

Bathing water results 2009 – Luxembourg

1. Introduction

This report gives a general overview of bathing water quality in Luxembourg for the 2009 bathing season. Luxembourg monitored under the Directive 2006/7/EC from 2006 bathing season on, while reported under this Directive in 2007 bathing season for the first time.

When a set of samples of intestinal enterococci and *Escherichia coli* for a bathing water for three or four consecutive years is available, the assessment is done according to assessment rules of the Directive 2006/7/EC.

The classification under the Directive 2006/7/EC is the following:

- Excellent quality for both parameters;
- Good quality if both parameters are good or only one is good and the second is excellent;
- Sufficient quality if both parameters are sufficient or only one parameter is sufficient and the second is good or excellent;
- Poor quality if both parameters are poor or only one parameter is poor;
- Temporarily closed or closed throughout the season.

The assessment of bathing water quality in Luxembourg is done under the Directive 2006/7/EC. For the assessment the following rules are used. The first sample could be taken 10 days after the start of the 2009 bathing season in spite of the fact that it is defined by the Directive 2006/7/EC to be taken shortly before the start of the bathing season. The interval between two samples during the 2009 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.

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 2009.

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 1990-2008 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 graph shows the classification under the Directive 76/160/EEC and during transition period, for freshwater bathing waters from 1990 to 2008:

- 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).

The same graph shows the classification under the Directive 2006/7/EC, for freshwater bathing waters for 2009:

- The percentage of bathing waters that have excellent quality (dark blue bar);
- The percentage of bathing waters that have good quality (light blue bar);
- The percentage of bathing waters that have sufficient quality (green bar);
- The percentage of bathing waters that have poor quality (red bar);
- The percentage of bathing waters that are temporarily closed or closed throughout the season (grey bar).

Table 1 shows the same information in absolute numbers and in percentages for freshwater bathing waters from 1990 to 2008. Table 2 shows the same information in absolute numbers and in percentages for freshwater bathing waters for 2009.

