

## Bathing water results 2012 – Malta

### 1. Reporting and assessment

In 2012 the Maltese 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 Malta for the 2012 bathing season. Malta has monitored under the Directive 2006/7/EC since 2006, while reported under this Directive in 2009 for the first time.

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 Malta 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

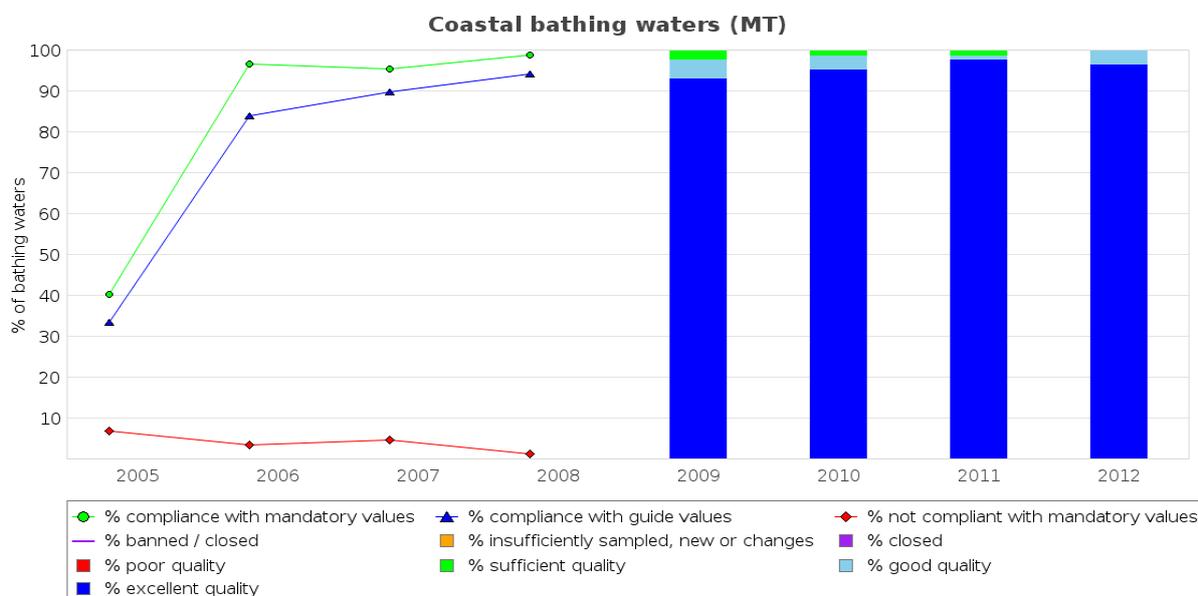
The bathing season lasted 159 days, from 15 May to 21 October 2012.

A total of 87 coastal bathing waters were monitored in Malta during the 2012 bathing season. There are no inland bathing waters reported. With 87 reported bathing waters Malta accounts for about 0.4 % of the reported bathing waters of the European Union.

### 3. Bathing water quality

The results of the bathing water quality in Malta for the period 2005-2012 are presented in Figure 1<sup>1</sup>. 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](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 Malta from 2005 to 2012.**



Note: Data until 2008 is available in the previous reports at [http://ec.europa.eu/environment/water/water-bathing/index\\_en.html](http://ec.europa.eu/environment/water/water-bathing/index_en.html).

Table 1 shows 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 bathing season. A map given in Appendix 1 shows the location and quality of the bathing waters.

In Malta, 84 (96.6 %) bathing waters had excellent quality in 2012 (one less than in 2011, a 1.1 % decrease). Three bathing waters (3.4 %) had good quality. In 2011 there was one with good quality and (1.1 %) and one (1.1 %) with sufficient quality. No bathing waters had poor quality and no bathing waters were classified as closed during the 2012 bathing season as in 2011.

<sup>1</sup> The graph shows the classification under the Directive 76/160/EEC for coastal bathing waters from 2005 to 2008:

- 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, violet line).

