

# Template for summary reports under the Protocol on Water and Health

## Part One

### General aspects

1. Were targets and target dates established in your country in accordance with article 6 of the Protocol?

*Please provide detailed information on the target areas in Part Three.*

YES  NO  IN PROGRESS

*If targets have been revised, please provide details here.*

2. Were they published and, if so, how?

*Please explain whether the targets and target dates were published, made available to the public (e.g. online, official publication, media) and communicated to the secretariat.*

*The targets are published in the national legislation related to drinking water (Règlement grand-ducal modifié du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine) and to urban waste water treatment (Règlement grand-ducal modifié du 13 mai 1994 relatif au traitement des eaux urbaines résiduaires) as well as to the implementation of the EU Water Framework Directive (Loi modifiée du 19 décembre 2008 relative à l'eau). The targets which originate from the implementation of the EU Water Framework Directive (directive 2000/60/EC), such as the provisions of article 7 referring to the establishment of drinking water safeguard zones, have been integrated in the river basin management plans (RBMP). The first RBMP has been published in 2009 and the second RBMP in 2015 and both documents have been subject, together with their programmes of measures, to a large public consultation and are available online<sup>1</sup>.*

3. Has your country established national or local arrangements for coordination between competent authorities for setting targets? If so please describe, including information on which public authority(ies) took the leadership and coordinating role, which public authorities were involved and how coordination was ensured.

*In Luxembourg, the authorities responsible for Water and Health are the Ministry of Health (Ministère de la Santé) and the Ministry of Sustainable Development and Infrastructure – Department of the Environment (Ministère du Développement durable et des Infrastructures – Département de l'environnement), more specifically the Water Management Agency (Administration de la gestion de l'eau).*

*The Water Management Agency pursues an integrated and sustainable management of water resources and the aquatic environment and ensures their effective protection. It is responsible for all matters regarding groundwater, surface waters, drinking water, bathing waters and all matters of sewage water. The Water Management Agency comprises 5 departments whose roles and activities are described in detail in a law (Loi modifiée du 28 mai 2004 portant création d'une Administration de la gestion de l'eau).*

*The competent authority for contaminated sites is the Environment Agency (Administration de l'environnement).*

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<sup>1</sup> [http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2015-2021\\_2e\\_cycle/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2015-2021_2e_cycle/index.html)  
[http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2009-2015\\_1er\\_cycle/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2009-2015_1er_cycle/index.html)

*The technical competent body for health aspects is the Direction of Health (Direction de la Santé).*

*With regard to the setting of targets, no specific arrangements for coordination between competent authorities have been established as most of the targets derive from EU directives which have to be transposed into Member States' national law. However, the cooperation and collaboration between Ministries and public authorities is in general very good in Luxembourg.*

4. Which existing national and international strategies and legislation were taken into account?

*Please briefly mention the most relevant national and international strategies and instruments that were taken into account when setting targets (only a limited number of references are required under this question; indicatively, five references are considered appropriate, but the number will depend on your national situation).*

*Luxembourg, as a member of the EU, has to implement several EU directives, which deal with drinking water (directive 98/83/EC) and sanitation (directive 91/271/EEC), bathing water (directive 2006/7/EC) as well as water management issues (directive 2000/60/EC and its daughter directives). Relevant national approaches, achievements and legal provisions have also been taken into account.*

5. Was cost-benefit analysis of targets set performed, and if so how?

*Alternatively, please explain to what extent financial implications were taken into account when setting targets.*

*No cost-benefit analysis was performed especially.*

6. What has been done in your country to ensure public participation in the process of target setting in accordance with article 6, paragraph 2, and how was the outcome of public participation taken into account in the final targets set?

*There has been no specific public participation in the process of target setting as most of the targets derive from EU directives which have to be transposed into Member States' national law.*

*However with regard to the transposition of the EU Water Framework Directive (directive 2000/60/EC, WFD) the elaboration of the river basin management plans (RBMP) and the associated programmes of measures were subject to a large public consultation in order to ensure an active involvement of the general public and stakeholders in the preparation of these two documents. All the comments and opinions expressed during the public consultation were checked and if they were considered relevant, they were retained in the elaboration of the final version of the RBMP<sup>2</sup>.*

*With regard to the delimitation of drinking water safeguard zones the public (with a focus to the agriculture and industrial sectors) is also involved in the establishment of the respective programmes of measures.*

7. 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.

