

## Bathing water results 2010 – Ireland

### 1. Reporting and assessment

This report gives a general overview of bathing water quality in Ireland during the 2010 bathing season.

Ireland reported five parameters under the Directive 76/160/EEC (1 Total coliforms, 2 Faecal coliforms, 8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices)).

The parameters to be taken into account for assessment according to the assessment rules of the Directive 76/160/EEC are microbiological (1 Total coliforms, 2 Faecal coliforms) and physico-chemical (8 Mineral oils, 9 Surface-active substances reacting with methylene blue, 10 Phenols (phenol indices)).

The bathing waters are classified in the following categories:

- Compliant with mandatory values of the Directive for the five parameters (class CI);
- Compliant with mandatory and more stringent guide values of the Directive for the five parameters (class CG);
- Not compliant with mandatory values of the Directive for the five parameters (class NC);
- Banned or closed (temporarily or throughout the season) (class B);
- Insufficiently sampled (class NF);
- Not sampled (class NS).

### 2. Length of bathing season and number of bathing waters

In Ireland, the 2010 bathing season extended from the 1 June until the end of August. Monitoring of the bathing waters commenced in May two weeks prior to the start of the season.

A total of 131 bathing waters were monitored in Ireland during the 2010 bathing season, of which 122 were coastal bathing waters and nine inland bathing waters on lakes.

With 131 bathing waters Ireland accounts for about 0.6 % 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 is presented in Table 1. The number of coastal bathing waters increased significantly since the start of the reporting from 65 in 1991 to 122 in 2001. Since then, the number of coastal bathing waters has remained the same. At the beginning of reporting in 1992, there were five inland bathing waters. The number of inland bathing waters increased to nine in 1994 and remained the same afterwards.

### 3. Bathing water quality

The results of the bathing water quality in Ireland for the period 1991-2009 as reported in the past reporting years and for the bathing season of 2010 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](http://ec.europa.eu/environment/water/water-bathing/index_en.html); Water and Health/Bathing Water/2005-2010 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 and 2009 bathing seasons).

The graphs show, for coastal and inland 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 inland bathing waters. The numbers and percentages of insufficiently sampled or not sampled bathing waters are also presented. Table 2 shows the bathing water quality results for the 2009 and 2010 seasons in Ireland for all bathing waters.

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

### **Coastal bathing waters**

In Ireland, 98.4 % of the coastal bathing waters met the mandatory values in 2010. This is an increase of 5 % compared to the previous year. Some 92.6 % of the bathing waters met the more stringent guide values, which is an increase of 9 %. The number of non-compliant bathing waters with the mandatory values decreased from eight (6.6 %) to two bathing waters (1.6 %). Since the start of the reporting in 1991, no coastal bathing water had to be closed during the season.

