

Bathing water results 2009 – Latvia

1. Introduction

This report gives a general overview of bathing water quality in Latvia during the 2009 bathing season. Latvia reported under the Directive 2006/7/EC in 2008 and 2009 bathing season.

Before the necessary data set for assessment of bathing water quality under the Directive 2006/7/EC is compiled (data for three or four consecutive years) the rules for transition period assessment is done. This means that the classification of bathing waters is defined on the basis of concentrations of intestinal enterococci and *Escherichia coli* that are reported under the Directive 2006/7/EC. The limit values for the classification are taken from the Directive 76/160/EEC. For the conversion of reported parameters under the Directive 2006/7/EC, Article 13.3 of the Directive 2006/7/EC foresees that the parameter *Escherichia coli*, reported under the Directive 2006/7/EC, is assumed to be equivalent to the parameter faecal coliforms of the Directive 76/160/EEC. The parameter intestinal enterococci reported under the Directive 2006/7/EC is assumed to be equivalent to the parameter faecal streptococci.

The results are classified in the following categories:

- Compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli* and not compliant with the guide values of the Directive 76/160/EEC for *Escherichia coli* or intestinal enterococci (class CI);
- Compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli* and the more stringent guide values for the *Escherichia coli* and intestinal enterococci (class CG);
- Not compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli* (class NC);
- Banned or closed (temporarily or throughout the season) (class B).

This year the interval between two samples during the bathing season should not be larger than 41 days. The interval is longer than 31 days as defined in the Directive 2006/7/EC, since we are approaching the year 2012 only when the assessment rules will be in full compliance with the rules of this Directive. Furthermore, the first sample that should be taken shortly before the start of the bathing season could be taken even 10 days after the start of the bathing season.

2. Length of bathing season and number of bathing waters

For all bathing waters the bathing season lasted four months, from 15 May to 15 September 2009.

A total of 274 bathing waters were monitored in Latvia during the 2009 bathing season, of which 46 were coastal (31) or transitional bathing waters (15) and 228 freshwater bathing waters (58 on rivers; 170 on lakes (lakes, reservoirs or ponds)).

With 274 bathing waters Latvia accounts for about 1.3% of the reported bathing waters of the European Union.

The evolution of the reported number of bathing waters since monitoring of the water quality began under the Directive 76/160/EEC and the Directive 2006/7/EC is presented in Table 1. The number of coastal bathing waters increased since the start of the reporting from 42 in 2005 to 46 in 2007 and remained the same afterwards. The number of freshwater bathing waters decreased from 236 in 2004 to 228 in 2009. Two bathing waters were de-listed in 2009 compared to the previous year.

3. Results of bathing water quality

The results of the bathing water quality in Latvia for the period 2005-2008 as reported in the past reporting years and for the bathing season of 2009 are presented in Figure 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; Water and Health/Bathing Water/2005-2009 reports) and the European Environment Agency's bathing water website (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>; reports for 2008 bathing season).

The graphs show, for coastal and freshwater bathing waters separately:

- 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 (temporarily or throughout the season) (class B, grey line).

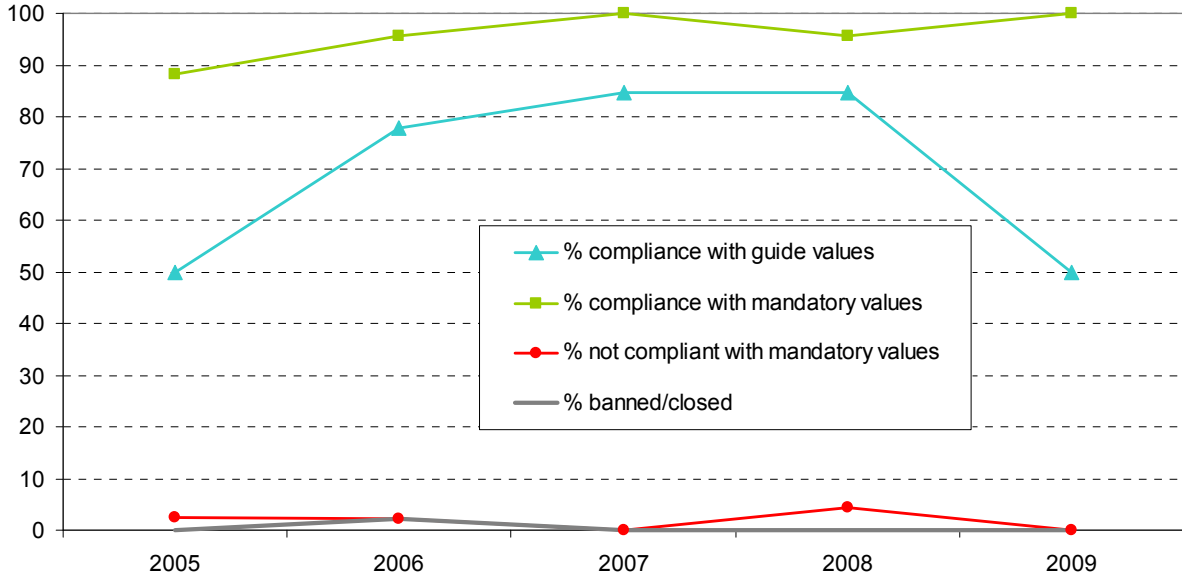
Table 1 shows the same information in absolute numbers and in percentages separately for coastal and freshwater bathing waters. Table 2 shows the bathing water quality results for 2009 season in Latvia for all bathing waters.

