European Environment Agency

Bathing water results 2012 – Germany

1. Reporting and assessment

In 2012 the German authorities reported under Directive 2006/7/EC provisions a list of their bathing waters, start and end of bathing season for each bathing water, short term pollution events, events impacting bathing water quality and measured values of concentrations of two microbiological parameters — intestinal enterococci and *Escherichia coli* (also known as *E. coli*). This report gives a general overview of bathing water quality in Germany for the 2012 bathing season. Germany has reported under the Directive 2006/7/EC since 2008.

When four consecutive years of samples of intestinal enterococci and *Escherichia coli* for bathing water are available, the assessment is done according to assessment rules of the new bathing water Directive 2006/7/EC. The Annex IV of the directive requires a sample to be taken shortly before the start of the bathing season. Sampling dates are to be distributed throughout the bathing season, with the interval between sampling dates never exceeding one month. Taking into account one pre-season sample, no fewer than four samples are to be taken and analysed per bathing season. Three samples need to be taken and analysed per bathing season in the case of bathing water with either bathing season not exceeding eight weeks or being situated in a region subject to special geographical constraints. The result of such monitoring is used to build up the sets of bathing water quality data. The number of samples for the assessment period should thus be at least 16 or 12 if season duration is less than eight weeks or the region is subject to special geographical constraints.

Bathing water quality in 2012 season in Germany is assessed under the rules of the new bathing water Directive 2006/7/EC. The new Directive assessment provisions are transformed into the following technical rules: a) one pre-season sample should be available, b) the interval between sampling dates in 2012 should never exceed 35 days, provided that the next sampling is done according to the monitoring calendar; c) the yearly number of samples in the previous years should be four or three if bathing season does not exceed eight weeks.

Bathing waters quality classes according to the Directive 2006/7/EC are 'excellent', 'good', 'sufficient' and 'poor'. Bathing waters are classified on the basis of the percentile values for microbiological enumerations falling in the certain class given in Annex I of the Directive. Some bathing waters cannot be classified according to their quality but are instead classified as 'insufficiently sampled', 'new', 'changes' and 'closed'.

The bathing water is classified as 'insufficiently sampled' in 2012 if pre-season sample is missing, sampling frequency is not satisfied or the set of data is not complete. If the bathing water is newly identified and the data set is not complete yet, it is classified as 'new'. If changes that affect quality occur and the data set is not complete yet, it is classified as 'changes'. Temporarily closed bathing waters or closed bathing waters throughout 2012 season are classified into quality class there is a complete set of data available. Otherwise, they are classified as 'closed'.

2. Length of bathing season and number of bathing waters

The bathing season started between 11 May and 1 June 2012 and ended between 10 and 22 September 2012 for coastal bathing waters. Inland bathing waters opened between 1 April and 6 July 2012 and closed between 10 August and 31 October 2012.

A total of 2 295 bathing waters were reported in Germany during the 2012 bathing season, of which 366 were coastal (350) or transitional bathing waters (16) and 1 929 were inland bathing waters (31 on rivers; 1 898 on lakes). Six coastal and 21 inland bathing waters were reported as de-listed

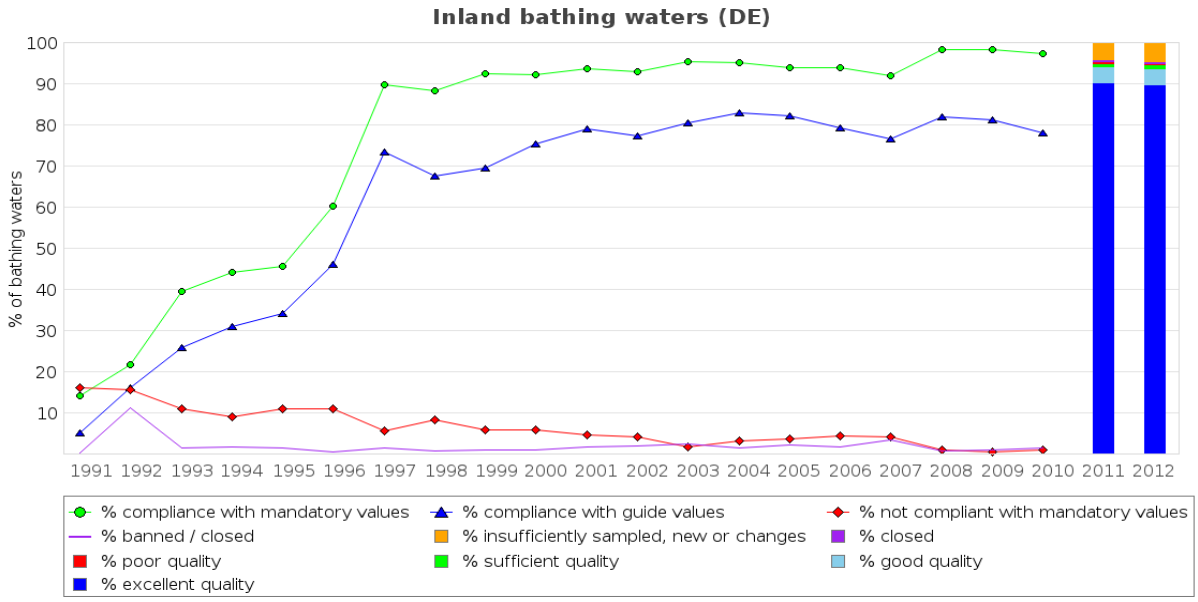
(permanently closed) compared to the previous year. No coastal and 11 inland bathing waters were added to the list.

