European Environment Agency

Bathing water results 2009 – Estonia

1. Introduction

This report gives a general overview of bathing water quality in Estonia during the 2009 bathing season. Estonia 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 three months, from 1 June to 31 August 2009.

A total of 55 bathing waters were monitored in Estonia during the 2009 bathing season, of which 27 were coastal bathing waters and 28 freshwater bathing waters (five on rivers; 23 on lakes). One coastal and one freshwater bathing water were insufficiently sampled.

With 55 bathing waters Estonia accounts for about 0.3% 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. Both the number of coastal bathing waters and the number of freshwater bathing waters remained the same from 2005 to 2007 (34 coastal bathing waters; 38 freshwater bathing waters). It increased since the start of the reporting from 8 coastal and 15 freshwater bathing waters in 2004. Afterwards, it decreased to 27 coastal bathing waters in 2009 and 28 freshwater bathing waters in 2008 and 2009. There was one less coastal bathing water in 2009 than in the previous year: one new bathing water was added to the list and two were de-listed.

3. Results of bathing water quality

The results of the bathing water quality in Estonia 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 Estonia for all bathing waters.

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

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

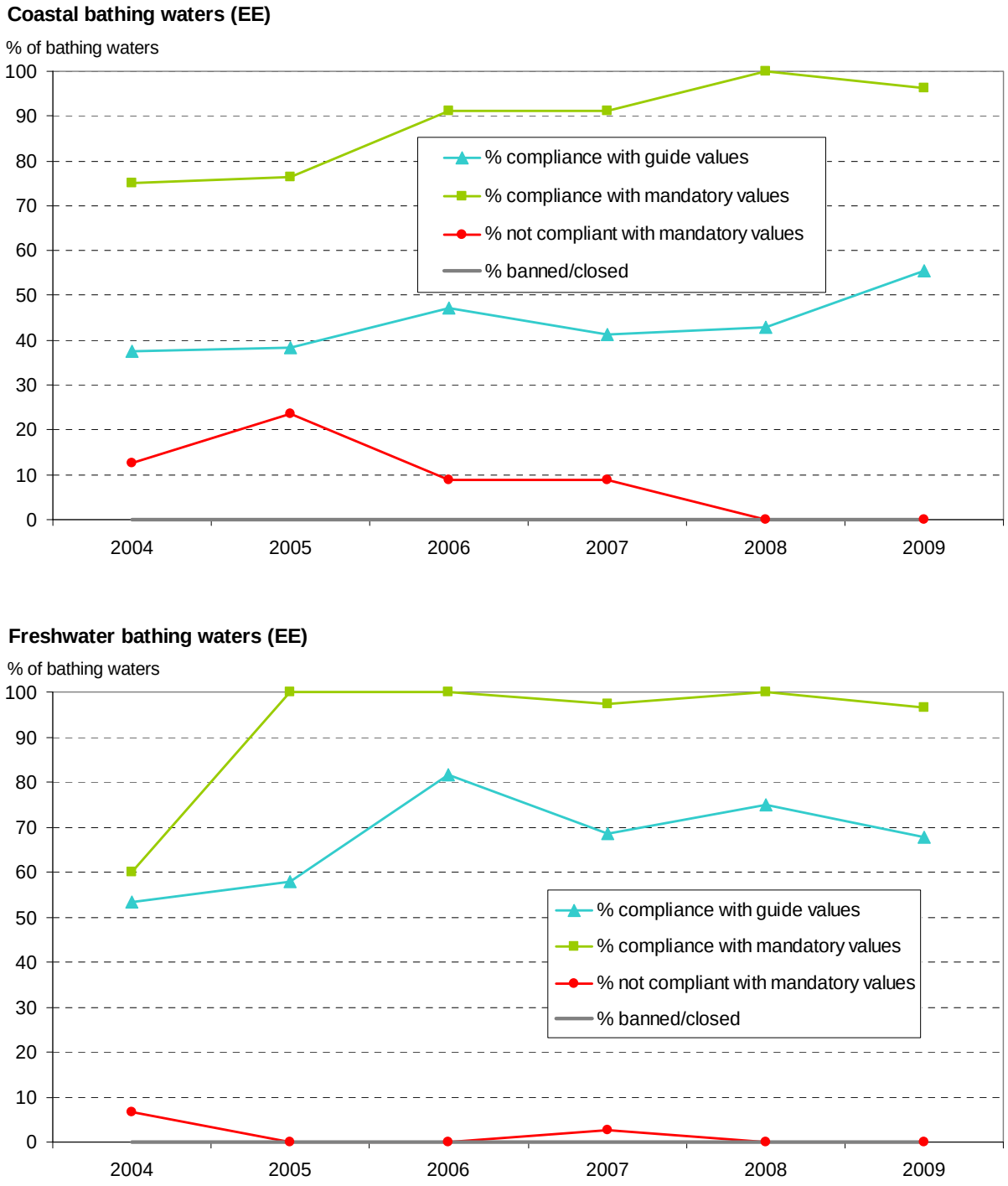


Table 1: Results of bathing water quality in Estonia from 2004 to 2009

EE										
		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	8	3	37.5	6	75.0	1	12.5	0	0.0
	2005	34	13	38.2	26	76.5	8	23.5	0	0.0
	2006	34	16	47.1	31	91.2	3	8.8	0	0.0
	2007	34	14	41.2	31	91.2	3	8.8	0	0.0
	2008	28	12	42.9	28	100.0	0	0.0	0	0.0
	2009	27	15	55.6	26	96.3	0	0.0	0	0.0
Freshwater bathing waters	2004	15	8	53.3	9	60.0	1	6.7	0	0.0
	2005	38	22	57.9	38	100.0	0	0.0	0	0.0
	2006	38	31	81.6	38	100.0	0	0.0	0	0.0
	2007	38	26	68.4	37	97.4	1	2.6	0	0.0
	2008	28	21	75.0	28	100.0	0	0.0	0	0.0
	2009	28	19	67.9	27	96.4	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).

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

EE										
		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	55	34	61.8	53	96.4	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 Estonia, 96.3% of the coastal bathing waters met the mandatory water quality in 2009. This is a decrease compared to the previous year, when 100% of the bathing waters were in compliance. The rate of compliance with the guide values was 55.6%, which is an increase of 12.7%. No bathing water was non-compliant with the mandatory value for *Escherichia coli*. Since the start of the reporting in 2004, no coastal bathing water had to be closed during the season.

From 2004 on, there is an improvement of the percentage of bathing waters that comply with mandatory values. The percentages of bathing waters that complied with the more stringent guide values fluctuated around 40% till 2008 and increased above 55% in 2009.

Freshwater bathing waters