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 2009

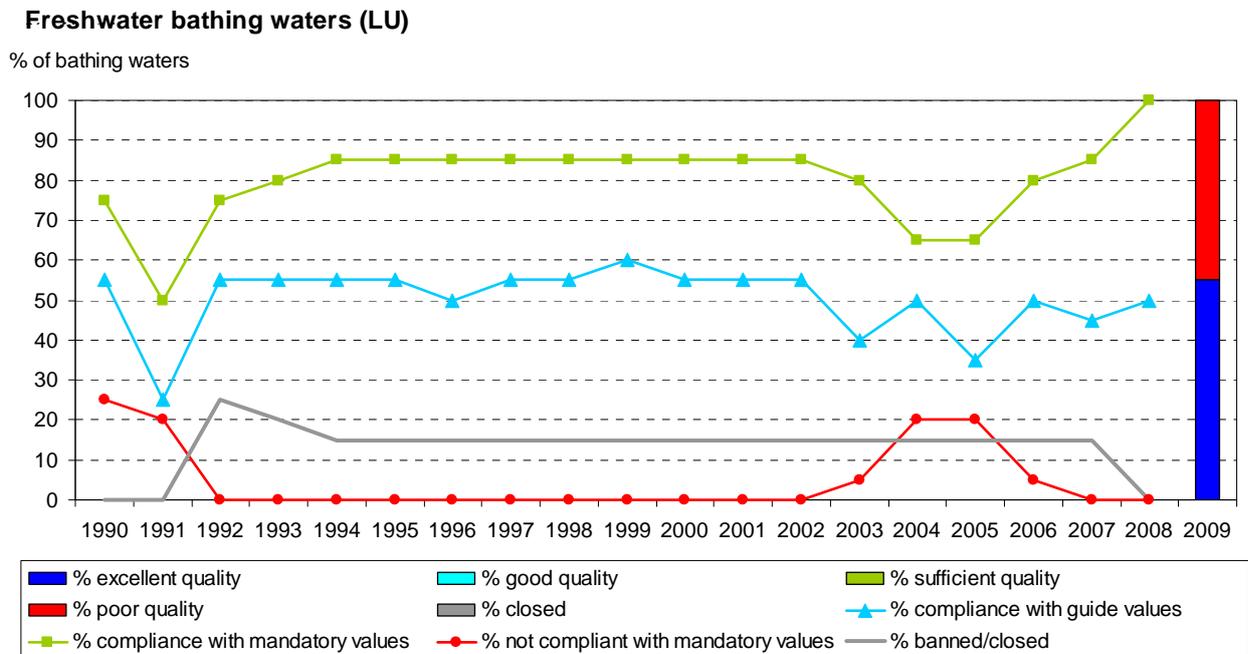


Table 1: Results of bathing water quality in Luxemburg from 1990 to 2008. Assessment under Directive 76/160/EEC and during transition period.

LU										
		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	%
Freshwater bathing waters	1990	20	11	55.0	15	75.0	5	25.0	0	0.0
	1991	20	5	25.0	10	50.0	4	20.0	0	0.0
	1992	20	11	55.0	15	75.0	0	0.0	5	25.0
	1993	20	11	55.0	16	80.0	0	0.0	4	20.0
	1994	20	11	55.0	17	85.0	0	0.0	3	15.0
	1995	20	11	55.0	17	85.0	0	0.0	3	15.0
	1996	20	10	50.0	17	85.0	0	0.0	3	15.0
	1997	20	11	55.0	17	85.0	0	0.0	3	15.0
	1998	20	11	55.0	17	85.0	0	0.0	3	15.0
	1999	20	12	60.0	17	85.0	0	0.0	3	15.0
	2000	20	11	55.0	17	85.0	0	0.0	3	15.0
	2001	20	11	55.0	17	85.0	0	0.0	3	15.0
	2002	20	11	55.0	17	85.0	0	0.0	3	15.0
	2003	20	8	40.0	16	80.0	1	5.0	3	15.0
	2004	20	10	50.0	13	65.0	4	20.0	3	15.0
	2005	20	7	35.0	13	65.0	4	20.0	3	15.0
	2006	20	10	50.0	16	80.0	1	5.0	3	15.0
	2007	20	9	45.0	17	85.0	0	0.0	3	15.0
2008	20	10	50.0	20	100.0	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 (1990-2005) or the mandatory value for *Escherichia coli* (2006-2008).

Table 2: Results of bathing water quality in Luxemburg for 2009 (including data from 2006, 2007 and 2008). Assessment under Directive 2006/7/EC.

LU												
		Total number of bathing waters	Excellent quality		Good quality		Sufficient quality		Poor quality		Closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%	Number	%
Freshwater bathing waters	2009	20	11	55.0	0	0.0	0	0.0	9	45.0	0	0.0

4. Development of bathing water quality

In Luxemburg, 55% of the freshwater bathing waters had excellent quality and 45% of the freshwater bathing waters had poor quality in 2009.

10 bathing waters that were compliant with the guide values in 2008 had excellent quality in 2009. One bathing water that met the mandatory water quality in 2008 had excellent quality in 2009. Other nine bathing waters that met the mandatory value for *Escherichia coli* in 2008 had poor quality in 2009. Five of them would be non-compliant with the mandatory value for *Escherichia coli* in 2009, if

assessment is done according to transition period rules. In 2007 and 2008, no bathing waters were non-compliant with the mandatory value. This means that the water quality slightly decreased in 2009.

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 2009 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

