

Bathing water results 2011 – Luxembourg

1. Reporting and assessment

This report gives a general overview of bathing water quality in Luxembourg for the 2011 bathing season. Luxembourg has monitored under the Directive 2006/7/EC since 2006, while reported under this Directive in 2007 for the first time.

When samples of intestinal enterococci and *Escherichia coli* for bathing water are available for three or four consecutive years, the assessment is done according to assessment rules of Directive 2006/7/EC. The frequency of sampling is set out in Annex IV of the Directive. Including a sample to be taken shortly before the start of the bathing season, the minimum number of samples taken per bathing season is four. However, only three samples are sufficient when the bathing season does not exceed eight weeks or the region is subject to special geographical constraints. Sampling dates are to be distributed throughout the bathing season.

Strictly speaking, there should be one pre-season sample and the interval between sampling should not exceed one month. Since a late start of monitoring and/or low frequency do not necessarily indicate unsatisfactory bathing water quality, it has been accepted that the first sample in the 2011 season could be taken shortly after the start of the season (but within 10 days after the start), and the maximum interval between two samples taken into account is 41 days. The number of samples for the period 2008-2011 should be at least 16. These criteria are described as less strict. In the opposite, under the strict rules, pre-season samples should be available in all four years, the interval between sampling in the 2011 season should have not exceeded one month, but 41 days were acceptable for the 2008, 2009 and 2010 seasons. In this report a quality class under the strict rules and less strict criteria are presented.

Bathing waters quality classified according to the Directive 2006/7/EC are 'excellent', 'good', 'sufficient' and 'poor'. Some bathing waters cannot be classified according to their quality but are instead classified as 'closed', 'new' (classification not yet possible), 'insufficiently sampled' or 'changes' (bathing water is not new and classification not yet possible since a set of monitoring data is incomplete).

2. Length of bathing season and number of bathing waters

For all bathing waters the bathing season lasted 123 days, from 1 May to 31 August 2011.

Since the start of reporting in 1990, a total of 20 bathing waters were monitored in Luxembourg, all inland bathing waters (nine on rivers; 11 on lakes). Luxembourg has no coastal bathing waters.

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

3. Bathing water quality

The results of the bathing water quality in Luxembourg for the period 1990-2010 as reported in the past reporting years and for the bathing season of 2011 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/ Bathing Water/ 2005-2011 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 the 2008, 2009 and 2010 bathing seasons).

The graph shows the classification under the Directive 76/160/EEC and during transition period, for inland 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 (class B, grey line).

The same graph shows the classification under the Directive 2006/7/EC, for inland bathing waters from 2009 to 2011:

- 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 closed (grey bar);
- The percentage of bathing waters that are insufficiently sampled, new or with changes (orange bar).

