



Bathing water results 2012 – Switzerland

1. Reporting and assessment

In 2012 the Swiss 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 Switzerland for the 2012 bathing season. Switzerland has reported under the Directive 2006/7/EC since 2009 and sent historical data with two parameters of this Directive for some bathing waters for the years 2007-2008.

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.

Assessment during the transition period

Bathing water quality in 2012 season in Switzerland 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.

Assessment using limit values for *E. coli*

Samples of *Escherichia coli* were reported for all bathing waters, while samples of intestinal enterococci were not reported for 17 bathing waters. The overall quality assessment for Switzerland is done using limit values for *Escherichia coli* since only 13.7 % of reported bathing waters (46) satisfied the transition period assessment rules (both parameters, sampling frequency criteria) in 2012.

For each bathing water, the maximum concentration of reported samples for *Escherichia coli* is considered. Sampling frequency criteria under the transition period assessment are not taken into the account.

The results are classified in the following categories:

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

2. Length of bathing season and number of bathing waters

The bathing season opened between 1 May and 1 July 2012 and closed between 15 August and 6 October 2012.

A total of 335 inland bathing waters were monitored in Switzerland during the 2012 bathing season. No bathing waters were reported as de-listed (permanently closed) compared to the previous year and five bathing waters were added to the list.

3. Bathing water quality

The results of the bathing water quality in Switzerland for the period 2009-2012 are presented in Figure 1¹. 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>).

¹ The graph shows the classification using limit values for *Escherichia coli* for inland bathing waters (left bars):

- The percentage of bathing waters that comply with the guide value for *Escherichia coli* (class CG, blue bar);
- The percentage of bathing waters that comply with the mandatory value for *Escherichia coli* (class CI, green bar);
- The percentage of bathing waters that do not comply with the mandatory value for *Escherichia coli* (class NC, red bar);
- The percentage of bathing waters that are banned or closed (class B, violet bar).

The same graph shows the classification during transition period for inland bathing waters (right bars):

- The percentage of bathing waters that comply with the guide values (class CG, blue bar);
- The percentage of bathing waters that comply with the mandatory value for *Escherichia coli* (class CI, green bar);
- The percentage of bathing waters that do not comply with the mandatory value for *Escherichia coli* (class NC, red bar);
- The percentage of bathing waters that are banned or closed (class B, violet bar).

Figure 1: Results of bathing water quality in Switzerland from 2009 to 2012.

