Country report

Czech bathing water quality in 2018

Czechia

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European Environment Agency

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Bathing Water Quality in the Season 2018

Czechia

Under the provisions of the Bathing Water Directive, more than 21 000 bathing waters are monitored in Europe each season. The monitoring data and other information regarding bathing water management are reported to the European Environment Agency by 30 reporting countries in Europe, to be assessed for the annual European report and more detailed national reports.

1. BWD reporting in the season 2018

In the season 2018, Czechia identified and reported **153 bathing waters**, which is 0.7% of all bathing waters in Europe. One bathing water in Czechia has been newly identified for the season 2018. One bathing water reported in the preceding seasons has not been reported any more in 2018.

Bathing waters of Czechia in the season 2018	
Total reported	153
Coastal	0
Inland	153
Total reported samples	889

Bathing water quality in the season 2018	
Excellent	125 (81.7%)
Good	14 (9.2%)
Sufficient	2 (1.3%)
Poor	2 (1.3%)
Not classified	10 (6.5%)

The bathing waters are quality classified according to the two microbiological parameters (Escherichia coli and Intestinal enterococci) defined in the Bathing Water Directive. 92.2% of reported bathing waters are in line with the minimum quality standards of the Directive, thus classified “sufficient” or better. Two bathing waters are of “poor” quality.

More detailed information on bathing waters of Czechia is available at the national bathing water portal http://www.mzcr.cz/verejne/obsah/koupani-ve-volne-prirode_1071_5.html.

2. BWD monitoring

Each bathing water that is identified by the reporting country needs to have a monitoring calendar established before the bathing season. The monitoring calendar requirements can be summarised as follows: (1) a pre-season sample is to be taken shortly before the start of each bathing season; (2) no fewer than four (alternatively, three for specific cases) samples are to be taken and analysed per bathing season; and (3) an interval between sampling dates never exceeds one month.

From the reported data, the assessment also designates effective implementation of the monitoring calendar. In Czechia, monitoring calendar for 2018 was not implemented at 41 bathing waters.

Table 1: Bathing waters in 2018 according to implementation of the monitoring calendar

	Count	Share of total [%]
Monitoring calendar implemented A bathing water satisfies monitoring calendar conditions listed above.	112	73.20%
Monitoring calendar not implemented A bathing water does not satisfy monitoring calendar conditions listed above. They may be quality-classified if enough samples are available in the last assessment period.	41	26.80%

In addition to the monitoring calendar, management specifics of the last assessment period of four years are also assessed. The status primarily indicates whether the complete dataset of four seasons is available, but also points out the reasons as to why the bathing waters do not have the complete last assessment period dataset. The latter may indicate developing conditions at the site – most importantly, whether the bathing water has been newly identified within the period, or any changes have occurred that are likely to affect the classification of the bathing water.

Table 2: Management specifics in the last assessment period of 2015–2018

	Count	Share of total [%]
Continuously monitored A bathing water has been monitored in each bathing season in the last assessment period.	139	90.80%
Newly identified A bathing water was identified for the first time within the last assessment period. Such status is assigned until the complete four-year dataset is available, i.e. for three years after the first reporting.	4	2.60%
Quality changes A bathing water was subject to changes described in BWD Art. 4.4 within the last assessment period. Such status is assigned until the complete four-year dataset of samples taken after changes took effect is available.	0	0%
Monitoring gap A bathing water was not monitored for at least one season in the last assessment period. No quality	10	6.50%

classification is made if no samples are reported for the most recent season.		

3. Bathing water quality

3.1 Inland bathing waters

Inland bathing waters are situated at rivers and lakes, featuring fresh water and with respective parameter thresholds defined in Annex I of the Directive. Quality trend in Czechia for the period 1990–2018 if historical data are available is shown in Figure 1. Count of bathing waters by quality class for the last assessment period 2015–2018 is given in Annex I.

