

# FORMAT FOR SUMMARY REPORTS UNDER THE PROTOCOL ON WATER AND HEALTH

## PART ONE: GENERAL ASPECTS

1. Provide brief information on the process of target-setting in your country, e.g. which public authority (ies) took the leadership and coordinating role, which public authorities were involved, how coordination was ensured, which existing national and international strategies and legislations were taken into account, how cost-benefit analysis of target sets was performed.

N/A

2. What has been done in your country to ensure public participation in the process of target-setting and how was the outcome of public participation taken into account in the final targets set?

N/A

3. Provide information on the process by which this report has been prepared, including information on which public authorities had the main responsibilities, which other stakeholders were involved, etc.

*The Environmental Health Directorate under the direction of the Office of the Superintendent of Public Health took the lead and coordinated the feedback to this report. Consultations were held with the Infectious Disease Prevention and Control Unit, the Sustainable Energy and Water Conservation Unit, the Regulator for Energy and Water Services, the Water Services Corporation and the Ministry for Sustainable Development, the Environment and Climate Change.*

4. Report any particular circumstances that are relevant for understanding the report, e.g. whether there is a federal and/or decentralized decision-making structure, or whether financial constraints are a significant obstacle to implementation (if applicable).

N/A

5. Please describe whether and, if so, how emerging issues relevant to water and health, (e.g. climate change) were taken into account in the process of target-setting.

N/A

## PART TWO: COMMON INDICATORS<sup>1</sup>

### I. QUALITY OF THE DRINKING WATER SUPPLIED

#### A. Context of the data

Please provide general information related to the context of the data provided under sections B and C:

1. What is the population coverage (in millions or per cent of total national population) of the water supplies reported under this indicator?

*Population coverage is 0.43 Million or 100%*

2. Do the water supply systems reported here supply the urban population only or both the urban and rural populations?

*They supply both the urban and rural populations for their service area.*

3. In the reports, the standards for compliance assessment signify the national standards. If national standards for reported parameters deviate from the WHO guideline values, provide information on the values (standards) used for calculation.

*Standards are established through the Water Intended for Human Consumption Regulations L.N. 17 of 2009 as amended by L.N. 242 of 2009. These regulations transpose Council Directive 98/83/EC on the quality of water intended for human consumption.*

*Link to Legal Notice 17 of 2009:*

*<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11134&l=1>*

#### B. Bacteriological quality

Indicator to be used: WatSan\_S2: The percentage of samples that fail to meet the national standard for *E. coli* and the percentage of samples that fail to meet the national standard for *Enterococci*.

<b>WatSan_S2</b>	<b>Baseline value (please specify the year)</b>	<b>Current value (please specify the year)</b>
<b>E. coli</b>	<i>0% (2004)</i>	<i>0% (2013)</i>
<b>Enterococci</b>	<i>0% (2004)</i>	<i>0% (2013)</i>

#### C. Chemical quality

Indicator to be used: WatSan\_S3. The percentage of samples that fail to meet the national standard for chemical water quality. All countries shall monitor and report on:

- Fluoride,
- Nitrate and nitrite<sup>2</sup>,
- Arsenic,

<sup>1</sup> In order to allow an analysis of trends for all Parties under the Protocol, please use wherever possible 2005 – the year of entry into force of the Protocol – as the baseline year.

<sup>2</sup> As defined in the WHO Guidelines.

- Lead
- Iron.

Parties shall also identify five additional health-relevant chemical parameters that are of special concern in their national or local situation (e.g. pesticides).

<b>Substance</b>	<b>Baseline value (please specify the year)</b>	<b>Current value (please specify the year)</b>
<b>Fluoride</b>	<i>0% (2006)</i>	<i>0% (2013)</i>
<b>Nitrate and nitrite</b>	<i>0% (2004)</i>	<i>0% (2013)</i>
<b>Arsenic<sup>3</sup></b>	<i>0% (2004)</i>	<i>0% (2013)</i>
<b>Lead</b>	<i>0% (2004)</i>	<i>0% (2013)</i>
<b>Iron</b>	<i>10% (2011)</i>	<i>2% (2013)</i>
<b>Additional chemical<sup>4</sup> parameter 1: <i>Boron</i></b>	<i>0% (2004)</i>	<i>24% (2013)</i>
<b>Additional chemical parameter 2: <i>THMs (Total)</i></b>	<i>0% (2004)</i>	<i>0% (2013)</i>
<b>Additional chemical parameter 3: <i>pH</i></b>	<i>0% (2004)</i>	<i>0% (2013)</i>
<b>Additional chemical parameter 4: <i>Nitrates</i></b>	<i>0% (2006)</i>	<i>0% (2013)</i>
<b>Additional chemical parameter 5: <i>Benzo(a)pyrene</i></b>	<i>0% (2004)</i>	<i>0% (2013)</i>

If your country calculates an integrated value reflecting overall compliance with chemical quality of drinking water, please report it below:

	<b>Baseline value (please specify the year)</b>	<b>Current value (please specify the year)</b>
<b>Integrative chemical failure</b>	<i>Not done</i>	<i>Not done</i>

<sup>3</sup> If relevant for the country.

<sup>4</sup> It is recommended to take into account new and emerging pressures such as climate change, or agriculture practices.

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## II. REDUCTION OF THE SCALE OF OUTBREAKS AND INCIDENCE OF INFECTIOUS DISEASES POTENTIALLY RELATED TO WATER

For incidence, please report the total number of cases per year from all exposure routes.  
For the number of outbreaks, please report cases that could be potentially related to water.

	Incidence		Number of outbreaks	
	Baseline (specify the year) <i>(Average in last 5 years)</i>	Current value (specify the year) <i>In 2015</i>	Baseline (specify the year) <i>(Average in last 5 years)</i>	Current value (specify the year) <i>In 2015</i>
Cholera	0	0	0	0
Bacillary dysentery (shigellosis)	1	1	0	0
EHEC <sup>5</sup>	2 (0157 subtype)	2 (0157)	0	0
Viral hepatitis A	3	4 (one was imported)	0	0
Typhoid fever	0	0	0	0

## III. ACCESS TO DRINKING WATER

Percentage of population with access to improved drinking water	Baseline value (specify the year)	Current value (specify the year)
<b>Total</b>	100% (2004)	100% (2015)
<b>Urban</b>	100% (2004)	100% (2015)
<b>Rural</b>	100% (2004)	100% (2015)

The Joint Monitoring Programme (JMP) defines access to water supply in terms of the types of technology and levels of service afforded. Access to water-supply services is defined as the availability of at least 20 litres per person per day from an “improved” source within 1 kilometre of the user’s dwelling. An “improved” source is one that is likely to provide “safe” water, such as a household connection, a borehole, a public standpipe or a protected dug well.