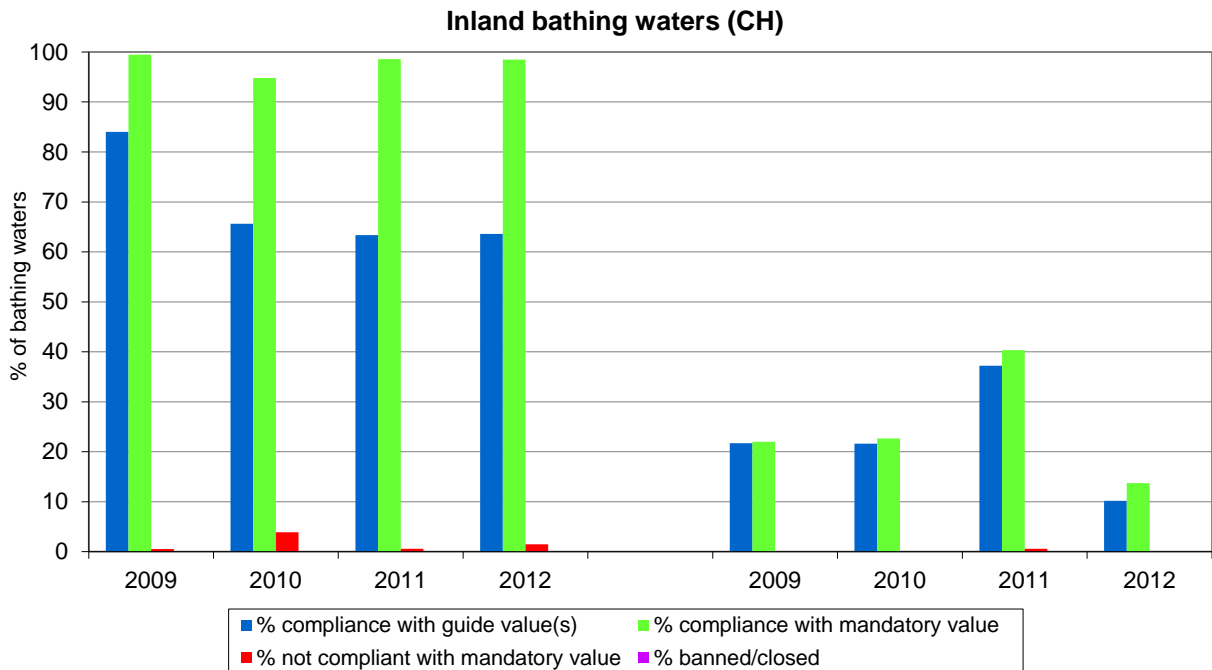


Table 1a and Table 1b show the same information in absolute numbers and in percentages for inland and all bathing waters from 2009 on. The numbers and percentages of insufficiently sampled or not sampled bathing waters are also presented. A map given in Appendix 1 shows the location and quality of the bathing waters according to transition period assessment.

As shown in Table 1a, 98.5 % of the inland bathing waters met the mandatory value for *Escherichia coli* in 2012 according to assessment using limit values for *Escherichia coli*. This is a decrease of 0.1 % compared to the previous year. The rate of compliance with the guide value for *Escherichia coli* increased from 63.4 % to 63.6 %. The number of bathing waters non-compliant with the mandatory value for *Escherichia coli* increased from two (0.6 %) to five (1.5 %) bathing waters. No bathing waters had to be closed during the bathing season, the same as in 2011. No bathing waters were not sampled compared to three (0.9 %) in 2011.

As shown in Table 1b, 13.7 % of the inland bathing waters met the mandatory water quality in 2012 according to transition period assessment. This is a decrease of 26.6 % compared to the previous year. The rate of compliance with the guide values decreased from 37.2 % to 10.1 %. No bathing waters were non-compliant with the mandatory value for *Escherichia coli* compared to two (0.6 %) in 2011. No bathing waters had to be closed during the bathing season, the same as in 2011. A total of 289 bathing waters (86.3 %) were insufficiently sampled or not sampled compared to 208 (59.1 %) in 2011.

Table 1a: Results of bathing water quality in Switzerland from 2009 to 2012. Assessment using limit values for *Escherichia coli* and no frequency checked.

CH												
		Total number of bathing waters	Compliance with guide and mandatory values*		Compliance with mandatory value		Not compliant		Banned/closed		Not sampled	
			number	%	number	%	number	%	number	%	number	%
All bathing waters	2008											
	2009	382	321	84.0	380	99.5	2	0.5	0	0.0	0	0.0
(Inland bathing waters)	2010**	384	252	65.6	364	94.8	15	3.9	0	0.0	5	1.3
	2011	352	223	63.4	347	98.6	2	0.6	0	0.0	3	0.9
	2012	335	213	63.6	330	98.5	5	1.5	0	0.0	0	0.0

*Bathing waters which were compliant with the guide value for *Escherichia coli* were also compliant with the mandatory value for *Escherichia coli*.

**Changes after official report for the 2010 bathing season.

Table 1b: Results of bathing water quality in Switzerland from 2009 to 2012. Assessment during transition period.