With 2 295 reported bathing waters Germany accounts for about 11.0 % of the reported bathing waters of the European Union.

3. Bathing water quality

The results of the bathing water quality in Germany for the period 1991-2012 are presented in Figures 1 and 2[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) and the European Environment Agency's bathing water website (http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water).

Figure 1: Results of bathing water quality in Germany from 1991 to 2012.

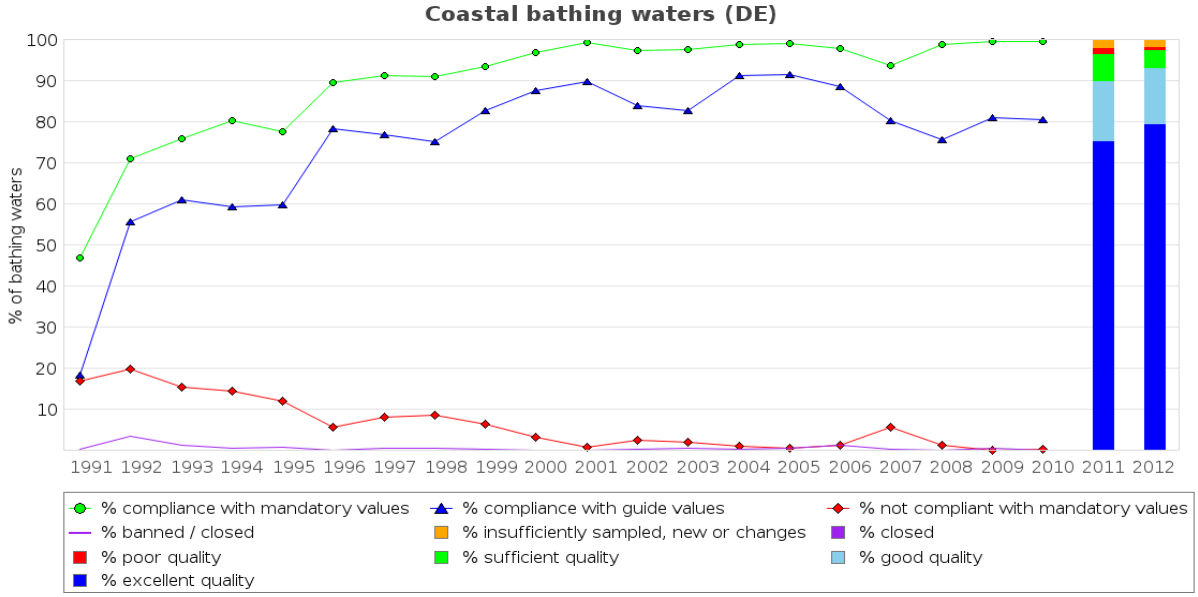


[1] The graphs show the classification under the Directive 76/160/EEC and during transition period, for coastal and inland bathing waters from 1991 to 2010:

- 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 (class B, violet line).

The same graphs show the classification under the Directive 2006/7/EC, for coastal and inland bathing waters for 2011 and 2012:

- The percentage of bathing waters that have excellent quality (dark blue bar);
- The percentage of bathing waters that have good quality (light blue bar);
- The percentage of bathing waters that have sufficient quality (green bar);
- The percentage of bathing waters that have poor quality (red bar);
- The percentage of bathing waters that are closed (violet bar);
- The percentage of bathing waters that are insufficiently sampled, new or with changes (orange bar).



