European Environment Agency

Bathing water results 2011 – Hungary

1. Reporting and assessment

This report gives a general overview of bathing water quality in Hungary for the 2011 bathing season. Hungary has reported under the Directive 2006/7/EC since 2008 and sent historical data with two parameters of this Directive for 2007.

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).

By the Directive 2006/7/EC, bathing waters can be grouped if they have similar physical, hydrological and geographical characteristics and same risk of pollution and bathers exposure to health damage. Only when bathing water profiles are established assessment with bathing water groups is possible.

Hungary grouped 55 % of the bathing waters (125 out of 228) into 44 groups for the 2011 season. Therefore, the assessment of bathing water quality in 2011 is done by groups. The samples obtained during the season from any of the bathing waters in a group were treated as one set of samples for the group. The classification of bathing waters in a group is done on the basis of this sample set.

2. Length of bathing season and number of bathing waters

The bathing season opened between 30 April and 4 July 2011 and closed between 15 August and 30 September 2011. One bathing site was opened the whole year.

A total of 228 inland bathing waters (29 on rivers; 199 on lakes) were reported in Hungary during the 2011 bathing season. There are no coastal bathing waters in Hungary. A total of 28 bathing waters were reported as de-listed (permanently closed) compared to the previous year and five bathing waters were added to the list.

With 228 reported bathing waters Hungary accounts for about 1.1 % of the reported bathing waters of the European Union.

3. Bathing water quality

The results of the bathing water quality in Hungary for the period 2004-2010 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 2004 to 2009:

- 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 for 2010 and 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).

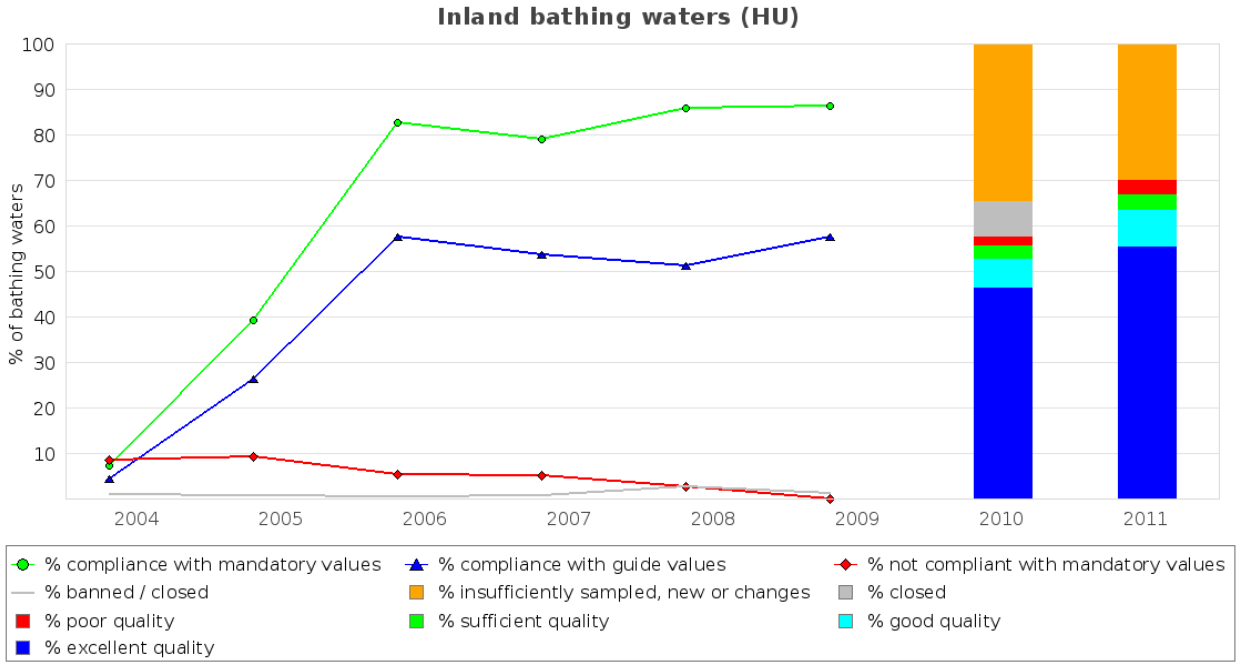
Table 1 and Table 2 show results of bathing water quality for inland and all bathing waters from 2008 on as assessed in the previous annual reports and under the Directive 2006/7/EC for the 2011 season. For the year 2010 results applying the less strict rules are presented if they differ from results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