If your definition of access to “improved” drinking water from which the above percentages are calculated differs from the JMP, please provide the definition and describe your means of calculation.

<sup>5</sup> Enterohaemorrhagic *E. coli*.

#### IV. ACCESS TO SANITATION

Percentage of the population with access to improved sanitation, including small decentralized sewerage systems, septic tanks and safe excreta disposal.

Percentage of population with access to improved sanitation	Baseline value (specify the year)	Current value (specify the year)
<b>Total</b>		<i>100% (2015)</i>
<b>Urban</b>		<i>100% (2015)</i>
<b>Rural</b>		<i>100% (2015)</i>

If your definition of access to “improved” drinking water from which the above percentages are calculated differs from the JMP, please provide the definition and describe your means of calculation.

#### V. EFFECTIVENESS OF MANAGEMENT, PROTECTION AND USE OF FRESHWATER RESOURCES

##### Water quality

On the basis of national systems of water classifications, the percentage of the number of water bodies or the percentage of the volume (preferably) of water<sup>6</sup> falling into each defined class (e.g. in classes I, II, III, etc. for non-EU countries; for EU countries, the percentage of surface waters of high, good, moderate, poor and bad ecological status, and the percentage of groundwaters/surface waters of good or poor chemical status).

**For non-European Union countries:**

Status of surface waters – *N/A*

Percentage of surface water falling into class <sup>7</sup>	Baseline value (specify the year)	Current value (specify the year)
<b>I</b>		
<b>II</b>		
<b>III</b>		
<b>IV</b>		
<b>V</b>		

Status of groundwaters

<sup>6</sup> Please specify.

<sup>7</sup> Rename and modify the number of rows as requested by the national classification system.

Percentage of groundwaters falling into class <sup>8</sup>	Baseline value (specify the year)	Current value (specify the year)
I		
II		
... to be completed in accordance with national groundwaters classification systems		

**For European Union countries:**

Ecological status of surface water *N/A*

Percentage of surface water classified as of	Baseline value (specify the year)	Current value (specify the year)
High status		
Good status		
Moderate status		
Poor status		
Bad status		

Chemical status of surface water

Percentage of surface water classified as of	Baseline value (specify the year)	Current value (specify the year)
Good status		
Poor status		

Status of groundwaters

Percentage of groundwaters classified as of	Baseline value (specify the year)	Current value (specify the year)
Good status	13% (2010)	20% (2015)
Poor status	87% (2010)	80% (2015)

Please provide any needed information that will help put into context and aid understanding of the information provided above (e.g. coverage of information provided if no related to all water resources).

**Water use**

Water exploitation index at the national and river basin levels for each sector (agriculture, industry, domestic): mean annual abstraction of freshwater by sector divided by the mean annual total renewable freshwater resource at the country level, expressed in percentage terms.

Water exploitation index	Baseline value (specify the year)	Current value (specify the year)
Agriculture		43% (2015)

<sup>8</sup> Rename and modify the number of rows as requested by the national classification system

<b>Industry<sup>9</sup></b>		<b>12% (2015)</b>
<b>Domestic use<sup>10</sup></b>		<b>32.5% (2015)</b>

*NB: Industry refers also to the commercial sector demand*

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<sup>9</sup> Please specify whether the figure includes both water abstraction for manufacturing industry and for energy cooling.

<sup>10</sup> Please specify whether the figure only refers to public water supply systems or also individual supply systems (e.g. wells).

## **PART THREE: TARGETS AND TARGET DATES SET AND ASSESSMENT OF PROGRESS**

### **I. QUALITY OF THE DRINKING WATER SUPPLIED, (ARTICLE 6, PARAGRAPH 2 (a))**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*The target is to provide drinking water for the total population of good quality and which is wholesome and clean, in sufficient quantity and assurance of delivery. Drinking Water Directive (98/83/EC) and Maltese Legal Notice 17 of 2009 as amended by legal notice 242 of 2009. A specific target on Boron compliance to the DWD has been set for December 2016. However it should be noted that the Boron values in drinking water are significantly less than the WHO guideline value of 2.4 mg/L.*

*Link to Legal Notice 17 of 2009:*

*<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=11134&l=1>*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*In general the target has been reached in the mandatory parameters in the DWD except for Boron by actions mentioned in this question. The WHO guideline for Boron however is listed as 2.4mg/L and the monitoring values indicate that this value has not been exceeded. Indicator parametric values of conductivity, sodium and chlorides listed in the DWD are generally not of health significance.*

*In addition to the above the water supplier (Water Services Corporation) is further obliged by the Water Supply and Sewerage Services Regulations and licence issued by the Regulator for Energy and Water Services:*

- (i) *to supply water intended for human consumption according to applicable regulations and standards;*
- (ii) *to report to the Regulator for Energy and Water Services on its performance according to reporting requirements established by this licence and including:*
  - (a) *Percentage of tests complying with micro-biological standards (according to Water Intended for Human Consumption Regulations);*
  - (b) *Percentage of tests complying with chemical indicator parameters (mandatory and indicator parameters, and according to Water Intended for Human Consumption Regulations).*



3. Briefly assess the progress achieved towards the target.

*The whole population has access to drinking water and the drinking water system. In general, progress is reported across a wide range of performance indicators.*

*Main achievements and indicators reported include Percentage of tests complying with microbiological standards was 100% between 2010 and 2014.*

*Percentage of tests complying with chemical indicator parameters decreased from 89% in 2010 to 86% in 2014 and % of tests complying to mandatory chemical standards decreased from 100% in 2010 to 97% in 2014.*

*With regards to water quality, the national utility is in the process of purchasing new desalination membranes to lower the value of Boron even though as stated, the values being registered are way within the 2.4 mg/L WHO guideline value.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*

**II. REDUCTION OF THE SCALE OF OUTBREAKS AND INCIDENTS  
OF WATER-RELATED DISEASE  
(ARTICLE 6, PARAGRAPH 2 (b))**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*The water utility (Water Services Corporation) is obliged under the Water Supply and Sewerage Services Regulations and the licence issued to it by the Regulator for Energy and Water Services to notify to the Regulator any breaches or potential breaches to any regulations, directions or codes of practice.*

*Link Water Supply and Sewerage Services Regulations:*

*<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12362&l=1>*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*In reporting and investigation any such incidents, the water utility is also required to submit proposals to rectify operations and precautionary measures to ensure against repetition and/or continuation of such breaches.*