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<sup>2</sup> [http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2015-2021\\_2e\\_cycle/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2015-2021_2e_cycle/index.html)  
[http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2009-2015\\_1er\\_cycle/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2009-2015_1er_cycle/index.html)

*The different sections of the questionnaire have been treated by the competent persons from the different Ministries and Agencies listed above point 3.*

8. 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).

*The are no particular circumstances that are relevant for understanding this report.*

9. 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.

*Emerging issues such as climate change or emerging substances have been taken into account in the river basin management plans. With regard to the determination of adaptation measures to climate change it is foreseen to revise, in the upcoming years, the part of the national adaptation strategy dealing with water.*

*The future development of the drinking water supply and demand is currently being examined and the water safety plan is being established.*

## Part Two

### Common indicators<sup>3</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 below:*

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

*The rationale of this question is to understand the population coverage of the water quality data reported under sections B and C below. Please describe the type of water supplies for which data is included in the following tables, and the population share covered by these supplies. Please also clarify the source of the water quality data provided (e.g., data from regulatory authorities).*

*In Luxembourg 99,8 % of the population are connected to the public drinking water supply network, according to the definition provided in “Part two: Common indicators – III Access to drinking Water” 100 % of the population has access to a water supply.*

*The figures reported below are referring to all central drinking water supplies which provide drinking water to more than 5.000 inhabitants or serve more than 1.000 m<sup>3</sup>/day. These numbers take into account about 436.325 inhabitants or about 77,5 % of the total population.*

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

*Although the figures reported are limited to supply networks provisioning more than 5.000 person, there is no differentiation between rural and urban regions, so YES, the reported figures take into account as well rural as urban populations.*

3. Specify where the samples/measurements are taken (e.g., treatment plant outlet, distribution system or point of consumption).

*The rationale behind this question is to understand where the samples were primarily taken from for the water quality data reported in sections B and C below.*

*The samples are taken mostly in wells and springs/sources to evaluate the quality of the different ground water bodies. Further the measurements in the distribution system and on consumption points will help to evaluate the quality of the drinking-water.*

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<sup>3</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.

4. 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.

*Luxembourg uses for drinking water quality parameters the standards fixed by the EU drinking water directive (directive 98/83/EC).*

## 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.

*Please comment on the trends or any other important information supporting interpretation of the data.*

<i>WatSan_S2</i>	<i>Value reported in the previous reporting cycle</i>		
	<i>Baseline value (2005)</i>	<i>(2010)</i>	<i>Current value (2013)</i>
E. coli	Water works: 0 %	Water works: 0.11 %	Water works: 0.37 %
Enterococci	Water works: 0.26 %	Water works: 0.25 %	Water works: 0 %

## C. Chemical quality

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

- (a) Fluoride;
- (b) Nitrate and nitrite;<sup>4</sup>
- (c) Arsenic;
- (d) Lead;
- (e) Iron.

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

*Please comment on the trends or any other important information supporting interpretation of the data.*

<i>Substance</i>	<i>Value reported in the previous reporting cycle</i>		
	<i>Baseline value (2005)</i>	<i>(2010)</i>	<i>Current value (2013)</i>
Fluoride	Water works: 0.0 %	Water works: 0.0 %	Water works: 0.0 %
Nitrate	Water works: 0.0 %	Water works: 0.0 %	Water works: 0.0 %
Nitrite	Water works: 0.0 %	Water works: 0.0 %	Water works: 0.0 %
Arsenic	Water works: 0.0 %	Water works: 0.0 %	Water works: 0.0 %
Lead	Water works: 0.0 %	Water works: 0.0 %	Water works: 0.0 %
Iron	Water works: 0.0 %	Water works: 0.38 %	Water works: 0.4 %
Additional physico-chemical parameter 1: _____			
Additional physico-chemical			

<sup>4</sup> As defined in the WHO Guidelines for drinking-water quality.

<i>Substance</i>	<i>Baseline value (2005)</i>	<i>Value reported in the previous reporting cycle (2010)</i>	<i>Current value (2013)</i>
parameter 2: _____ Additional physico-chemical			
parameter 3: _____ Additional physico-chemical			
parameter 4: _____ Additional physico-chemical			
parameter 5: _____			

## II. Reduction of the scale of outbreaks and incidence of infectious diseases potentially related to water

In filling out the following table, please consider the following points:

(a) For reporting outbreaks, please indicate if the numbers reported are related to all exposure routes or only related to water (i.e., for which there is epidemiological or microbiological evidence for water to have facilitated infection);

(b) For reporting incidents:

(i) Please report cases per 10,000 persons;

(ii) Please differentiate between zero incidents (0) and no data available (-);

(iii) If possible, please distinguish between autochthonous and imported cases.

