European Environment Agency

Bathing water results 2009 – Lithuania

1. Introduction

This report gives a general overview of bathing water quality in Lithuania during the 2009 bathing season. Lithuania 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 3.5 months, from 1 June to 15 September 2009.

A total of 112 bathing waters were monitored in Lithuania during the 2009 bathing season, of which 16 were coastal bathing waters and 96 freshwater bathing waters (24 on rivers; 72 on lakes). Two freshwater bathing waters were insufficiently sampled.

With 112 bathing waters Lithuania accounts for about 0.5% 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 remained stable. It started with 14 in 2004 and increased to 16 in 2008 and 2009. The number of freshwater bathing waters increased from 53 in 2004 to 96 in 2009. There were 13 more freshwater bathing waters in 2009 than in the previous year: 14 new bathing waters were added to the list and one was de-listed.

3. Results of bathing water quality

The results of the bathing water quality in Lithuania for the period 2004-2008 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).

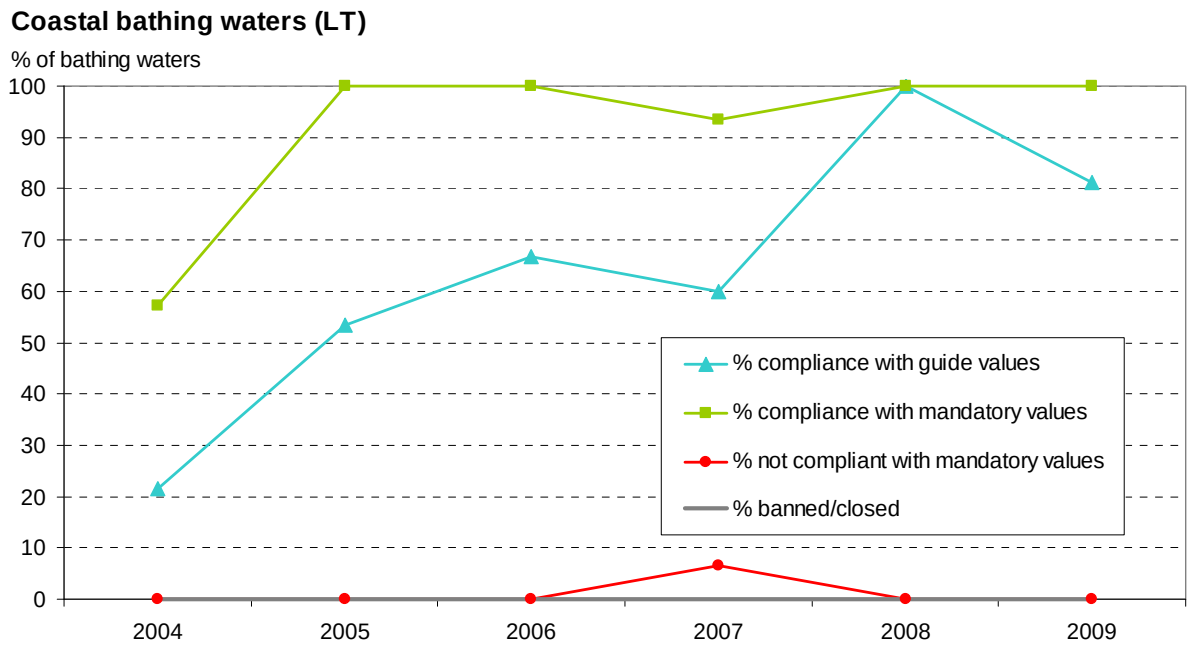
The graphs show, for coastal and freshwater bathing waters separately:

- 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 Lithuania for all bathing waters.

Map 1 shows the location of the reported bathing waters in Lithuania. The location of the bathing waters is based on the geographic coordinates reported by the Lithuanian authorities.

