

# BWD Report For the Bathing Season 2014

## Ireland

The report gives a general overview of information acquired from the reported data, based on provisions of the Bathing Water Directive<sup>1</sup>. The reporting process is described below, as well as state and trends of bathing water quality in Ireland.

### 1. BWD reporting in the season 2014

In 2014 bathing season, 136 bathing waters have been reported in Ireland. For each bathing water, five groups of parameters have been delivered<sup>2</sup>:

- *identification data* – including name, location, geographic type of bathing water and availability to bathers;
- *seasonal data* – including season start and end, national quality classification in present season, potential management measures and changes in quality;
- *monitoring results* – disaggregated numerical values of two microbiological parameters – intestinal enterococci and Escherichia coli (also known as E. coli), recorded at each water sample taken;
- *abnormal situation periods* – periods of unexpected situations that have, or could reasonably be expected to have, an adverse impact on bathing water quality and on bathers' health; reporting is optional;
- *short-term pollution periods* – identifiable events that adversely affect water quality by faecal contamination; reporting is optional.

Bathing waters of Ireland in 2014	
<b>Total reported</b>	<b>136</b>
Coastal	127
Inland	9
<b>Max season period</b>	<b>107 days</b>
	1 Jun to 15 Sep
<b>Samples taken</b>	<b>1453</b>
<b>Share of bathing waters with good or excellent water quality</b>	<b>88 %</b>
<b>New BWD implemented in</b>	<b>2011</b>

The authorities of Ireland report data according to the new BWD (2006/7/EC) since the season 2011. Between 2011 and 2013, annual assessment and reporting was undertaken under transitional criteria, applying the new assessment rules since the season 2014. The data for the season 2014 were delivered to the European Commission by **10 December 2014**.

Altogether, **136 bathing waters** have been reported – 0.6% of all bathing waters in Europe. Out of all bathing waters in Ireland, 0.74% have been newly identified in 2014 season. 93% of bathing waters in Ireland are of coastal type; the other 7% are inland. **1453 samples** were taken at bathing waters

<sup>1</sup> Directive BWD 2006/7/EC, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>

<sup>2</sup> See the BWD Data Dictionary for detailed explanations: <http://dd.eionet.europa.eu/datasets/3151#tables>

throughout the season – 11 per bathing water on average. The maximum bathing season period was from 1 June to 15 September, i.e. 107 days altogether. Detailed information on bathing waters is available from national portal at <http://splash.epa.ie/BathingWaters>.

## 2. Assessment methodology<sup>3</sup>

During the bathing season, water samples are taken and analysed for two bacteria, *Escherichia coli* and intestinal enterococci which may indicate the presence of pollution, usually originating in sewage or livestock waste. The results of the analysis are used to assess the quality of the bathing waters concerned and to provide information to the public on the quality of the water in the bathing sites concerned.

The monitoring requirements under the New Bathing Water Directive are:

- taking of a pre-season sample (taken shortly before the start of the bathing season) <sup>4</sup>;
- a minimum of four samples per season<sup>5</sup>;
- a minimum of one sample per month<sup>6</sup>.

The conditions described above must be met for all bathing waters. If these rules are satisfied, the bathing water is categorised as 'sampling frequency satisfied'. If not all monitoring requirements are fulfilled the bathing water is categorised as 'sampling frequency not satisfied'. Ireland fully met the described monitoring requirements of the Directive, with one bathing water being classified as new. Table 1 shows the statistics of bathing waters according to satisfied BWD monitoring requirements.

**Table 1: Bathing waters in 2014 according to compliance with BWD monitoring provisions**

	Count	Share of total [%]
<b>BWs with sampling frequency satisfied and are not new, have no changes or were not closed in 2014</b> These bathing waters have been monitored according to BWD provisions (monitoring frequency satisfied and have pre-season sample. They have been quality-classified (excellent, good, sufficient, poor).	135	99.3%
<b>BWs with sampling frequency not satisfied and that are not new, have no changes or were not closed in 2014.</b> These bathing waters have not been monitored according to BWD provisions (monitoring frequency not satisfied). They may be quality-classified if there is a reasonable volume of samples available.	0	0%
<b>BWs that are new, changed or closed in 2014</b> These bathing waters are new or have been subject to changes that could affect bathing water quality.	1	0.7%
<b>Total number of bathing waters in 2014</b>	<b>136</b>	<b>100%</b>

<sup>3</sup> The methodology used by the EC and the EEA is described here, while results of assessment by national authorities may somewhat differ. However, the provisions of the Directive should be followed in any case.

<sup>4</sup> A pre-season sample is taken into account at total number of samples per season.