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

In Hungary, 55.7 % of the inland bathing waters were of excellent quality in 2011. This is an increase of 9.1 % compared to the previous year. A total of 18 bathing waters (7.9 %) were of good quality and eight bathing waters (3.5 %) were of sufficient quality compared to 16 (6.4 %) and seven (2.8 %) in 2010 respectively. Seven bathing waters (3.1 %) had poor quality and no bathing waters (0.0 %) had to be closed during the season compared to five (2.0 %) and 20 (8.0 %) in 2010 respectively. A total of 54 bathing waters (23.7 %) were insufficiently sampled compared to 86 (34.3 %) in 2010. Nine bathing waters (3.9 %) were classified as new bathing waters and five bathing waters (2.2 %) were classified as bathing waters with changes.

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

Figure 1: Results of bathing water quality in Hungary from 2004 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 Hungary for 2008 and 2009. Assessment during transition period.

HU												
		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	256	131	51.2	220	85.9	7	2.7	7	2.7	22	8.6
	2009	177	102	57.6	153	86.4	0	0.0	2	1.1	22	12.4
	2010											
	2011											
All bathing waters	2008	256	131	51.2	220	85.9	7	2.7	7	2.7	22	8.6
	2009	177	102	57.6	153	86.4	0	0.0	2	1.1	22	12.4
	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 Hungary for 2010 and 2011. Assessment under Directive 2006/7/EC.

HU																		
	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																	
	2010	251	117	46.6	16	6.4	7	2.8	5	2.0	20	8.0	86	34.3	0	0.0	0	0.0
	2011	228	127	55.7	18	7.9	8	3.5	7	3.1	0	0.0	54	23.7	9	3.9	5	2.2
	2011(s)	228	76	33.3	13	5.7	4	1.8	4	1.8	0	0.0	117	51.3	9	3.9	5	2.2
All bathing waters	2009																	
	2010	251	117	46.6	16	6.4	7	2.8	5	2.0	20	8.0	86	34.3	0	0.0	0	0.0
	2011	228	127	55.7	18	7.9	8	3.5	7	3.1	0	0.0	54	23.7	9	3.9	5	2.2
	2011(s)	228	76	33.3	13	5.7	4	1.8	4	1.8	0	0.0	117	51.3	9	3.9	5	2.2

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

4. Important information as provided by the Hungarian authorities

The Hungarian authorities have reported for some bathing waters also significant management measures and reasons for changes (Table 3). Additional information is provided in two separate documents (http://cdr.eionet.europa.eu/hu/eu/nbwd/envtv7y3g/readme_HUBWQ_2011.doc; http://cdr.eionet.europa.eu/hu/eu/nbwd/envtv7y3g/ManMeas_Annex_HUBWQ_2011.doc).

Table 3: Information on management measures and reasons for changes for the 2011 season as reported by the Hungarian authorities

Unique Identification Code of Bathing Water	Bathing Water Name	Water Body Name	Bathing Water Category	Measurement Measures
HUBW_00901	Látóképi tófürdô		lake	Upon several complaints arrived by telephone and e-mail in July on strong itching after bathing the County Public Health Policy Adminstration took measures for extraordinary sampling and assessment of the water quality, to perform partial exchange of the water and cleaning the lake-bed and to inform the population about the event and the measures taken. Repeated sampling resulted in good water quality results and no further measures were seen necessary.
HUBW_00806	Gyôr, Aranypart II		lake	Upon a civilian complaint, transient pollution of the bathing water has been ascertained by extra sampling shortly before the end of the season (22.08.2011). The bathing water was closed then and the public was informed via all available means.
HUBW_00808	Halászi szabad strand	Mosoni-Duna felsô	river	Due to extremely low water levels, bathing season was terminated early.
HUBW_00411	Liget Wellness és Konferencia Hotel	Szarvas-Békésszentandrási holtágrendszer	lake	Permanently closed. Not operated by the owner
HUBW_00413	Aranyszarvas Apartmanház	Szarvas-Békésszentandrási holtágrendszer	lake	Permanently closed. Not operated by the owner
HUBW_00606	Sándorfalvi strand		lake	Permanently closed. The BW is converted to angling water, bathing was banned. HUBW_00615 is designated to replace it.
HUBW_00703	Tini szabad strand	Velencei-tó nyílt	lake	Permanently closed. The BW was not opened for the public