3. Briefly assess the progress achieved towards the target.

*No incidents of water related disease were reported in 2014.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*N/A*

5. If you have not set a target in this area, please explain why.

*N/A*

### III. ACCESS TO DRINKING WATER (ARTICLE 6, PARAGRAPH 2 (c))

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*The entire population is served with and has access to drinking water.*

*The Water Services Corporation has the duty under the Water Services Corporation Act (Chapter 355 of the Laws of Malta), inter alia:*

- (i) to develop, maintain and promote a safe and efficient production and distribution system in order to satisfy, as economically as possible, all reasonable demands for water;*
- (ii) to manage and operate all undertakings and other installations and all property, transferred to and vested in the Corporation by virtue of this Act or otherwise acquired by the Board for the purposes of any of its functions;*
- (iii) to hold and administer and, if and when it thinks fit, to realise any assets it may hold from time to time.*

*Link Water Services Corporation Act:*

<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=8825&l=1>

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*The Water Services Corporation is further required to report on an annual basis to the Regulator for Energy and Water Services (REWS) on its performance in providing access to drinking water in its Licence Monitoring Reports, including details on operational outputs and performance indicators (e.g. Total number of active accounts total potable water supplied, sources of supply, properties affected by supply interruptions etc.)*

3. Briefly assess the progress achieved towards the target.

*The Water Services Corporation meets its obligations to provide access to drinking water to the population and no major incidents where the water utility failed to meet its obligations were reported in 2014.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*

#### IV. ACCESS TO SANITATION (ARTICLE 6, PARAGRAPH 2 (d))

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*100% of population already have access to sanitation.*

*The Water Services Corporation has the duty under the Water Services Corporation Act (Chapter 355 of the Laws of Malta), inter alia:*

- (i) to provide, improve and extend such a system of public sewers and to cleanse and maintain these sewers so as to ensure that the drainage system operates and continues to operate safely and effectively;*
- (ii) to make provisions for the operation of these sewers and such further provisions as are necessary from time to time for effectively dealing with the contents of these sewers by means of sewage treatment and disposal works or otherwise;*
- (iii) to have regard in performing its duty of the need to provide for the treatment and disposal or otherwise of trade effluent;*
- (iv) to promote the proper disposal of waste water and storm-water run-off;*
- (v) to manage and operate all undertakings and other installations and all property, transferred to and vested in the Corporation by virtue of this Act or otherwise acquired by the Board for the purposes of any of its functions;*
- (vi) to hold and administer and, if and when it thinks fit, to realise any assets it may hold from time to time;*

*Link to Water Services Corporation Act:*

<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=8825&l=1>

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*The Water Services Corporation is further required to report on an annual basis to the Regulator for Energy and Water Services on its performance in providing access to sanitation in its Licence Monitoring Reports, including details on operational outputs and performance indicators (e.g. Percentage of the population served with sewerage service connection)*

*Currently 99% of the population is served with such a sewerage service connection. For the small percentage of customers who are not served directly by a sewerage connection due to the absence of a main sewer system in the locality, the water utility provides a free cesspit-emptying service to domestic consumers.*

3. Briefly assess the progress achieved towards the target.

*100% of population already have access to sanitation.*

*The Water Services Corporation meets its obligations to provide access to sanitation to the population and no major incidents where the water utility failed to meet its obligations were reported in 2014.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*

## V. LEVELS OF PERFORMANCE OF COLLECTIVE SYSTEMS AND OTHER SYSTEMS FOR WATER SUPPLY (ARTICLE 6, PARAGRAPH 2 (e))

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*Refer to Section 3, Item III – target already attained*

*Furthermore, the water utility (Water Services Corporation) is regulated by the Regulator for Energy and Water Services for the supply of water through the public distribution network, and through a licence issued under the Water Supply and Sewerage Services Regulations.*

*Link to Water Supply and Sewerage Services Regulations:*

<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12362&l=1>

*Licence Monitoring Reports are submitted on an annual basis by the Water Services Corporation to the Regulator for Energy and Water Services. These reports include inter alia detailed information on key outputs and performance indicators as well as outputs on water supply systems. The Licence Monitoring Reports include proposed performance targets and outputs for a five year rolling period and including information on:*

- (i) *Reliability of supply and service quality outputs (e.g.: % of households receiving low water pressure, total number of supply interruptions greater than 12 hours, emergency supplies served by water tanker etc.)*
- (ii) *Asset maintenance and operational efficiency of water supply systems (estimated leakages, mains bursts /1000 km, length of mains replaced, percentage unaccounted for water etc.)*
- (iii) *the complaints received from customers on water quality, supply pressure and interruptions to supply*
- (iv) *the requests on compensation according to Customer contract.*

*Proposed performance targets and outputs are reviewed and updated on an annual basis.*

*In addition the licence issued to the Water Services Corporation by the Regulator for Energy and Water Services requires inter alia the publication of a Customer Contract by the Water Services Corporation which includes:*

1. *levels of service of water supply including*
  - a. *potable water quality standards;*
  - b. *potable water pressure (greater than 1 bar) and flow (9 litres / minute);*
  - c. *standards on continuity and reliability of supply;*
  - d. *alternative water supply arrangements to customers;*
  - e. *arrangements and procedures regarding the provision of water supply services including period to connect to distribution network and response time for repairs to service and renewals;*
  - f. *works standards;*

2. *levels of service in relation to:*
  - a. *billing and payment facilities and procedures;*
  - b. *communication response arrangements to complaints and queries by customers;*
  - c. *notification arrangements and appointments with customers;*
  - d. *arrangements and procedures for dealing with complaints and resolving disputes;*
  - e. *arrangements, guidance and procedures for giving appropriate service to vulnerable customers or customers with special needs;*
  - f. *period to correct billing errors and effectively address customer complaint*
3. *a code of practice and procedures on disconnection / suspension of potable water supply;*
4. *exceptional circumstances where the water utility may be exempted from fulfilling these service obligations.*

*The Customer Contract was brought into effect in July 2011. Prior to entry into force the Customer Contract was published in draft form for public consultation.*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*The Maltese national water operator (WSC) is responsible for water quality up to the Customers' first tap downstream of the revenue meter. This water is certified to be potable according to the Drinking Water Directive 98/83/EC. Besides the continuous numerous tests conducted in the operator's accredited laboratories, the operator doses the water with Chlorine gas and uses residual chlorine as an indicator against micro-biological contamination.*

*Furthermore, the licence issued by the Regulator for Energy and Water Services to the water utility establishes reporting requirements on:*