96.4% of the freshwater bathing waters met the mandatory water quality in 2008. This is a decrease compared to the previous year, when 100% of the bathing waters were in compliance. The rate of compliance with the guide values also decreased from 75% to 67.9%. No bathing water was non-compliant with the mandatory value for *Escherichia coli*. As for the coastal bathing waters, only one bathing water did not meet the mandatory water quality since it was classified as insufficiently sampled. Since 2004, no freshwater bathing water had to be closed during the season.

After 2004, there was an improvement in the quality of the freshwater bathing waters, both in terms of compliance with the mandatory values as with the guide values. All bathing waters met the mandatory water quality in 2005, 2006 and 2008. Since 2006, the rate of compliance with the guide values is fluctuating between 67.9% in 2009 and 81.6% in 2006.

5. General information as provided by the Estonian authorities

Monitoring

For the year 2009, Estonia reported 55 bathing waters to the European Commission. All these bathing waters are under surveillance of the Health Protection Inspectorate during the bathing season. Samples were taken from the same places at least once a month (often more frequently), mostly from the area where the number of swimmers was the greatest.

De-listing of bathing waters

Two coastal bathing waters were de-listed in the 2009 bathing season. There was low number of bathers at bathing water Andineeme (EE00101009ANDIN). Bathing water owner was not interested to open bathing season because of tight budget. Water quality is good. The nearest bathing place is Salmistu where the bathing water quality is monitored. Bathing water owner of Loksa (EE00101022LOKSA) was also not interested to open bathing season, because of tight budget. Water quality is good. The nearest bathing places are Salmistu and Võsu where the bathing water quality is monitored.

The legislative background

The requirements of Directive 2006/7/EC are promulgated in Estonian law in the Public Health Act, the Water Act, and regulation implementing them.

Quality and control requirements for bathing water are laid down in the Decree of the Government No. 74 from 3rd April 2008 “Requirements to bathing waters and bathing sites”. The regulation says that bathing place must be safe to bathers. The regulation establishes requirements for bathing places, bathing water quality, monitoring, classification, quality management and reference methods, also establishes the provision of information to the public. Private or public bodies owning the bathing place are the subject of the regulation.

In accordance to legislation the Health Protection Inspectorate is responsible for arranging bathing water monitoring and doing state supervision, collecting and processing the data on the bathing water quality, advising bathing place owners, informing public and establishing bathing water profiles.

Information for the public and other significant management measures

Significant management measures according to Directive 2006/7/EC includes a monitoring calendar, bathing water quality monitoring, bathing water quality assessment during the season and after the season and information to the public. The bathing water profile has been already established for five bathing waters.

During bathing season information about quality of bathing water is available at the bigger beaches, on the web site of Health Protection Inspectorate: http://www.tervisekaitse.ee/?mid=27 as well as it is posted to counties and central newspapers and occasionally in TV or radio.