Figure 1: Results of bathing water quality in Lithuania from 2004 to 2009



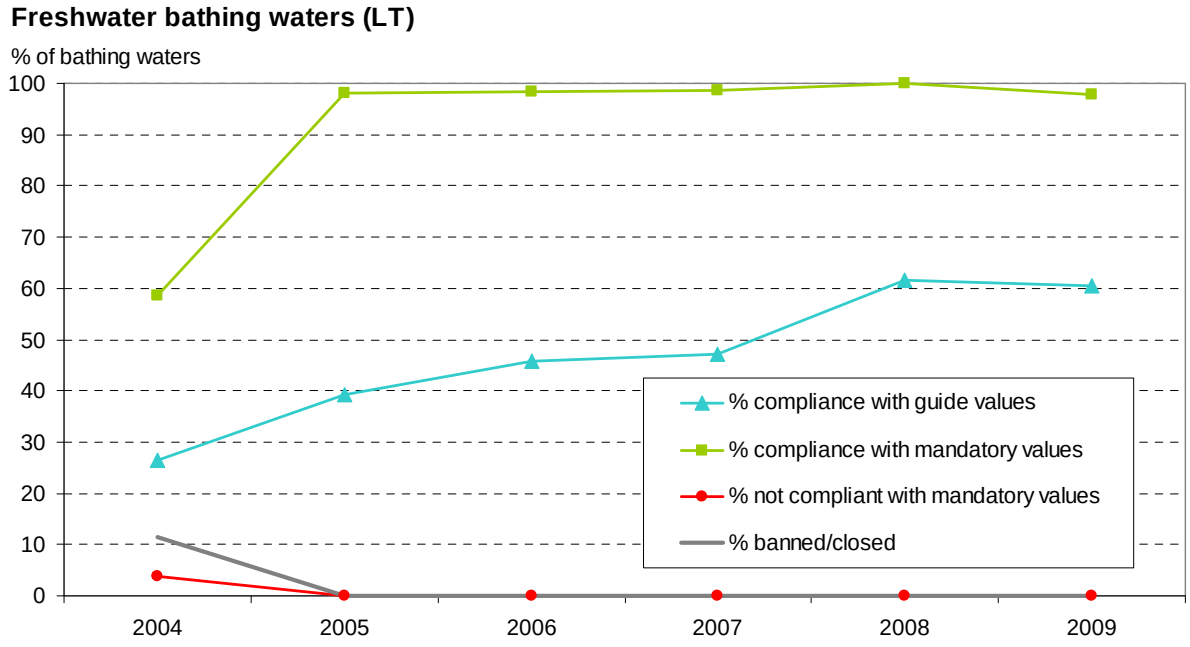


Table 1: Results of bathing water quality in Lithuania from 2004 to 2009

LT										
		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	2004	14	3	21.4	8	57.1	0	0.0	0	0.0
	2005	15	8	53.3	15	100.0	0	0.0	0	0.0
	2006	15	10	66.7	15	100.0	0	0.0	0	0.0
	2007	15	9	60.0	14	93.3	1	6.7	0	0.0
	2008*	16	16	100.0	16	100.0	0	0.0	0	0.0
	2009	16	13	81.3	16	100.0	0	0.0	0	0.0
Freshwater bathing waters	2004	53	14	26.4	31	58.5	2	3.8	6	11.3
	2005	56	22	39.3	55	98.2	0	0.0	0	0.0
	2006	59	27	45.8	58	98.3	0	0.0	0	0.0
	2007	70	33	47.1	69	98.6	0	0.0	0	0.0
	2008*	83	51	61.4	83	100.0	0	0.0	0	0.0
	2009	96	58	60.4	94	97.9	0	0.0	0	0.0

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 (2004-2007) or the mandatory value for *Escherichia coli* (2008, 2009).
* : Changes after official report for 2008 bathing season.