1. *manner in which Customer Contract was operated during the preceding year*
2. *Regulatory Information including Outputs and Performance Indicators reported in Licence Monitoring Reports*
3. *Emergency Response Plans outlining the various risks to WSC operations and established processes and procedures to address such emergency situations and to ensure continuity of service to consumers.*
4. *Leakage Control Plans outlining estimated leakage levels and projections of leakage levels on a regional and national basis.*

*The Water Supply and Sewerage Services Regulations and Licence issued by the Regulator for Energy and Water Services further provides powers to the Regulator to:*

- (i) *assess and audit the operations of water supplier and compliance with licence conditions;*
- (ii) *issue enforcement orders to ensure compliance to any condition or requirement of the licence.*

3. Briefly assess the progress achieved towards the target.

*As stated in 2. above, the water quality in Malta is according to the Drinking Water Directive 98/83/EC and is continuously monitored.*

*In general progress has been reported across a wide range of performance indicators.*

*Main achievements and indicators reported include:*

- (i) Percentage of households receiving low water pressure decreased from 1.2% in 2010 to 0.19% in 2014*
- (ii) Total number of supply interruptions greater than 12 hours decreased from 66 days/annum in 2010 to 24 days /annum in 2014;*
- (iii) Estimated leakage was reported to have been decreased from 4.0 Mm<sup>3</sup>/annum in 2010 to 3.6 Mm<sup>3</sup>/annum in 2014*
- (iv) Percentage unaccounted for water decreased from 46% in 2010 to 42% in 2014*
- (v) Mains bursts decreased from 3.644/km in 2010 to 2.65/ km in 2014*
- (vi) Complaints received from customers on water quality, supply pressure and interruptions to supply was 239, 975 and 2645 respectively in 2010 and 289, 1223, 2605 respectively in 2014.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No.*

5. If you have not set a target in this area, please explain why.

*N/A*



## **VI. LEVELS OF PERFORMANCE OF COLLECTIVE SYSTEMS AND OTHER SYSTEMS FOR SANITATION (ART. 6 (2) (e) continued)**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*Included in the EU Urban Waste-Water Treatment (UWWT) Directive. Target is to reduce overflows.*

*The water utility (Water Services Corporation) is regulated by the Regulator for Energy and Water Services for the provision of sewerage services, and through a licence issued under the Water Supply and Sewerage Services Regulations.*

*Licence Monitoring Reports are submitted on an annual basis by the Water Services Corporation to the Regulator for Energy and Water Services. These reports include inter alia detailed information on key outputs and performance indicators as well as outputs on sewerage services provided. The Licence Monitoring Reports include proposed performance targets and outputs for a five year rolling period and including information on:*

- (i) Volumes and percentage of wastewater collected and treated,*
- (ii) Sewerage system failures (e.g.: sewer collapses, sewer blockages etc.)*
- (iii) Asset maintenance on sewerage network (length of mains replaced, etc.)*
- (iv) the complaints received from customers on sewerage services, flooding of sewers etc.*
- (v) the requests on compensation according to Customer contract.*

*Proposed performance targets and outputs are reviewed and updated on an annual basis.*

*In addition the licence issued to the Water Services Corporation by the Regulator for Energy and Water Services requires inter alia the publication of a Customer Contract by the Water Services Corporation which includes:*

- 1. levels of service for providing sewerage services including:*
  - a. in the case of industrial or commercial consumers, the permissible quantity and quality standards of effluent that may be discharged;*
  - b. minimum quality standards of treated effluent;*
  - c. standards on continuity and reliability of the sewerage network;*
  - d. alternative sewage collection and disposal arrangements to customers;*
  - e. arrangements and procedures regarding the provision of a sewerage connection point including:*
    - i. period to connect to Licensee's sewerage network,*
    - ii. response time for repairs to portions of the sewerage network that might affect the customer's connection and service;*
  - f. works standards;*
  - g. sanitary restoration in case of flooding of private premises and/or public areas of sewage.*

2. *levels of service in relation to:*
  - h. billing and payment facilities and procedures;*
  - i. communication response arrangements to complaints and queries by customers;*
  - j. notification arrangements and appointments with customers;*
  - k. arrangements and procedures for dealing with complaints and resolving disputes;*
  - l. arrangements, guidance and procedures for giving appropriate service to vulnerable customers or customers with special needs;*
  - m. period to correct billing errors and effectively address customer complaint*
3. *a code of practice and procedures on disconnections to the sewerage network;*
4. *exceptional circumstances where the water utility may be exempted from fulfilling these service obligations.*

*The Customer Contract was brought into effect in July 2011. Prior to entry into force the Customer Contract was published in draft form for public consultation.*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*The licence issued by the Regulator for Energy and Water Services to the water utility establishes reporting requirements on:*

- 1. Regulatory Information including Outputs and Performance Indicators reported in Licence Monitoring Reports;*
- 2. the manner in which Customer Contract was operated during the preceding year;*
- 3. Emergency Response Plans outlining the various risks to WSC operations and established processes and procedures to address such emergency situations and to ensure continuity of service to consumers.*

*The water utility's performance as reported in the Licence Monitoring Reports and other documentation is reviewed by the Regulator for Energy and Water Services.*

*The Water Supply and Sewerage Services Regulations and Licence issued by the Regulator for Energy and Water Services further provides powers to the Regulator to:*

- (i) assess and audit the operations of water supplier and compliance with licence conditions;*
- (ii) issue enforcement orders to ensure compliance to any condition or requirement of the licence.*

3. Briefly assess the progress achieved towards the target.

*In general progress has been reported across a wide range of performance indicators.*

*Main achievements reported include:*

- (i) Percentage of wastewater treated increased from 23% in 2010 to 92% in 2014;*
- (ii) Volume of wastewater collected increased from 23.8 Mm<sup>3</sup> in 2010 to 27.3 Mm<sup>3</sup> in 2014;*

- (iii) *Sewerage system failures – sewer collapses decreased from 107/1000 km in 2010 to 73 /1000 km in 2014;*
- (iv) *Complaints received from customers on sewerage services and flooding of sewers was 2115 and 815 respectively in 2010 and 969 and 1107 respectively in 2014.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*

## VII. APPLICATION OF RECOGNIZED GOOD PRACTICES TO THE MANAGEMENT OF WATER SUPPLY, (ARTICLE 6, PARAGRAPH 2 (f))

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*The Maltese national water operator (WSC) uses a systematic approach to manage its potable water network. It uses a methodology recommended by the International Water Association (IWA) to manage leakage from its network.*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*The WSC benchmarks its performance of the network using the internationally-recognised Infrastructure Leakage Index (ILI). Over the years, using the model described in 1. above, leakage has been brought down significantly. The target was to reach ILI = 2.*

