

Bathing water results 2008 – Luxembourg

1. Introduction

This report gives a general overview of bathing water quality in Luxembourg during the 2008 bathing season. Luxembourg reported under the Directive 2006/7/EC already in 2007 bathing season.

During the transition period, samples of Intestinal enterococci and Escherichia coli are reported under the Directive 2006/7/EC, but assessment is done according to the assessment rules of Directive 76/160/EEC. For the conversion of reported parameters under Directive 2006/7/EC, Article 13.3 of the Directive 2006/7/EC foresees that the parameter Escherichia coli, reported under Directive 2006/7/EC, is assumed to be equivalent to the parameter Faecal coliforms of Directive 76/160/EEC. The parameter Intestinal enterococci reported under Directive 2006/7/EC is assumed to be equivalent to the parameter Faecal streptococci. This means that the parameters Intestinal enterococci and Escherichia coli are evaluated according to the guide and mandatory standards defined in the Annex to Directive 76/160/EEC for the parameters Faecal streptococci and Faecal coliforms respectively.

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 value of the Directive 76/160/EEC for 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 (temporarily closed) or closed throughout the season (class B)

2. Length of bathing season and number of bathing waters

For all bathing waters the bathing season lasted 3.5 months, from 15 May to 31 August 2008.

Since the start of reporting in 1990, a total of 20 bathing waters were monitored in Luxembourg, all freshwater bathing waters on rivers. Luxembourg has no coastal bathing waters.

With 20 bathing waters Luxembourg accounts for about 0.1% of the reported bathing waters of the European Union.

3. Results of bathing water quality

The results of the bathing water quality in Luxembourg for the period 1990-2007 as reported in 2008 report and for the bathing season of 2008 are presented in Figure 1.

The graph shows, for freshwater bathing waters:

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

Table 1 and Table 2 show the same information in absolute numbers and in percentages for freshwater bathing waters.

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

Figure 1: Results of bathing water quality in Luxembourg from 1990 to 2008

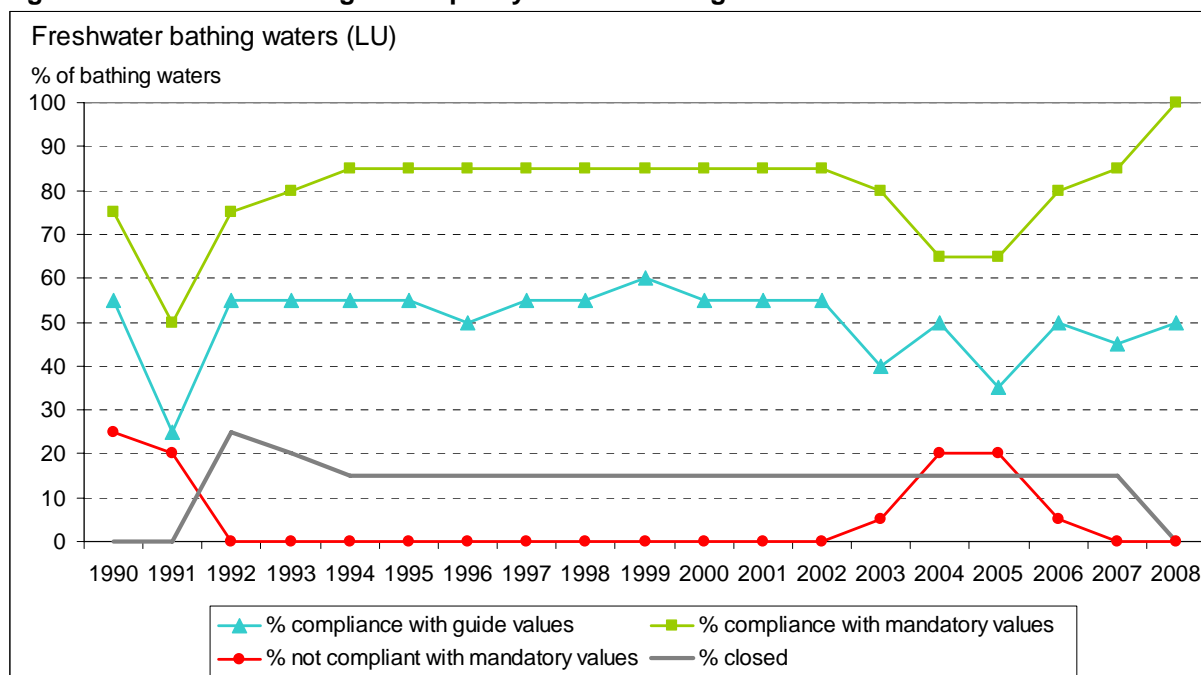


Table 1: Results of bathing water quality in Luxembourg from 1990 to 2008 as absolute numbers

