European Environment Agency

Bathing water results 2012 – Ireland

1. Reporting and assessment

In 2012 the Irish authorities reported under Directive 2006/7/EC provisions a list of their bathing waters, start and end of bathing season for each bathing water, short term pollution events, events impacting bathing water quality and measured values of concentrations of two microbiological parameters — intestinal enterococci and *Escherichia coli* (also known as *E. coli*). This report gives a general overview of bathing water quality in Ireland for the 2012 bathing season. Ireland has reported under the Directive 2006/7/EC since 2011.

The Annex IV of the new Directive requires a sample to be taken shortly before the start of the bathing season. Sampling dates are to be distributed throughout the bathing season, with the interval between sampling dates never exceeding one month. Taking into account one pre-season sample, no fewer than four samples are to be taken and analysed per bathing season. Three samples need be taken and analysed per bathing season in the case of a bathing water that either has a bathing season not exceeding eight weeks or is situated in a region subject to special geographical constraints. The result of such monitoring is used to build up the sets of bathing water quality data. Before the necessary data set for assessment of bathing water quality under the Directive 2006/7/EC is compiled (data for four consecutive years) the rules for transition period assessment are applied. This means that the classification of bathing waters is defined on the basis of concentrations of intestinal enterococci and *Escherichia coli* that are reported under the Directive 2006/7/EC in 2012.

Bathing water quality in 2012 season in Ireland is assessed under the transition period rules, where the new Directive monitoring frequency requirements should be fulfilled. One pre-season sample should be available and the interval between sampling dates in 2012 should never exceed 35 days, provided that the next sampling is done according to the monitoring calendar.

The limit values for the classification are taken from the Directive 76/160/EEC. For the conversion of reported parameters under the Directive 2006/7/EC, Article 13.3 of the Directive 2006/7/EC foresees that the parameter *Escherichia coli*, reported under the Directive 2006/7/EC, is assumed to be equivalent to the parameter faecal coliforms of the Directive 76/160/EEC. The parameter intestinal enterococci reported under the Directive 2006/7/EC is assumed to be equivalent to the parameter faecal streptococci.

The results are classified in the following categories:

- **Class CI:** Compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli* and not compliant with the guide values of the Directive 76/160/EEC for *Escherichia coli* or intestinal enterococci;
- **Class CG:** 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 NC:** Not compliant with the mandatory value of the Directive 76/160/EEC for *Escherichia coli*;
- **Class B:** Banned or closed;
- **Class NF:** Insufficiently sampled;
- **Class NS:** Not sampled.

2. Length of bathing season and number of bathing waters

For all bathing waters the bathing season lasted 106 days, from 1 June to 15 September 2012.