Note: Data until 2008 is available in the previous reports at http://ec.europa.eu/environment/water/water-bathing/index_en.html.

Table 1 and Table 2 show results of bathing water quality for coastal, inland and all bathing waters from 2008 on as assessed in the previous annual reports and under the Directive 2006/7/EC for the 2011-2012 seasons. A map given in Appendix 1 shows the location and quality of the bathing waters.

Coastal bathing waters

In Germany, 79.5 % of the inland bathing waters were of excellent quality in 2012. This is an increase of 4.2 % compared to the previous year. A total of 50 bathing waters (13.7 %) were of good quality and 16 bathing waters (4.4 %) were of sufficient quality compared to 55 (14.8 %) and 24 (6.5 %) in 2011 respectively. Three bathing waters (0.8 %) had poor quality and no bathing waters (0.0 %) had to be closed during the season compared to six (1.6 %) and no (0.0 %) in 2011 respectively.

Inland bathing waters

Some 89.7 % of the inland bathing waters were of excellent quality in 2012. This is a decrease of 0.5 % compared to the previous year. A total of 78 bathing waters (4.0 %) were of good quality and 15 bathing waters (0.8 %) were of sufficient quality compared to 76 (3.9 %) and 13 (0.7 %) in 2011 respectively. Five bathing waters had poor quality (0.3 %) and nine bathing waters (0.5 %) had to be closed during the season compared to nine (0.5 %) and 13 (0.7 %) in 2011 respectively.

Table 1: Results of bathing water quality in Germany. Assessment during transition period.

DE												
		Total number of bathing waters	**Compliance with guide and mandatory values***		**Compliance with mandatory value**		**Not compliant**		**Banned/closed**		**Insufficiently sampled or not sampled**	
			number	**%**	**number**	**%**	**number**	**%**	**number**	**%**	**number**	**%**
Coastal bathing waters	2008	373	282	75.6	368	98.7	5	1.3	0	0.0	0	0.0
	2009	373	302	81.0	371	99.5	0	0.0	2	0.5	0	0.0
	2010	370	298	80.5	368	99.5	1	0.3	0	0.0	1	0.3
	2011											
	2012											
Inland bathing waters	2008	1890	1547	81.9	1857	98.3	20	1.1	13	0.7	0	0.0
	2009	1906	1548	81.2	1875	98.4	9	0.5	18	0.9	4	0.2
	2010	1915	1495	78.1	1862	97.2	17	0.9	27	1.4	9	0.5
	2011											
	2012											
All bathing waters	2008	2263	1829	80.8	2225	98.3	25	1.1	13	0.6	0	0.0
	2009	2279	1850	81.2	2246	98.6	9	0.4	20	0.9	4	0.2
	2010	2285	1793	78.5	2230	97.6	18	0.8	27	1.2	10	0.4
	2011											
	2012											

*Bathing waters which were compliant with the guide values were also compliant with the mandatory values for five parameters under the Directive 76/160/EEC or the mandatory value for *Escherichia coli*.

Table 2: Results of bathing water quality in Germany for 2011 and 2012. Assessment under Directive 2006/7/EC.

		Total number of bathing waters	Excellent quality		Good quality		Sufficient quality		Poor quality		Closed		Insufficiently sampled		New		Changes	
			number	%	number	%	number	%	number	%	number	%	number	%	number	%	number	%
Coastal bathing waters	2009																	
	2010																	
	2011	372	280	75.3	55	14.8	24	6.5	6	1.6	0	0.0	0	0.0	4	1.1	3	0.8
	2012	366	291	79.5	50	13.7	16	4.4	3	0.8	0	0.0	0	0.0	3	0.8	3	0.8
Inland bathing waters	2009																	
	2010																	
	2011	1938	1749	90.2	76	3.9	13	0.7	9	0.5	13	0.7	5	0.3	65	3.4	8	0.4
	2012	1929	1731	89.7	78	4.0	15	0.8	5	0.3	9	0.5	48	2.5	37	1.9	6	0.3
All bathing waters	2009																	
	2010																	
	2011	2310	2029	87.8	131	5.7	37	1.6	15	0.6	13	0.6	5	0.2	69	3.0	11	0.5
	2012	2295	2022	88.1	128	5.6	31	1.4	8	0.3	9	0.4	48	2.1	40	1.7	9	0.4

4. Important information as provided by the German authorities

Bathing water profiles were established for approximately 1800 bathing waters. The profiles were made publicly accessible online, with links included in Seasonal information datasheet reported to EEA.

