

Bathing waters of Slovenia in 2013

47

21

26

371

100 %

2010

77 / 106 days

1 Jun to 15 Sep

15 Jun to 31 Aug

**Total reported** 

Season period

Samples taken

water quality

Share of bathing waters

New BWD implemented in

with good or excellent

Coastal

Inland

Coastal

Inland

# **Bathing Water Directive report 2013** Slovenia

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 Slovenia.

#### 1. BWD reporting in 2013 season

In 2013 bathing season, 47 bathing waters have been reported in Slovenia. For each bathing water, five groups of parameters have been delivered:

- basic 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 unexpected situations that have, or 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;

The authorities of Slovenia initiated new BWD (2006/7/EC) reporting in 2010 season. The 2013 season data were delivered to the European Commission by 19 December 2013.

Altogether, **47 bathing waters** have been reported – 0.2% of all bathing waters in Europe. Out of all bathing waters in Slovenia, none have been newly identified and none have been delisted<sup>2</sup> in 2013 season. 45% of bathing waters in Slovenia are of coastal type; the other 55% are inland. **371 samples** were taken at bathing waters throughout the season – eight per bathing water on average.

<sup>&</sup>lt;sup>1</sup> Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=0J:L:2006:064:0037:0051:EN:PDF

<sup>&</sup>lt;sup>2</sup> Bathing waters which were identified in 2012 season, but not in 2013 season

The bathing season period was from 1 June to 15 September for coastal bathing waters, i.e. 106 days altogether. Inland bathing season period was from 15 June to 31 August, i.e. 77 days.

Potential issues, management measures and other information on specific bathing waters is available in extensive bathing water profiles available online (in Slovene).

Detailed information on individual bathing waters is available from national bathing water profiles at <a href="http://www.mko.gov.si/si/delovna">http://www.mko.gov.si/si/delovna</a> podrocja/voda/kopalne vode/seznam in profili kopalnih voda/profili kopalnih voda/.

## 2. Assessment methodology

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.

In 2013, bathing waters of Slovenia have been assessed according to rules of the new BWD (2006/7/EC) for the first time.

According to the BWD, the bathing water sample dataset should satisfy the following conditions:

- a minimum of one sample per month<sup>3</sup>
- a minimum of four samples per season<sup>4</sup>
- a minimum of 16 samples in total<sup>5</sup>
- four consecutive seasons<sup>6</sup>
- a pre-season sample<sup>7</sup>

The monitoring took place at all identified bathing waters, likewise all bathing waters met the described monitoring rules set by the Directive. Table 1 shows the share of bathing waters that did not satisfy monitoring frequency, as well as corresponding reasons.

<sup>&</sup>lt;sup>3</sup> The interval between two samples should not exceed 31 + 4 days, provided that the next sampling is done according to the monitoring calendar; exception applies for temporarily closed bathing waters

<sup>&</sup>lt;sup>4</sup> Three samples if the season does not exceed eight weeks or the region is subject to special geographical constraints

<sup>&</sup>lt;sup>5</sup> 12 samples if the season does not exceed eight weeks or the region is subject to special geographical constraints

<sup>&</sup>lt;sup>6</sup> The condition does not apply if the bathing water is newly identified or any changes have occurred that are likely to affect the classification

<sup>&</sup>lt;sup>7</sup> A pre-season sample is taken into account at total number of samples per season

Table 1: Number of assessed bathing waters in 2013

Total number	Bathing waters	Bathing waters with sampling frequency not satisfied						
of bathing waters in 2013	with sampling frequency satisfied	Insufficiently sampled	Closed	Not sampled	Total			
47	47	0	0	0	0			

Bathing waters are accordingly classified to one of the BWD quality classes:

- excellent
- good
- sufficient
- 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.

## 3. Bathing water quality

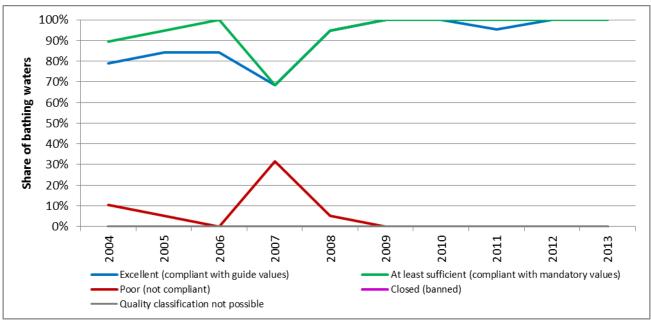
The results of the bathing water quality in Slovenia for the period of 2004–2013 as reported in the past reporting years and for the bathing season of 2013 are presented in Figure 1 (for coastal bathing waters) and Figure 2 (for inland bathing waters). The previous reports are available on the European Commission's bathing water quality website<sup>8</sup> and the European Environment Agency's bathing water website<sup>9</sup>.

#### 3.1 Coastal bathing waters

In Slovenia, all coastal bathing waters met excellent water quality in 2013. No coastal bathing waters had to be closed during the bathing season. See Appendix 1 for numeric data.

 $<sup>^{8}\;</sup> http://ec.europa.eu/environment/water/water-bathing/index\_en.html$ 

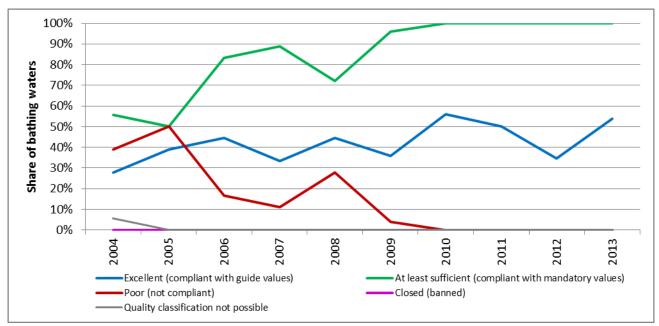
<sup>&</sup>lt;sup>9</sup> http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water



**Figure 1: Coastal bathing water quality trend in Slovenia.** Note: the "At least sufficient" class also includes bathing waters of "Excellent" quality class, the sum of shares is therefore not 100%.