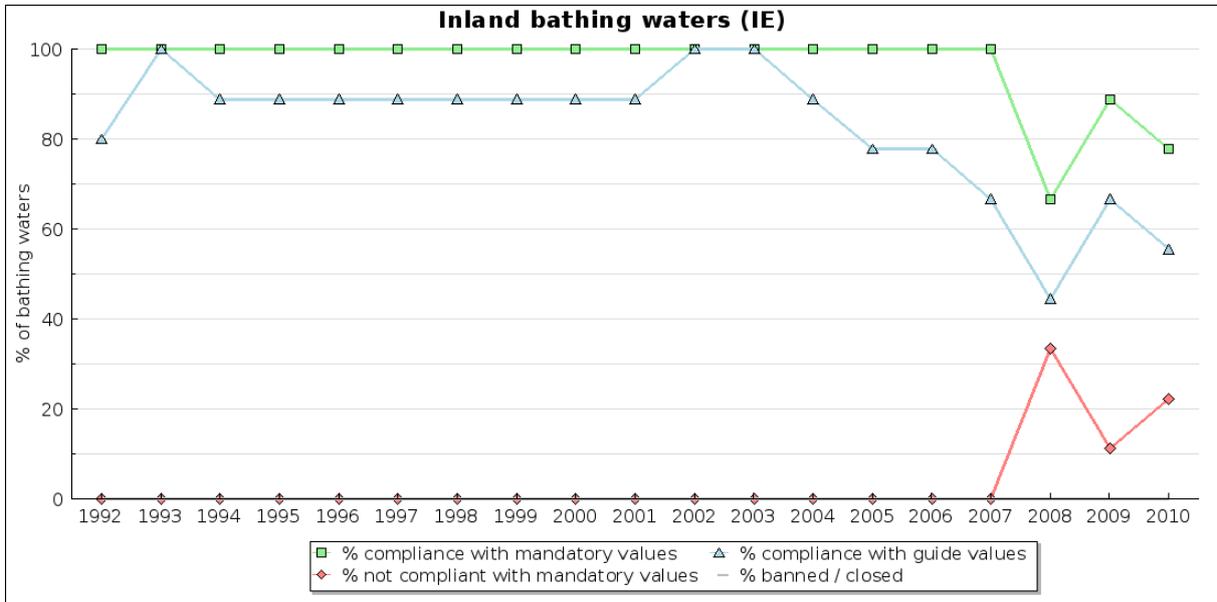
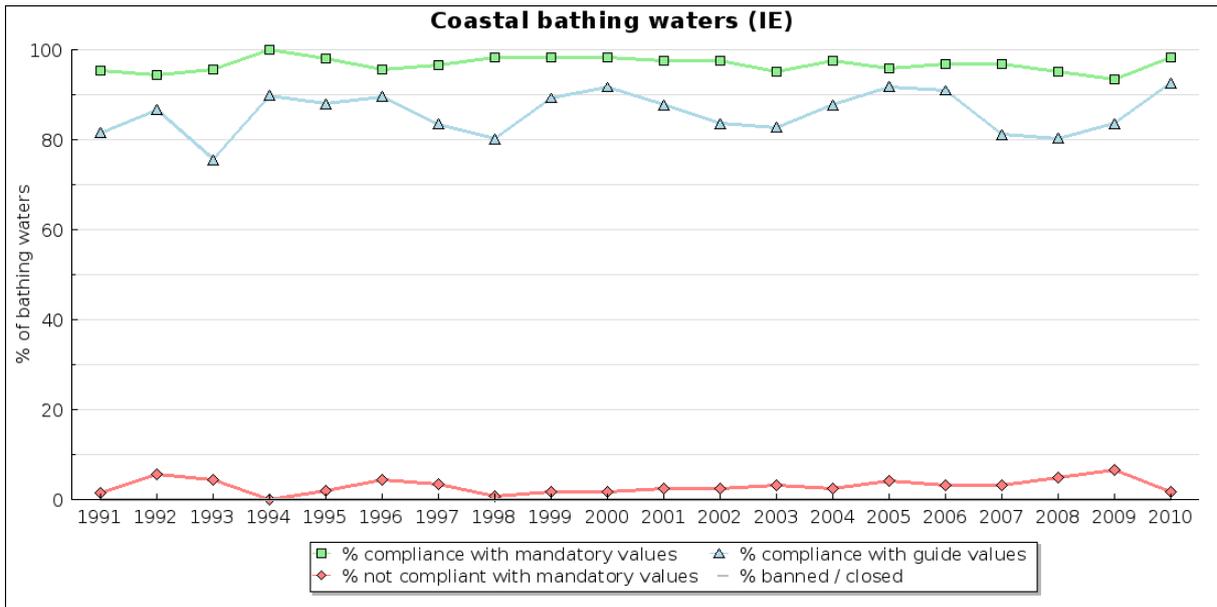
From 1991 onwards, the compliance with the mandatory values remained rather stable above 95 % with a small drop in 1992 and 2009. Overall, the compliance with the more stringent guide values fluctuated between 75.6 % in 1993 and 92.6 % in 2010, which is also a good result.