In 2012, there were eight bathing waters in Germany classified as poor in quality. They are listed below:

BWID	Bathing water name	Type	2012 Status
DEBE_PR_0015	UNTERHAVEL, KLEINE BADEWIESE	Lake	poor
DEBW_PR_0012	ERISKIRCH, STRANDBAD	Lake	poor
DEBW_PR_0063	PFEDELBACH, BUCHHORNER SEE	Lake	poor
DENI_PR_TK25_2609_02	NORDSEE DOLLART DYKSTERHAUSEN BOHRINSEL	Transitional	poor
DENI_PR_TK25_2710_02	FREIBAD AN DER EMS	Transitional	poor
DENW_PR_0092	BLAUSTEINSEE	Lake	poor
DESH_PR_0178	SCHLEI;GOETHEBY	Coast	poor
DESL_PR_04002	NIED, REHLINGEN-SIERSBURG, SIERSBURG CAMPINGPLATZ	River	poor

5. General information on bathing water quality in Europe in 2012

Out of more than 22 000 bathing areas monitored throughout Europe in 2012, around two thirds were in coastal waters and the rest were in rivers and lakes. In the 2012 bathing season, the monitoring of bathing sites has been adjusted to the provisions in the EU's new bathing water directive (Directive 2006/7/EC). The sampling of water quality in most of the bathing water sites meets the frequency standards (this involves a pre-season sample of the water quality, followed up by monthly samples thereafter). As regards assessment, the provisions in the new bathing water directive have been applied in 19 European countries (Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Spain, Spain, Sweden). This involved taking data from four years of monitoring to make the 2012 assessment. For the remaining ten countries, the 2012 assessment has been carried out under a set of transitional rules that do not yet meet all the requirements of the new directive using the results from the 2012 monitoring.

In 2012, the quality of 94 % of all bathing waters met at least the minimum 'mandatory' level (corresponding to a rating of sufficient quality under the new directive). Bathing water quality improved at 1.8 % of sites in 2012 compared with 2011, and at 2.5 % of sites compared with 2010. There has also been a marked decline compared with 2011 in the number of bathing waters that were closed or that prohibited bathing.

In 2012, 95.3 % of coastal bathing waters in the EU-27 achieved the minimum quality standards requested by the EU directives — an increase of 2.0 % compared with 2011. The share of coastal bathing waters with excellent quality (or complying with the guide values) in 2012 reached 81.2 % (an increase of 0.9 % from 2011).

The percentage of inland bathing waters with excellent quality is 72 % in 2012, a 1.6 % increase from 2011. In 2012, 91 % of inland bathing waters in the European Union had good or sufficient quality. This is a 1.0 % point increase from 2011. Only 2.3 % of inland bathing waters in the EU did not satisfy the minimum quality level. This is 0.1 % decrease from the previous year, continuing the slow but steady reduction in the percentage of poor quality bathing waters.

The "European bathing water quality in 2012" report presents the results and trends in bathing water quality in 2012 in Europe (http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water). More information on bathing water quality as prepared for all reporting countries can be found on the European Environment Agency's bathing water website. The reports for the 2012 season have been produced by TC Vode, European Topic Center ICM Waters partner with support of the Institute for Water of the Republic of Slovenia (IWRS). Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

6. Interactive information on bathing water quality in Europe

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/status-and-monitoring/state-of-bathing-water), allows users to view the bathing water quality at more than 22 000 coastal beaches and inland sites across Europe. Users can check bathing water quality on an interactive map, download data for a selected country or region, and make comparisons with previous years.

