European Environment Agency

Bathing water results 2011 – The Netherlands

1. Reporting and assessment

This report gives a general overview of bathing water quality in the Netherlands during the 2011 bathing season. The Netherlands has reported under the Directive 2006/7/EC since 2009.

Before the necessary data set for assessment of bathing water quality under the Directive 2006/7/EC is compiled (data for three or 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. 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.

The frequency of sampling is set out in Annex IV of the Directive 2006/7/EC. 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. These criteria are described as less strict. In this report a compliance class under the strict rules and less strict criteria are presented.

2. Length of bathing season and number of bathing waters

For all bathing waters the bathing season lasted 154 days, from 1 May to 1 October 2011.

A total of 690 bathing waters were reported in the Netherlands during the 2011 bathing season, of which 87 were coastal (74) or transitional bathing waters (13) and 603 were inland bathing waters (28 on rivers; 575 on lakes). Three coastal and four inland bathing waters were reported as de-listed (permanently closed) compared to the previous year. No coastal and 28 inland bathing waters were added to the list.

With 690 reported bathing waters the Netherlands accounts for about 3.3 % of the reported bathing waters of the European Union.

3. Bathing water quality

The results of the bathing water quality in the Netherlands 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 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, grey line).

Table 1 shows the same information in absolute numbers and in percentages for coastal, inland and all bathing waters from 2008 on. The numbers and percentages of insufficiently sampled or not sampled bathing waters are also presented. 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.

Coastal bathing waters

In the Netherlands, 97.7 % of the coastal bathing waters met the mandatory water quality in 2011. This is an increase of 5.5 % compared to the previous year. The rate of compliance with the guide values increased from 60.0 % to 67.8 %. Two bathing waters (2.3 %) were non-compliant with the mandatory value for *Escherichia coli* compared to three in 2010, which is a decrease of 1.0 %. No bathing waters (0.0 %) had to be closed during the bathing season compared to three (3.3 %) in 2010.

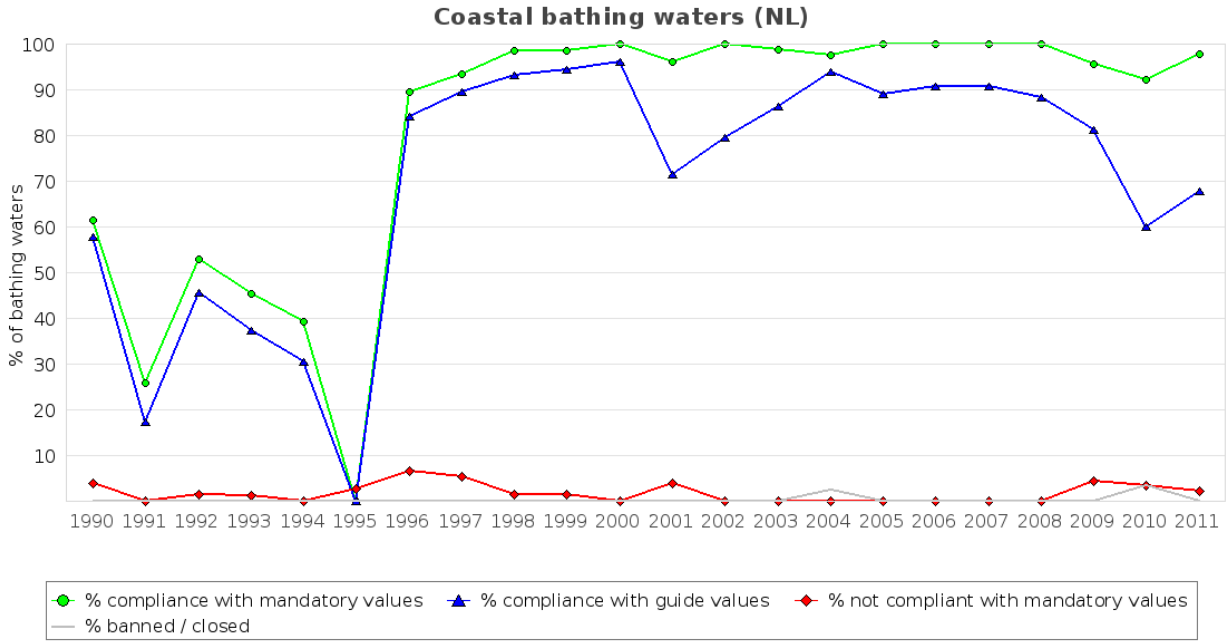
For comparison since the start of the reporting please see Figure 1.