<sup>5</sup> Three samples are sufficient if the season does not exceed eight weeks or the region is subject to special geographical constraints.

<sup>6</sup> If, for any reason, it is not possible to take the sample at the scheduled date, a delay of four extra days is allowed. Thus, the interval between two samples should not exceed 31 + 4 days.

Bathing waters where sampling frequency was not satisfied can still be quality assessed if at least four samples per season (three samples if the season does not exceed eight weeks or the region is subject to special geographical constraints) are available and are more or less equally distributed throughout the season. Assessment of bathing water quality is possible when the bathing water sample dataset is available for four consecutive seasons. Bathing waters are accordingly classified to one of the bathing water quality classes (excellent, good, sufficient, or poor).

The classification is based on pre-defined percentile values for microbiological enumerations, falling in the certain class given in Annex I of the Directive. This defines different limit values for coastal and inland waters.

Quality assessment is not possible for all bathing waters. In these cases, they are instead classified as either:

- not enough samples<sup>7</sup>;
- new<sup>8</sup>;
- changes<sup>9</sup>;
- closed<sup>10</sup>.

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<sup>7</sup> Not enough samples have been provided for the 2014 season or throughout the whole assessment period.

<sup>8</sup> Classification not yet possible because bathing water is newly identified and a complete set of samples is not yet available.

<sup>9</sup> Classification is not yet possible after changes affecting bathing water quality have been implemented.

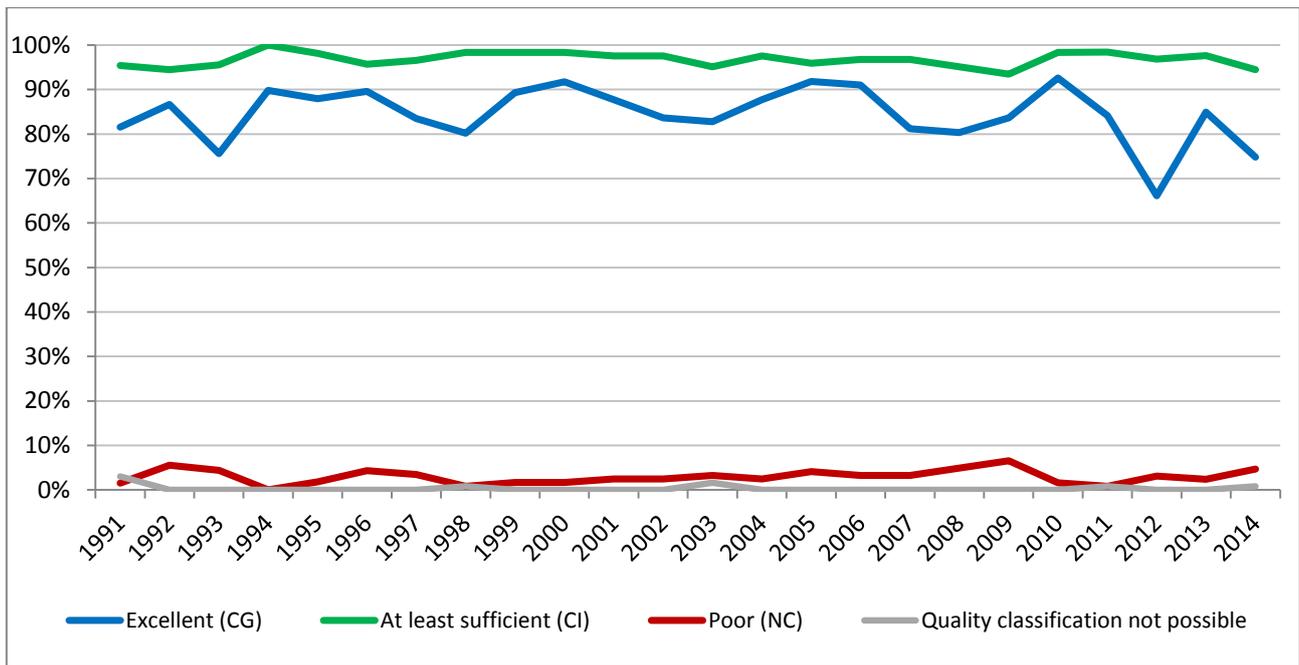
<sup>10</sup> Bathing water is closed temporarily or throughout the bathing season.

### 3. Bathing water quality

The results of the bathing water quality in Ireland throughout the past period are presented in Figure 1 (for coastal bathing waters) and Figure 2 (for inland bathing waters). The previous reports are available on the European Commission's bathing water quality website<sup>11</sup> and the European Environment Agency's bathing water website<sup>12</sup>.