### **Inland bathing waters**

Seven out of nine inland bathing waters (77.8 %) met the mandatory values and five bathing waters (55.6 %) met the more stringent guide values in 2010. This is a decrease of one bathing water (11.1 %) compared to the previous year in terms of both the mandatory values and the guide values. Two bathing waters (22.2 %) were not compliant with the mandatory values compared to one (11.1 %) in 2009. Since the start of the reporting in 1992, no inland bathing water had to be closed during the season.

All reported inland bathing waters have been compliant with the mandatory values from 1992 to 2007. From 1993 till 2004, the number of bathing waters that complied with the more stringent guide values remained at the same high level (88.9 %), with two peaks of 100 % compliance in 1993 and from 2002 until 2003. This trend doesn't continue for the period from 2005 till 2010 as there was a slight decrease in the inland quality. The lower compliance rate with the guide values in 2007 and with both the mandatory and guide values in 2008 and 2009 was due to the higher than usual rainfall that occurred during the summer periods.

**Figure 1: Results of bathing water quality in Ireland from 1991 to 2010**



**Table 1: Results of bathing water quality in Ireland from 1991 to 2010**

IE												
		Total number of bathing waters	Compliance with guide and mandatory values*		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season		Insufficiently sampled or not sampled	
			number	%	number	%	number	%	number	%	number	%
Coastal bathing waters	1991	65	53	81.5	62	95.4	1	1.5	0	0.0	2	3.1
	1992	90	78	86.7	85	94.4	5	5.6	0	0.0	0	0.0
	1993	90	68	75.6	86	95.6	4	4.4	0	0.0	0	0.0
	1994	108	97	89.8	108	100.0	0	0.0	0	0.0	0	0.0
	1995	108	95	88.0	106	98.1	2	1.9	0	0.0	0	0.0
	1996	115	103	89.6	110	95.7	5	4.3	0	0.0	0	0.0
	1997	115	96	83.5	111	96.5	4	3.5	0	0.0	0	0.0
	1998	121	97	80.2	119	98.3	1	0.8	0	0.0	1	0.8
	1999	121	108	89.3	119	98.3	2	1.7	0	0.0	0	0.0
	2000	121	111	91.7	119	98.3	2	1.7	0	0.0	0	0.0
	2001	122	107	87.7	119	97.5	3	2.5	0	0.0	0	0.0
	2002	122	102	83.6	119	97.5	3	2.5	0	0.0	0	0.0
	2003	122	101	82.8	118	96.7	2	1.6	0	0.0	2	1.6
	2004	122	107	87.7	119	97.5	3	2.5	0	0.0	0	0.0
	2005	122	112	91.8	117	95.9	5	4.1	0	0.0	0	0.0
	2006	122	111	91.0	118	96.7	4	3.3	0	0.0	0	0.0
	2007	122	99	81.1	118	96.7	4	3.3	0	0.0	0	0.0
	2008	122	98	80.3	116	95.1	6	4.9	0	0.0	0	0.0
2009	122	102	83.6	114	93.4	8	6.6	0	0.0	0	0.0	
2010	122	113	92.6	120	98.4	2	1.6	0	0.0	0	0.0	
Inland bathing waters	1992	5	4	80.0	5	100.0	0	0.0	0	0.0	0	0.0
	1993	5	5	100.0	5	100.0	0	0.0	0	0.0	0	0.0
	1994	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	1995	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	1996	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	1997	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	1998	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	1999	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	2000	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	2001	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	2002	9	9	100.0	9	100.0	0	0.0	0	0.0	0	0.0
	2003	9	9	100.0	9	100.0	0	0.0	0	0.0	0	0.0
	2004	9	8	88.9	9	100.0	0	0.0	0	0.0	0	0.0
	2005	9	7	77.8	9	100.0	0	0.0	0	0.0	0	0.0
	2006	9	7	77.8	9	100.0	0	0.0	0	0.0	0	0.0
2007	9	6	66.7	9	100.0	0	0.0	0	0.0	0	0.0	
2008	9	4	44.4	6	66.7	3	33.3	0	0.0	0	0.0	
2009	9	6	66.7	8	88.9	1	11.1	0	0.0	0	0.0	
2010	9	5	55.6	7	77.8	2	22.2	0	0.0	0	0.0	

\*Bathing waters which were compliant with the guide values were also compliant with the mandatory values.