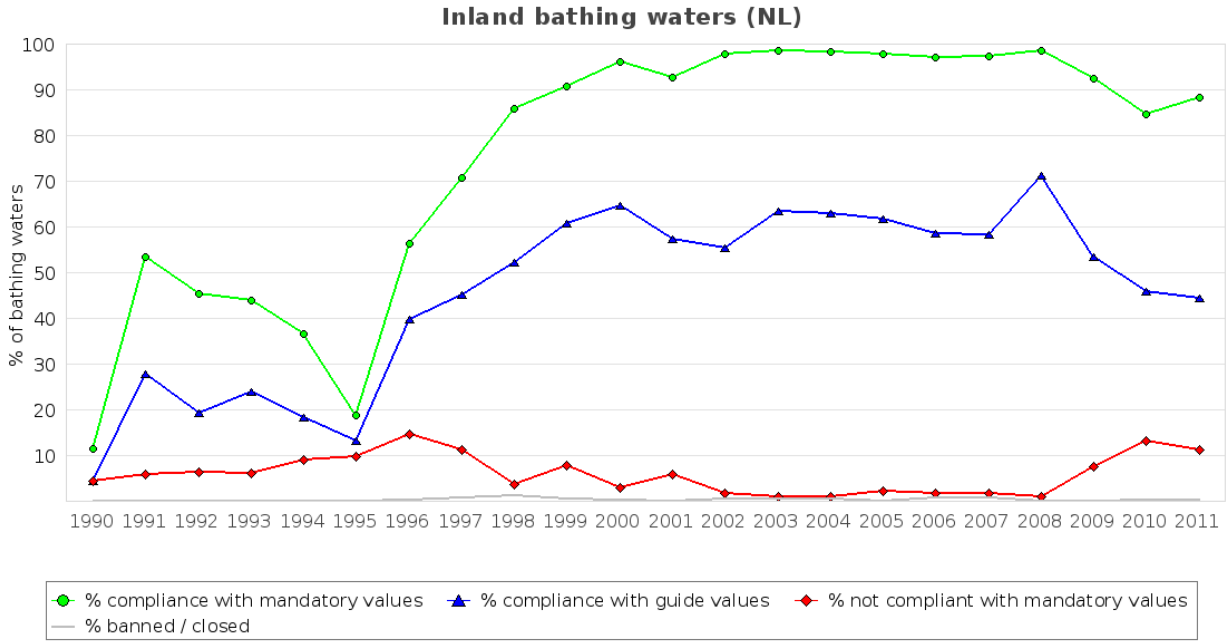
Inland bathing waters

Some 88.4 % of the inland bathing waters met the mandatory water quality in 2011. This is an increase of 3.8 % compared to the previous year. The rate of compliance with the guide values decreased from 45.9 % to 44.4 %. A total of 68 bathing waters (11.3 %) were non-compliant with the mandatory value for *Escherichia coli* compared to 76 in 2010, which is a decrease of 1.8 %. Two bathing waters (0.3 %) were classified as closed, 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 the Netherlands 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 the Netherlands from 2008 to 2011

NL												
		Total number of bathing waters	Compliance with guide and mandatory values*		Compliance with mandatory values		Not compliant		Banned/closed		Insufficiently sampled or not sampled	
			number	%	number	%	number	%	number	%	number	%
Coastal bathing waters	2008	86	76	88.4	86	100.0	0	0.0	0	0.0	0	0.0
	2009	91	74	81.3	87	95.6	4	4.4	0	0.0	0	0.0
	2010	90	54	60.0	83	92.2	3	3.3	3	3.3	1	1.1
	2011	87	59	67.8	85	97.7	2	2.3	0	0.0	0	0.0
	2011(s)	87	59	67.8	85	97.7	2	2.3	0	0.0	0	0.0
Inland bathing waters	2008	556	396	71.2	548	98.6	6	1.1	0	0.0	2	0.4
	2009	553	295	53.3	511	92.4	42	7.6	0	0.0	0	0.0
	2010	579	266	45.9	490	84.6	76	13.1	2	0.3	11	1.9
	2011	603	268	44.4	533	88.4	68	11.3	2	0.3	0	0.0
	2011(s)	603	268	44.4	533	88.4	68	11.3	2	0.3	0	0.0
All bathing waters	2008	642	472	73.5	634	98.8	6	0.9	0	0.0	2	0.3
	2009	644	369	57.3	598	92.9	46	7.1	0	0.0	0	0.0
	2010	669	320	47.8	573	85.7	79	11.8	5	0.7	12	1.8
	2011	690	327	47.4	618	89.6	70	10.1	2	0.3	0	0.0
	2011(s)	690	327	47.4	618	89.6	70	10.1	2	0.3	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 (2008) or the mandatory value for *Escherichia coli* (2009-2011).