Unique Identification Code of Bathing Water	Bathing Water Name	Water Body Name	Bathing Water Category	Measurement Measures
		vizes terület		in 2011
HUBW_00709	IFI szabad strand	Velencei-tó nyílt vizes terület	lake	Permanently closed. Not operated because of construction works
HUBW_00801	Bôsárkány, tóstrand		lake	Permanently closed. The designation of the BW has been withdrawn upon the request of the owner.
HUBW_01102	Kunszentmártoni szabad strand	Hármas-Körös	river	Permanently closed. The BW was not opened for the public in 2011 because of the low number of bathers.
HUBW_01202	Mocsa, Oázis strand		lake	Not operated because of construction works
HUBW_01402	Budakalász, Omszki-tó, strand		lake	Bathing banned on accident prevention reasons
HUBW_01408	Kék Duna strand	Ráckevei-Soroksári Dunaág	lake	Permanently closed. Not operated by the owner
HUBW_01586	Tópart Szálló	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01587	Vadkacsa Panzió strand	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01589	Telekom Üdülô strand	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01615	Tuzsér, szabad strand	Tisza Szipa-fôcsatornától Belfô-csatornáig	river	Permanently closed. Not monitored because of too low number of bathers
HUBW_01802	Döröske tófürdô	no name	lake	Permanently closed. The BW was not opened for the public in 2011 because of the low number of bathers
HUBW_01806	Máriaújfalu, Hársas-tó	no name	lake	Permanently closed. The competent Sub-regional Public Health Institute has withdrawn the designation due to lacking hygiene conditions
HUBW_01923	Neptun strand	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01924	Glashotel strand	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01926	Yacht Kemping	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01933	Hotel Füred strand	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01958	Strand Holiday	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01966	Club Hotel Révfülöp Üdülôszálló	Balaton	lake	Permanently closed. The BW has ceased to be opened for the public. It continues to be operated as BW as a restricted club facility
HUBW_01974	Tihanyi Yacht Club	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01977	Kastély és Park Hotel	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_01987	MÚOSZ Üdülô strand	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_02001	Castrum Kemping	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_02003	Becehegy-KUNÉP szabad strand	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_02022	Park kemping és üdülôfalu	Balaton	lake	Permanently closed. Not operated by the owner
HUBW_00202	Pécsi-tó strand	no name	lake	New bathing water
HUBW_00401	Dánfoki szabad strand	Kettôs-Körös	river	New bathing water
HUBW_00614	Újszegedi Partfürdô szabad strand	Tisza Hármas-Köröstôl déli országhatárig	river	New bathing water
HUBW_00615	Nádastó Szabadidôpark strand		lake	New bathing water (instead of HUBW_00606 that has been converted to angling water; bathing banned by the owner).
HUBW_00711	Velence Resort & Spa strand	Velencei-tó nyílt vizes terület	lake	New bathing water
HUBW_00201	Orfűi-tó strand		lake	The operator of the bathing water is changed
HUBW_00501	Kemping strand		lake	The sluice was stolen after the previous season, thus the BW could not be opened for the public. Also, the operator of the BW is changed.
HUBW_01106	Tiszapüspöki strand	Tisza Kiskörétôl Hármas-Körösig	river	New operator was registered