**Table 2: Results of bathing water quality for all bathing waters in Ireland in 2009 and 2010**

IE												
		Total number of bathing waters	Compliance with guide and mandatory values*		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season		Insufficiently sampled or not sampled	
			number	%	number	%	number	%	number	%	number	%
All bathing waters	2009	131	108	82.4	122	93.1	9	6.9	0	0.0	0	0.0
	2010	131	118	90.1	127	96.9	4	3.1	0	0.0	0	0.0

\*Bathing waters which were compliant with the guide values were also compliant with the mandatory values.

## 4. Important information as provided by the Irish authorities

### Legislation

In Ireland, the legislation governing the quality of bathing waters for the 2010 season is set out in the Quality of Bathing Waters Regulations, 1992 (S.I. 155 of 1992) and amendments, which transposed the EU Directive 76/160/EC concerning the quality of bathing water.

### Sampling

Responsibility for sampling (or arranging the sampling) at designated bathing areas lies with the relevant local authorities. Sampling at these bathing areas must be undertaken on a fortnightly basis during the bathing season which traditionally extends from the 1 June until the end of August each year. Monitoring commences two weeks before the start of the season. The minimum number of samples to be taken during the season is seven. Under certain circumstances, in particular where there has been deterioration in water quality, both the frequency of monitoring and range of analyses must be increased. Similarly, where bathing water quality has at least complied with the mandatory standards for the previous two seasons then the monitoring frequency may be reduced to a minimum of four times during the bathing season.

The analytical methods used to assess compliance as listed in the Annex of Directive 76/160/EC have been transposed into the Irish Regulations. Under Irish legislation additional national standards have also been established for a number of parameters.

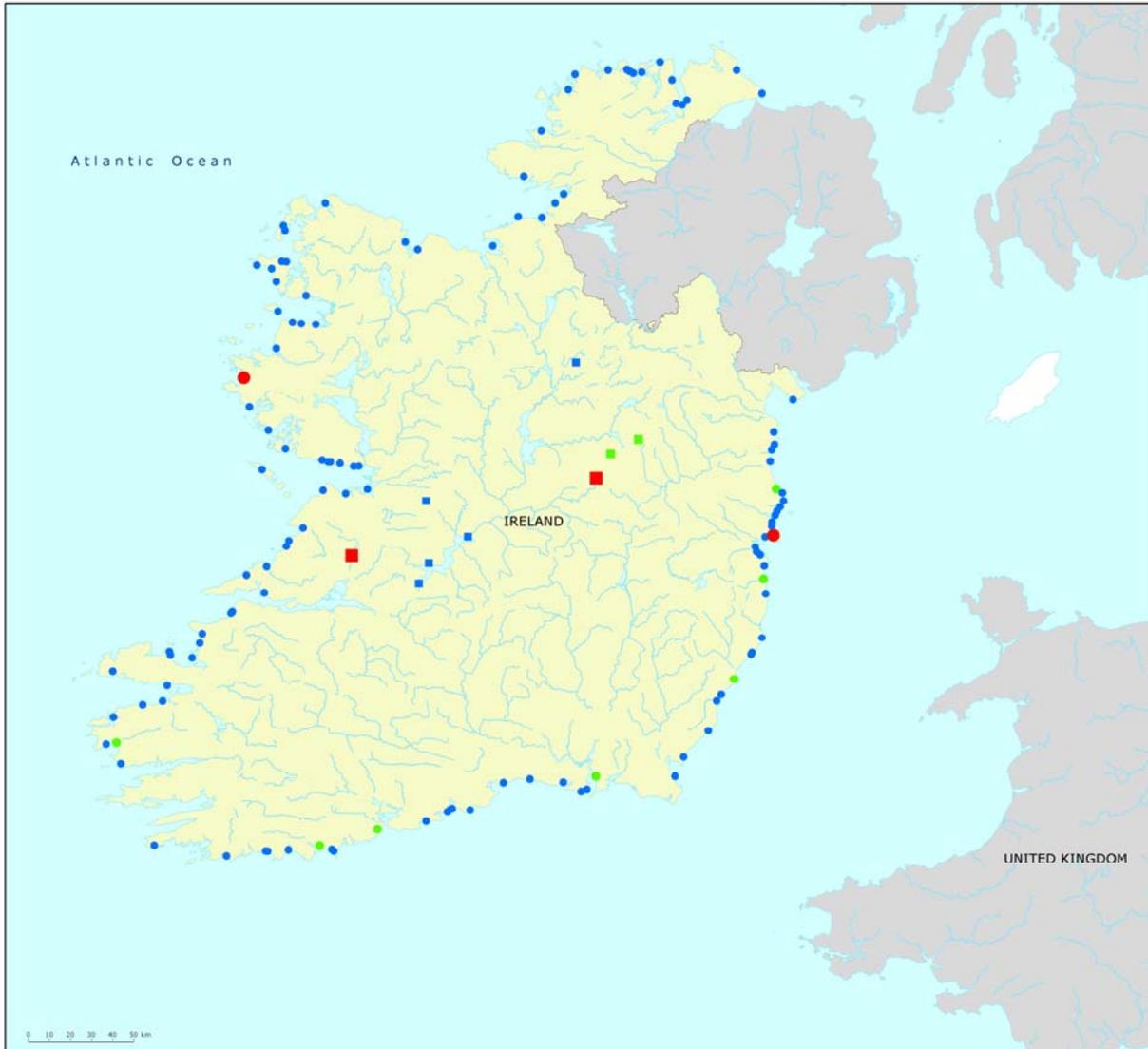
Local Authorities are required to report the results of sampling to the Irish Environmental Protection Agency at the end of each bathing season. The Environmental Protection Agency is responsible for compiling the bathing water quality results and submitting this information to the European Commission in the specified formats.

