Bathing Water Profile

PROFILE 9

IL-BAJJA TA’ SPINOLA, IL-BAJJA TA’ SAN ĠILJAN, IL-BAJJA TAL-BALLUTA F’ SAN ĠILJAN & L-EXILES F’TAS-SLIEMA

JUNE 2013
Brief description and importance of water profiles

This is one of a series of 29 profiles that cover all 87 identified bathing waters of the Maltese Islands. Bathing water profiles are established in accordance with Directive 2006/7/EC Article 6, regulation 11, and Schedule III of the Regulations as transposed by Legal Notice 125 of 2008 and amended by Legal Notice 237 of 2011. These regulations concern the management of bathing water in relation to the reduction of gastroenteritis and other waterborne health risks originating from faecal sources and other routes of pollution.

In essence, bathing water quality is monitored for 23 weeks each year in different bathing areas in the Maltese Islands by the Environmental Health Directorate. The monitoring period corresponds with the official bathing season that traditionally opens on the third week of May and closes in the third week of October (National Statistics Office, 2004).

Bathing water quality is classified according to Directive 2006/7/EC as ‘excellent’, ‘good’, ‘sufficient’ or ‘poor’ using the symbols shown in Figure 1 below. Water quality data from the European Commission was last updated in 2012 (Figure 2); the latest figures classify 96.6% of the Maltese Island’s bathing waters as of excellent quality, with a very slight decline when compared to the previous year (European Environmental Agency, 2012).

Figure 1: Bathing water star classification from left to right: ‘excellent’, ‘good’, ‘sufficient’ and ‘poor’.

![Figure 1: Bathing water star classification](image-url)
Bathing water profiles play an important role in addressing management issues and in implementing more effective measures. The purpose of the bathing water profile is to help the bather make an informed choice. The profile gives information about the bathing water quality, including the potential pollution risks at the site and records the measures used to improve the quality of the bathing water.

In addition, information on the physical, geographical and hydrological characteristics, together with a history of water quality is provided in the overview data section. This information is made available to the general public by means of posters exhibited on site in accordance with the provisions of Regulation 16 of Legal Notice 125 of 2008 (amended by Legal Notice 237 of 2011).

**Key information:**

- **Bathing water name**: Il-Bajja ta’
  Spinola (Spinola Bay), Il-Bajja tal-
  Balluta (Balluta Bay), Il-Bajja ta’ San
  Giljan (St Julian’s Bay) and Il-Bajja tal-
  Exiles

- **Bathing water ID numbers**:
  MT0120125200000B06
  MT0120125200000B07
  MT0120125200000B08
  MT0120125200000B09
  MT0120125200000B10
  MT0120125200000B11

- **Location**: Malta / St Julian’s / Sliema

- **Year of Identification**: 1996

- **Local Council Area**: St Julian’s / Sliema

- **Description of bathing beach**: Spinola Bay, St Julian’s Bay and Exiles are rocky beaches whilst Balluta has a small relict sandy beach.

- **Monitoring points**: Spinola Bay close to Hotel Cavallieri (MT0120125200000B06);
Spinola Bay close to St Julian’s Waterpolo pitch (MT0120125200000B07); Balluta Bay close to the Neptunes pitch (MT0120125200000B08); Balluta Bay near the sandy beach (MT0120125200000B09); St Julian’s Bay (MT0120125200000B10) and Exiles (MT0120125200000B11).

General description of bathing waters and surrounding areas

Balluta Bay, Spinola Bay, St Julian’s Bay and Exiles Bay are located along Malta’s northeast coast within the localities of St. Julian’s and Sliema (Figure 3). The Bays are a typical rocky beach with the only exception being Balluta Bay, which has a small, relict sandy beach. These four beaches are located adjacent to Triq it-Torri and the promenade along Triq Ġorg Borg Olivier. During the bathing season, the bays receive a substantial amount of bathers. The monitoring points for Spinola are located close to the Hotel Cavallieri (MT0120125200000B06) and the St Julian’s Waterpolo Pitch (MT0120125200000B07). The monitoring points for Balluta Bay are located at the Neptunes Waterpolo Pitch (MT0120125200000B08) and at the stairs at the centre of the sandy beach (MT0120125200000B09). A further two monitoring points are located off the jetty at St Julian’s bay and (MT0120125200000B10) and at Exiles close to St Julian’s Point. (MT0120125200000B11). The Bays host a number of important marine habitats thus classifying them as ‘Special Area of Conservation’. Vegetation includes the Neptune Grass (Posidonia oceanica) (Borg, Rowden, Attrill, Schembri, 2009), the Lesser Neptune Grass (Cymodocea nodosa), Maerl (Phymatolithon calcaruement), Pillow Coral banks (Cladocara ceaspitosa) and algal forests known popularly as seaweed (Borg and Schembri, 2002). This vegetation, which is highly productive, forms important nursery, breeding and nesting grounds for several species of fish and invertebrates.

