Latvian bathing water quality in 2017

Latvia

May 2018

European Environment Agency

BWD Report For the Bathing Season 2017
Latvia

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 Latvia.

1.   BWD reporting in the season 2017

In the 2017 bathing season, 56 bathing waters have been reported in Latvia. 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 Latvia in 2017	
Total reported	**56**
Coastal	33
Inland	23
Max season period	**124 days**
	15 May to 15 Sep
Samples taken	**317**
Share of bathing waters with good or excellent water quality	**95 %**
Reporting under Directive 2006/7/EC since	**2008**

The authorities of Latvia report data according to the new BWD (2006/7/EC) since the season 2008.

Altogether, **56 bathing waters** have been reported – 0.3% of all bathing waters in Europe. No bathing waters have been newly reported in the recent season. 59% of bathing waters in Latvia are of coastal type; the other 41% are inland. **317 samples** were taken at bathing waters throughout the season – 6 per bathing water on average.

The bathing season period was from 15 May to 15 September, i.e. 124 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.vi.gov.lv/lv/vides-veseliba/peldudens.

2.   Assessment methodology[3]

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'. 82.1% 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.

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).	46	82.1%
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.	7	12.5%
BWs that are new, subject to changes or closed in 2017 These bathing waters do not have complete dataset for the last assessment	3	5.4%

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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.

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.		
Total number of bathing waters in 2017	**56**	**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].

3.   Bathing water quality

The results of the bathing water quality in Latvia throughout the past period are presented in Figure 1 (for coastal bathing waters) and Figure 2 (for inland 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].

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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.
[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

3.1 Coastal bathing waters

In Latvia, all quality-classified bathing waters were of at least sufficient quality in the season 2017, which represents 97.0% of all existing coastal bathing waters (i.e. including those that cannot be quality classified because they are new, subject to changes or closed). See Appendix 1 for numeric data.
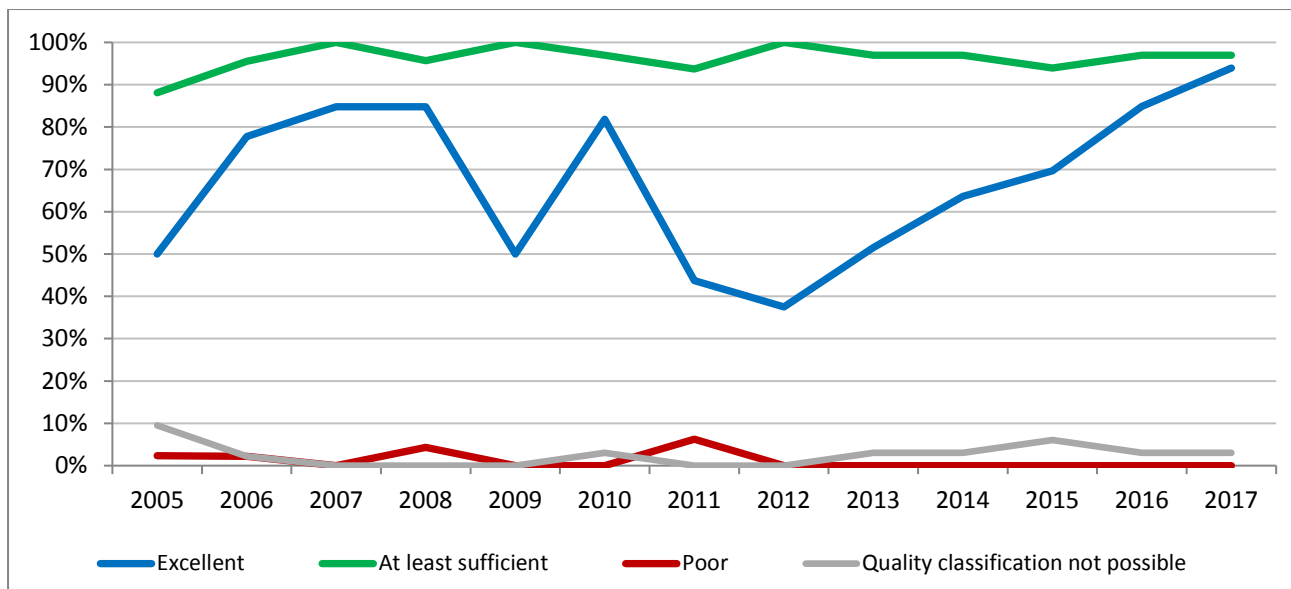
Figure 1: Coastal bathing water quality trend in Latvia. Note: the "At least sufficient" class also includes bathing waters of "Excellent" quality class, the sum of shares is therefore not 100%.