#### 3.1 Coastal bathing waters

In Ireland, 94.5% of all existing coastal bathing waters met at least sufficient water quality standards in 2014. See Appendix 1 for numeric data.



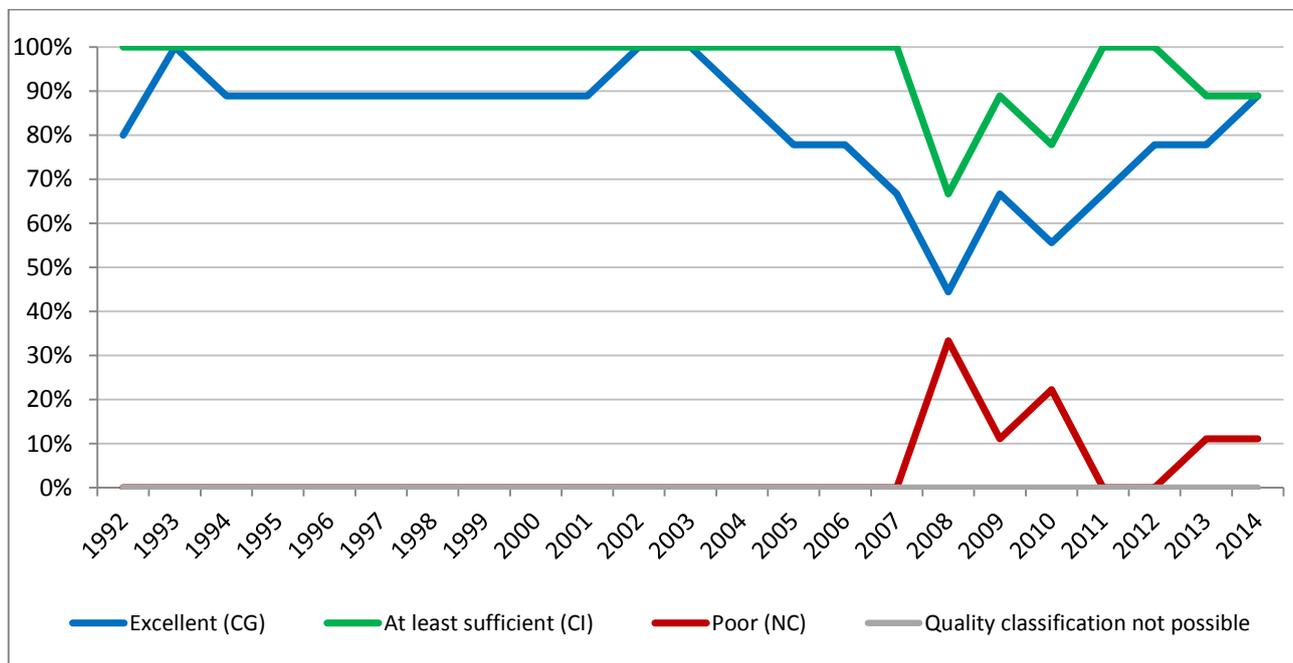
**Figure 1: Coastal bathing water quality trend in Ireland.** Note: the “At least sufficient” class also includes bathing waters of “Excellent” quality class, the sum of shares is therefore not 100%. In the period 1991 – 2013 assessment was undertaken using the criteria set out in previous legislation and was based on annual assessment against standards prescribed at that time. Classification was either that the BW met the Guideline values (CG or Excellent), met the mandatory criteria (CI or Sufficient), or failed to meet the mandatory criteria (NC or Poor).

<sup>11</sup> [http://ec.europa.eu/environment/water/water-bathing/index\\_en.html](http://ec.europa.eu/environment/water/water-bathing/index_en.html)

<sup>12</sup> <http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>

## 3.2 Inland bathing waters

88.9% of all existing inland bathing waters met at least sufficient water quality in 2014. See Appendix 1 for numeric data.



**Figure 2: Inland bathing water quality trend in Ireland.** Note: the “At least sufficient” class also includes bathing waters of “Excellent” quality class, the sum of shares is therefore not 100%. In the period 1991 – 2013 assessment was undertaken using the criteria set out in previous legislation and was based on annual assessment against standards prescribed at that time. Classification was either that the BW met the Guideline values (CG or Excellent), met the mandatory criteria (CI or Sufficient), or failed to meet the mandatory criteria (NC or Poor).