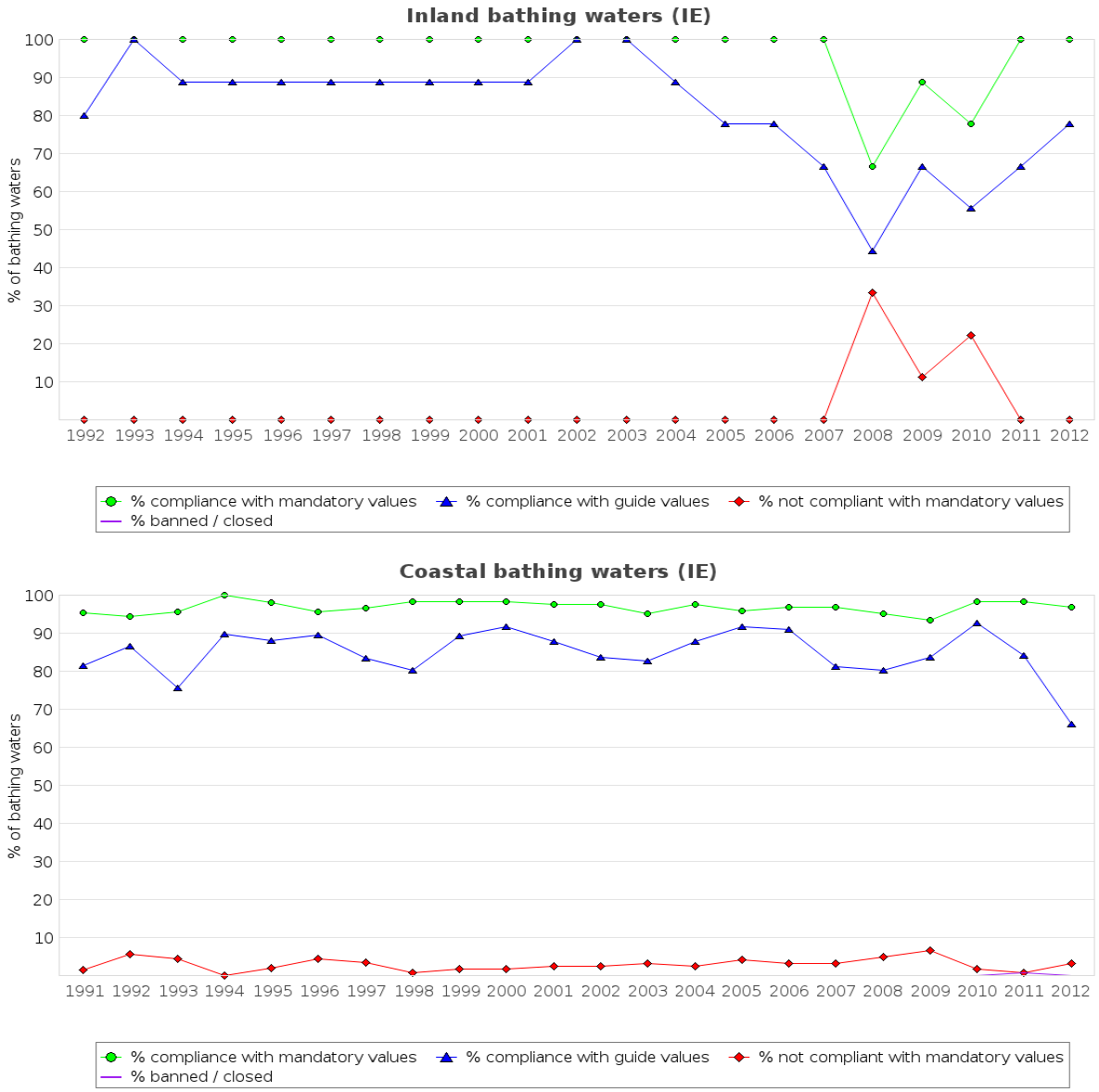
A total of 136 bathing waters were monitored in Ireland during the 2012 bathing season, of which 127 were coastal (121) or transitional bathing waters (six) and nine were inland bathing waters (0 on rivers; nine on lakes). One coastal and no inland bathing waters were reported as de-listed (permanently closed) compared to the previous year. One coastal and no inland bathing waters were added to the list.

With 136 reported bathing waters Ireland accounts for about 0.6 % of the reported bathing waters of the European Union.

3. Bathing water quality

The results of the bathing water quality in Ireland for the period 1992-2012 are presented in Figure 1[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) and the European Environment Agency's bathing water website (http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water).

Figure 1: Results of bathing water quality in Ireland from 1991 to 2012.



Note: Data until 2008 are available in the previous reports at http://ec.europa.eu/environment/water/water-bathing/index_en.html.

[1] 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 (class B, violet line).

Table 1 shows the same information in absolute numbers and in percentages separately for inland and coastal and all bathing waters from 2008 on. The numbers and percentages of insufficiently sampled or not sampled bathing waters are also presented. A map given in Appendix 1 shows the location and quality of the bathing waters.

Coastal bathing waters

In Ireland, 96.9 % of the coastal bathing waters met the mandatory water quality in 2012. This is a decrease of 1.5 % compared to the previous year. The rate of compliance with the guide values decreased from 84.1 % to 66.1 %. Four bathing waters (3.1 %) were non-compliant with the mandatory value for *Escherichia coli* compared to one in 2011, which is an increase of 2.3 %. No bathing waters were classified as closed during the bathing season in 2012. There was one closed in 2011.

Inland bathing waters

All inland bathing waters met the mandatory water quality in 2012 as in the previous year. The rate of compliance with the guide values increased from 66.7 % to 77.8 %. No bathing waters were classified as closed the 2012 bathing season. There was none closed 2011.

Table 1: Results of bathing water quality in Ireland from 2008 to 2012

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		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	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
	2011	126	106	84.1	124	98.4	1	0.8	1	0.8	0	0.0
	2012	127	84	66.1	123	96.9	4	3.1	0	0.0	0	0.0
Inland bathing waters	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
	2011	9	6	66.7	9	100.0	0	0.0	0	0.0	0	0.0
	2012	9	7	77.8	9	100.0	0	0.0	0	0.0	0	0.0
All bathing waters	2008	131	102	77.9	122	93.1	9	6.9	0	0.0	0	0.0
	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
	2011	135	112	83.0	133	98.5	1	0.7	1	0.7	0	0.0
	2012	136	91	66.9	132	97.1	4	2.9	0	0.0	0	0.0

*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 or the mandatory value for *Escherichia coli*.