CH												
		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	%
All bathing waters	2008											
	2009	382	83	21.7	84	22.0	0	0.0	0	0.0	298	78.0
(Inland bathing waters)	2010**	384	83	21.6	87	22.7	0	0.0	0	0.0	297	77.3
	2011	352	131	37.2	142	40.3	2	0.6	0	0.0	208	59.1
	2012	335	34	10.1	46	13.7	0	0.0	0	0.0	289	86.3

*Bathing waters which were compliant with the guide values were also compliant with the mandatory value for *Escherichia coli*.

**Changes after official report for the 2010 bathing season.

4. Important information as provided by the Swiss authorities

Abnormal situations in 2012 were reported for seven bathing waters and short term pollution events happened on 15 bathing waters (given in Table 3).

Table 3: Information on short-term pollution and abnormal situations for the 2012 season as reported by the Swiss authorities

Unique Identification Code of Bathing Water	Bathing Water Name	River Basin District	Bathing Water Category	Short-term pollution and Abnormal situations
CH21018	Hotel Lido Seegarten	Po	Lake	Short-term pollution: 2012-05-16 - 2012-06-13. Weather conditions; presence of water birds
CH21036	Lido comunale Melide	Po	Lake	Short-term pollution: 2012-09-06 - 2012-09-07. Weather conditions; presence of water birds. EndDate of event is after end of the bathing season.
CH21050	Albergo Ascolago	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21053	Albergo Eden Roc	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21054	Bagno pubblico Ascona	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19,2012-09-06 - 2012-09-11. Weather conditions
CH21056	Lido patriziale Ascona	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19,2012-09-06 - 2012-09-11. Weather conditions
CH21070	Bagno spiaggia Crodolo	Po	Lake	Short-term pollution: 2012-08-08 - 2012-09-06. Weather conditions; presence of water birds
CH21074	Campeggio Campofelice	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21075	Campeggio Lago Maggiore	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21076	Campeggio Lido Mappo	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21077	Campeggio Miralago	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21078	Campeggio Rivabella	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21079	Campeggio Tamaro	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21080	Campeggio Verbano	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21081	Centro sportivo DNS	Po	Lake	Short-term pollution: 2012-06-13 - 2012-06-19. Weather conditions
CH21002	Campeggio Golfo del Sole	Po	Lake	Abnormal situation: 2012-08-09 - 2012-08-16. Defect in part of a close-by WWTP. No measures taken.
CH21003	Campeggio La Palma	Po	Lake	Abnormal situation: 2012-08-09 - 2012-08-16. Defect in part of a close-by WWTP. No measures taken.
CH21004	Campeggio Molinazzo	Po	Lake	Abnormal situation: 2012-08-09 - 2012-08-16. Defect in part of a close-by WWTP. No measures taken.
CH21005	Campeggio Tropical	Po	Lake	Abnormal situation: 2012-08-09 - 2012-08-16. Defect in part of a close-by WWTP. No measures taken.
CH21006	Lido comunale Agno	Po	Lake	Abnormal situation: 2012-08-09 - 2012-08-16. Defect in part of a close-by WWTP. No measures taken.
CH21043	Campeggio Touring Club	Po	Lake	Abnormal situation: 2012-08-09 - 2012-08-16. Defect in part of a close-by WWTP. No measures taken.
CH22054	Coulet	Rhone	Lake	Abnormal situation: 2012-06-20 - 2012-06-26. Unexpected short-term deviation of a wastewater discharge pipe on the bathing shore: Bad water quality in the period 22-29.6.12. Short-term prohibition of bathing and readjustment of the discharge pipe.

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

Of the more than 22 000 bathing areas monitored throughout Europe in 2012, more than 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.