## 4. Information regarding management and other issues

In 2013 the Environmental Protection Agency of Ireland (EPA) developed a suite of bathing water systems to support the implementation of the BWD (2006/7/EC) in Ireland allowing local authorities to electronically report the identification of bathing waters, profiles, and monitoring calendars. In parallel, a Compliance & Risk Information System (CRIS) for notification of bathing water incidents to the Agency, in a timely manner, and to the public via Splash and EPA Twitter account was also introduced. These systems have been further refined in 2014 based on user feedback as has the national bathing water information website Splash ([splash.epa.ie](http://splash.epa.ie)).

Bathing water profiles for the 136 identified bathing waters in Ireland (for 2014) are available from the Splash website at <http://splash.epa.ie/BathingWaters>.

48 Incidents were reported in 2014, mostly relating to wastewater discharges. Over half of these related to extreme storm events in the greater Dublin area in early August which resulted in the operation of several storm outfalls. A number of Short Term Pollution events were notified particularly in the South and South-western counties (which were badly affected by rainfall events in 2012) however of these all but 1 were uneventful.

<b>Likely sources of pollution</b>	<b>2014</b>
Agricultural diffuse pollution	8
Wastewater discharges	27
Septic tanks	1
Animals / Birds	2
Urban discharges / combined with agriculture	3
Urban diffuse pollution	1
Other sources	6
<b>Total</b>	<b>48</b>

Management measures undertaken for bathing water incidents arising during the 2014 bathing season are reported in the EC “2014 Bathing Water Monitoring and Classification for Ireland” reporting file. Management measures, in general, undertaken for all bathing water incidents included notification to the Health Executive Service (HSE) and the EPA, protecting the public by the posting of temporary advice against bathing/bathing prohibition notices at the beach where advised by HSE, informing the public of the incidents at the beach, via the national bathing water website & other media, resampling, together with site investigations and corrective actions where applicable. These incidents and their management measures are detailed in the “Seasonal Information on Bathing Waters” table in the 2014 EC reporting file.

In early 2014 local authorities were advised of provisional forecast of those waters deemed vulnerable to pollution and likely to achieve either ‘Sufficient’ or ‘Poor’ classification when the 4year assessment (20110-2014) data was applied. Meetings were arranged with all relevant authorities to assess options for suitable management measures.

In March 2015 a meeting was held between EPA and those local authorities where ‘Poor’ classifications were applied. This was also attended by Irish Water who, as the new national body for wastewater infrastructure, will be a key player in respect of remedial measures. The relevant local authorities were requested to submit their management plans for review and approval by EPA. These plans incorporate a broad range of remedial measures including the construction and commissioning of new wastewater treatment plants, remediation of sewage networks and infrastructure upgrade.

Further details are provided in the 2014 Bathing Water Quality in Ireland report available on the EPA website (<http://www.epa.ie/pubs/reports/water/bathing/EPABathingWaterReport2014.pdf>).

## **5. Bathing water quality assessment presentation in online viewers**

The new legislation requires more effective monitoring and management of bathing waters, greater public participation and improved information dissemination. More on the bathing and other water legislation can be found on the European Commission's website: [http://ec.europa.eu/environment/water/index\\_en.htm](http://ec.europa.eu/environment/water/index_en.htm).

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/interactive/bathing/state-of-bathing-waters>), allows users to view the bathing water quality at more than 21 000 coastal beaches and inland sites across Europe. The data on bathing water quality in 2014 and previous years can also be viewed in WISE bathing water data viewer, an application prepared by TC Vode (<http://bwd.eea.europa.eu/>). The WISE bathing water quality data viewer combines text and graphical visualisation, providing a quick overview of the bathing water's locations and achieved quality.

Citizens have now access to more bathing water information than ever and are encouraged to make full use of disseminated information.