4. Important information as provided by the Irish authorities

Local authorities are responsible for encouraging public participation in relation to the establishment, review and updating of identified bathing waters within their respective functional areas for the forthcoming bathing season. 18 **local authorities** reported to the Irish Environmental Protection Agency the measures undertaken to encourage public participation in relation to the identification of bathing waters for the 2012 bathing season.

Public participation notices were posted on all local authority websites and/or in newspapers (local/national). In addition, some local authorities displayed public participation information notices on the notice boards at the beaches and held public meetings. These notices informed the public of the public participation process in relation to the identification of bathing waters and invited submissions for the 2012 season either by e mail or by post by a stated deadline date.

Meteorological data for 2012 showed that Ireland experienced its wettest summer for many years with most areas experiencing 2-3 times the normal 30yr average rainfall. The impacts were most acute in the South and South West of the country where catchments are largely rural and many beaches are exposed to the predominant wind direction (S – W). June was characterised by, often highly localised, convection storms resulting in intense rainfall over relatively short periods. August was characterised by strong southerly gales lasting several weeks and while the weather improved slightly in September rainfall (>0.1mm) occurred for between 60%-80% of the season depending on region. In the southwest Co. Kerry recorded only 19 days (of 107) with no rainfall whereas Dublin had 37 dry days.

In sharp contrast to 2011, **weather impacts** in 2012 resulted in a number of instances of elevated bacterial populations some of which were very uncharacteristic of bathing areas. There were a small number of instances reported under Reg. 15, mainly due to discharges from wastewater treatment infrastructure. One WWTP maintenance event was classed under Short term Pollution as all criteria were met. Most submissions to have results discounted were considered under the requirements for classification as abnormal situations (Reg. 8).

Prior to clarification by the ETC/ICM forum in September 2012 (link below) on the information required for the purpose of assessing short term pollution it had been Ireland's position that the use of modelling techniques was necessary to avail of this approach. While work is well advanced on the correlation of antecedent rainfall with predictive pollution this approach is not yet fully developed for all relevant beaches.

Had the revised position been notified prior to the bathing season a number of these events would have been treated as STP rather than as abnormal situations.

5. General information on bathing water quality in Europe in 2012

Out of more than 22 000 bathing areas monitored throughout Europe in 2012, around two thirds were in coastal waters and the rest were in rivers and lakes. In the 2012 bathing season, the monitoring of bathing sites has been adjusted to the provisions in the EU's new bathing water directive (Directive 2006/7/EC). The sampling of water quality in most of the bathing water sites meets the frequency standards (this involves a pre-season sample of the water quality, followed up by monthly samples thereafter). As regards assessment, the provisions in the new bathing water directive have been applied in 19 European countries (Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Spain, Spain, Sweden). This involved taking data from four years of monitoring to make the 2012 assessment. For the remaining ten countries, the 2012 assessment has been carried out under a set of transitional rules that do not yet meet all the requirements of the new directive using the results from the 2012 monitoring.

In 2012, the quality of 94 % of all bathing waters met at least the minimum 'mandatory' level (corresponding to a rating of sufficient quality under the new directive). Bathing water quality improved at 1.8 % of sites in 2012 compared with 2011, and at 2.5 % of sites compared with 2010. There has also been a marked decline compared with 2011 in the number of bathing waters that were closed or that prohibited bathing.

In 2012, 95.3 % of coastal bathing waters in the EU-27 achieved the minimum quality standards requested by the EU directives — an increase of 2.0 % compared with 2011. The share of coastal bathing waters with excellent quality (or complying with the guide values) in 2012 reached 81.2 % (an increase of 0.9 % from 2011).

The percentage of inland bathing waters with excellent quality is 72 % in 2012, a 1.6 % increase from 2011. In 2012, 91 % of inland bathing waters in the European Union had good or sufficient quality. This

is a 1.0 % point increase from 2011. Only 2.3 % of inland bathing waters in the EU did not satisfy the minimum quality level. This is 0.1 % decrease from the previous year, continuing the slow but steady reduction in the percentage of poor quality bathing waters.

The "European bathing water quality in 2012" report presents the results and trends in bathing water quality in 2012 in Europe (http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water). More information on bathing water quality as prepared for all reporting countries can be found on the European Environment Agency's bathing water website. The reports for the 2012 season have been produced by TC Vode, European Topic Center ICM Waters partner with support of the Institute for Water of the Republic of Slovenia (IWRS). Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

6. Interactive information on bathing water quality in Europe

The bathing water section of the Water Information System for Europe (WISE), which is accessible at the EEA bathing water website (http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water), 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, download data for a selected country or region, and make comparisons with previous years.