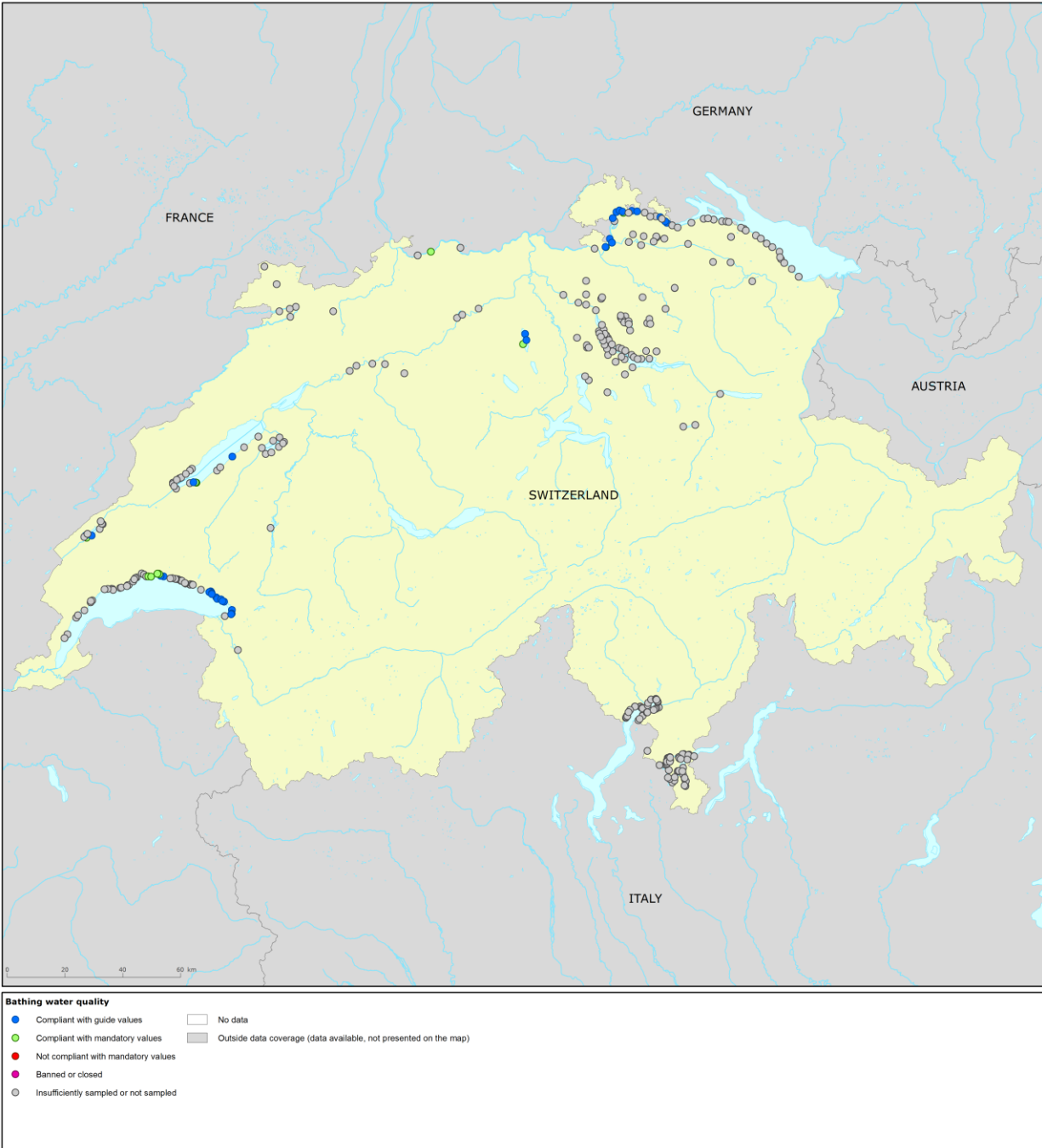
The Eye on Earth — Water Watch application (<http://eyeonearth.org/map/WaterWatch/>) allows users to zoom in on a section of coast, riverbank or lake, both in street map or, where available, bird's eye viewing formats.

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 Switzerland



Source: National boundaries: EEA; Large rivers and lakes: EEA, WFD Article 3; Lakes, bathing waters data and coordinates: Swiss authorities