affecting the water quality;
- Preparation of the study concerning the assessment of current situation, identification of causes of pollution and proposal of measures;
- Additional programmes of monitoring;
- Action on reservoirs or ponds – aeration, manipulation with fish stock, coagulant dosage to the inflow into the reservoir;
- Reconstruction of the reservoir or pond – dam repair, bank alteration;
- Reduction of intensity of aquaculture production;
- Application of chemicals to reduce the nutrients needed for the development of cyanobacteria and undesirable aquatic flora.

Outbreak of cercarial dermatitis occurred in Rolava in July (most of cases). Ten bathers reported typical symptoms, ducks and water snails were presented. Advice against bathing was applied and the information on cercarial dermatitis was placed near the beaches.

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. There have been eight bathing bans during the 2014 bathing season (seven due to the presence of cyanobacteria, one due to faecal pollution).

In the Czech Republic, Lhotka (BWID CZ_PK104051), Šeberák (BWID CZ_PK104052) and Popovice (BWID CZ_PK210251) are examples of excellent quality bathing waters that were closed due to reasons not connected to water quality. In all three cases, the bathing waters act as reservoirs and were closed in 2014 because these reservoirs were empty.

5. Bathing water quality assessment presentation in online viewers

The new legislation requires more effective monitoring and management of bathing waters, greater public participation and improved information dissemination. More on the bathing and other water legislation can be found on the European Commission's website: http://ec.europa.eu/environment/water/index_en.htm.

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 21 000 coastal beaches and inland sites across Europe. The data on bathing water quality in 2014 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 bathing water's locations and achieved quality.

Citizens have now access to more bathing water information than ever and are encouraged to make full use of disseminated information.

Appendix 1: Results of bathing water quality in The Czech Republic from 2011 to 2014

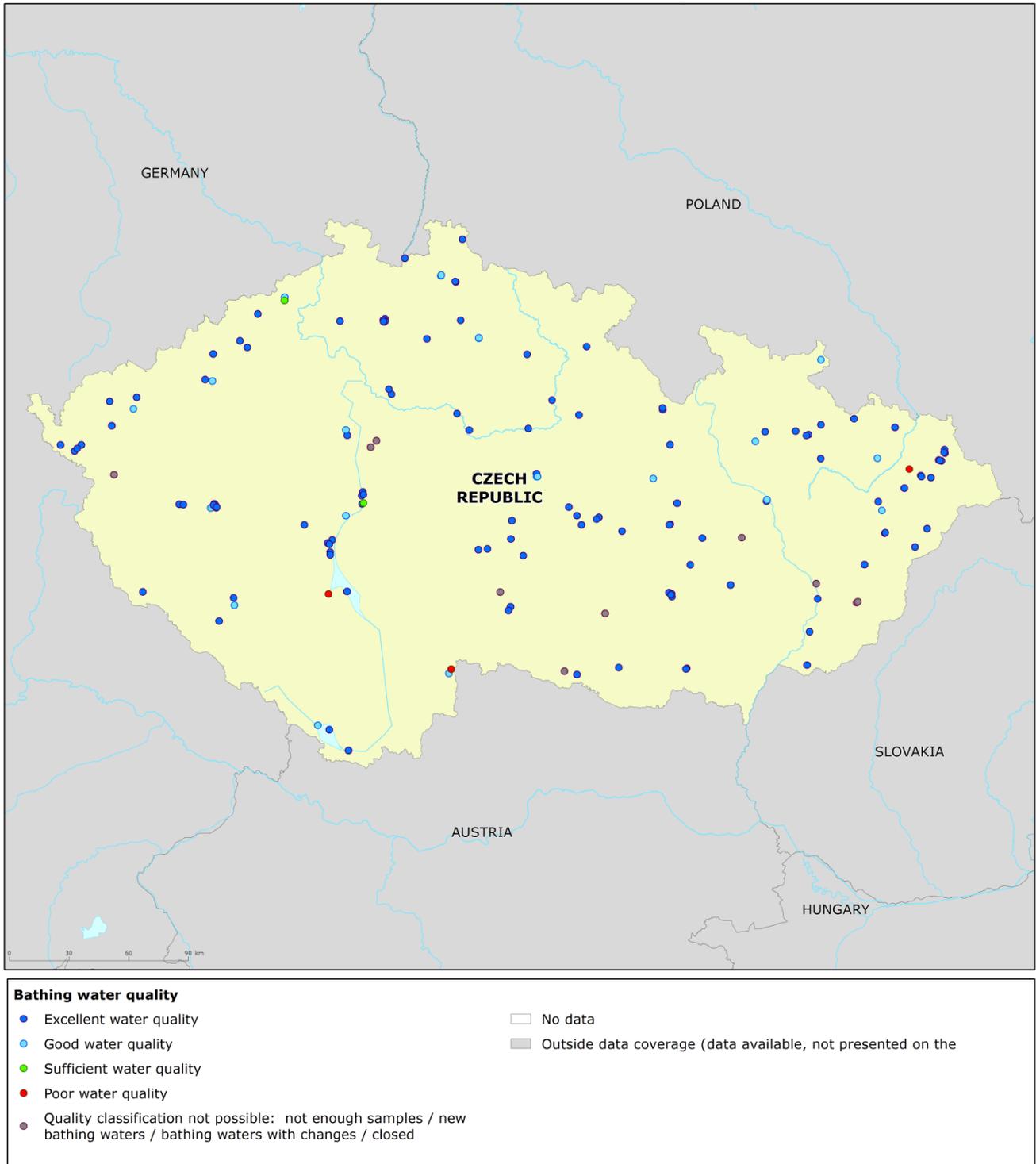
Table 2: Bathing waters in the season 2014 according to quality

		Total number of bathing waters	Excellent quality or compliant with guide values		At least sufficient quality or compliant with mandatory values		Poor quality or non-compliant		Quality classification not possible: not enough samples /new bathing waters/bathing waters with changes/closed	
			No	%	No	%	No	%	No	%
Total	2011	183	116	63.4	159	86.9	1	0.5	23	12.6
	2012	160	120	75.0	143	89.4	4	2.5	13	8.1
	2013	157	120	76.4	144	91.7	3	1.9	10	6.4
	2014	152	116	76.3	139	91.4	3	2.0	10	6.6

Note: the class "At least sufficient" also includes bathing waters which are of excellent quality, the sum of shares is therefore not 100%.

Appendix 2: Bathing water quality map

Map 1: Bathing waters reported during the 2014 bathing season in the Czech Republic



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