*Please consider extending the list of water-related diseases to cover other relevant pathogens (e.g., enteric viruses, Cryptosporidium, Giardia, Legionella).*

*Please indicate how the information is collected (e.g., event-based or incidence based).*

*Please comment on the trends or any other important information supporting interpretation of the data.*

	<i>Incidence</i>			<i>Number of outbreaks</i>		
	<i>Baseline (2005)</i>	<i>Value reported in the previous reporting cycle (2009)</i>	<i>Current value (specify the year) 2015</i>	<i>Baseline (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
Cholera	0	0	0	0	0	0
Bacillary dysentery (shigellosis)	6	14	0	0	0	0
Enterohaemorrhagi c E. coli.	3	2	0	0	0	0
Viral hepatitis A	1	5	0	0	0	0
Typhoid fever	NUS	NUS	0	0	0	0

## III. Access to drinking water

*Please comment on the trends or any other important information supporting interpretation of the data.*

Percentage of population with access to drinking water	Baseline value (2005)	Value reported in the previous reporting cycle	
		(2012)	Current value (2015)
<b>Total</b>			
Urban	100 %	100 %	100 %
Rural	100 %	100 %	100 %

Please specify if the above data is based on national estimates or estimates provided by the WHO/United Nations Children's Fund (UNICEF) Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

If national estimates are provided, please specify how access is defined and estimated in your country.

JMP definitions and categories are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.

In 2015 approximately 99,8% of the population was connected to the public drinking water supply network, whereas an almost negligible number of households operated their own small-scale water supplies (wells which also comply with the definition of an 'improved' water supply, e.g. protected dug wells, boreholes etc.). The number of self-sustaining households does not vary significantly over the years, and it is not considered feasible, for economic reasons, to significantly reduce the number of these small-scale water supplies.

#### IV. Access to sanitation

Please comment on the trends or any other important information supporting interpretation of the data.

Percentage of population with access to sanitation	Baseline value (2005)	Value reported in the previous reporting cycle	
		(2010)	Current value (2014)
<b>Total</b>			
Urban	100 %	98 %	98%
Rural	100 %	98 %	98%

Please specify if the above data is based on national estimates or estimates provided by JMP for Water Supply and Sanitation.

The data are based on national estimates.

If national estimates are provided, please specify how access is defined and estimated in your country.

JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.

The data are based on national report and the methods for the estimation is country specific.

#### V. Effectiveness of management, protection and use of freshwater resources

##### Water quality

On the basis of national systems of water classification, the percentage of the number of water bodies or the percentage of the volume (preferably) of water<sup>5</sup> falling under each defined class (e.g., in classes I, II, III, etc. for

<sup>5</sup> Please specify.

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

Percentage of surface water falling under class <sup>a</sup>	Value reported in the previous reporting cycle	
	Baseline value (specify the year)	Current value (specify the year)
I		
II		
III		
IV		
V		
<b>Total number/volume of water bodies classified</b>		
<b>Total number/volume of water bodies in the country</b>		

<sup>a</sup> Rename and modify the number of rows to reflect the national classification system.

#### Status of groundwaters

Percentage of groundwaters falling under class <sup>a</sup>	Value reported in the previous reporting cycle	
	Baseline value (specify the year)	Current value (specify the year)
I		
II		
III		
IV		
V		
<b>Total number/volume of groundwater bodies classified</b>		
<b>Total number/volume of groundwater bodies in the country</b>		

<sup>a</sup> Rename and modify the number of rows to reflect the national classification system.

### For European Union countries

#### Ecological status of surface water bodies

Percentage of surface water classified as:	Value reported in the previous reporting cycle	
	Baseline value (2009)	Current value (2015)
High status	0%	0 %
Good status	7.69 %	10.61 %
Moderate status	52.75 %	45.54 %
Poor status	29.67 %	11.71 %
Bad status	9.89 %	32.14 %
<b>Total number/volume of water bodies classified</b>	91	102
<b>Total number/volume of water bodies in the country</b>	102	110

Please note the values indicated, except those reported in the previous reporting cycle, are referring to the ecological status of the natural water bodies and not the heavily modified water bodies (HMWB) for which the ecological potential has to be assessed. As there have been changes in the delineation of the water bodies as well as the assessments methods, the results from 2009 and 2015 are only comparable to a certain extent. Further details on this can be found in the second river basin management plan which has been published in 2015<sup>6</sup>.

