

Bathing water results 2012 – Cyprus

1. Reporting and assessment

In 2012 the Cypriot 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 Cyprus for the 2012 bathing season. Cyprus has reported under the Directive 2006/7/EC since 2008.

When four consecutive years of samples of intestinal enterococci and *Escherichia coli* for bathing water are available, the assessment is done according to assessment rules of the new bathing water Directive 2006/7/EC. The Annex IV of the 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 to be taken and analysed per bathing season in the case of bathing water with either bathing season not exceeding eight weeks or being 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. The number of samples for the assessment period should thus be at least 16 or 12 if season duration is less than eight weeks or the region is subject to special geographical constraints.

Bathing water quality in 2012 season in Cyprus is assessed under the rules of the new bathing water Directive 2006/7/EC. The new Directive assessment provisions are transformed into the following technical rules: a) one pre-season sample should be available, b) the interval between sampling dates in 2012 should never exceed 35 days, provided that the next sampling is done according to the monitoring calendar; c) the yearly number of samples in the previous years should be four or three if bathing season does not exceed eight weeks.

Bathing waters quality classes according to the Directive 2006/7/EC are 'excellent', 'good', 'sufficient' and 'poor'. Bathing waters are classified on the basis of the percentile values for microbiological enumerations falling in the certain class given in Annex I of the Directive. Some bathing waters cannot be classified according to their quality but are instead classified as 'insufficiently sampled', 'new', 'changes' and 'closed'.

The bathing water is classified as 'insufficiently sampled' in 2012 if pre-season sample is missing, sampling frequency is not satisfied or the set of data is not complete. If the bathing water is newly identified and the data set is not complete yet, it is classified as 'new'. If changes occur that affect quality and the data set is not complete yet, it is classified as 'changes'. Temporarily closed bathing waters or closed bathing waters throughout 2012 season are classified if there is a complete set of data available. Otherwise, they are classified as 'closed'.

2. Length of bathing season and number of bathing waters

The bathing season lasted 183 days, from 1 May to 31 October 2012.

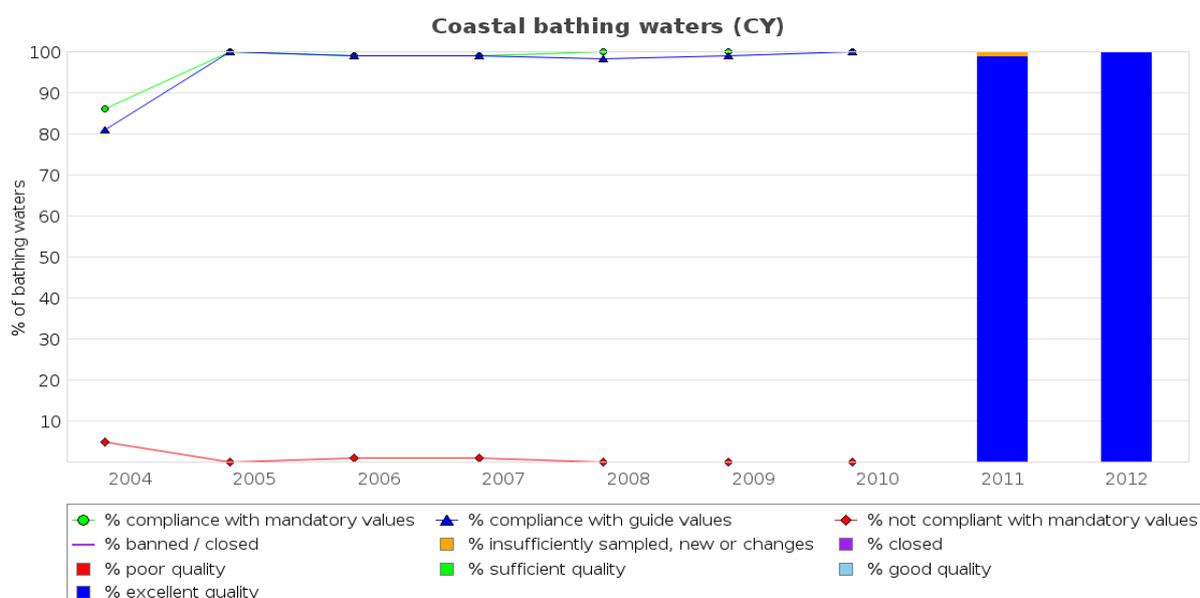
A total of 112 coastal bathing waters were reported in Cyprus during the 2012 bathing season. There are no inland bathing waters reported. One bathing water was reported as de-listed (permanently closed) compared to the previous year and no bathing waters were added to the list.