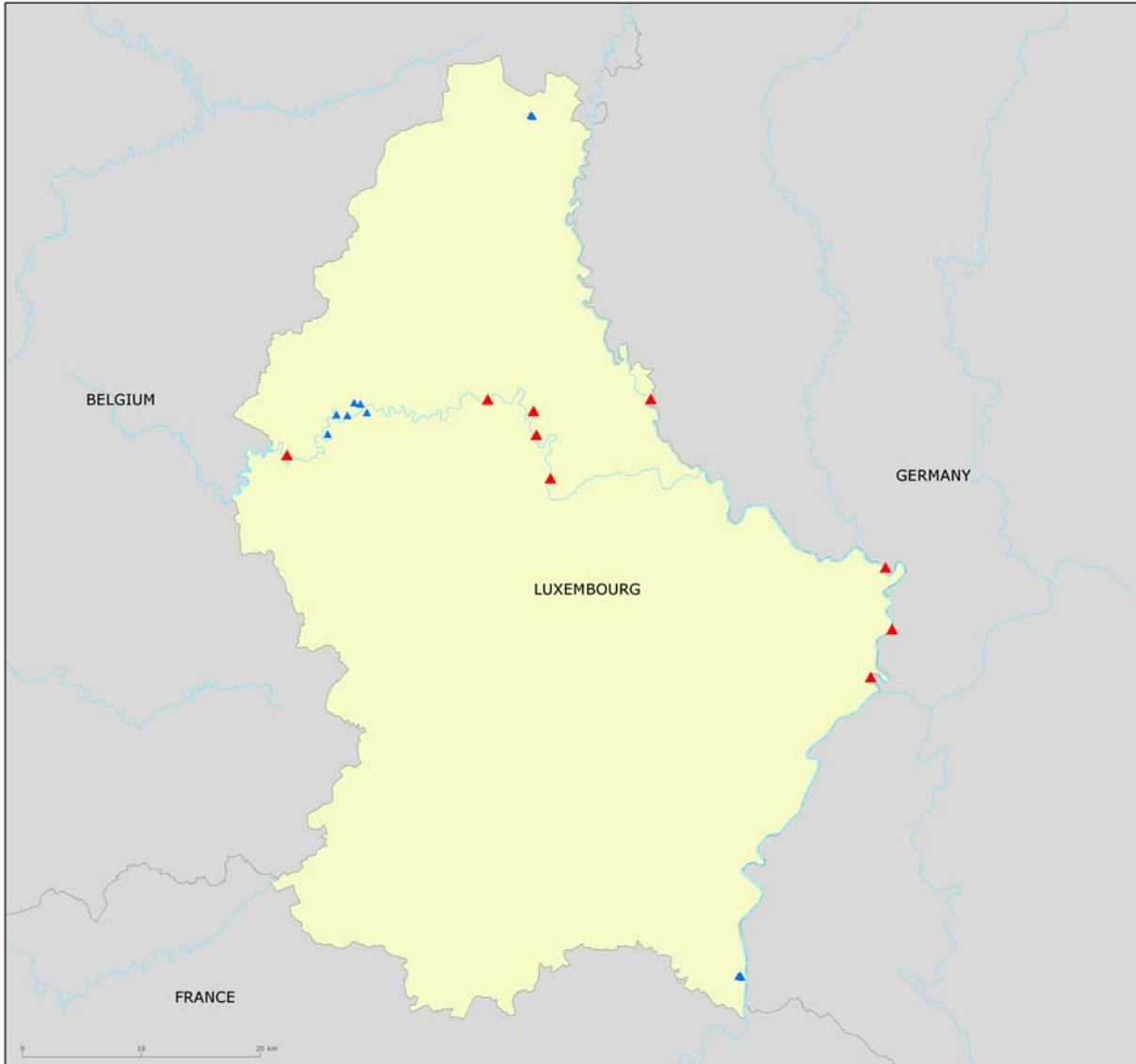
More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html)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



Bathing water quality			No data
Bathing waters on rivers	Bathing waters on lakes	Coastal/transitional bathing waters	☐ No data
▲ Excellent quality	■ Excellent quality	● Excellent quality	☐ Outside data coverage (data available, not presented on the map)
▲ Good quality	■ Good quality	● Good quality	
▲ Sufficient quality	■ Sufficient quality	● Sufficient quality	
▲ Poor quality	■ Poor quality	● Poor quality	
▲ Insufficiently sampled or not sampled	■ Insufficiently sampled or not sampled	● Insufficiently sampled or not sampled	
▲ Closed*	■ Closed*	● Closed*	
▲ New	■ New	● New	
▲ Changes**	■ Changes**	● Changes**	

Note:
 * closed (temporarily or throughout the season)
 ** changes (bathing water where changes occur that affect the classification of a bathing water)
 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: Luxembourg authorities