Romanian bathing water quality in 2017

Romania 🇷🇴

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European Environment Agency

BWD Report For the Bathing Season 2017
Romania

The report gives a general overview of information acquired from the reported data, based on provisions of the Bathing Water Directive[1]. The reporting process is described below, as well as state and trends of bathing water quality in Romania.

1.   BWD reporting in the season 2017

In the 2017 bathing season, 50 bathing waters have been reported in Romania. For each bathing water, five groups of parameters have been delivered[2]:

- *identification data* – including name, location, coastal, inland or transitional type of bathing water and availability to bathers;
- *seasonal data* – including season start and end, national quality classification in the recent season, potential management measures and changes that are likely to affect the classification of the bathing water;
- *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 an event or combination of events impacting on bathing water quality, during which monitoring calendar may be suspended; reporting is optional;
- *short-term pollution periods* – measurable events of microbiological contamination; reporting is optional.

Bathing waters of Romania in 2017	
Total reported	**50**
Coastal	49
Inland	1
Max season period	**107 days**
	1 Jun to 15 Sep
Samples taken	**449**
Share of bathing waters with good or excellent water quality	**98 %**
Reporting under Directive 2006/7/EC since	**2012**

The authorities of Romania report data according to the new BWD (2006/7/EC) since the season 2012.

Altogether, **50 bathing waters** have been reported – 0.2% of all bathing waters in Europe. No bathing waters have been newly reported in the recent season. 98% of bathing waters in Romania are of coastal type and only one is inland. **449 samples** were taken at bathing waters throughout the season – 9 per bathing water on average.

The bathing season period was from 1 June to 15 September, i.e. 107 days altogether.

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[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/3294#tables

Detailed information on bathing waters is available from national portal at http://www.ms.ro/wp-content/uploads/2017/02/Profiluri-ape-imbaiere-2012.pdf.

2.   Assessment methodology[3]

Box 2.1: Change in analytical method affects bathing water classification in Romania

An important factor in the drop of the proportion of bathing water sites with excellent water quality (from 70% in 2016 to 50% in 2017) in Romania is the change in analytical method. In 2016, the method used for E. coli monitoring was EN ISO 9308-1:2001 "Water quality - Detection and enumeration of Escherichia coli and coliform bacteria - Part 1: Membrane filtration method". Beginning with the bathing season 2017, the method used is EN ISO 9308-3:1998 "Water quality - and coliform bacteria — Part 3: miniaturized method (most probable number) for the detection and enumeration of E. coli in surface and waste water". Detection and enumeration of Escherichia coli by using this method yields higher results, therefore a drop in statistics is believed not to be the result of any increased pollution.

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, livestock waste, bird faeces etc. 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 water in the bathing sites concerned.

The monitoring requirements under the Directive are:
- taking a pre-season sample (taken shortly before the start of the bathing season) [4];
- a minimum of four samples per season[5];
- a minimum of one sample per month[6].

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 'not enough samples'. 100.0% of bathing waters met the described monitoring requirements set by the Directive, while the rest did not satisfy monitoring requirements for different reasons: being new; having changed environmental conditions that might affect water quality classification; closed; not monitored due to legal issues, physical inaccessibility to the site etc. Table 1 shows the statistics of bathing waters according to monitoring requirements.

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[3] The methodology used by the EC and the EEA is described here, while results of assessment by national authorities may differ in individual cases.

[4] A pre-season sample is taken into a sum 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 2017 according to compliance with BWD monitoring provisions

	Count	Share of total [%]
BWs with sampling frequency satisfied (and are not new, are not subject to changes or were not closed in 2017) These bathing waters have been monitored according to provisions and have complete dataset from the last assessment period. They have been quality-classified (excellent, good, sufficient, poor).	50	100.0%
BWs with sampling frequency not satisfied (and are not new, are not subject to changes or were not closed in 2017) These bathing waters exist throughout the last assessment period but have not been monitored throughout the period according to provisions for various individual reasons. They may be quality-classified if there is an adequate volume of samples available for credible classification.	0	0.0%
BWs that are new, subject to changes or closed in 2017 These bathing waters do not have complete dataset for the last assessment period because they are new, have been subject to changes (that are likely to affect the classification of the bathing water) or have been closed. They cannot be quality-classified.	0	0.0%
Total number of bathing waters in 2017	**50**	**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 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, limiting the classes given in Annex I of the Directive. The Directive 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 samples[7];
- new[8];
- changes[9];
- closed[10].

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[7] Not enough samples have been provided throughout the last assessment period (the last four bathing seasons or, when applicable, the period specified in Article 4.2 or 4.4).
[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 that are likely to affect the classification of the bathing water.
[10] Bathing water is closed temporarily or throughout the bathing season.

3.   Bathing water quality

The results of the bathing water quality in Romania throughout the past period are presented in Figure 1 (for coastal bathing waters). The previous reports are available on the European Commission's bathing water quality website[11] and the European Environment Agency's bathing water website[12].

For interpretation of the statistics, also see Box 2.1.