3. Briefly assess the progress achieved towards the target.

*ILI was > 20 in the mid-1990s; it is now <2 (2015), which puts Malta in band A of the World Bank Institute classification.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

*No need for revision.*

5. If you have not set a target in this area, please explain why.

*N/A*

**VIII. APPLICATION OF RECOGNIZED GOOD PRACTICE TO THE MANAGEMENT OF SANITATION (ART. 6, PARAGRAPH 2 (f) continued)**

For each target set in this area:

*See Section IV*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.
2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.
3. Briefly assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**IX. OCCURRENCE OF DISCHARGES OF UNTREATED WASTEWATER  
(ART. 6, PARAGRAPH 2(g) (i))**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*To minimize the occurrence of such events in line with the EU Urban Wastewater Treatment (UWWT) Directive.*

*The water utility (Water Services Corporation) is regulated by the Regulator for Energy and Water Services for the provision of sewerage services, and through a licence issued under the Water Supply and Sewerage Services Regulations.*

*Licence Monitoring Reports are submitted on an annual basis by the Water Services Corporation to the Regulator for Energy and Water Services. These reports include inter alia performance indicators and associated targets on:*

- (i) Volumes of untreated wastewater disposed to sea,*
- (ii) Total number of intermittent discharges to the sea*
- (iii) Total number of incidents of failures of wastewater treatment plants*

*Proposed performance targets and outputs are reviewed and updated on an annual basis.*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*Under the UWWT Directive, it is forbidden that raw sewage is discharged directly into the sea without proper treatment. Over the past few years the Maltese national water operator (WSC) has commissioned three new waste water treatment plants with a capacity to treat all waste water generated in the Maltese Islands. WSC also has an on-going programme of upgrading the sewer network infrastructure.*

*The licence issued by the Regulator for Energy and Water Services to the water utility establishes reporting requirements on*

- (i) Outputs and Performance Indicators reported in Licence Monitoring Reports;*
- (ii) Emergency Response Plans outlining the various risks to WSC operations and established processes and procedures to address such emergency situations and to ensure continuity of service to consumers.*

*The water utility's performance as reported in the Licence Monitoring Reports and other documentation is reviewed by the Regulator for Energy and Water Services. The Licence issued by the Regulator for Energy and Water Services further provides power to the Regulator to:*

- (i) *assess and audit the operations of water supplier and compliance with licence conditions;*
- (ii) *issue enforcement orders to ensure compliance to any condition or requirement of the licence.*

*The water utility (Water Services Corporation) is further obliged under the Water Supply and Sewerage Services Regulations and the licence issued to it by the Regulator for Energy and Water Services to notify to the Regulator any breaches or potential breaches to any regulations, directions or codes of practice.*

*In reporting and investigation any such incidents, the water utility is also required to submit proposals to rectify operations and precautionary measures to ensure against repetition and/or continuation of such breaches.*

*Link: <http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12362&l=1>*

3. Briefly assess the progress achieved towards the target.

*Sea water quality has dramatically improved over the past few years. This is because the waste water treatment plants mentioned above are now online. In the meantime, over 6% (around 100 km) of the entire sewer network has been extended or renewed during the past 5 years. The remainder has been continually monitored and cleaned, as have the waste water pumping stations that form part of the infrastructure.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No.*

5. If you have not set a target in this area, please explain why.

*N/A*

**X. OCCURRENCE OF DISCHARGES OF UNTREATED STORM WATER OVERFLOWS FROM WASTEWATER COLLECTION SYSTEMS TO WATERS WITHIN THE SCOPE OF THE PROTOCOL (ART. 6, PARAGRAPH 2 (g) (ii))**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

**Baseline:**

*Collection systems are locally, majorly designed as separate systems. Heavy urbanisation and cross connectivity of storm-water runoff with the wastewater collection network, is imposing hydraulic overloads on the wastewater collection and treatment systems, translating into occasional surface overflows and overflows to sea, particularly during high intensity rainfall events.*

*The following legislation covers CSOs:*

*a) Requirements of urban waste water collecting systems are set out by the Urban Waste Water Treatment Directive 91/271/EEC (UWWTD) in Article 3 and Annex 1(A) and a footnote (1) of Annex 1(A) stating that:*

*“The design, construction and maintenance of collecting systems shall be undertaken in accordance with the best technical knowledge not entailing excessive costs, notably regarding: ...*

*- limitation of pollution of receiving waters due to storm water overflows”*

*and*

*Annex 1(A) footnote (1): “Given that it is not possible in practice to construct collecting systems and treatment plants in a way such that all waste water can be treated during situations such as unusually heavy rainfall, Member States shall decide on measures to limit pollution from storm water overflows. Such measures could be based on dilution rates or capacity in relation to dry weather flow, or could specify a certain acceptable number of overflows per year.”*

*b) Requirements to meet good ecological status of all waters by 2015 are set out by the Water Framework Directive 2000/60/EC (WFD). CSOs are considered in several river basin management plans (RBMPs) as a pressure causing a serious impact on the receiving waters.*

*c) The Bathing Water Directive 2006/7/EC (BWD) addresses the CSO impacts by classifying the bathing waters affected by CSOs as “subject to short-term pollution”. Short-term pollution means microbiological contamination which has clearly identifiable causes, is not normally expected to affect bathing water quality for more than approximately 72 hours after the bathing water quality is first affected and for which the competent authority has established procedures to predict and deal with.*



**Target:**

*(1) To minimize diluted wastewater overflows to land and sea during storm events*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*(1) To maintain wastewater collection network detention galleries and basins as well as treatment plants to minimize overflows to land and sea*

*(2) Update the Sewerage Master plan to assess the current loading profile of the existing collection network and draw up a programme for the implementation for (1).*

3. Briefly assess the progress achieved towards the target.

***Ongoing***

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*

**XI. QUALITY OF DISCHARGES OF WASTEWATER FROM WASTEWATER TREATMENT INSTALLATIONS TO WATERS WITHIN THE SCOPE OF THE PROTOCOL (ART. 6, PARAGRAPH 2 (h))**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*To establish and maintain stable operations and keep to the parameters set out under the EU Urban Wastewater Directive*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*See Section IX (2)*

3. Briefly assess the progress achieved towards the target.

*Ongoing*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*

**XII. DISPOSAL OR REUSE OF SEWAGE SLUDGE FROM COLLECTIVE SYSTEMS  
OF SANITATION OR OTHER SANITATION INSTALLATIONS  
(ART. 6, PARAGRAPH 2 (i), first part)**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*To divert sewage sludge disposal away from landfill with possible energy recovery*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*Identify the best technology to implement the target.*