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

4. Important information as provided by the Dutch authorities

The Dutch authorities have reported for some bathing waters also significant management measures and reasons for changes (Table 2).

Table 2: Information on management measures and reasons for changes for the 2011 season as reported by the Dutch authorities

Unique Identification Code of Bathing Water	Bathing Water Name	River Basin District	Bathing Water Category	Management Measures
NLBW28_145580	ZWEMPLAS AUTOTRON ROSMALEN	Maas/Meuse	Lake	Closed for the entire season. Wordt niet bemonsterd, niet toegankelijk ivm bouwwerkzaamheden. Hek geplaatst.
NLBW89_KORTGNSPDBSD	KORTGENE SCHAPENDIJK BADSTRAND	Schelde/Scheldt/Escaut	Lake	Closed for the entire season. Is niet bemonsterd ivm bouwwerkzaamheden. Borden geplaatst.
NLBW89_OESTDSMPTBSD	OESTERDAM SPEELMANSPLATEN BADSTRAND	Schelde/Scheldt/Escaut	Lake	Temporarily closed. Deze locatie was tijdelijk gesloten ivm bouwwerkzaamheden, er zijn borden geplaatst. Periode van sluiting voor publiek: voor aanvang van het badseizoen tot 15 juni 2011. De bemonstering is in mei gestart.
NLBW11_SBP012	BLIJKPOLDER, SPEELVIJVER ACHTER SPORTHAL	Rijn/Rhein/Rhin/Rhine	Lake	Permanently closed. Tellingen uitgevoerd en geen zwemmers aangetroffen.
NLBW27_245710	RAKELBOSCH	Maas/Meuse	Lake	Permanently closed. Tellingen uitgevoerd en geen zwemmers aangetroffen
NLBW28_345577	PLAS AAN DE RADIOWEG, STEVENSBEEK	Maas/Meuse	Lake	Permanently closed. De nieuwe locatie NLBW28_345578 vervangt locatie NLBW28_345577, historische data van locatie NLBW28_345577 toevoegen aan de nieuwe locatie NLBW28_345578.
NLBW34_7060	ZEESTRAND EEMSHOTEL, DELFZIJL	Eems/Ems	Coastal	Permanently closed. NLBW34_7060 en NLBW81_DELFZBSD zijn dezelfde locatie, locatie NLBW81_DELFZBSD blijft en locatie NLBW34_7060 vervalt.

Unique Identification Code of Bathing Water	Bathing Water Name	River Basin District	Bathing Water Category	Management Measures
				Een Waterschap (NLBW34) en een dienst van Rijkswaterstaat (NLBW81), hebben beide de monitoringsresultaten van dezelfde locatie gerapporteerd.
NLBW92_WVHODDZSD	VOOROEVER DROGE WIJMERS	Rijn/Rhein/Rhin/Rhine	Lake	Permanently closed. Tellingen uitgevoerd, geen zwemmers aangetroffen, voorzieningen verwijderd, zwemverbodbord geplaatst
NLBW95_MAASVTBSD	MAASVLAKTE	Rijn/Rhein/Rhin/Rhine	Coastal	Permanently closed. Locatie hermetisch afgesloten met hekken ivm bouw Tweede Maasvlakte
NLBW95_OOSTVNBSD	OOSTVOORNE, AUTOSTRAND	Maas/Meuse	Coastal	Permanently closed. Uit waarnemingen blijkt dat hier geen zwemmers komen.
NLBW11_BLW003	RECREATIEGEBIED DE HOGE DIJK,GROTE PLAS	Rijn/Rhein/Rhin/Rhine	Lake	Meting heeft niet zoals gepland om 5 juli plaats gevonden maar op 4 juli. De reden hiervoor was een aanwijzing op een mogelijk risico voor de zwemmer.
NLBW20_01120	HET ZWARTE PLASJE	Rijn/Rhein/Rhin/Rhine	Lake	Locatie was eind september gesloten, hierdoor heeft de laatste bemonstering niet plaats gevonden. Ook voor zwemmers was de locatie niet toegankelijk.
NLBW11_BLW004	SPEELSLOOT (DE HOGE DIJK)	Rijn/Rhein/Rhin/Rhine	Lake	Locatie is niet op 24 mei bemonsterd, aangezien er toen geen water stond in deze ondiepe speelsloot. De bemonstering heeft op 25 mei alsnog plaats kunnen vinden. Meting heeft niet zoals gepland om 5 juli plaats gevonden maar op 4 juli. De reden hiervoor was een aanwijzing op een mogelijk risico voor de zwemmer.
NLBW36_lkms18	KOTERMEERSTAL ZUID BIJ STRAND	Rijn/Rhein/Rhin/Rhine	Lake	Beheersmaatregel uitgevoerd tegen het voorkomen van blauwalgen.