Map 1 shows the locations of the reported bathing waters in Latvia. The location of the bathing waters is based on the geographic coordinates reported by the Latvian authorities.

Figure 1: Results of bathing water quality in Latvia from 2005 to 2009

Coastal bathing waters (LV)

% of bathing waters



Freshwater bathing waters (LV)

% of bathing waters

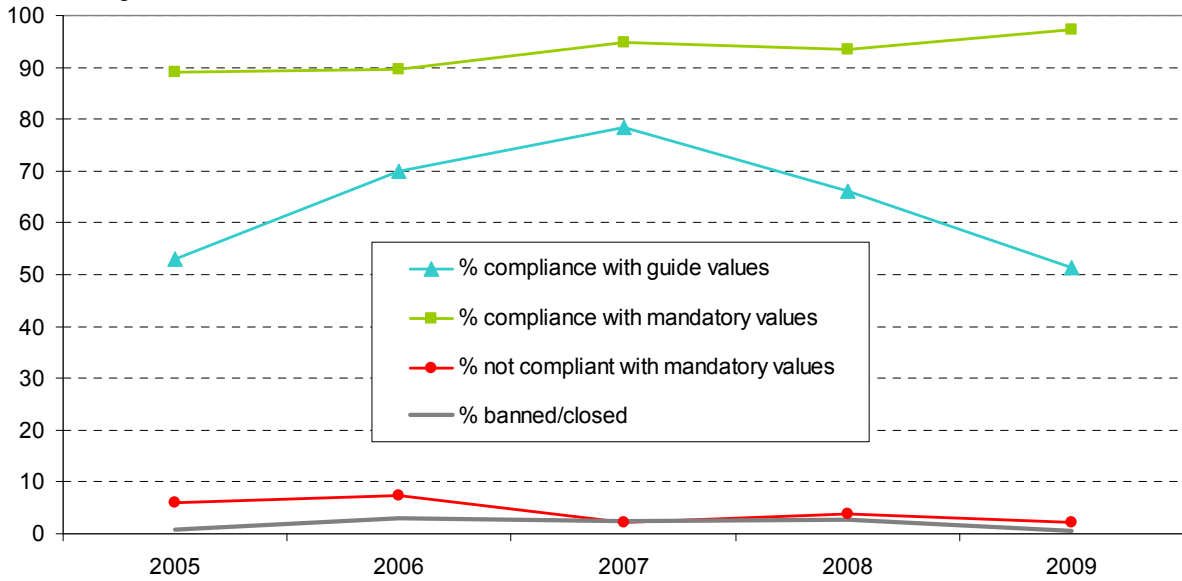


Table 1: Results of bathing water quality in Latvia from 2005 to 2009

LV										
		Total number of bathing waters	Compliance with guide values		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%
Coastal bathing waters	2005	42	21	50.0	37	88.1	1	2.4	0	0.0
	2006	45	35	77.8	43	95.6	1	2.2	1	2.2
	2007	46	39	84.8	46	100.0	0	0.0	0	0.0
	2008	46	39	84.8	44	95.7	2	4.3	0	0.0
	2009	46	23	50.0	46	100.0	0	0.0	0	0.0
Freshwater bathing waters	2005	236	125	53.0	210	89.0	14	5.9	2	0.8
	2006	230	161	70.0	206	89.6	17	7.4	7	3.0
	2007	232	182	78.4	220	94.8	5	2.2	6	2.6
	2008	230	152	66.1	215	93.5	9	3.9	6	2.6
	2009	228	117	51.3	222	97.4	5	2.2	1	0.4

Note: Bathing waters which were insufficiently sampled or not sampled according to the Bathing Water Directive or the New Bathing Water Directive were not included in this table. Therefore, in some cases, the sum of the different categories will not be equal to the total number of bathing waters. 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 (2005-2007) or the mandatory value for *Escherichia coli* (2008, 2009).