### Information to the Public

On the 30 July 2009, the Environmental Protection Agency launched a new online map-based website "Splash" ([www.bathingwater.ie](http://www.bathingwater.ie)) that provides the public with bathing water quality information for the 131 designated bathing areas around Ireland. The website provides the latest bathing water sampling results for each bathing area and their compliance status with EU bathing water quality standards, and for 2003 onwards provides information about the compliance history of these bathing areas. The Splash website also provides a description of the beach, aerial and ordinary photography, details of blue flag status and lifeguard availability, as well as current weather and tidal information.

To allow for the timely availability of bathing water quality results from the Splash website, the relevant local authorities in Ireland submit sampling results using a new electronic reporting system EDEN, an infrastructure the Environmental Protection Agency has developed to share environmental data between public bodies. The Splash website fulfils some of the main requirements of Regulation 18 of the Bathing Water Quality Regulations 2008 (S.I. No. 79 of 2008) regarding the provision of information to the public.

**Map 1: Bathing waters reported during the 2010 bathing season in Ireland**



Bathing water quality			
<b>Bathing waters on rivers</b>	<b>Bathing waters on lakes</b>	<b>Coastal/transitional bathing waters</b>	<b>No data</b>
◆ Compliant with guide values	◆ Compliant with guide values	◆ Compliant with guide values	□ Outside data coverage (data available, not presented on the map)
◆ Compliant with mandatory values	◆ Compliant with mandatory values	◆ Compliant with mandatory values	
◆ Closed*	◆ Closed*	◆ Closed*	
◆ Insufficiently sampled or not sampled	◆ Insufficiently sampled or not sampled	◆ Insufficiently sampled or not sampled	
◆ Not compliant with mandatory values	◆ Not compliant with mandatory values	◆ Not compliant with mandatory values	

**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: Irish authorities

## Follow-up Actions

The Office of Environmental Enforcement within the Environmental Protection Agency has been notified of all the bathing areas for the 2010 season, which have failed to meet the mandatory standards as prescribed in the Directive. Follow up audits will be undertaken with each of the responsible local authorities, such that a programme of improvements can be put in place to bring these bathing areas back into compliance.