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

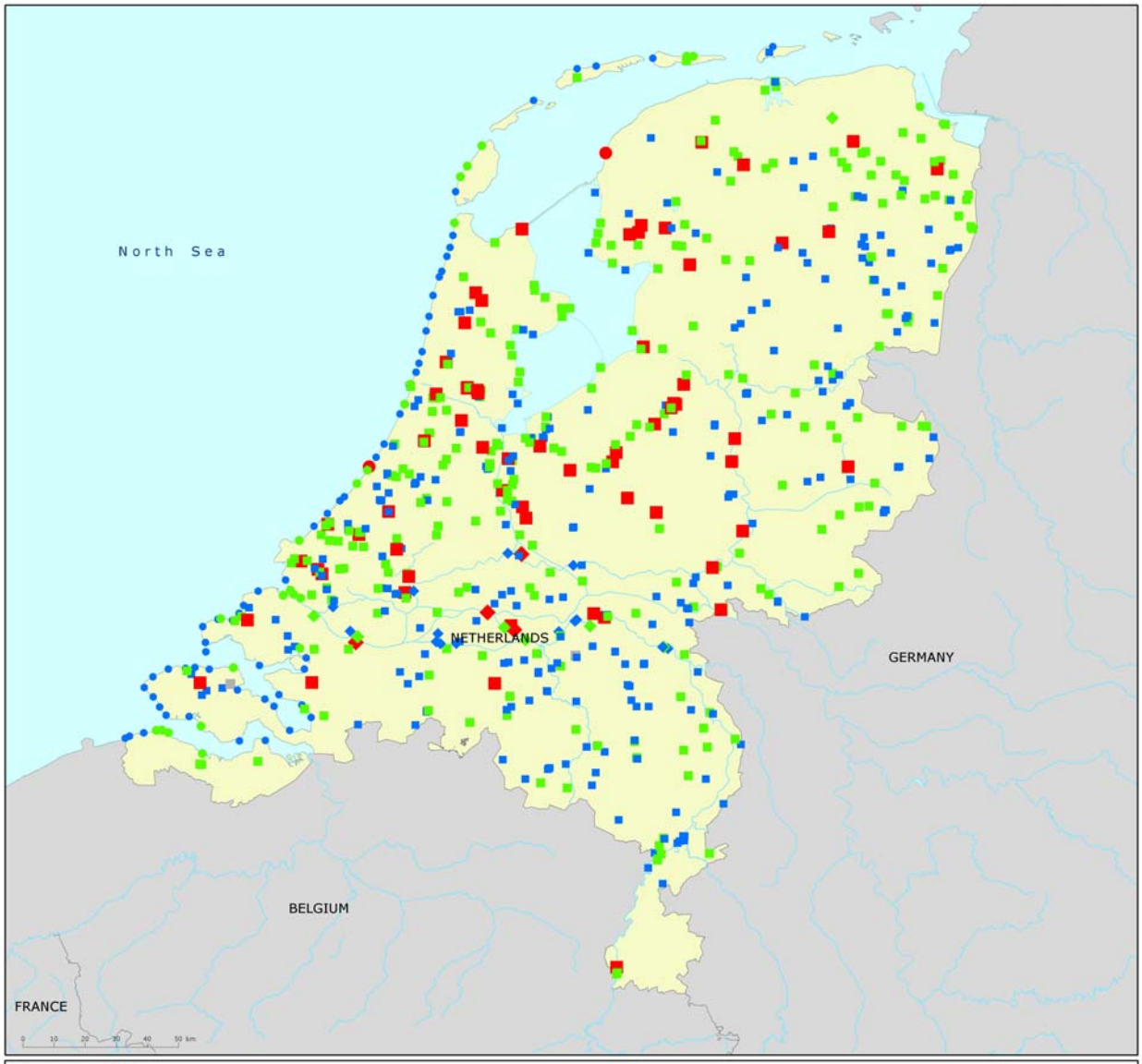
In order to make information to the public more effective, all EU countries have national or local web portals with detailed information for each bathing water. Websites generally include a map search function and public access to the monitoring results both in real time and for previous seasons.

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 the Netherlands



Note: 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: Dutch authorities