The same graph shows the classification under the Directive 2006/7/EC, for coastal bathing waters from 2009 to 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 Malta from 2009 to 2012. Assessment under Directive 2006/7/EC. Year 2008 with assessment under Directive 76/160/EEC.**

		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)	2008 (assessment under Directive 76/160/EEC)	87	82	94.3*	-	-	86*	98.9*	1	1.1	0	0	-	-	-	-	-	-
	2009	87	81	93.1	4	4.6	2	2.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	2010	87	83	95.4	3	3.4	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	2011	87	85	97.7	1	1.1	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	2012	87	84	96.6	3	3.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	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.

#### 4. Important information as provided by the Maltese authorities

The **microbiological methods** employed for the monitoring of bathing water during this season are for intestinal enterococci - Microplate MPN technique (ISO 7899 -1:2000) and for *Escherichia coli* - Microplate MPN technique (ISO 9308 - 3:2000). Analysis is performed at the Public Health Laboratory by suitably qualified personnel with years of experience in water analysis. The laboratory is accredited for intestinal enterococci and *Escherichia coli* parameters.

During the 2012 bathing season, the Environmental Health Directorate issued three **temporary closure** health warnings at three different bathing areas involving a total of 7 sites. These bathing sites were closed due to localised sewage overflow following heavy rainfall in a very short time in the early morning, leading to 42.4 mm of rainfall. This exceeded the average monthly rainfall for the month of September. These sites were temporarily closed for four days. These are being reported under the short-term pollution data sheet. During the period of temporary closure, sampling from these bathing sites was carried out on a daily basis and the health warnings were only lifted after three consecutive microbiological results which confirmed that the area was once again safe for bathing as stipulated under the Management of Bathing Water Quality Regulations, 2008 (LN125/08) <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=22257&l=1>.

The general public was informed of these temporarily closed sites by press releases issued through the Department of Information to the media. Copies of the same press releases were sent to all Local Councils by e-mail and were also placed on the Environmental Health Directorate webpage [https://ehealth.gov.mt/HealthPortal/public\\_health/environmental-health/health\\_inspectorate/env\\_hlt\\_risk\\_management/bathing\\_water\\_press\\_releases.aspx](https://ehealth.gov.mt/HealthPortal/public_health/environmental-health/health_inspectorate/env_hlt_risk_management/bathing_water_press_releases.aspx).

In addition, information signs were placed at these areas by environmental health officers informing the public that these sites were temporarily closed and bathing was not recommended.

As part of the **management programme**, environmental health officers carry out routine site-inspections so as to check for any possible sources of pollution. These officers also investigate any complaints made by the public and in case of doubt extra samples are collected and sent for analysis at the public health laboratory. In the case that visual evidence of pollution is noted, the effected site will be temporarily closed for bathing.

During the bathing season, the Environmental Health Directorate issues a weekly **report** with the classification for each bathing area based on the *Escherichia coli* and intestinal enterococci counts [https://ehealth.gov.mt/HealthPortal/public\\_health/environmental-health/health\\_inspectorate/env\\_hlt\\_risk\\_management/envhealth\\_bathingwater09.aspx](https://ehealth.gov.mt/HealthPortal/public_health/environmental-health/health_inspectorate/env_hlt_risk_management/envhealth_bathingwater09.aspx).

A weekly report with the new logos as per Commission Implementation Decision 2011/321/EU published on the 27 May 2011 for the classification of sites is also issued. The Environmental Health Directorate also posted on its webpage the raw data on a weekly basis. Copies of these reports are sent by e-mail to all those who requested to be placed on the Directorate mailing list and to all local councils. All bathing areas monitored as part of the bathing water monitoring programme are clearly identified by fixed information signs indicating the site code and stating that the area is monitored by the Environmental Health Directorate on a regular basis. These information signs are in five languages. If there will be the need to temporarily close any of these areas, a temporarily closure sign is attached at the same site and again the information is provided in five languages, namely Maltese, English, French, German, and Italian. These information signs will be replaced with new information board so as to include further information on the classification of sites and beach profiles.

Officials from the Environmental Health Directorate participated on television and radio programmes discussing and giving information to the general public on bathing water quality.

#### 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, 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 Malta**



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