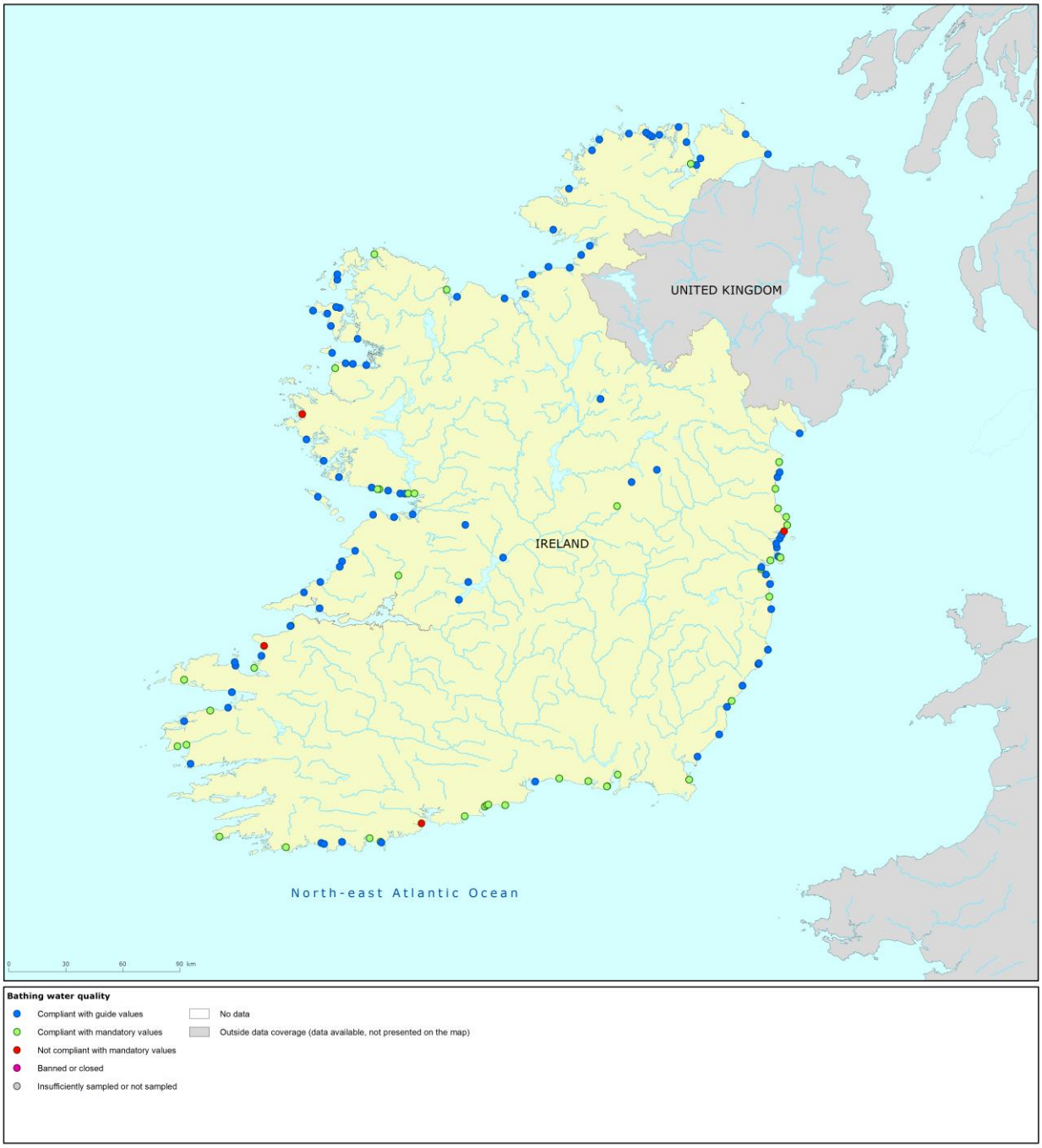
The Eye on Earth — Water Watch application (http://eyeonearth.org/map/WaterWatch/) allows users to zoom in on a section of coast, riverbank or lake, both in street map or, where available, bird's eye viewing formats.

The data on bathing water quality in 2012 and previous years can also be viewed in WISE bathing water data viewer, an application prepared by TC Vode (http://bwd.eea.europa.eu/).

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 site. Websites generally include a map search function and public access to the monitoring results both in real time and for previous seasons. Citizens now have access to more bathing water information than ever, giving them the tools to become more actively involved in protecting the environment and helping to improve Europe's bathing areas.

Appendix 1

Map 1: Bathing waters reported during the 2012 bathing season in Ireland



Source: National boundaries: EEA; Large rivers and lakes: EEA, WFD Article 3; Bathing waters data and coordinates: Irish authorities