3.2 Inland bathing waters

All quality-classified inland bathing waters were of at least sufficient water quality in 2017; this represents 91.3% of all existing inland bathing waters (i.e. including those that cannot be quality classified because they are new, subject to changes or closed). See Appendix 1 for numeric data.
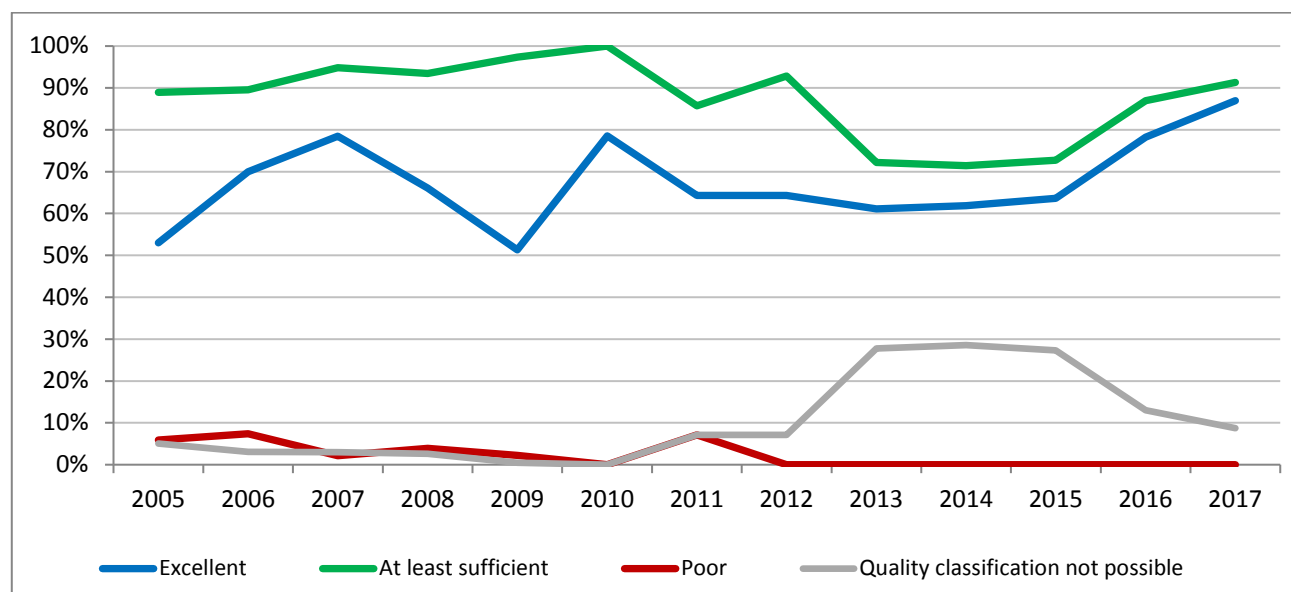
Figure 2: Inland bathing water quality trend in Latvia. Note: the "At least sufficient" class also includes bathing waters of "Excellent" quality class, the sum of shares is therefore not 100%.

4. Information regarding management and other issues

Latvia is rich with water which is especially appreciated in the summer months. There are more than 2000 lakes of natural origin and more than 12 000 rivers. Beside inland bathing waters, Latvia has approximately 500 km of coast. A large part of these water bodies are used for recreation and swimming.

The proposed list of bathing places is distributed to municipalities each year before the bathing season and comments on the proposed list are asked. The list of bathing places is published on the internet homepage of Health Inspectorate, as well, and the public is asked to provide its suggestions with respect to desired changes during the whole bathing season both to Health Inspectorate and to respective municipality. Besides, municipalities are asked to provide additional bathing sites located in their territory, being significant for them and attracting large amount of bathers. In 2017 no new bathing site were added. In addition, municipalities can suggest excluding a bathing site from the list of bathing waters due to very small number of bathers and loss of importance as a bathing site.

During the bathing season, the Health Inspectorate performs the inspection of bathing, as well as the monitoring of bathing water. When bathing at specific bathing water is prohibited for whatever reason, bathing prohibition is announced also on Health Inspectorate website (http://www.vi.gov.lv/lv/vides-veseliba/peldudens/peldudens-monitorings). On this website also some other information are available to the public, such as: the list of official bathing places, detailed information on the presence of bacteria measured, bathing water quality at informal bathing sites, etc. Bathing waters in Latvia are equipped with boards, where visitors can inform themselves about bathing water quality, bathing restrictions such as bathing prohibition and advice against bathing, maximum depth, rescue service location, safety requirements, first aid, etc.

The Health Inspectorate on their website (http://www.vi.gov.lv/lv/vides-veseliba/peldudens/peldvietu-udens-apraksti) also offers more detailed bathing water descriptions for official bathing waters, to reflect in detail the current status of bathing water, water quality and factors that may cause water pollution to better manage the quality of bathing water and hence improve bathing water quality. These descriptions are primarily aimed at understanding what is the possibility of being affected by microbial contamination. The Public Health Monitoring Division of the Health Inspectorate on this website also invites citizens to submit their comments and suggestions, as well as any other information that would help clarify bathing descriptions via a specific e-mail address (vide@vi.gov.lv).

Citizen participation and engagement is also encouraged through a questionnaire available on another website of Health Inspectorate (available at http://www.vi.gov.lv/lv/vides-veseliba/peldudens/ied). Using this questionnaire, everyone can express his observations, opinions and suggestions regarding specific bathing waters and related topics.