The various land uses in the area are shown in Figure 4 and Figure 5. The Bays are surrounded by urban development including a large number of hotels, restaurants, recreation-related facilities, and residential premises. The areas are used by day and night, especially during the spring and summer months.
Figure 3: Location of bathing waters and monitoring points

Figure 4: Land uses surrounding ix-Xatt ta’ Spinola and St Julians
Bathing Water Quality History

Official bathing quality data dates back to 1996. Weekly tests, particularly during the bathing season, have been carried out every year. The sites continue to be monitored by the Health Inspectorate Services within the Environmental Health Directorate as part of its Bathing Water Monitoring Programme. The Public Health Laboratory Services (PHLS) within the Environmental Health Directorate carry out all tests for microbiological parameters, as required under the Management of Bathing Water Quality Regulations, 2008 (L.N. 125 of 2008 as amended by L.N. 237 of 2011). Since 1996, water quality was tested for faecal coliform counts/100ml, total coliform counts/100ml, and faecal streptococci counts/100ml, and classified according to the Barcelona Convention Interim Criteria (BCIC) Site Classification for Faecal Coliform Counts. During this time, the water quality data was classified in accordance with the Barcelona Convention. These tests showed that the water quality in the area has not always conformed to the EU requirements between 2005 and 2009. Tests carried out in 2006 at Balluta Bay resulted in a ‘failed’ result according to the European Site Classification. From 2009 the classification of water quality was based on the new Bathing Water Directive 2006/7/EC, which involves measuring counts/100ml for *Escherichia coli* and Intestinal Enterococci. The overall trend for water quality
classification under the EU Directive 2006/7/EC between 2009 and 2012 was predominantly Excellent. **Table 1** below describes how bathing waters are defined while **Table 2** provides a summary of the water quality classification for the period of 2009 to 2012.

### Table 1: Classification of bathing waters

<table>
<thead>
<tr>
<th>2006/7/EC Classification Based on four years data</th>
<th>Escherichia coli (cfu/100 ml)</th>
<th>Intestinal Enterococci (cfu/100ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent quality &lt; 250</td>
<td>Excellent quality &lt; 100</td>
<td>Good quality &lt; 200</td>
</tr>
<tr>
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<td>Sufficient quality &gt; 200</td>
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<tr>
<td>Sufficient quality &gt; 500</td>
<td>Sufficient quality &gt; 200</td>
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### Table 2: Water quality classification at Spinola, Balluta, St Julian’s and Exiles (2009-2012)

<table>
<thead>
<tr>
<th>Bathing Water ID Numbers</th>
<th>Year</th>
<th>Escherichia coli</th>
<th>Intestinal Enterococci</th>
<th>Overall Classification</th>
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<tr>
<td>B06</td>
<td>2012</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>B07</td>
<td>2012</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
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<td>B08</td>
<td>2012</td>
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<td>Excellent</td>
<td>Excellent</td>
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<tr>
<td>B09</td>
<td>2012</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
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<tr>
<td>B10</td>
<td>2012</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>B11</td>
<td>2012</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>B06</td>
<td>2011</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>B07</td>
<td>2011</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Year</td>
<td>B06</td>
<td>B07</td>
<td>B08</td>
<td>B09</td>
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<td>------</td>
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<tr>
<td>2010</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>2009</td>
<td>Excellent</td>
<td>Excellent</td>
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Note that ‘B06’ is a direct reference to MT0120125200000B06, ‘B07’ refers to MT0120125200000B07 , ‘B08’ refers to MT0120125200000B08, ‘B09’ refers to MT0120125200000B09,’B10’ refers to MT0120125200000B10 and ‘B11’ refers to MT0120125200000B11. The data tabulated above and further information is available at the Ministry of Health website (https://ehealth.gov.mt/HealthPortal/public_health/environmental-health/health_inspectorate/env_hlt_risk_management/envhealth_bathingwater09.aspx)

**Sources of Pollution**

Potential sources of pollution that could affect the Bays described in this bathing water profile can result from natural or anthropogenic factors. A potential diffuse source is seasonal runoff water from Wied Ghomor and Wied Balluta discharging
directly at Spinola Bay and Balluta Bay respectively (Figure 6 and Figure 7). The valley of Wied Għomar is linked to another two valleys (Wied ta’ Kalci and Wied il-Kbir) which are predominately linked to agricultural activities. The topography of these valleys allow for fertilisers (nitrates) and pesticides to be washed away into the sea via storm water runoff, especially during the winter months.