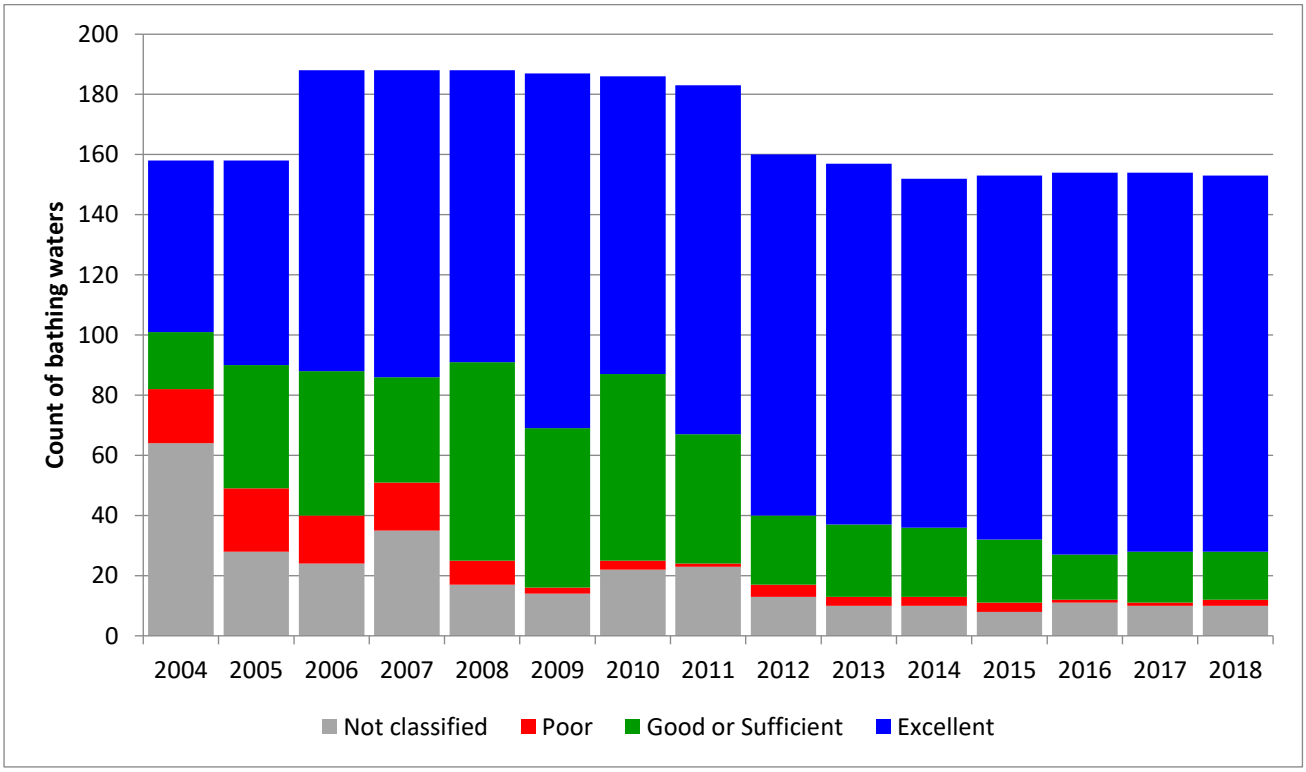


Figure 1: Trend of inland bathing water quality in Czechia. Notes: Each column represents an absolute count of bathing waters in the season. Quality classes "good" and "sufficient" are merged for comparability with classification of the preceding Bathing Water Directive 76/160/EEC.

4. Bathing water management in Czechia

In addition to monitoring data, reporting countries also provide information on bathing water management in the country. The information is used to exchange good practices, discuss issues on the European level, and understand the specifics of implementation of the Directive.

The Czechia 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.

Information to the public

Bathing water profiles (links included in the table SeasonalInfo column ManMeas) were created in time and information boards were produced and placed in an easily accessible place in the near vicinity of each bathing water. Monitoring calendars for all bathing waters were prepared before the bathing season started. The information boards were produced and placed in the near vicinity of each bathing water. A list of annually updated bathing waters was presented to the public with an invitation to submit comments and proposals to the Ministry of Health of the Czech Republic.

Central web pages (http://www.mzcr.cz/verejne/obsah/koupani-ve-volne-prirode_1071_5.html; http://www.szu.cz/tema/zivotni-prostredi/koupaliste-a-bazeny - so far only in Czech) were created to keep the public informed about water quality, to offer general information focused mostly on potential health risks of bathing in natural water bodies, as well as for recommendations on how to reduce the risk. The pages also contain links to web sites of the relevant local Public Health Authorities where information about current water quality on particular sites is published. Moreover, current information about water quality of every bathing place is displayed on the map server of the Portal of the Public Administration (http://geoportal.gov.cz/koupaci_vody), on the web page Bathing waters (www.koupacivody.cz) and on 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). During the bathing season, the Ministry of Health every week prepares a summary of actual water quality report for every bathing water and sends it to the Czech Press Agency.

Bathing water monitoring

Sampling was carried out according to the bathing water monitoring calendar at least once a month; in some cases, where any exceeding of the limit for parameters Escherichia coli, Intestinal enterococci or cyanobacteria occurred, there was also an increase in the frequency of monitoring.
During the 2018 bathing season, two bathing waters were excluded from the monitoring programme (delisted). Water quality problems are most frequently related to mass proliferation of cyanobacteria due to the eutrophication of reservoirs and ponds. 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 2018, bathing prohibition due to cyanobacteria has been imposed on 23 bathing waters.

Management measures

Measures to reduce eutrophication of waters in the Czech Republic, including bathing waters, are primarily adopted under the programs 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. Selected bathing sites, based on the unsatisfactory water quality results, have been included into the operational water monitoring program. Measures to improve water quality will also be adopted in the frame of management plans of concerned river basins (Water Framework Directive 2000/60/EC).

The most important management measures taken in Czechia are:

- Sediment removal.
- Intensification/reconstruction/construction of wastewater treatment plants 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.

