

Bathing water results 2009 – Malta

1. Introduction

This report gives a general overview of bathing water quality in Malta for the 2009 bathing season. Malta monitored under the Directive 2006/7/EC from 2006 bathing season on, while reported under this Directive in 2009 bathing season for the first time.

When a set of samples of intestinal enterococci and *Escherichia coli* for a bathing water for three or four consecutive years is available, the assessment is done according to assessment rules of the Directive 2006/7/EC.

The classification under the Directive 2006/7/EC is the following:

- Excellent quality for both parameters;
- Good quality if both parameters are good or only one is good and the second is excellent;
- Sufficient quality if both parameters are sufficient or only one parameter is sufficient and the second is good or excellent;
- Poor quality if both parameters are poor or only one parameter is poor;
- Temporarily closed or closed throughout the season.

The assessment of bathing water quality in Malta is done under the Directive 2006/7/EC. For the assessment the following rules are used. The first sample could be taken 10 days after the start of the 2009 bathing season in spite of the fact that it is defined by the Directive 2006/7/EC to be taken shortly before the start of the bathing season. The interval between two samples during the 2009 bathing season should not be larger than 41 days. The interval is longer than 31 days as defined in the Directive 2006/7/EC, since we are approaching the year 2012 only when the assessment rules will be in full compliance with the rules of this Directive.

2. Length of bathing season and number of bathing waters

For all bathing waters the bathing season lasted five months and a week, from 18 May to 25 October 2009.

Since the start of reporting in 2005, a total of 87 bathing waters were monitored by the Maltese authorities. All were coastal bathing waters.

With 87 bathing waters Malta accounts for about 0.4% of the reported bathing waters of the European Union.

3. Results of bathing water quality

The results of the bathing water quality in Malta for the period 2005-2008 as reported in the past reporting years and for the bathing season of 2009 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 and Health/Bathing Water/ 2005-2009 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 2008 bathing season).

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 (temporarily or throughout the season) (class B, grey line).

The same graph shows the classification under the Directive 2006/7/EC, for coastal bathing waters for 2009:

- 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 temporarily closed or closed throughout the season (grey bar).

Table 1 shows the same information in absolute numbers and in percentages for coastal bathing waters from 2005 to 2008. Table 2 shows the same information in absolute numbers and in percentages for coastal bathing waters for 2009.

Map 1 shows the locations of the reported bathing waters in Malta. The location of the bathing waters is based on the geographic coordinates reported by the Maltese authorities.