Water quality

It was second bathing season for Estonia to monitor bathing waters according to the new European legislation. Almost 360 samples were taken for intestinal enterococci and *E. coli* analyses. Ten of those samples did not comply with the national requirements. Non-compliance with the parameters limit values occurred once or twice during the bathing season and lasted some days. Short term pollution was reported at two bathing waters. After the bathing season water quality was assessed in accordance with Directive 76/160/EEC. All bathing waters are compliant with mandatory values. One abnormal situation took place at Pedeli beach in South-Estonia in the end of June and in July. This bathing place is situating in the small town near Latvian boarder by the river which goes through Latvia. Faecal contamination in Pedeli bathing place was caused by opening the dam in Latvia. The maximum number (6 600) of *E. coli* bacteria was counted in samples that were taken at the end of June. After that the number of bacteria decreased and normalised in the end of July. New samples were taken to replace samples that were taken during the abnormal situation. The public was informed and during this period bathing was not recommended. There was information at beach, also in newspapers and HPI homepage.

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

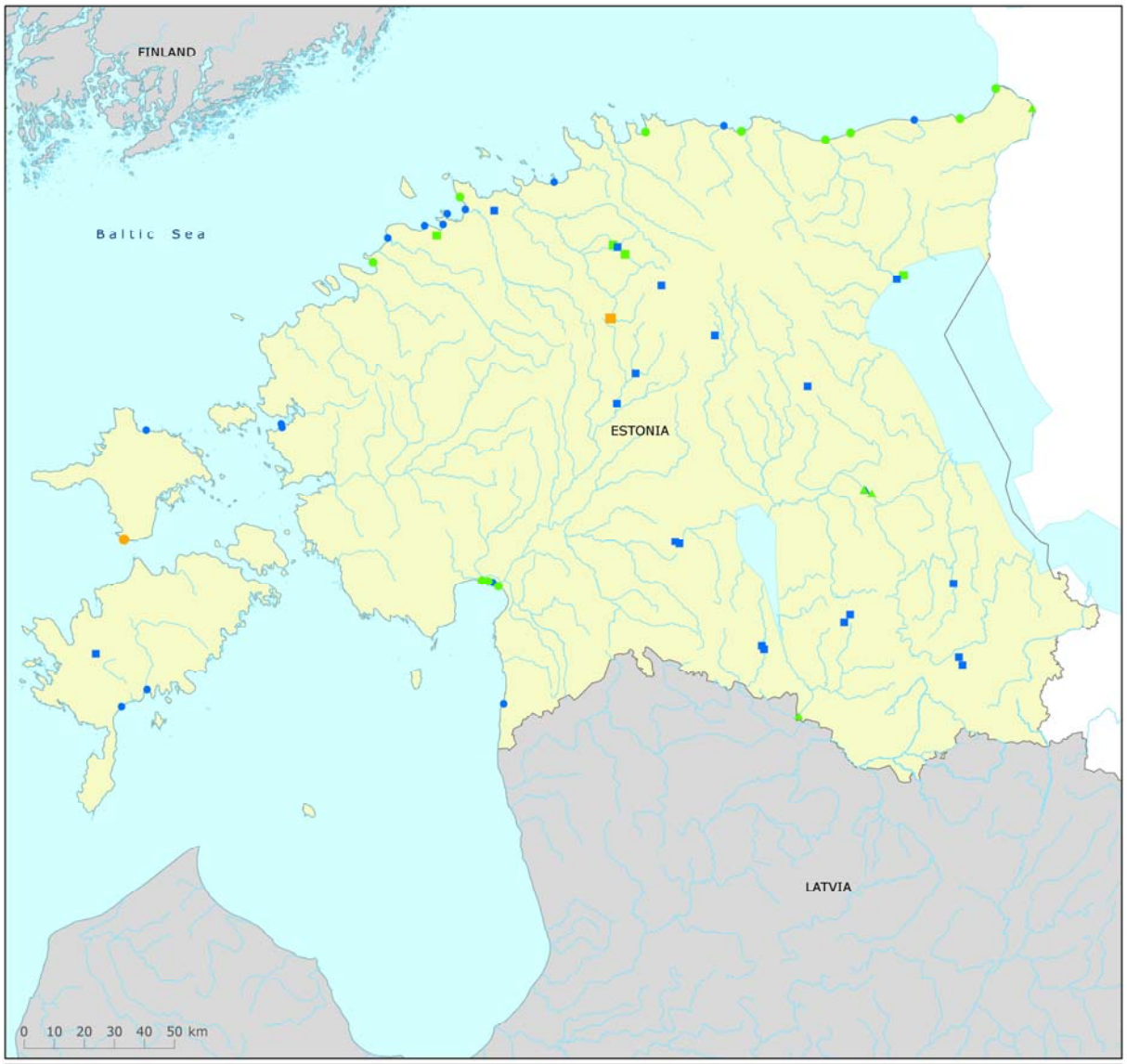
More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html)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



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: Estonian authorities