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

LT										
		Total number of bathing waters	Compliance with guide values		Compliance with mandatory value for *Escherichia coli*		Not compliant		Banned/closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%
Bathing waters	2009	112	71	63.4	110	98.2	0	0.0	0	0.0

Note: Bathing waters which were insufficiently sampled according to the New Bathing Water Directive were not included in this table. Therefore the sum of the different categories is not equal to the total number of bathing waters. 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 Lithuania, 100% of the coastal bathing waters met the mandatory water quality in 2009, the same as in the previous year. The rate of compliance with the guide values was 81.3%. This is a decrease compared to 2008, when 100% of the bathing waters met the guide values. Since the start of reporting in 2004, no coastal bathing water had to be closed during the season.

In 2004 the compliance rate in coastal bathing waters was relatively low, due to a large number of insufficiently sampled bathing waters. Since 2005, the compliance rate with mandatory values reached 100% with a dip in 2007. The compliance with the guide values decreased to above 80% in 2009 after a significant improvement from above 50% in 2005 to 100% in 2008.

Freshwater bathing waters

97.9% of the freshwater bathing waters met the mandatory water quality in 2009 compared to 100% in the previous year. The rate of compliance with the guide values was 60.4%, which is a decrease of 1%. No bathing water was non-compliant with the mandatory value for *Escherichia coli*. Two bathing waters did not meet the mandatory water quality since they were classified as insufficiently sampled. Since 2005, no freshwater bathing water had to be closed during the season.

Since 2005, the compliance rate with mandatory values remained about 98%, except in 2008 (100%). The compliance rate with the guide values reached above 60% since 2008 after a moderate increase during the previous years.

5. General information as provided by the Lithuanian authorities

De-listing of bathing water

The bathing water Akmenos-Danes (LT0032120010410) on river Akmena-Dane was de-listed in 2009 bathing season due to a small number of bathers and not developed infrastructure.

Public participation (lists of bathing waters)

Before the bathing season, the concerned public in their local territory can participate and provide suggestions in regard to newly built or reconstructed beaches to validate (identify) the use of local authority decisions/orders.

Interested members of the public (public health centres, businesses, kindergartens, schools, other organizations, people) may participate in meetings of municipal councils. The public is informed through the regional press and local radio. The local information is available on Internet sites and local government. The one stop service was established. This enables people to submit comments, suggestions and complaints.

Public information

An information point for bathers has been installed in a visible location in each bathing area, providing the following information:

- length of bathing season;
- frequency of sampling;
- results of the most recent water analysis;
- information on short-term pollution and recommendations to refrain from bathing.

Information on bathing water quality is provided on a regular basis on the internet, over the radio and in the local press.

Short term pollution

Short term pollution was reported at two bathing waters. Coastal bathing water Bendrojo Pliazo (LT0032500101012) was affected by short term pollution due to dumping of waste. The following actions were taken: information to public on media, information to bathers on site, preventing access, observing and additional monitoring. Pollution point has been found and eliminated. Freshwater bathing water Levens (LT0052741010850) was affected by short term pollution due to other causes. The following actions were taken: information to public on media, information to bathers on site, observing and additional monitoring.

Reduction of contamination from diffuse and concentrated sources

Various methods are used in Lithuania to reduce surface water (and bathing water) pollution from point and diffuse sources:

- contamination of waters by urban wastewater is being reduced by building/rebuilding wastewater collection and treatment systems. It is expected that Lithuania's commitment to implement the EU Directive on urban wastewater treatment (91/271/EEC) by 2010 will be fulfilled on time;

- pollution standards are being laid down for the discharge of pollutants into the environment, the points at which wastewater is discharged into the environment are being selected so as to minimise its adverse effects on the environment, and a system of permits which ensures effective monitoring of compliance with requirements etc. is being applied to emissions;
- surface waters are being protected by establishing buffer zones in which farming activity is subject to stringent restrictions (for instance, the use of fertilisers, pesticides, other chemicals, liquid manure, etc. is prohibited);
- farmers are being encouraged to apply the requirements of good agricultural practice (and good environmental practice) by creating conditions enabling farmers who implement such requirements to receive EU aid.