Figure 1: Results of bathing water quality in Malta from 2005 to 2009

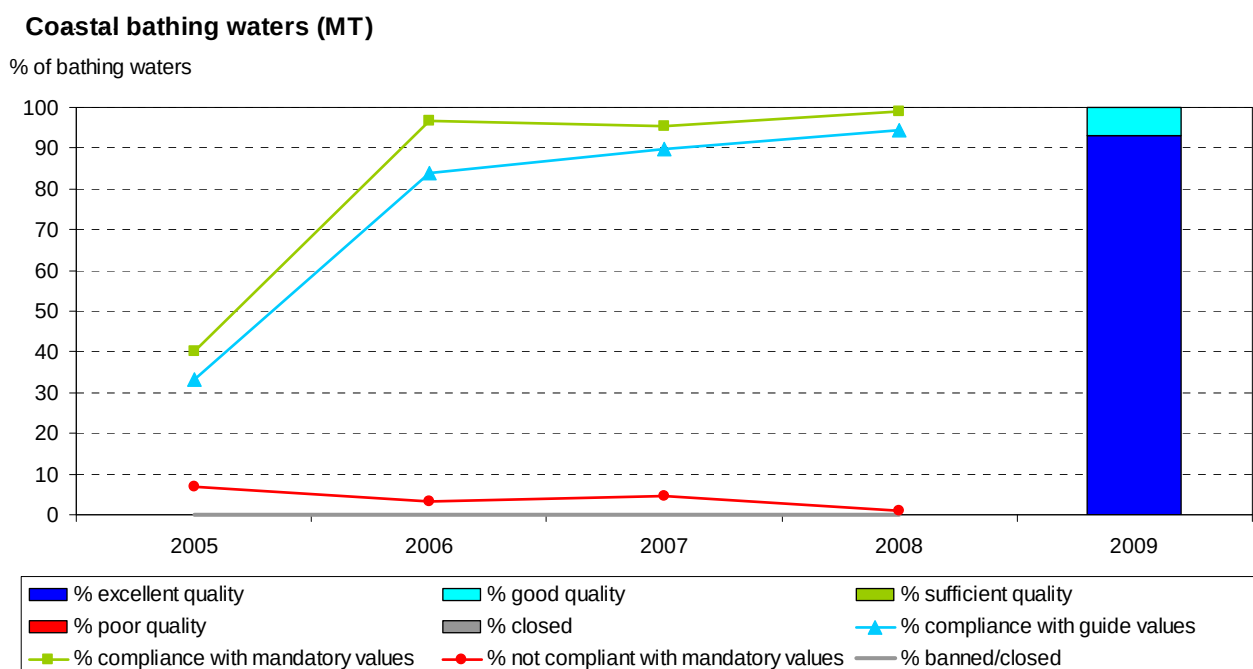


Table 1: Results of bathing water quality in Malta from 2005 to 2008. Assessment under Directive 76/160/EEC.

MT										
		Total number of bathing waters	Compliance with guide values		Compliance with mandatory values		Not compliant		Banned/closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%
Coastal bathing waters	2005	87	29	33.3	35	40.2	6	6.9	0	0.0
	2006	87	73	83.9	84	96.6	3	3.4	0	0.0
	2007	87	78	89.7	83	95.4	4	4.6	0	0.0
	2008	87	82	94.3	86	98.9	1	1.1	0	0.0

Note: Bathing waters which were insufficiently sampled or not sampled according to the Bathing Water Directive were not included in this table. Therefore, in some cases, the sum of the different categories will not be equal to the total number of bathing waters. Bathing waters which were compliant with the guide values were also compliant with the mandatory values.

Table 2: Results of bathing water quality in Malta for 2009 (including data from 2006, 2007 and 2008). Assessment under Directive 2006/7/EC.

MT												
		Total number of bathing waters	Excellent quality		Good quality		Sufficient quality		Poor quality		Closed temporarily or throughout the season	
			Number	%	Number	%	Number	%	Number	%	Number	%
Coastal bathing waters	2009	87	81	93.1	6	6.9	0	0.0	0	0.0	0	0.0

4. Development of bathing water quality

In Malta, 93.1% of the coastal bathing waters had excellent quality and 6.9% of the coastal bathing waters had good quality in 2009. No bathing waters had poor quality.

In 2009, 81 bathing waters had excellent quality compared to 82 bathing waters that met the guide values in 2008. Other six bathing waters had good quality in 2009. Four bathing waters that were non-compliant with the mandatory values in 2007 were compliant with the mandatory values or the guide values in 2006 and 2008. Two of them had good quality and other two had excellent quality in 2009. They would meet the mandatory or guide water quality in 2009, if assessment is done according to transition period rules. This shows that the water quality is stable if not even slightly improved.

5. General information as provided by the Maltese authorities

Monitoring and classification of bathing waters

For the assessment of bathing water quality for 2009, Malta made use of monitoring data collected during the bathing seasons 2006, 2007 and 2008. All 87 sites were monitored for the required minimum frequency as per Annex IV of Directive 2006/7/EC. For Malta this would amount to seven samples per bathing season. For the assessment of bathing waters for the period 2006-2009 an average of 68 samples for each site monitored have been used. The Maltese authorities informed the European Commission that the classification of all 87 sites has been carried out as per Annex II of the Directive 2006/7/EC: 80 sites were classified as Excellent (92.0%), five sites as Good (5.7%), two sites as Sufficient (2.3%) and zero sites as Poor (0.0%).