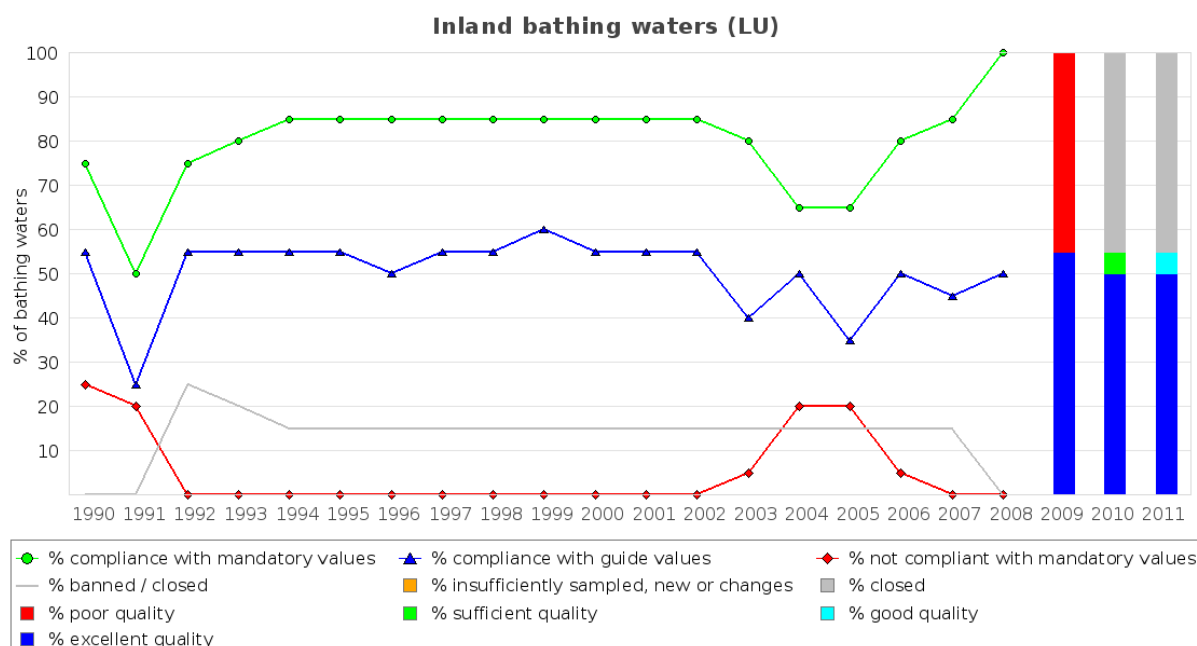
Table 1 and Table 2 show results of bathing water quality for inland and all bathing waters from 2008 on as assessed in the previous annual reports and under the Directive 2006/7/EC for the 2011 season. For the year 2010 results applying the less strict rules are presented if they differ from results applying the strict rules.

A map given in Appendix 1 shows the location and quality of the bathing waters.

In Luxembourg, 50.0 % of the inland bathing waters were of excellent quality in 2011, the same as in the previous year. One bathing water (5.0 %) was of good quality and no bathing waters (0.0 %) were of sufficient quality. On the contrary, no bathing waters (0.0 %) were of good quality and one bathing water (5.0 %) was of sufficient quality in 2010. No bathing waters had poor quality (0.0 %) and nine bathing waters (45.0 %) had to be closed during the season, the same as in 2010.

For comparison since the start of the reporting please see Figure 1.

Figure 1: Results of bathing water quality in Luxembourg from 1990 to 2011



Note: Data until 2008 is available in the previous reports at http://ec.europa.eu/environment/water/water-bathing/index_en.html; Water/Bathing Water/ 2005-2011 reports.

Table 1: Results of bathing water quality in Luxembourg for 2008. Assessment during transition period.

LU												
		Total number of bathing waters	Compliance with guide and mandatory values*		Compliance with mandatory value		Not compliant		Banned/closed		Insufficiently sampled or not sampled	
			number	%	number	%	number	%	number	%	number	%
Coastal bathing waters	2008											
	2009											
	2010											
	2011											
Inland bathing waters	2008	20	10	50.0	20	100.0	0	0.0	0	0.0	0	0.0
	2009											
	2010											
	2011											
All bathing waters	2008	20	10	50.0	20	100.0	0	0.0	0	0.0	0	0.0
	2009											
	2010											
	2011											

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

Table 2: Results of bathing water quality in Luxembourg from 2009 to 2011. Assessment under Directive 2006/7/EC.

Directive 2006/122/EC																		
LU																		
	Year/Total number of bathing waters		Excellent quality		Good quality		Sufficient quality		Poor quality		Closed		Insufficiently sampled		New		Changes	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Coastal bathing waters	2009																	
	2010																	
	2011																	
	2011 ^(s)																	
Inland bathing waters	2009	20	11	55.0	0	0.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0	0	0.0
	2010	20	10	50.0	0	0.0	1	5.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0
	2011	20	10	50.0	1	5.0	0	0.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0
	2011 ^(s)	20	10	50.0	1	5.0	0	0.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0
All bathing waters	2009	20	11	55.0	0	0.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0	0	0.0
	2010	20	10	50.0	0	0.0	1	5.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0
	2011	20	10	50.0	1	5.0	0	0.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0
	2011 ^(s)	20	10	50.0	1	5.0	0	0.0	0	0.0	9	45.0	0	0.0	0	0.0	0	0.0

^(s)Strict rules applied (see Chapter 1 of this report).