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

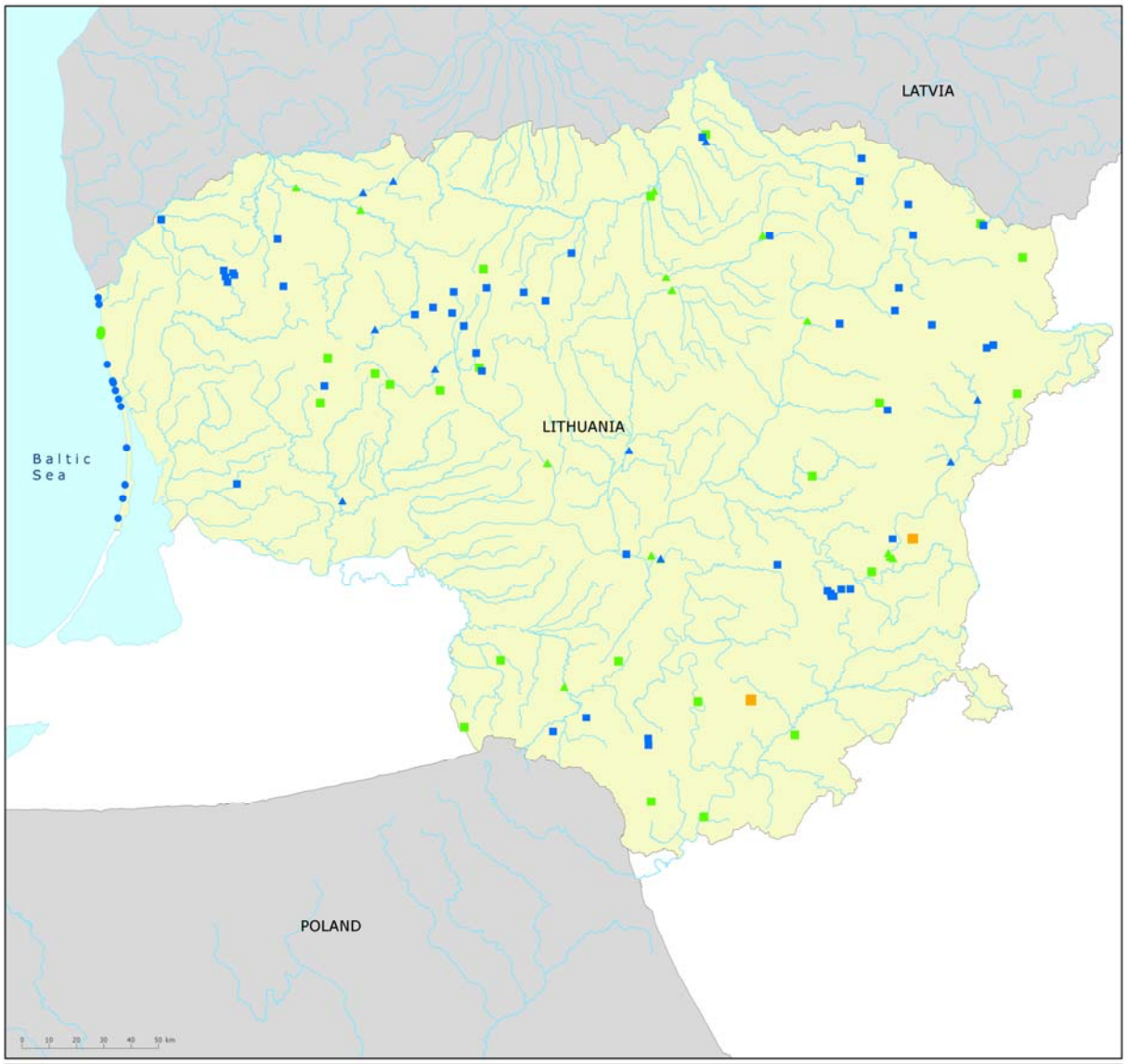
More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html) 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 Lithuania



Bathing water quality

Bathing waters on rivers	Bathing waters on lakes	Coastal/transitional bathing waters	
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. Lithuanian authorities