3. Briefly assess the progress achieved towards the target.

*A feasibility study including an alternative site study was concluded in Quarter 4 of 2015 and is waiting to be approved and/or actioned.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No.*

5. If you have not set a target in this area, please explain why.

*N/A*

**XIII. QUALITY OF WASTEWATER USED FOR IRRIGATION PURPOSES  
(ART. 6, PARAGRAPH 2 (i), second part)**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*Not applicable locally.*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*Not applicable locally.*

3. Briefly assess the progress achieved towards the target.

*Not applicable locally.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*Not applicable locally.*

5. If you have not set a target in this area, please explain why.

*N/A*

**XIV. QUALITY OF WATERS USED AS SOURCES FOR DRINKING WATER  
(ART. 6, PARAGRAPH 2 (j), first part)**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*Objective set under EU Water Framework Directive: Good status by 2027 or when natural conditions permit.*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*Please refer to Second Water Catchment Management Plan for Malta (2015-2021) at <https://www.mepa.org.mt/topic-wcmp>*

3. Briefly assess the progress achieved towards the target.

*Good quantitative status planned to be achieved in all groundwater bodies by 2021 whilst the achievement of good qualitative status depends on the natural response time of the aquifer systems.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*

## **XV. QUALITY OF WATERS USED FOR BATHING (ART. 6, PARAGRAPH 2 (j), second part)**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*Coastal bathing water in Malta is monitored by the Environmental Health Directorate in accordance to the provisions of Legal Notice 125 of 2008 as amended by Legal Notice 237 of 2011. These national regulations transpose the Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality.*

*Link to Legal Notice 125 of 2008:*

*<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=20574&l=1>*

*Malta has identified a total of 87 coastal bathing waters covering the 3 main islands of the archipelago i.e. Malta, Gozo and Comino. All 87 coastal bathing waters are monitored every week during the official bathing season which starts from the 3<sup>rd</sup> week of May to the 3<sup>rd</sup> week of October.*

*Samples are collected from each site and submitted to the Public Health Laboratory to be analysed for the two microbiological parameters i.e. E. coli and Intestinal enterococci as defined by the respective Directive. The following analytical microbiological methods are used to assess compliance with the Directive:*

- *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*

*The bathing water quality is then classified using the criteria as defined by the same directive for the 2 microbiological parameters based on 4 years data for each site.*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*Malta has been monitoring its official bathing areas for decades but since Malta became an EU member in 2004, its bathing water quality has been monitored and classified according to the EU Directives and also as per the Barcelona Criteria. Data for both classifications is being provided in the two graphs below.*

*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*

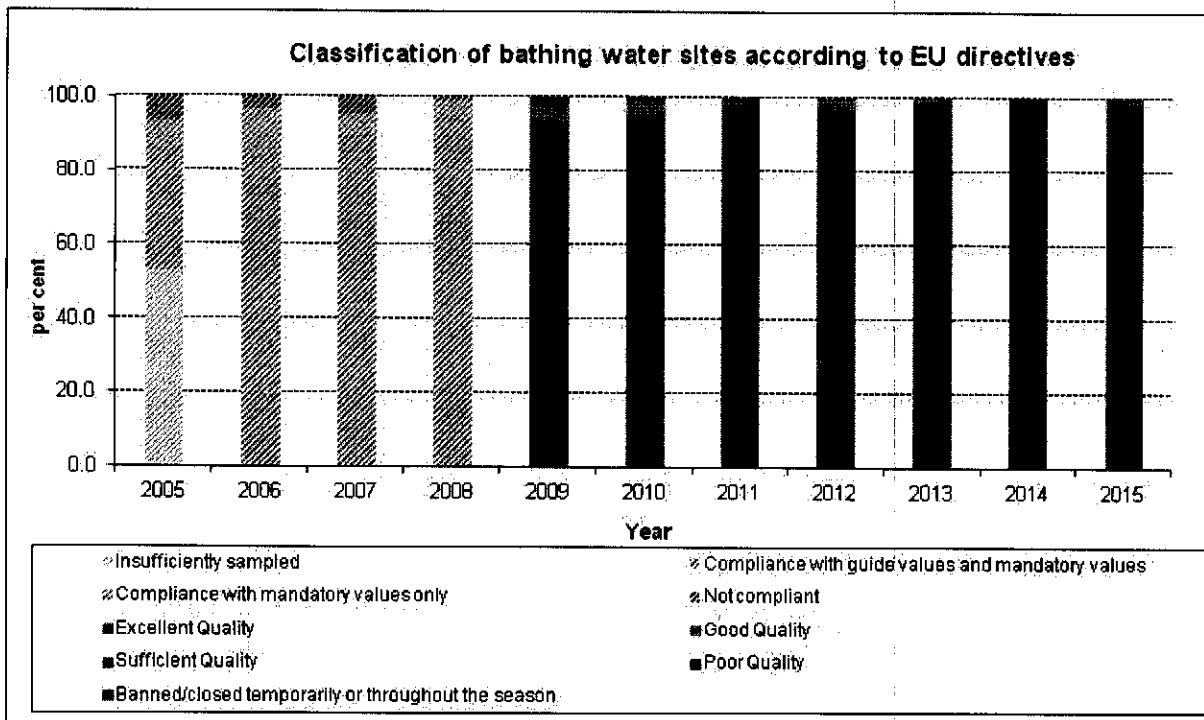
analysis at the public health laboratory. In the case that visual evidence of pollution is noted, the effected site will be temporarily closed for bathing.