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

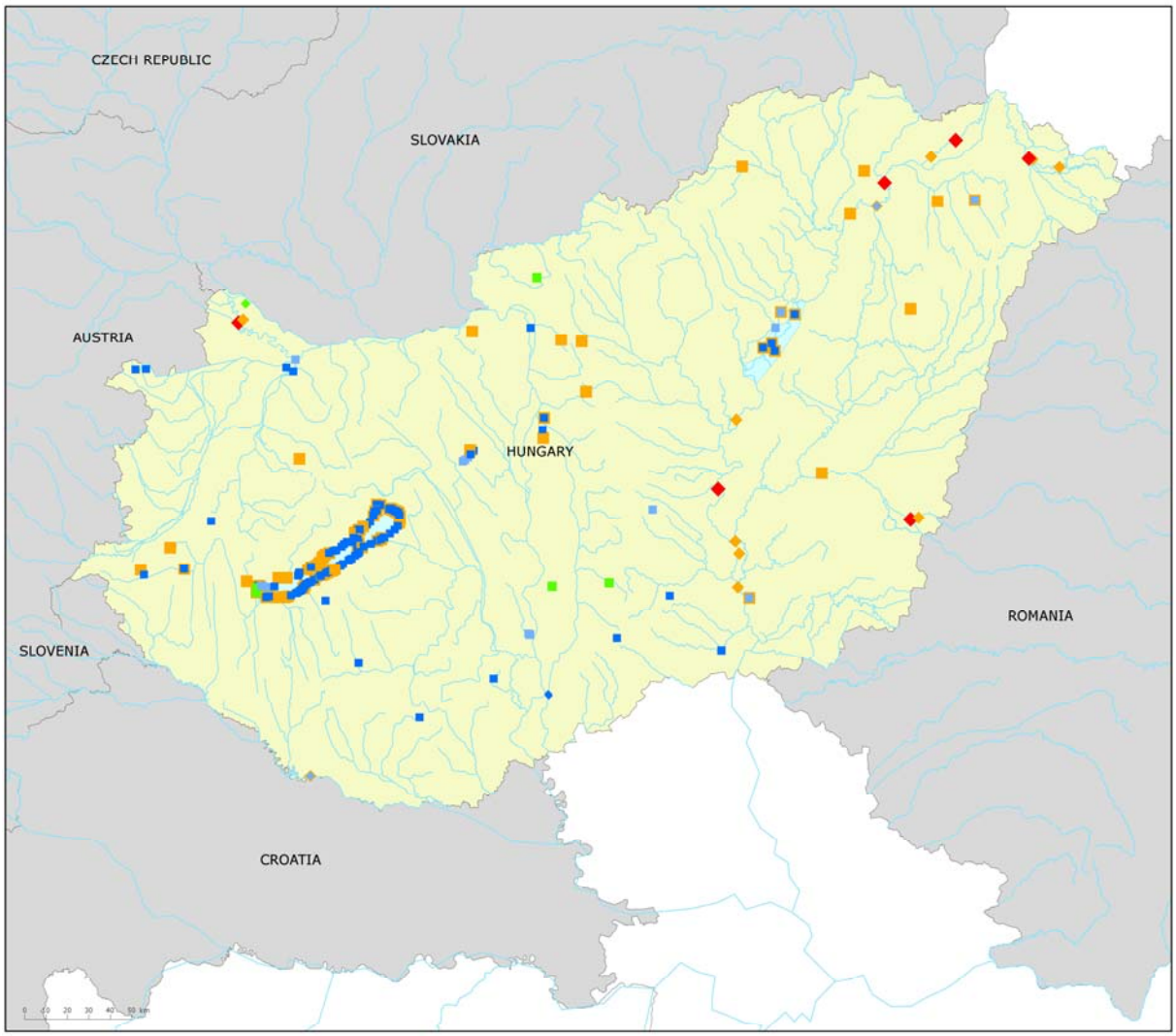
In order to make information to the public more effective, all EU countries have national or local web portals with detailed information for each bathing water. Websites generally include a map search function and public access to the monitoring results both in real time and for previous seasons.

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 Hungary



Bathing water quality

Bathing waters on rivers	Bathing waters on lakes
Excellent quality	Excellent quality
Good quality	Good quality
Sufficient quality	Sufficient quality
Poor quality	Poor quality
Insufficiently sampled	Insufficiently sampled
Closed	Closed
New	New
Changes*	Changes*

Sampling interval not in full compliance with the Directive 2006/7/EC and/or pre-season sample in previous years missing.

No data

Outside data coverage (data available, not presented on the map)

Note: * 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: Hungarian authorities