## Waste Water Treatment and Regulation

Ireland's National Development Plan (NDP) 2007-2013 includes an investment of €4.7 billion in urban waste water infrastructure and water services. A new Water Services Investment Programme for the period 2010-2012, outlining the countrywide water and sewerage schemes to be undertaken over the next few years, which was published in April this year, is the seventh phase of a rolling three-year programme introduced in 2000 and the second under the current National Development Plan (NDP) 2007-2013. It includes the progression of works to provide the necessary infrastructural improvements, where required, at areas identified as failing mandatory bathing water standards. The Government has shown its commitment to the water sector to date by maintaining provision at a continuing high level despite the economic challenges. The success of these rolling programs can be measured by indicators such as compliance levels with EU Urban Waste Water Treatment Directive on secondary wastewater treatment facilities, which now stand at some 92 per cent compared to 25 per cent at the start of 2000.

Furthermore, the Waste Water Discharge Authorisation Regulations came into effect on 27 September 2007 providing a system for the licensing or certification of all discharges to the aquatic environment from sewerage systems owned, managed and operated by local authorities. This provides a process for the Environmental Protection Agency to place conditions on the operation of such discharges to secure improvements in the quality of effluents from urban waste water treatment plants.

## 5. More information on bathing water quality in Europe

Of the more than 21 000 bathing areas monitored throughout the European Union in 2010, two-thirds were in coastal waters and the rest in rivers and lakes. The largest number of coastal bathing waters can be found in Italy, Greece, France, Spain and Denmark, while Germany and France have the highest number of inland bathing waters.

During recent years, including the 2010 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, while Austria, Belgium - Walloon Region, France, Greece, Italy, Portugal and Slovenia reported under this Directive for the first time in 2010. Historical data of two microbiological parameters, *Escherichia coli* and intestinal enterococci were sent by Sweden (since 2005), Luxembourg and Malta (since 2006), Belgium - Walloon Region, Greece, Hungary and Portugal (since 2007), and France (since 2009). To conclude, 20 Member States and the Walloon Region of Belgium monitored and reported under the new directive (Directive 2006/7/EC) in 2010.

Assessment of the status of all bathing waters in 2010 under the rules of the new directive (Directive 2006/7/EC) is made for Luxembourg, Malta and Hungary. Assessment of the bathing water quality on a country level for the other countries that reported under the new directive has been done using transition rules. Bathing water quality for individual bathing waters having four year set of data can be seen on the interactive maps and data viewer that are described below.

Three non-EU countries, Croatia, Montenegro and Switzerland have reported monitoring results under the new directive. Switzerland sent data on *Escherichia coli* for all bathing waters but only for some data on intestinal enterococci.

Overall in 2010, 92.1 % of Europe's coastal bathing waters and 90.2 % of inland bathing waters met the minimum water quality standards set by the bathing water directives. During recent years there

has been deterioration in bathing water quality but still more than nine in ten bathing waters meet the minimum quality standards. The share of non compliant bathing waters was 1.2 % for coastal bathing waters and 2.8 % for inland bathing waters. The decrease reflects in part year to year variation but also indicates that further work is necessary to ensure that the quality of bathing waters is constantly improved and maintained.

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](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 quality of the bathing water at more than 22 000 coastal beaches and inland bathing waters 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 visualisation of 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 freshwater 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 the 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 given 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 users wish to make. For historical data Water Watch uses a simplified index of bathing water quality data. The Czech Republic, Estonia, Finland (one municipality), Hungary, Lithuania, Luxembourg, Malta, the Netherlands, Norway (one municipality), Slovenia, Slovakia and England and Wales were also sending near real time information on bathing water quality to the Eye On Earth application. The bathing water quality from Austria, Belgium, Bulgaria, Croatia, Denmark, France, Germany, Ireland, Italy, Poland, Portugal, Spain, Sweden and Scotland and Northern Ireland was also presented on 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>.