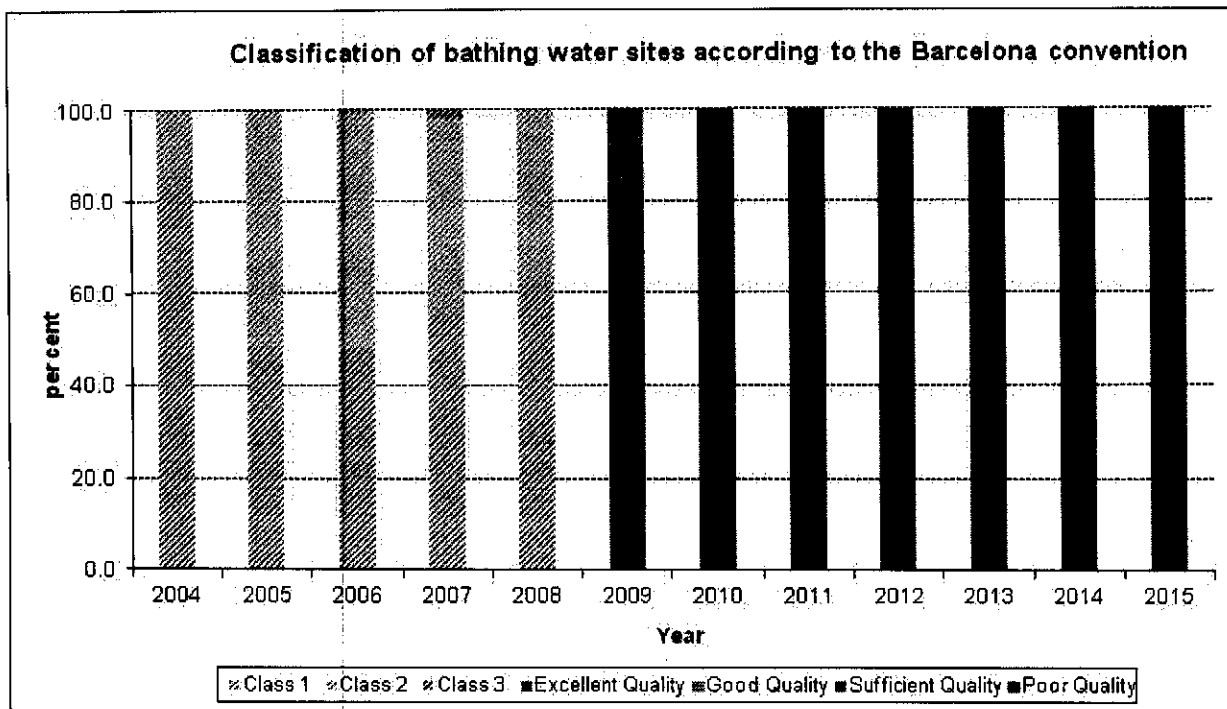
During the bathing season, the Environmental Health Directorate issues a weekly report with the classification for each bathing area based on the *Escherichia coli* and *Intestinal enterococci* counts <http://health.gov.mt/en/environmental/Pages/Health-Inspectorate/Environmental-Health-Risk-Management/Bathing-Water-Programme.aspx>

A weekly report with the new logos as per Commission Implementation Decision 2011/321/EU published on 27 May 2011 for the classification of sites is also issued. The Environmental Health Directorate also posts 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 temporary close any of these areas, a temporary 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 boards so as to include further information on the classification of sites and beach profiles.

The Environmental Health Directorate has completed the compilation of 29 beach profiles covering all 87 bathing sites monitored as part of the annual bathing water monitoring programme in 2013.

Officials from the Environmental Health Directorate participated on television and radio programmes to raise awareness among the general public on bathing water quality.





3. Briefly assess the progress achieved towards the target.

*As can be seen from the classification tables above, there has been a positive progress in the bathing water quality both as for the requirements of the EU Directive and the Barcelona Convention especially since Malta started treating all its sewage through the 3 STPs prior discharge to the sea.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*No*

5. If you have not set a target in this area, please explain why.

*N/A*



**XVI. QUALITY OF WATERS USED FOR AQUACULTURE OR FOR THE PRODUCTION OR HARVESTING SHELLFISH  
(ART. 6, PARAGRAPH 2 (j), third part)**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*N/A*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*N/A*

3. Briefly assess the progress achieved towards the target.

*N/A*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*N/A*

5. If you have not set a target in this area, please explain why.

*N/A*

**XVII. APPLICATION OF RECOGNIZED GOOD PRACTICE IN THE MANAGEMENT  
OF ENCLOSED WATERS GENERALLY AVAILABLE FOR BATHING (ART. 6,  
PARAGRAPH 2 (k))**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*Public/Commercial swimming pools are covered by Legal Notice 129 of 2005 – Swimming Pools Regulations as amended by Legal Notice 135 of 2008. Swimming pools in these regulations are defined as public or commercial swimming pools which include any artificial basin intended for recreational bathing, swimming, diving or therapeutic purposes which is located indoors or outdoors and is provided with controlled water supply and which is not used or intended to be used as a pool at a single family residence unless it is used or intended to be used for commercial or business purposes and shall include wading pools, spas, whirlpools, hot tubs, diving pools and special purpose pools.*

*All public/commercial pools have to be registered with the Superintendent for Public Health.*

*Links to Legal Notices:*

<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=16966&l=1>

<http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=20584&l=1>

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*The responsibility of keeping the water quality of the said pool safe for recreational use falls under the responsibility of the responsible person, while the Environmental Health Directorate has a regulatory role to verify that all the provisions laid down under these regulations are being fulfilled by the responsible person.*

*Under these same regulations, the Health Authority is required to keep a register for all registered swimming pools and this register is being kept by the Environmental Health Directorate. Copy of said register has also been placed for the general public information on the Directorate webpage. To-date 215 premises have registered their swimming pools bringing the total number of registered pools to 471.*

3. Briefly assess the progress achieved towards the target.

*As from June 2006 the Environmental Health Directorate started carrying out audit inspections of all registered swimming pools with the Health Authority. These audit inspections are carried out by Environmental Health Officers within the 7 regional offices in Malta and Gozo and are co-ordinated by a Senior Environmental Health Practitioner responsible for the Environmental Health Risk Management. A prior appointment is required for such audit inspections so that all responsible persons at the premise being audited are available and all relevant documentation is made available to the inspecting officers for audit. Between 2001 and 2015 approximately 80*

*premises covering 200 swimming pools have been audited each year. These audit inspections are also linked to an audit inspection at the same premises for Legionella control, which normally takes about 3 hours. This depends on the size of the hotel, number of registered swimming pools and documentation made available by the management.*

*Following each audit a risk assessment report is issued identifying any remedial actions that needs to be taken by the management following which a follow-up inspection is once again carried out to verify that recommended actions had been complied with.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*Presently the regulations are based on the WHO Guidelines for recreational waters.*

5. If you have not set a target in this area, please explain why.

*N/A*

**XVIII. IDENTIFICATION AND REMEDIATION OF PARTICULARLY  
CONTAMINATED SITES (ART. 6, PARAGRAPH 2 (I))**

For each target set in this area:

*N/A*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.
  
2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.
  
3. Briefly assess the progress achieved towards the target.
  
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.
  
5. If you have not set a target in this area, please explain why.

## **XIX. EFFECTIVENESS OF SYSTEMS FOR THE MANAGEMENT, DEVELOPMENT, PROTECTION AND USE OF WATER RESOURCES (ART. 6, PARAGRAPH 2 (m))**

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.