Analytical methods used to assess compliance with the Directive

The microbiological methods employed for the monitoring of bathing water for the four bathing seasons (2006-2009) are as follows:

- Intestinal enterococci - Microplate MPN technique (ISO 7899 -1 : 2000) and *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.

Temporary closure

During the 2009 bathing season, the Department for Environmental Health issued only one temporary closure health warning at one bathing area. This bathing area was closed due to localised sewage overflow and was temporarily closed for seven days from 2 to 9 September 2009. This is being reported as short-term pollution. During the period of temporary closure, sampling from this bathing area was carried out on a daily basis and the health warning was only lifted after three consecutive microbiological results for both parameters intestinal enterococci and *Escherichia coli* (<15 cfu/100 ml) which confirmed that the area was once again safe for bathing. The general public was informed of this temporarily closed area by a press release issued through the Department of Information to the media. Copies of the same press release were sent to all local councils by e-mail and were also placed on the Department for Environmental Health webpage: <http://www.health.gov.mt/dph/ehu5.htm>. In addition, information signs were placed at this area by environmental health officers informing the public that the area was temporarily closed and bathing was not recommended.

Actions to prevent bathers` exposure to pollution

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.

Information to the public

During the bathing season, the Department for Environmental Health issues a weekly report with the classification for each bathing area based on the *Escherichia coli* and intestinal enterococci counts. A smiley weekly report is also issued on a regular basis. The Department for Environmental Health 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 Department's 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 Department for Environmental Health 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.

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

Further improvements

To further improve the bathing water quality, Malta has commissioned two new sewage treatment plants, one in the North of Malta and the other on the island of Gozo. Another facility is being constructed in the South of Malta and should be operational by the end of 2010. The total cost of these three plants, which will bring Malta in compliance with the Urban Waste Water Directive (91/271/EC), is estimated to be €73 million.

A National Plan is also in place by the relevant Competent Authority to relocate all fish farms to a site where they would not pose any possible harmful impacts on bathing areas.

The report by the Maltese authorities in regard to bathing water quality in Malta for 2009 bathing season can be obtained from http://cdr.eionet.europa.eu/mt/eu/bathing/envszcnlq/MT_Report_BWD_2009_Season.doc.