In the bathing season 2018, one outbreak of cercarial dermatitis occurred in four bathing waters where larvae of bird schistosomes (they can cause cercarial dermatitis) in snails were found.

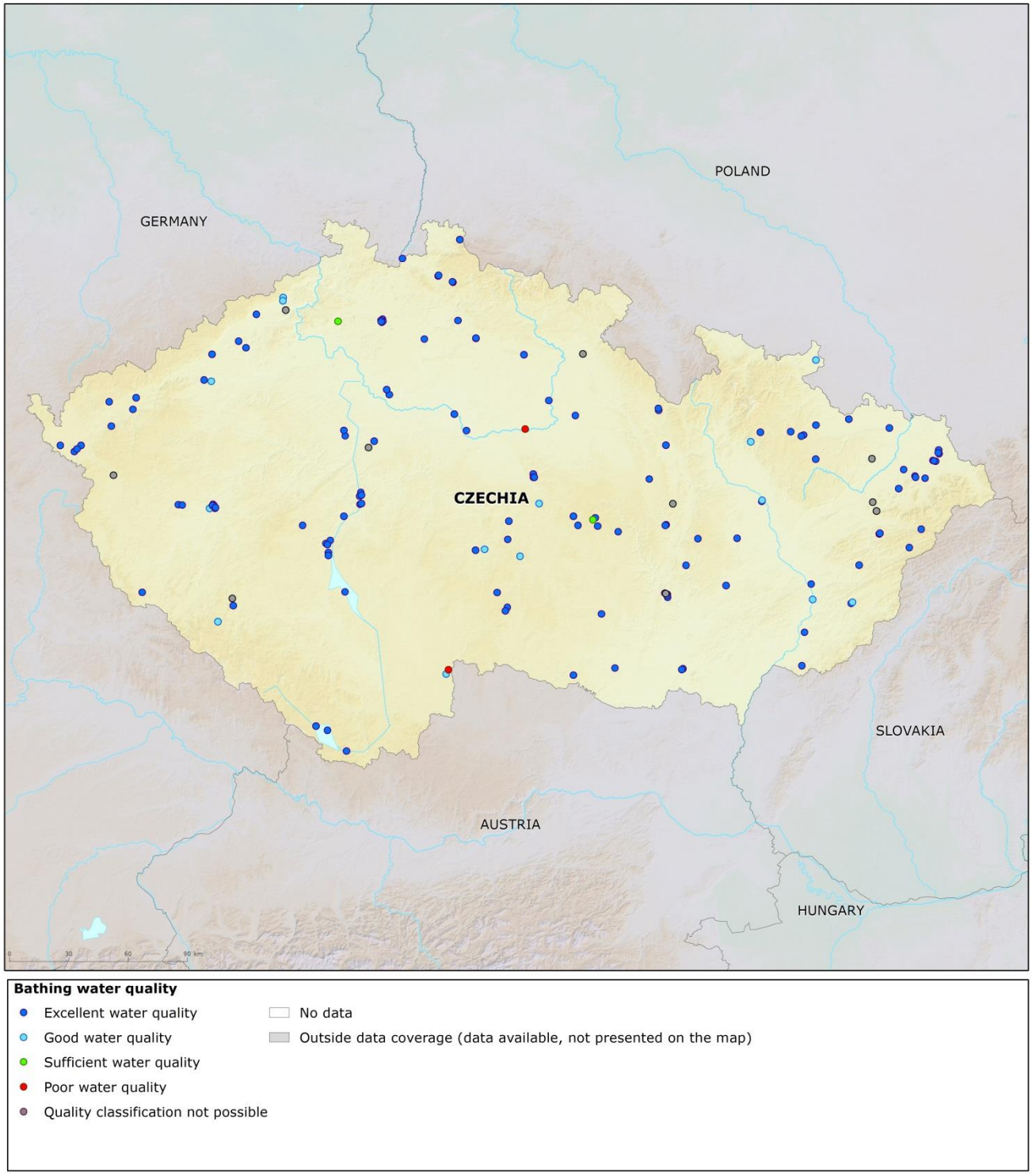
Annex I Bathing water quality in Czechia in 2015–2018

Table 3: Bathing water quality by water category and season

		Total count of bathing waters	Excellent		Good		Sufficient		Poor		Not classified	
			Count	%	Count	%	Count	%	Count	%	Count	%
Total	**2015**	153	121	79.1	19	12.4	2	1.3	3	2.0	8	5.2
	2016	154	127	82.5	13	8.4	2	1.3	1	0.6	11	7.1
	2017	154	126	81.8	15	9.7	2	1.3	1	0.6	10	6.5
	2018	153	125	81.7	14	9.2	2	1.3	2	1.3	10	6.5

Annex II Bathing water quality map

Map 1: Bathing waters reported during the 2018 bathing season in Czechia



Source: National boundaries: EEA; Large rivers and lakes: EEA, WFD Article 3;Bathing waters data and coordinates: Czech authorities; Digital Elevation Model over Europe (EU-DEM): EEA.