*The Water Catchment Management Plan sets out the objectives in each water body in order to maintain good ecological and chemical status or to achieve it. The target of good ecological status, good chemical status and no deterioration are expected to be achieved at a water body level and cover the waters of the Maltese Water Catchment District (i.e. the whole of the Maltese Islands). The plan providing details on each target and related actions to achieve those targets is accessible from the following link: <https://www.mepa.org.mt/topic-wcmp>*

2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.

*The second plan takes up a number of measures that were included under the first water catchment management plan with the view to improve them or to continue to implement them. The measures proposed also attempt to bridge the significant knowledge gaps that were further exposed during implementation of the monitoring programme, and during the Marine Strategy Framework Directive's initial assessment process.*

*The Measures include basic measures – i.e. actions that stem from the other EU water related directive obligations as well as measures that emerge directly from a list of requirements included in the WFD; and Supplementary measures – i.e. actions that go over and above basic measures but are deemed to be essential in order to achieve good status in waters where these are considered to be at risk.*

*Apart from implementation of the Nitrates Directive; the Bathing Water Directive; the Urban Waste Water Directive; the Sustainable use of Pesticides Directive and the Nature Directives; other basic measures include the refinement of the regulatory framework for industrial operational practices via the environmental permitting process; the further strengthening of the relationship between environmental and planning regulatory processes; the further control of priority hazardous substances, priority substances and other substances of concern via the environmental permitting process; and the updating of Malta's first inventory of emissions, discharges and losses of chemicals of concern.*

*Supplementary measures include various. A full list is provided in Chapter 9 of the plan accessible from the link provided above. There are key measures that are considered to be prerequisite measures required to support the implementation of other measures such as the development of a shared environmental information system or open platform to enable sharing of data between entities;*

1. *There are also general surface water measures that aim to tackle the most significant point and diffuse sources;*

2. *Knowledge based measures required to fill the most pertinent gaps in knowledge; gaps that are considered to limit Malta' ability to deal with pressures in an effective manner;*
  3. *There are emergency related measures devised to improve upon Malta's existing efforts to deal with emergency response at land and at sea;*
  4. *Awareness raising measures to stimulate discussion across sectors and raise public awareness on particular water management issues*
3. Briefly assess the progress achieved towards the target.

*Improved monitoring has enabled Malta to classify the status of its waters with more scientific precision and confidence. Ecological quality of the waters was found to be of high or good status. The waters that were found to be of moderate status were those off Xghajra (Water body MTC 106) and those of the Grand Harbour and Marsamxett harbour (water body MTC 105). Chemical status results were good for all parameters except for mercury in the water column in all water bodies. PAHs and lead concentrations were high (exceeding the established Italian EQS limits) in sediments sampled from Xghajra and the Grand harbour/ Marsamxett harbour.*

*With the revision of the EQS directive (2013/39/EU) Malta could potentially face additional chemical issues from lead in all surface water categories inland surface, transitional and coastal waters. Although Malta's surface waters are in line with 2008/105/EU it is highly unlikely Malta will be able to achieve the seven-fold reduction in the concentration of lead by 2021.*

4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

*In light of the revised status Malta is applying for a number of new exemptions to extend the deadline of achieving the WFD objectives:*

1. *The necessary improvements in the chemical status of all water bodies cannot be reasonably achieved by 2021 due to the fact that all waters are failing to achieve the relevant EQS level established for Mercury concentrations in the water column. It is not yet known whether mercury is problematic due to trans-boundary issues. Malta needs to investigate this further.*

*Given that this is a significant gap that requires additional monitoring and investigation the scale of improvements required can only be achieved in phases exceeding the timescale, for reasons of technical feasibility. To extend the timeframe to achieve good chemical status in all water bodies by 2027 due to Mercury.*

2. *Exemption for good ecological potential to be achieved in MTC 105. Due to the fact that the Grand harbour area is an important economic hub, exemption 4.5 was applied. This exemption calls for less stringent environmental objectives due to the fact that this water body is so affected by human activity, that the achievement of the WFD objectives would be unfeasible and disproportionately expensive.*

5. If you have not set a target in this area, please explain why.

N/A

## **XX. ADDITIONAL NATIONAL OR LOCAL SPECIFIC TARGETS**

In case additional targets have been set, for each target:

*N/A*

1. Describe the target, target date and baseline conditions. Please include information on whether target is national or local, and intermediate targets as relevant.
2. Briefly describe the actions taken (e.g. legal/regulatory, financial/economic and informational/ educational and management measures) to reach the target and, if applicable, the difficulties and challenges encountered.
3. Briefly assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g. in the light of scientific and technical knowledge? If so, and if the revised target and targets date have already been adopted, please describe them.

## **PART FOUR: OVERALL EVALUATION OF PROGRESS ACHIEVED IN IMPLEMENTING THE PROTOCOL**

This part of the summary report shall provide an analysis and synthesis of the status of implementation of the Protocol. Such an overall evaluation should not only be based on the issues touched upon in the previous parts, but should also include, as far as is possible, a succinct overview of implementation of: article 9 on public awareness, education, training, research and development and information; article 10 on public participation; article 11 on international cooperation; article 12 on joint and coordinated international action; article 13 on cooperation in relation to transboundary waters; and article 14 on international support for national action.

This analysis or synthesis should provide a succinct overview of the status, trends and threats, sufficient to inform decision makers, rather than an exhaustive assessment of these issues. It should provide an important basis for planning and decision-making as well as for the revision of the targets set, as needed.



## PART FIVE: INFORMATION ON THE PERSON SUBMITTING THE REPORT

The following report is submitted on behalf of Ministry for Energy and Health – Parliamentary Secretariat for Health in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report:  
Dr Richard Zammit, Superintendent of Public Health

E-mail:  
[Richard.zammit@gov.mt](mailto:Richard.zammit@gov.mt)

Telephone number:  
+356 25953302

Name and address of national authority:  
Office of the Superintendent of Public Health  
Outpatients Department Level 1  
St Luke's Hospital  
Guardamangia

Signature:



Date: 18<sup>th</sup> April 2016

### Submission

Parties are required to submit their summary reports to the joint secretariat, using the format outlined in these guidelines, by **31 March 2010**. Submission of the reports ahead of this deadline is encouraged, as this would help facilitate the preparation of analyses and syntheses to be made available to the second meeting of the Parties.

Parties are requested to submit, to the two addresses below, an original signed copy by post and an electronic copy either on a diskette or CD-ROM or by e-mail. Electronic copies should be available in word processing software, and any graphic elements should be provided in separate files.

#### Joint secretariat to the Protocol on Water and Health

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