Table 2: Results of bathing water quality for all bathing waters in Latvia in 2009

LV										
		Total number of bathing waters	Compliance with guide values		Compliance with mandatory value for <i>Escherichia coli</i>		Not compliant		Banned/closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%
Bathing waters	2009	274	140	51.1	268	97.8	5	1.8	1	0.4

Note: Bathing waters which were compliant with the guide values were also compliant with the mandatory value for *Escherichia coli*.

4. Development of bathing water quality

Coastal bathing waters

In Latvia, 100% of the coastal bathing waters met the mandatory water quality in 2009. This is an increase of 4.3% compared to the previous year. The rate of compliance with the guide values, however, decreased significantly from 84.8% to 50%. No coastal bathing water had to be closed during the season.

Since 2005, the compliance rate with the guide values increased from 50% to just below 85% in 2007 and 2008. However, in 2009, the guide water quality dropped to the level already reached in 2005. The compliance rate with the mandatory values was above 95% since 2006, reaching 100% compliance in 2007 and 2009.

Freshwater bathing waters

97.4% of the freshwater bathing waters met the mandatory water quality in 2009. This is an increase of 3.9% compared to the previous year. The rate of compliance with the guide values, however, decreased from 66.1% to 51.3%. The number of non-compliant bathing waters with the mandatory value for *Escherichia coli* was five (2.2%) compared to nine (3.9%) in 2008. Only one bathing water (0.4%) was closed during the season compared to six bathing waters (2.6%) in 2008.

From 2005 onward we see an overall increase in the compliance rate, although it took Latvia till the 2007 bathing season to reach a level of non-compliant freshwater bathing waters below 5%. The mandatory water quality improved from just under 90% of the bathing waters in 2005 and 2006 to 97.4% in 2009. After an increase from 53% of the bathing waters in 2005 to 78.4% in 2007, the guide water quality decreased to 51.3% in 2009.

5. General information as provided by the Latvian authorities

Two freshwater bathing waters on rivers were de-listed in 2009 bathing season. Mežaparka ūdkr. 1 (LV00956010002) and Mežaparka ūdkr. 3 (LV00956010004) were practically unused as municipality of Jekabpils has determined for development one most popular bathing place out of three located in the same water body in a short distance from each other.

The lake's bathing place Unguru ezers (LV00842740003) was closed in August 2009 due to occurrence of mass blooming of cyanobacteria.

Samples were taken from the same places approximately one time per month mostly from the area where the number of swimmers was the biggest. The bathing water quality problems are formally considered in River Basin Management Plans according to Water Framework Directive (2000/60/EC) which have been approved by the end of 2009. Unfortunately, investments needed to improve bathing water quality are not evaluated because the new Bathing Waters Directive (Directive 2006/7/EC) sets new criteria and approach for classification of bathing water quality. Only after the transition period it will be possible to assess the final quality of bathing waters and improvement measures needed.