In addition, due to the gradual inclined topography of the area, urban pollutants such as dust, pet droppings and litter could also carried by storm water runoff into the sea. This would result in a temporary microbiological and nutrient increase in the bathing water. The bathing waters area also effected by reverses osmosis discharges from hotels such as Le Meridien, were brine water is discharged into the bathing water (Axiak, 2003). This process is regulated by Malta Environmental Planning Authority through the environmental permitting system. Another source of pollution is marine traffic, which can also have an effect on marine life in the bathing water (Briguglio, Cassar, Camilleri, Axiak, et.al, 2004). This occurs by increasing petroleum hydrocarbons and by disturbing the benthic life in the Bays. During the summer months, several boats berth in the Bays thus this can also lead to sewage and litter discharge (Axiak, 2004). Evidence from 2011 underwater surveys carried out by Ecoserv Ltd show a number of anthropogenic items littering the seabed; these include concrete mooring blocks, several vehicle tyres and smaller litter items such as bottles and cans (Borg, 2012). Although most of these items do not affect the quality of the bathing water, they still constitute as litter.

Figure 6: Discharges to bathing waters and monitoring points at Spinola and St Julian’s
Mitigation Measures:

There are a number of mitigation measures that have been implemented to address the issues discussed above. Water quality testing (microbiology) is carried out on a weekly basis by the Environmental Health Directorate. The Bays have waste receptacles to collect litter that is discarded by the bathers. National campaigns on safety at sea and littering are also carried out – these should reduce the amount of litter generated from sea craft. Domesticated animals may not be taken into the sea at the official bathing zones as regulated by Legal Notice 125 of 2008 which refers to the Management of Bathing Water Quality Regulations, 2008. Pet owners are also prohibited from taking pets such as dogs on sandy beaches at any time. However, these animals may be taken on rocky beaches, provided that the pets do not cause any nuisance to other bathers and animal fouling is cleaned by their owners.

Assessment for the potential proliferation of Cyanobacteria

Cyanobacteria (blue-green algae) require a nutrient rich body of water, light and high temperatures. In 2004, Spinola and Balluta Bay received untreated sewage from a nearby sewage pumping station which contributed to eutrophic conditions. This occurs when there are elevated nutrients leading to algal blooms and water
As discussed above, the Bays receive nutrients mainly through storm water runoff during the winter months. Since there are no major sources of nutrient discharge during the summer months, the Bay is not currently at risk of proliferation of macro-algae or phytoplankton.

**Assessment of the potential for proliferation of macro-algae and/or phytoplankton**

Phytoplankton growth depends on carbon dioxide, nitrates, phosphates and silicic acid. A recent report (Borg, 2011) shows that phytoplankton levels are within normal levels and therefore it is likely that the Bays are not at risk from proliferation of macro-algae and/or phytoplankton.

**What should one do if a pollution incident is noticed?**

If one sees a water pollution incident, you should immediately contact the environmental Health Directorate through the Automated Telephone System, which is operated 24 hours. **Phone: 21827146**

Or by calling the Environmental Health Directorate during Office Hours:

**Phone: 21337333**

Or After Office Hours / Weekends / Public Holidays:

**Malta – 79509918  Gozo – 79509919**

When a pollution incident is reported or pollution is found to be affecting the water quality of official bathing areas, an immediate investigation is instigated by the Environmental Health Officers. All possible sources of pollution within the area are checked together with the relevant Competent Authorities. In addition, a resample will be collected to monitor whether the beach is still polluted.

Bathing waters may be closed by the Environmental Health Directorate in accordance with the provisions of Legal Notice 125 of 2008, Regulation 7, until the water quality has improved and levels of bacteria are within mandatory standards in accordance to the provisions of Regulation 8 of the same legal notice.
General Contact Details:

Address:

Environmental Health Directorate
Health Inspectorate Services
Continental Business Centre
Triq il-Ferrovija,
Santa Venera, SVR 9018
Malta.

Telephone: +356 21337333
Fax: +356 21344767
Email: complaints.ph@gov.mt
mhi@gov.mt

References:


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