4. Important information as provided by the Luxembourg authorities

The Luxembourg authorities have reported significant management measures (Table 3). The reasons for closing of bathing waters are provided in a separate document

(http://cdr.eionet.europa.eu/lu/eu/nbwd/envtusoyw/Permanently_closed_Reasons.doc).

Table 3: Information on management measures for the 2011 season as reported by the Luxembourg authorities

Unique Identification Code of Bathing Water	Bathing Water Name	River Basin District	Water Body Name	Bathing Water Category	Management Measures
LU_600001007000000001	LAC DE WEISWAMPACH-ZONE 1	Rhine	Wemperbach	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/3_Profil_Weiswampach.pdf
LU_600001007000000002	LAC DE WEISWAMPACH-ZONE 2	Rhine	Wemperbach	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/3_Profil_Weiswampach.pdf
LU_600002003000000011	aval Michelau / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600002003000000012	Bourscheid Moulin / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600002006000000010	amont Erpeldange / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600003005000000020	Moulin de Bigonville / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600004003000000003	aval Vianden / Our	Rhine	Our	River	Closed for the entire season.
LU_600005001000000019	LAC DE LA HAUTE SURE-ROMMWEISS	Rhine	Sauer	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/1_Profil_Lac.pdf
LU_600005004000000013	Dirbach / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600005007000000018	LAC DE LA HAUTE SURE-LIEFRANGE	Rhine	Sauer	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/1_Profil_Lac.pdf
LU_600005008000000014	LAC DE LA HAUTE SURE-BURGFRIED	Rhine	Sauer	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/1_Profil_Lac.pdf
LU_600005008000000015	LAC DE LA HAUTE SURE-FUUSEFELD	Rhine	Sauer	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/1_Profil_Lac.pdf
LU_600005008000000016	LAC DE LA HAUTE SURE-INSENBORN	Rhine	Sauer	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/1_Profil_Lac.pdf
LU_600005008000000017	LAC DE LA HAUTE SURE-LULTZHAUSEN	Rhine	Sauer	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/1_Profil_Lac.pdf
LU_600006006000000005	Born / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600006007000000004	Rosport / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600007007000000006	amont Wasserbillig / Sûre	Rhine	Sauer	River	Closed for the entire season.
LU_600008006000000007	ETANGS REMERSCHEN-ZONE 1	Rhine	Mosel	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/5_Profil_Remerschen.pdf
LU_600008006000000008	ETANGS REMERSCHEN-ZONE 2	Rhine	Mosel	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/5_Profil_Remerschen.pdf
LU_600008006000000009	ETANGS REMERSCHEN-ZONE 3	Rhine	Mosel	Lake	http://www.eau.public.lu/actualites/2011/03/Profil_baignade/5_Profil_Remerschen.pdf

5. More information on bathing water quality in Europe

Of the more than 21 000 bathing areas monitored throughout the European Union in 2011, two thirds were in coastal waters and the rest in rivers and lakes. The largest numbers of coastal bathing waters can be found in Italy, Greece, France and Spain, while Germany and France have the highest numbers of inland bathing waters.

During recent years, including the 2011 bathing season, majority of Member States have adjusted their monitoring programmes to meet the requirements of the new bathing water directive (2006/7/EC). Luxembourg was the first country to report under this Directive in 2007. Cyprus, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Slovakia, Spain and Sweden started to report under the new directive in 2008. Malta and the Netherlands started to report in 2009. Austria, Belgium - Walloon

Region, France, Greece, Italy, Portugal and Slovenia reported under the new directive for the first time in 2010, while Belgium - Flemish Region, Bulgaria, Ireland and Poland reported under this Directive for the first time in 2011. Historical data of two microbiological parameters, *Escherichia coli* and intestinal enterococci were sent by Sweden (2005-2007), Luxembourg (2006), Malta (2006-2008), Belgium - Walloon Region (2007-2009), Belgium - Flemish Region (2008-2010), Greece (2007-2009), Hungary (2007) and Portugal (2007-2009).