6. More information on bathing water quality in the European Union

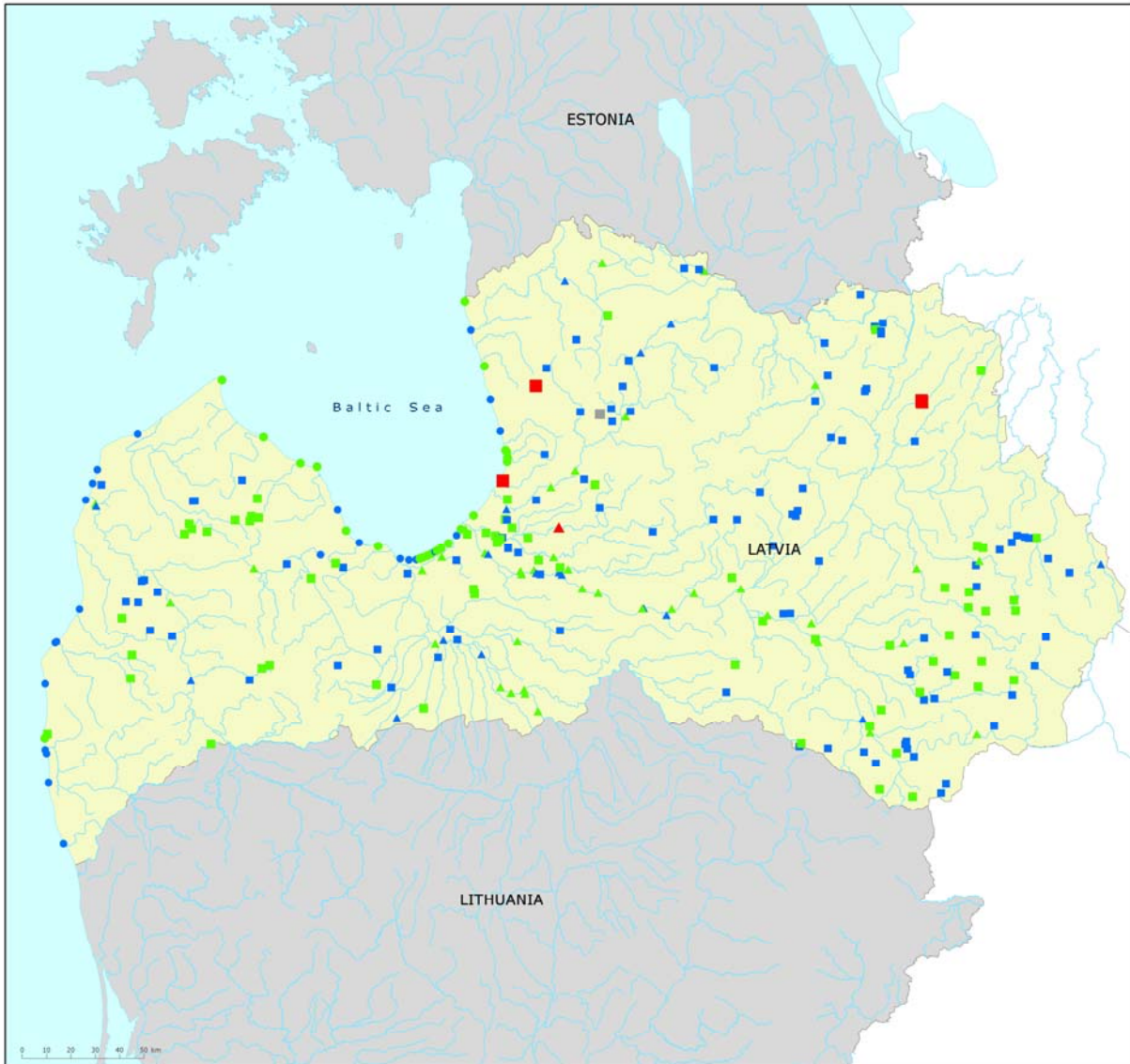
More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html) and the European Environment Agency's bathing water website (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>). The reports for the bathing seasons of 2008 and 2009 have been produced by the Institute for Water of the Republic of Slovenia (IWRS), a partner in the EEA European Topic Centre on Water (ETC/W). Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

By 2015, Member States will have to comply with the stricter and more ambitious requirements laid out in the New Bathing Water Directive (Directive 2006/7/EC). This Directive requires more effective monitoring and management of bathing waters, greater public participation and improved information. More information on the new Directive can be found on the bathing water quality website and on <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>.

Cyprus, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Slovakia, Spain and Sweden started to report according to more stringent new requirements in 2008 bathing season. Malta and the Netherlands started to report in 2009 bathing season under the new requirements. Sweden and Malta also sent data for three previous bathing seasons under the new requirements. Luxembourg started to monitor under the new requirements in 2006 bathing season, while reported for the first time in 2007 bathing season.

WISE - Water Information System for Europe (www.water.europa.eu) is a gateway to all water related information. Among other water related data, information on individual bathing water quality can be found in the WISE map viewer and WISE Bathing Water Quality data viewer through interactive maps and graphs (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>).

Map 1: Bathing waters reported during the 2009 bathing season in Latvia



Bathing water quality			No data
Bathing waters on rivers	Bathing waters on lakes	Coastal/transitional bathing waters	Outside data coverage (data available, not presented on the map)
▲ Compliant with guide values	■ Compliant with guide values	● Compliant with guide values	□ No data
▲ Compliant with mandatory values	■ Compliant with mandatory values	● Compliant with mandatory values	■ Outside data coverage (data available, not presented on the map)
▲ Closed*	■ Closed*	● Closed*	
▲ Insufficiently sampled or not sampled	■ Insufficiently sampled or not sampled	● Insufficiently sampled or not sampled	
▲ Not compliant with mandatory values	■ Not compliant with mandatory values	● Not compliant with mandatory values	

Note: * banned or closed (temporarily or throughout the season)
 More data on bathing water quality on: <http://www.eea.europa.eu/themes/water/mapviewers/bathing>
Source: National boundaries: GISCO, Large rivers and lakes: EEA, WFD Article 3, Bathing waters data and coordinates: Latvian authorities