### 3.2 Inland bathing waters

All inland bathing waters met at least sufficient water quality in 2013. No bathing waters had to be closed during the bathing season. See Appendix 1 for numeric data.



**Figure 2: Inland bathing water quality trend in Slovenia.** Note: the "At least sufficient" class also includes bathing waters of "Excellent" quality class, the sum of shares is therefore not 100%.

### 4. Information regarding management and other issues

In the seasonal data table of the BWD deliverables by Slovenia, information on management measures is available. This includes publishing monitoring calendar, press conference, monitoring throughout the season and assessing water quality, informing public online, through media and via on-site information boards.

## 5. 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 (<a href="http://www.eea.europa.eu/themes/water/interactive/bathing/state-of-bathing-waters">http://www.eea.europa.eu/themes/water/interactive/bathing/state-of-bathing-waters</a>), allows users to view the bathing water quality at more than 22 000 coastal beaches and inland sites across Europe. Data is aggregated and visualized on national and station level. Detailed information regarding specific bathing site are given in pop-up windows (can be activated with a click on a selected bathing location) and bathing water profiles which can be opened through hyperlinks in pop-up windows.

The data on bathing water quality in 2013 and previous years can also be viewed in WISE bathing water data viewer, an application prepared by TC Vode (<a href="http://bwd.eea.europa.eu/">http://bwd.eea.europa.eu/</a>). The WISE bathing water quality data viewer combines text and graphical visualisation, providing a quick overview of the locations of coastal and inland bathing waters, as well as statistics on their quality. Specific bathing water locations can be observed on Google Earth, Google maps or Bing maps.

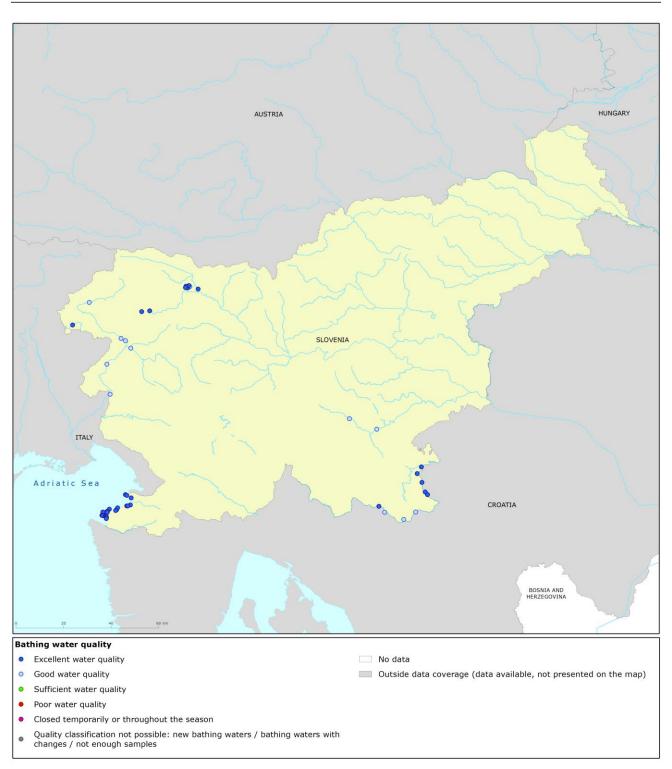
Appendix 1: Results of bathing water quality in Slovenia from 2010 to 2013

		Total	Excellent (compliant with guide values)		At least sufficient (compliant with mandatory values)		Poor (not compliant)		Closed (banned)		Quality classification not possible*	
			No	%	No	%	No	%	No	%	No	%
	2010	21	21	100.0	21	100.0	0	0.0	0	0.0	0	0.0
Coastal	2011	21	20	95.2	21	100.0	0	0.0	0	0.0	0	0.0
Coa	2012	21	21	100.0	21	100.0	0	0.0	0	0.0	0	0.0
	2013	21	21	100.0	21	100.0	0	0.0	0	0.0	0	0.0
	2010	25	14	56.0	25	100.0	0	0.0	0	0.0	0	0.0
Inland	2011	26	13	50.0	26	100.0	0	0.0	0	0.0	0	0.0
lul	2012	26	9	34.6	26	100.0	0	0.0	0	0.0	0	0.0
	2013	26	14	53.8	26	100.0	0	0.0	0	0.0	0	0.0
	2010	46	35	76.1	46	100.0	0	0.0	0	0.0	0	0.0
Total	2011	47	33	70.2	47	100.0	0	0.0	0	0.0	0	0.0
	2012	47	30	63.8	47	100.0	0	0.0	0	0.0	0	0.0
	2013	47	35	74.5	47	100.0	0	0.0	0	0.0	0	0.0

Note: the "At least sufficient" class also includes bathing waters which are of excellent quality, the sum of shares is therefore not 100%. \* This includes new bathing waters, bathing waters with changes that affect or could have affected bathing water quality, and bathing waters that do not have enough samples.

## Appendix 2: Bathing water quality map

Map 1: Bathing waters reported during the 2013 bathing season in Slovenia



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