## Appendix 1: Results of bathing water quality in Ireland from 2011 to 2014

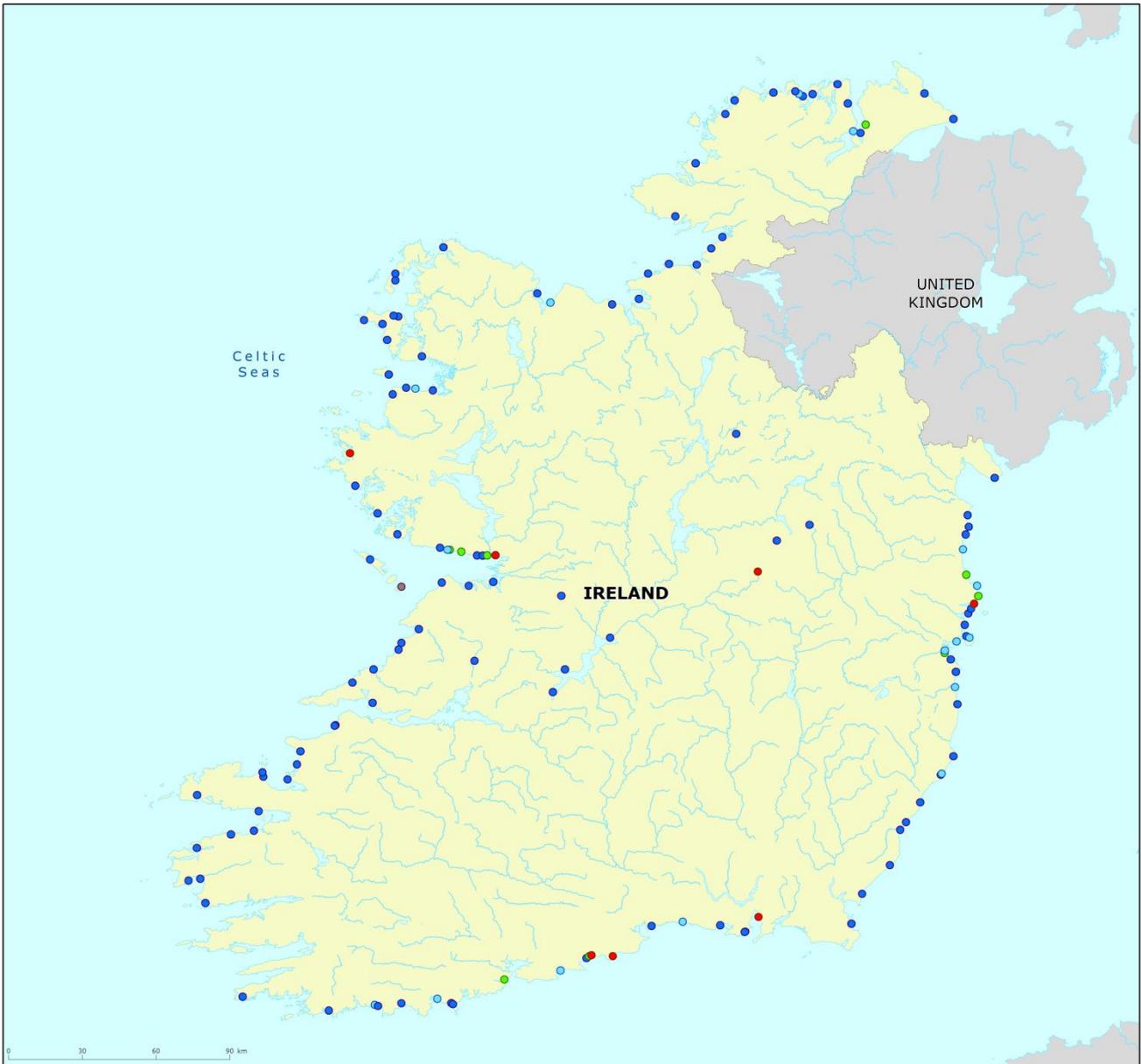
Table 2: Bathing waters in the season 2014 according to quality

		Total number of bathing waters	Excellent quality or compliant with guide values		At least sufficient quality or compliant with mandatory values		Poor quality or non-compliant		Quality classification not possible: not enough samples /new bathing waters/bathing waters with changes/closed	
			No	%	No	%	No	%	No	%
Coastal	2011	126	106	84.1	124	98.4	1	0.8	1	0.8
	2012	127	84	66.1	123	96.9	4	3.1	0	0.0
	2013	126	107	84.9	123	97.6	3	2.4	0	0.0
	2014	127	95	74.8	120	94.5	6	4.7	1	0.8
Inland	2011	9	6	66.7	9	100.0	0	0.0	0	0.0
	2012	9	7	77.8	9	100.0	0	0.0	0	0.0
	2013	9	7	77.8	8	88.9	1	11.1	0	0.0
	2014	9	8	88.9	8	88.9	1	11.1	0	0.0
Total	2011	135	112	83.0	133	98.5	1	0.7	1	0.7
	2012	136	91	66.9	132	97.1	4	2.9	0	0.0
	2013	135	114	84.4	131	97.0	4	3.0	0	0.0
	2014	136	103	75.7	128	94.1	7	5.1	1	0.7

Note: the class "At least sufficient" also includes bathing waters which are of excellent quality, the sum of shares is therefore not 100%.

## Appendix 2: Bathing water quality map

**Map 1: Bathing waters reported during the 2014 bathing season in Ireland**



### Bathing water quality

- Excellent water quality
- Good water quality
- Sufficient water quality
- Poor water quality
- Quality classification not possible: not enough samples / new bathing waters / bathing waters with changes / closed

□ No data

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

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