6. More information on bathing water quality in the European Union

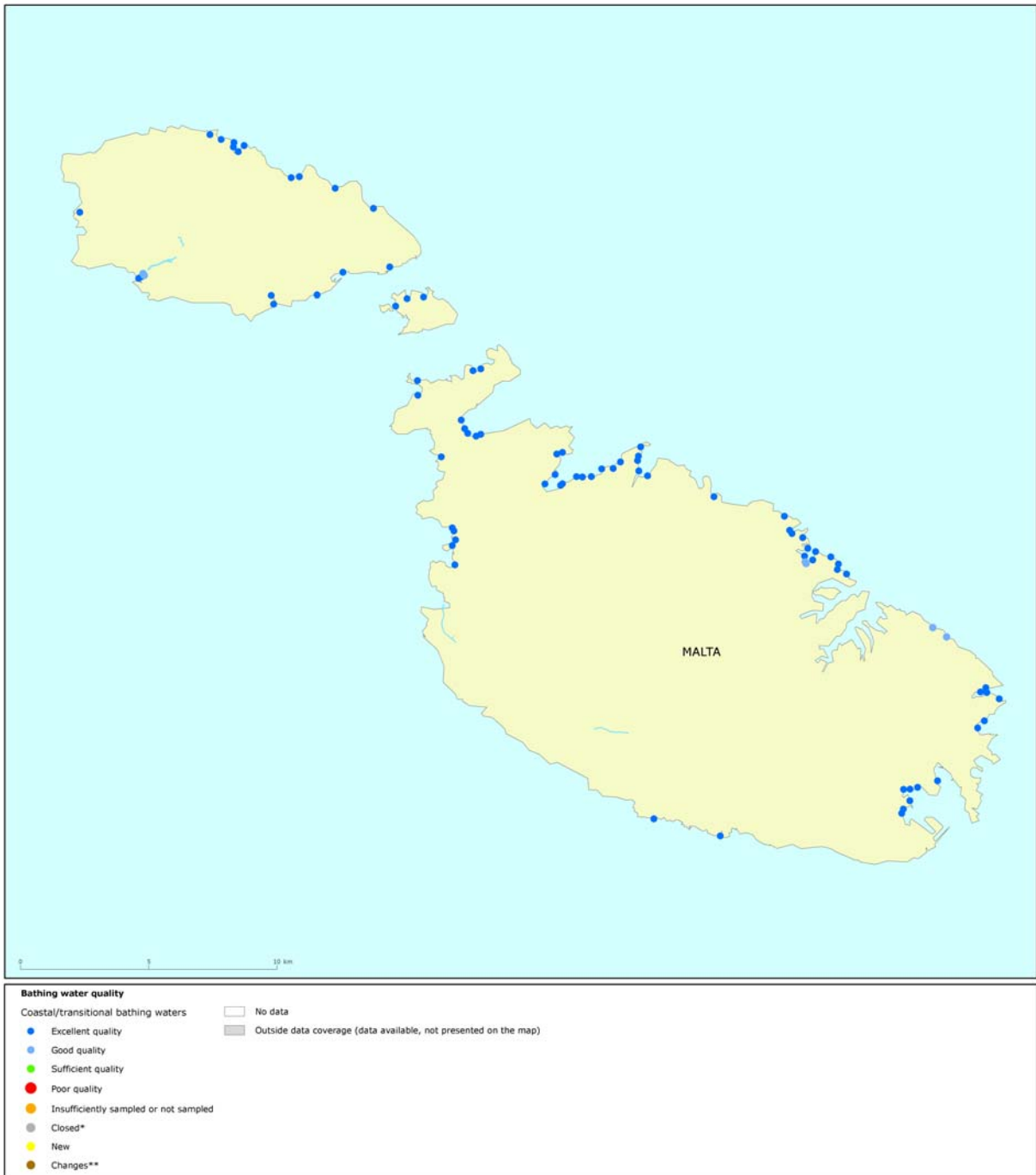
More information on bathing water quality in the European Member States, including the EU summary report, the reports for 27 Member States, Croatia and Switzerland, can be found on the European Commission's bathing water quality website (http://ec.europa.eu/environment/water/water-bathing/index_en.html) and the European Environment Agency's bathing water website (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>). The reports for the bathing seasons of 2008 and 2009 have been produced by the Institute for Water of the Republic of Slovenia (IWRS), a partner in the EEA European Topic Centre on Water (ETC/W). Countries have collaborated in the assessment of bathing water quality and supplied additional information when needed.

By 2015, Member States will have to comply with the stricter and more ambitious requirements laid out in the New Bathing Water Directive (Directive 2006/7/EC). This Directive requires more effective monitoring and management of bathing waters, greater public participation and improved information. More information on the new Directive can be found on the bathing water quality website and on <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:064:0037:0051:EN:PDF>.

Cyprus, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, Slovakia, Spain and Sweden started to report according to more stringent new requirements in 2008 bathing season. Malta and the Netherlands started to report in 2009 bathing season under the new requirements. Sweden and Malta also sent data for three previous bathing seasons under the new requirements. Luxembourg started to monitor under the new requirements in 2006 bathing season, while reported for the first time in 2007 bathing season.

WISE - Water Information System for Europe (www.water.europa.eu) is a gateway to all water related information. Among other water related data, information on individual bathing water quality can be found in the WISE map viewer and WISE Bathing Water Quality data viewer through interactive maps and graphs (<http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water>).

Map 1: Bathing waters reported during the 2009 bathing season in Malta



Note: * closed (temporarily or throughout the season)
 ** changes (bathing water where changes occur that affect the classification of a bathing water)
 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: Maltese authorities