Three non-EU countries, Croatia, Montenegro and Switzerland have reported monitoring results under the new directive. Croatia and Switzerland started to report in 2009, while Montenegro reported for the first time in 2010. Switzerland sent data on *Escherichia coli* for all bathing waters but only for some data on intestinal enterococci.

For the 2011 season, bathing water quality has been assessed under the new bathing water directive in 16 European countries. This is 13 more than for 2010 bathing season. Only three countries - the Czech Republic, Romania and the United Kingdom - are still assessed under the old bathing water directive. Eleven countries are assessed under the transition period rules.

Overall in 2011, 92.1 % of bathing waters in the EU met the minimum water quality standards set by the bathing water directives. Bathing water quality increased at 0.6 % of sites in 2011 compared to 2010. The proportion of bathing waters with excellent quality (or complying with the more stringent guide values) increased by 3.5 percentage points compared to 2010, reaching 77.1 %. The share of non-compliant bathing waters was 1.8 %, which was a 0.1 percentage point increase from 2010. In 2011, 207 bathing waters were banned or closed (1 %), which was 57 more than in the 2010 bathing season.

More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia, Montenegro 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 Institute for Water of the Republic of Slovenia (IWRS), a partner in the EEA European Topic Centre on Inland, Coastal and Marine Waters (ETC/ICM) has produced the reports for the bathing seasons from the 2008 bathing season on. Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

Interactive information on bathing water quality

The bathing water section of the Water Information System for Europe (WISE), which is accessible at the EEA bathing water website, allows users to view the bathing water quality at more than 22 000 coastal beaches and inland sites across Europe. Users can check bathing water quality on an interactive map or can download data for a selected country or region and make comparisons with previous years.

The WISE map viewer (<http://www.eea.europa.eu/themes/water/interactive//bathing>) is an online map viewer for visualising European spatial water data. It includes a lot of interactive layers, allowing water themes to be visualised at different scales. Broad resolutions display the aggregated data by Member State. At finer resolutions the locations of monitoring stations are displayed.

The WISE bathing water quality data viewer (<http://www.eea.europa.eu/themes/water/status-and-monitoring/bathing-water-data-viewer>) combines text and graphical visualisation, providing a quick check on locations and statistics on the quality of coastal and inland bathing waters. It also documents how bathing waters have changed throughout Europe in recent years and provides a full summary of Europe's bathing water quality. Users can search information at three spatial levels - country, region and province - and observe specific bathing water locations on Google Earth, Google maps or Bing maps.

The Eye on Earth - Water Watch application (<http://www.eea.europa.eu/data-and-maps/explore-interactive-maps/eye-on-earth>) allows users to zoom in on a section of the coast, riverbank or lake, both in street map or, where available, bird's eye viewing formats. A 'traffic-light' indicator (red, amber, green) of bathing water quality, based on the official bathing water data, is put alongside the ratings of

people who have visited the bathing site, including any comments added by users. For historical data Water Watch uses a simplified index of bathing water quality data. The Czech Republic, Croatia, Denmark, Estonia, Finland (one municipality), Greece, Hungary, Lithuania, Luxembourg, Malta, Slovakia, Slovenia, England and Wales were also sending near real time information on bathing water quality to the Eye on Earth application. The bathing water quality for Austria, Belgium, Bulgaria, France, Germany, Iceland, Italy, Ireland, the Netherlands, Portugal, Sweden, Scotland and Northern Ireland was also presented on the Eye on Earth - Water Watch.

National and local information on bathing water quality

In order to make information to the public more effective, all EU countries have national or local web portals with detailed information for each bathing water. Websites generally include a map search function and public access to the monitoring results both in real time and for previous seasons.

Information on EU bathing water legislation

EU Member States will have to comply with the stricter and more ambitious requirements laid out in Directive 2006/7/EC by 2015 at the latest. The new legislation requires more effective monitoring and management of bathing waters, greater public participation and improved information dissemination. By March 2011 Member States have to have established bathing water profiles. More on the new legislation can be found on the European Commission's websites and on <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>.

Appendix 1

Map 1: Bathing waters reported during the 2011 bathing season in Luxembourg