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 Latvia from 2014 to 2017

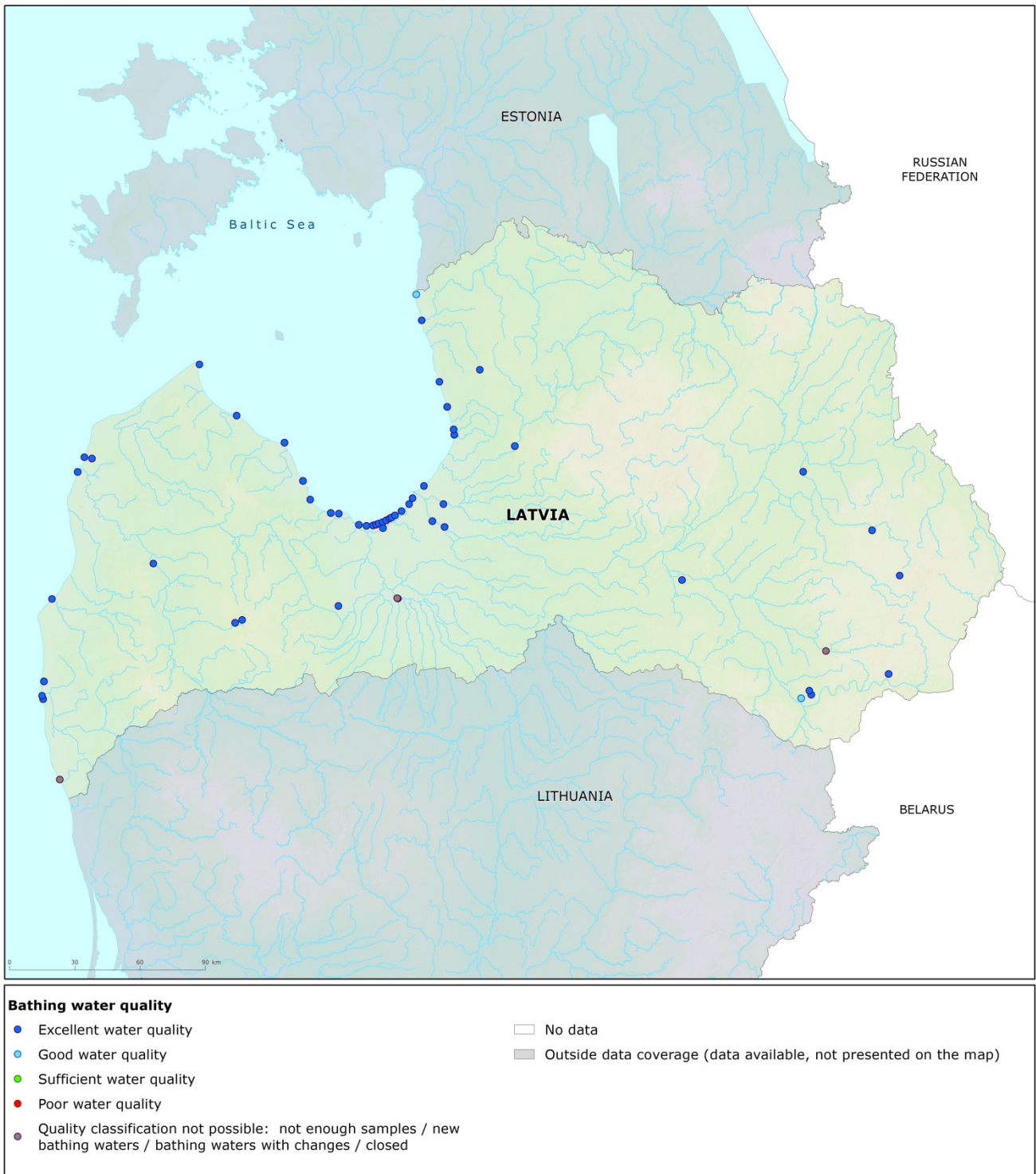**Table 2: Bathing waters in the season 2017 according to quality**

		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	33	21	63.6	32	97.0	0	0.0	1	3.0
	2015	33	23	69.7	31	93.9	0	0.0	2	6.1
	2016	33	28	84.8	32	97.0	0	0.0	1	3.0
	2017	33	31	93.9	32	97.0	0	0.0	1	3.0
Inland	2014	21	13	61.9	15	71.4	0	0.0	6	28.6
	2015	22	14	63.6	16	72.7	0	0.0	6	27.3
	2016	23	18	78.3	20	87.0	0	0.0	3	13.0
	2017	23	20	87.0	21	91.3	0	0.0	2	8.7
Total	**2014**	**54**	**34**	**63.0**	**47**	**87.0**	**0**	**0.0**	**7**	**13.0**
	2015	**55**	**37**	**67.3**	**47**	**85.5**	**0**	**0.0**	**8**	**14.5**
	2016	**56**	**46**	**82.1**	**52**	**92.9**	**0**	**0.0**	**4**	**7.1**
	2017	**56**	**51**	**91.1**	**53**	**94.6**	**0**	**0.0**	**3**	**5.4**

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 Latvia

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)