With 112 reported bathing waters Cyprus accounts for about 0.5 % of the reported bathing waters of the European Union.

3. Bathing water quality

The results of the bathing water quality in Cyprus for the period 2004-2012 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>).

Figure 1: Results of bathing water quality in Cyprus from 2004 to 2012.



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

Table 1 and Table 2 show results of bathing water quality for all bathing waters from 2008 on as assessed in the previous annual reports and under the Directive 2006/7/EC for the 2012 season. A map given in Appendix 1 shows the location and quality of the bathing waters.

In Cyprus, all bathing waters had excellent quality in 2012. This is an increase of 0.9 % compared to the previous year.

¹ The graph shows the classification under the Directive 76/160/EEC and during transition period, for coastal bathing waters from 2004 to 2010:

- 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 percentages (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).

The same graph shows the classification under the Directive 2006/7/EC, for coastal bathing waters for 2011 and 2012:

- The percentage of bathing waters that have excellent quality (dark blue bar);
- The percentage of bathing waters that have good quality (light blue bar);
- The percentage of bathing waters that have sufficient quality (green bar);
- The percentage of bathing waters that have poor quality (red bar);
- The percentage of bathing waters that are closed (violet bar);
- The percentage of bathing waters that are insufficiently sampled, new or with changes (orange bar).

Table 1: Results of bathing water quality in Cyprus. Assessment during transition period.

CY												
		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	111	109	98.2	111	100.0	0	0.0	0	0.0	0	0.0
	2009	111	110	99.1	111	100.0	0	0.0	0	0.0	0	0.0
(Coastal bathing waters)	2010	112	112	100.0	112	100.0	0	0.0	0	0.0	0	0.0
	2011											
	2012											

*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*.

Table 2: Results of bathing water quality in Cyprus for 2011 and 2012. Assessment under Directive 2006/7/EC.

		Total number of bathing waters	Excellent quality		Good quality		Sufficient quality		Poor quality		Closed		Insufficiently sampled		New		Changes	
			number	%	number	%	number	%	number	%	number	%	number	%	number	%	number	%
All bathing waters (Coastal bathing waters)	2009																	
	2010																	
	2011	112	111	99.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0
	2012	112	112	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

4. Important information as provided by the Cypriot authorities

All 112 bathing areas were monitored monthly without missing any samplings. A total of 1010 samples were collected and analysed using the standard reference methods specified in the Directive 006/7/EC. At least 7 samples were selected for all bathing areas. For the blue flag areas (56 sites) that correspond to 52% of the bathing water sites at least 10 samples were selected. In the case of non-compliance with the guide values, the sampling was repeated within 72 hours of the event to investigate possible pollution problem. In case of compliance, another sample was taken 7 days after the end of the short term pollution in order to replace the initial sample. Additionally for the cases of noncompliance with the standards of excellent quality, an effort was made to repeat the sampling within 72 hours to investigate if there was a possible pollution problem and take appropriate measures.

In the 2012 bathing season, a number of 19 short term pollution incidents were reported. Investigation of all incidents has shown that no land base source of pollution was detected. The pollution was most probably by the illegal dumping of waste from a boat or a ship.

Also 2 incidents of pollution were reported that were due to heavy rainfall before the sampling. At the two bathing sites there is a storm ditch in one (CY000400000000040 - FOINIKOUCES 1) and a small stream to the other (CY000400000000038A - NAFTIKOS OMILOS LARNAKAS).

The results from the monitoring of the water quality in all bathing areas indicate 100% excellent quality according to the provisions of the new Directive 2006/7/EC. It is worth mentioning that the Cyprus climatic conditions (increased sunlight and high temperature) and the salinity of the coastal waters in the Eastern Mediterranean are quite unfavourable to the survival of microorganisms.

The Cypriot authorities have provided additional comments and data on BWD assessment, available in a separate document

(http://cdr.eionet.europa.eu/cy/eu/bathing/envuobk_a/Bathing_Water_Quality_Cyprus_Report_for_2012.pdf).

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 Cyprus



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