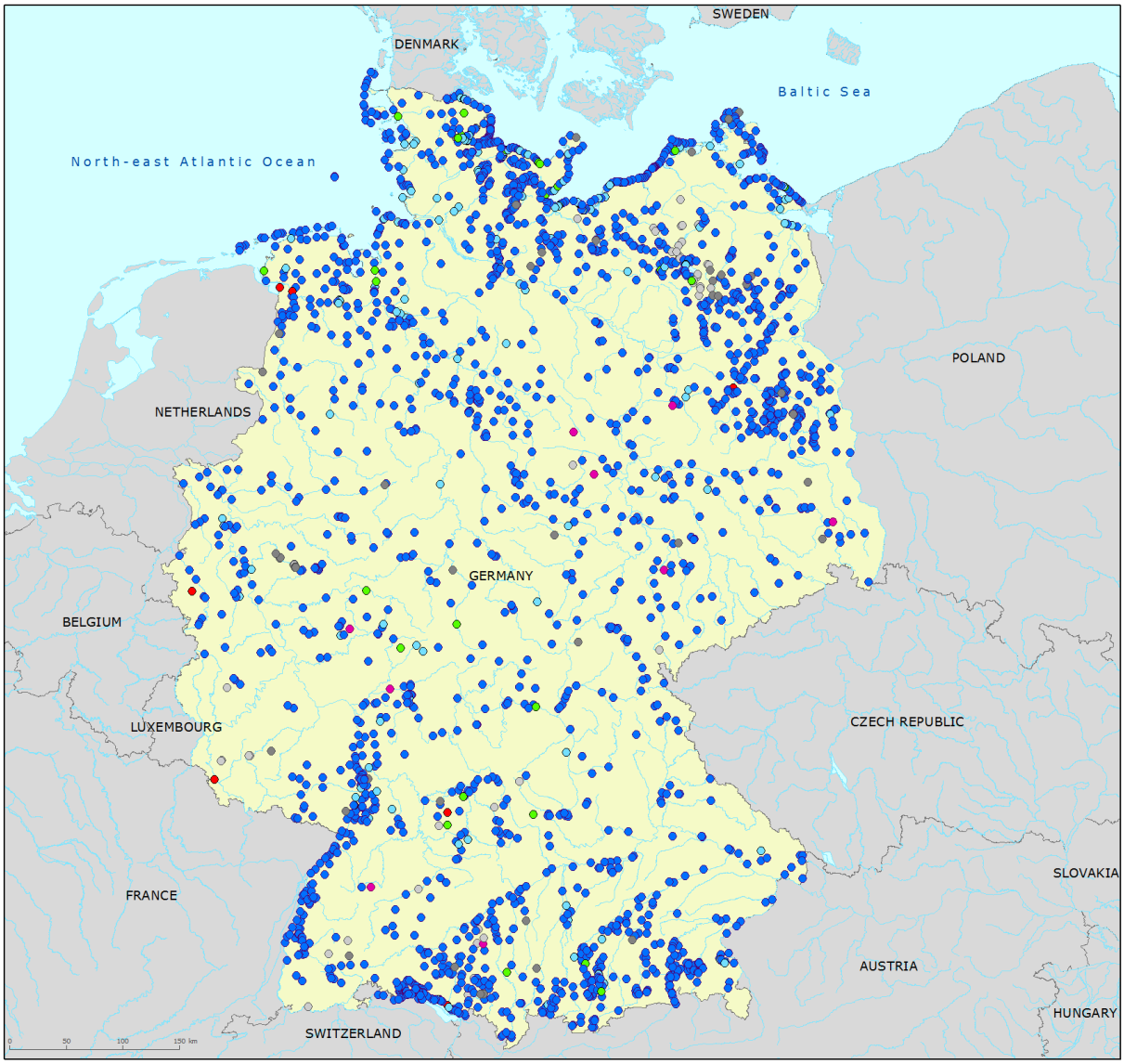
The Eye on Earth — Water Watch application (http://eyeonearth.org/map/WaterWatch/) allows users to zoom in on a section of coast, riverbank or lake, both in street map or, where available, bird's eye viewing formats.

The data on bathing water quality in 2012 and previous years can also be viewed in WISE bathing water data viewer, an application prepared by TC Vode (http://bwd.eea.europa.eu/).

In order to make information to the public more effective, all EU countries have national or local web portals with detailed information for each bathing water site. Websites generally include a map search function and public access to the monitoring results both in real time and for previous seasons. Citizens now have access to more bathing water information than ever, giving them the tools to become more actively involved in protecting the environment and helping to improve Europe's bathing areas.

Appendix 1

Map 1: Bathing waters reported during the 2012 bathing season in Germany



Bathing water quality

- Excellent water quality
- Good water quality
- Sufficient water quality
- Poor water quality
- Closed temporarily or throughout the season
- Insufficiently sampled
- New bathing water or bathing water with changes (assessment not yet possible)
- No data
- Outside data coverage (data available, not presented on the map)

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