	Year	Total number of bathing waters	Compliance with guide values	Compliance with mandatory values	Not compliant	Banned/closed throughout the season
		LU				
Fresh-water bathing waters	1990	20	11	15	5	0
	1991	20	5	10	4	0
	1992	20	11	15	0	5
	1993	20	11	16	0	4
	1994	20	11	17	0	3
	1995	20	11	17	0	3
	1996	20	10	17	0	3
	1997	20	11	17	0	3
	1998	20	11	17	0	3
	1999	20	12	17	0	3
	2000	20	11	17	0	3
	2001	20	11	17	0	3
	2002	20	11	17	0	3
	2003	20	8	16	1	3
	2004	20	10	13	4	3
	2005	20	7	13	4	3
2006	20	10	16	1	3	
2007	20	9	17	0	3	
2008	20	10	20	0	0	

Note: Bathing waters which were insufficiently sampled or not sampled according to the 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.

Table 2: Results of bathing water quality in Luxembourg from 1990 to 2008 as percentages

	Year	Total number of bathing waters	% compliance with guide values	% compliance with mandatory values	% not compliant	% banned/closed throughout the season
		LU				
Fresh-water bathing waters	1990	20	55.0	75.0	25.0	0.0
	1991	20	25.0	50.0	20.0	0.0
	1992	20	55.0	75.0	0.0	25.0
	1993	20	55.0	80.0	0.0	20.0
	1994	20	55.0	85.0	0.0	15.0
	1995	20	55.0	85.0	0.0	15.0
	1996	20	50.0	85.0	0.0	15.0
	1997	20	55.0	85.0	0.0	15.0
	1998	20	55.0	85.0	0.0	15.0
	1999	20	60.0	85.0	0.0	15.0
	2000	20	55.0	85.0	0.0	15.0
	2001	20	55.0	85.0	0.0	15.0
	2002	20	55.0	85.0	0.0	15.0
	2003	20	40.0	80.0	5.0	15.0
	2004	20	50.0	65.0	20.0	15.0
	2005	20	35.0	65.0	20.0	15.0
	2006	20	50.0	80.0	5.0	15.0
2007	20	45.0	85.0	0.0	15.0	
2008	20	50.0	100.0	0.0	0.0	

Note: Bathing waters which were insufficiently sampled or not sampled according to the Bathing Water Directive are not included in this table. Therefore, in some cases, the sum of the percentages is not equal to 100%.

4. Development of bathing water quality

In Luxembourg, 100% of the freshwater bathing waters (20) met the mandatory water quality in 2008. This is an increase by 15% compared to the previous year, when 17 bathing waters were compliant with the mandatory values. 50 % of the bathing waters (10) met the guide values, which is a half of the bathing waters that met the mandatory value for for *Escherichia coli*. This is an increase of one bathing water (+ 5%) compared to the previous year.

The overall water quality increased compared to the previous seasons. In 2007, the compliance rate for the mandatory values reached again the same level as in the period from 1994 until 2002. In 2008, the compliance rate was 100% for the first time. The bathing waters compliant with the more stringent guide values remained a slightly lower as the level in 2002. The number of bathing waters that were non-compliant reached the same level of zero as in the period from 1992 until 2002. Three bathing waters had to be closed throughout the season every year from 1994 to 2007. After 16 years, no bathing waters had to be closed during the 2008 season, the same as at the beginning of reporting in 1990 and 1991.

5. General information as provided by the Luxembourg authorities

An exhaustive report is published by the water authorities every year to inform the public about bathing water quality. In cooperation with the Health Inspectorate, the water authorities notified the public of the ban on bathing in the Lower Sûre by publishing press releases and putting up explanatory posters close to the bathing areas concerned.

During the 2008 bathing season the Grand Duchy of Luxembourg analysed two parameters - 'intestinal enterococci' and '*Escherichia coli*' - which form the basis of monitoring laid down in the new Directive 2006/7/EC concerning the management of bathing water quality and repealing Directive

76/160/EEC. This analysis was undertaken at sufficiently frequent intervals to meet the requirements laid down in the new Directive.

The methods of analysis used are based on the MPN principle and are derived directly from international standard ISO 9308-3 with respect to *E. coli* and ISO 7899-1 with respect to intestinal enterococci, as provided for in Directive 2006/7/EC. Since January 2007 these two methods have been certified for use in the laboratory in conformity with ISO 17025 (General requirements for the competence of testing and calibration laboratories).

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

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

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, while Luxembourg already started 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 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 2008 bathing season in Luxembourg