3.1   Coastal bathing waters

In Romania, all existing coastal bathing waters met at least sufficient water quality standards in 2017. See Appendix 1 for numeric data.
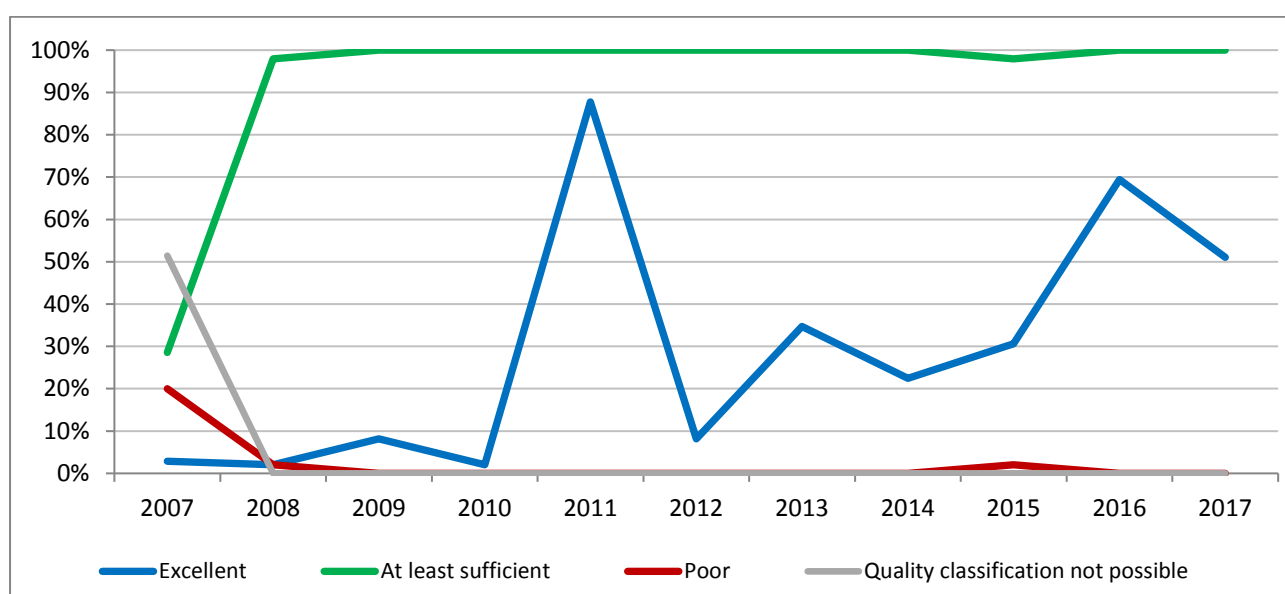

Figure 1: Coastal bathing water quality trend in Romania. Note: the "At least sufficient" class also includes bathing waters of "Excellent" quality class, the sum of shares is therefore not 100%.

3.2   Inland bathing waters

One bathing water is reported in Romania: Tulcea Lac Ciuperca, first identified in 2013 season. Its quality is classified "good".

4.   Information regarding management and other issues

The list of bathing waters identified for the bathing season 2017 and monitoring calendar was posted on the websites (Ministry of Health http://old.ms.ro/?pag=182). A public meeting on the monitoring of bathing water quality was announced at the local press on 12 May 2017, for the other stakeholders

(local authorities, press, interested public). The meeting was organized and hosted by Constanta Public Health Directory on 18 May 2017. This meeting was also attended by the other responsible from the local authorities (Institution of the Prefect of Constanta County) and local EPA - Bathing water department, Water Body Department Constanta, media (DIGI24, TV NEPTUN). Bathing water profiles have been established since 2011 and updated in 2012 - they are available in Romanian language at the link: http://old.ms.ro/?pag=182. A template for identifying and assessing causes of pollution that might affect bathing waters and impair bathers' health has been applied before beginning of the season.

The analytical methods used for monitoring are those required and mentioned by the Directive and the Romanian legislation for "intestinal enterococci" analysis ISO 7899-2:2000 is used. For "E. coli" analysis, since this bathing season, the EN ISO 9308-3:1998 is used. Monitoring results were posted every two weeks on the Constanta Public Health Directory site http://www.dspct.ro and on the billboards of the beaches for each bathing waters (also pictograms).

5.   Bathing water quality assessment presentation in online viewers

The European bathing water legislation focuses on sound 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 and inland sites across Europe. 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. Having access to bathing water information, citizens are encouraged to make full use of it and participate with their comments.

Appendix 1: Results of bathing water quality in Romania from 2014 to 2017

Table 2: Bathing waters in the season 2017 according to quality

		Total number of bathing waters	Excellent quality		At least sufficient quality		Poor quality		Quality classification not possible: not enough samples /new bathing waters/bathing waters subject to changes/closed	
			Count	%	Count	%	Count	%	Count	%
Coastal	2014	49	11	22.4	49	100.0	0	0.0	0	0.0
	2015	49	15	30.6	48	98.0	1	2.0	0	0.0
	2016	49	34	69.4	49	100.0	0	0.0	0	0.0
	2017	49	25	51.0	49	100.0	0	0.0	0	0.0
Inland	2014	1	0	0.0	1	100.0	0	0.0	0	0.0
	2015	1	1	100.0	1	100.0	0	0.0	0	0.0
	2016	1	1	100.0	1	100.0	0	0.0	0	0.0
	2017	1	0	0.0	1	100.0	0	0.0	0	0.0
Total	**2014**	**50**	**11**	**22.0**	**50**	**100.0**	**0**	**0.0**	**0**	**0.0**
	2015	**50**	**16**	**32.0**	**49**	**98.0**	**1**	**2.0**	**0**	**0.0**
	2016	**50**	**35**	**70.0**	**50**	**100.0**	**0**	**0.0**	**0**	**0.0**
	2017	**50**	**25**	**50.0**	**50**	**100.0**	**0**	**0.0**	**0**	**0.0**

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 2017 bathing season in Romania

Bathing water quality

- Excellent water quality
- Good water quality
- Sufficient water quality
- Poor water quality
- Quality classification not possible: not enough samples / new bathing waters / bathing waters with changes / closed

- No data
- Outside data coverage (data available, not presented on the map)

Source: National boundaries: EEA; Large rivers and lakes: EEA, WFD Article 3; Rivers in Western Balkan: TC Vode; Bathing waters data and coordinates: Romanian authorities; Digital Elevation Model over Europe (EU-DEM): EEA.