#### **Chemical status of surface water bodies**

<i>Percentage of surface water bodies classified as</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle</i>	
		<i>(2009)</i>	<i>Current value (2015)</i>
Good status		56.27 %	0 %
Poor status		43.73 %	100 %
<b>Total number/volume of water bodies classified</b>			110
<b>Total number/volume of water bodies in the country</b>			110

#### **Status of groundwaters**

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (2009)</i>	<i>Value reported in the previous reporting cycle</i>	
		<i>(2009)</i>	<i>Current value (2015)</i>
Good quantitative status	100 %		100 %
Good chemical status	40 %		33 %
Poor quantitative status	0 %		0 %

<sup>6</sup> [http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2015-2021\\_2e\\_cycle/publication-du-plan-de-gestion/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2015-2021_2e_cycle/publication-du-plan-de-gestion/index.html)

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (2009)</i>	<i>Value reported in the previous reporting cycle (2009)</i>	<i>Current value (2015)</i>
Poor chemical status	60%		67 %
<b>Total number/volume of groundwater bodies classified</b>	<b>5</b>		<b>6</b>
<b>Total number/volume of groundwater bodies in the country</b>	<b>5</b>		<b>6</b>

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 not related to all water resources, how the quality of waters affects human health).

*Further information regarding the status assessment of the water bodies can be found in the first<sup>7</sup> and the second<sup>8</sup> river basin management plans.*

### Water use

Please provide information on the water exploitation index at the national and river basin levels for each sector (agriculture, industry, domestic), i.e., the mean annual abstraction of freshwater by sector divided by the mean annual total renewable freshwater resource at the country level, expressed in percentage terms.

<i>Water exploitation index</i>	<i>Baseline value (2011)</i>	<i>Value reported in the previous reporting cycle (2012)</i>	<i>Current value (2014)</i>
Agriculture	0.49 million m <sup>3</sup> *	0.24 million m <sup>3</sup> *	0.3 million m <sup>3</sup> *
Industry <sup>a</sup>	3.61 million m <sup>3</sup> **	3.65 million m <sup>3</sup> **	4.71 million m <sup>3</sup> **
Domestic use <sup>b</sup>	38.99 million m <sup>3</sup> **	40.64 million m <sup>3</sup> **	42.25 million m <sup>3</sup> ***

<sup>a</sup> Please specify whether the figure includes both water abstraction for manufacturing industry and for energy cooling. *These numbers include water abstracted for cooling. Without cooling these numbers would be: 0.74 million m<sup>3</sup> (2011), 0.98 million m<sup>3</sup> (2012) and 2.95 million m<sup>3</sup> (2014).*

<sup>b</sup> Please specify whether the figure only refers to public water supply systems or also individual supply systems (e.g., wells). *These numbers account only for the public drinking water supply. Since in Luxembourg almost all (99.8 %) of the households are connected to the public provisioning system the reported number is close to the total amount of water abstracted for domestic use. At this point, we would like to emphasize once more, that “Domestic use” also comprehends the water used by small scale commercial and industrial enterprises which get their water from the public drinking water distribution system.*

\*, \*\*, \*\*\*: *The indicated numbers are not the WEI index, but rather the amount of water abstracted to be used in agriculture, industry or in households.*

<sup>7</sup> [http://www.eau.public.lu/actualites/2009/12/plan\\_de\\_gestion/index.html](http://www.eau.public.lu/actualites/2009/12/plan_de_gestion/index.html)

[http://www.eau.public.lu/actualites/2010/03/plan\\_de\\_gestion\\_fr/index.html](http://www.eau.public.lu/actualites/2010/03/plan_de_gestion_fr/index.html)

<sup>8</sup> [http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2015-2021\\_2e\\_cycle/publication-du-plan-de-gestion/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2015-2021_2e_cycle/publication-du-plan-de-gestion/index.html)

*\*, \*\*, \*\*\*: It is impossible to strictly separate these numbers and report exact numbers for the amount of water used in the three sectors.*

*\*\*\*: The number reported under “Domestic use” corresponds to the amount of water abstracted to be treated and distributed as drinking water. Since also small scale commercial and industrial operations are connected to the public drinking water networks, the amount reported under “Domestic use” is not exclusively used in households but includes also a part used by the industry and in agriculture.*

## Part Three

### Targets and target dates set and assessment of progress

*For countries that have set targets and target dates, please provide information specifically related to the progress towards achieving them. If you have not set targets in a certain area, please explain why.*

*For countries in the process of setting targets, please provide information on the relevant target areas (e.g., baseline conditions, provisional targets, etc.)*

*Suggested length: one page (330 words) per target area.*

#### I. Quality of the drinking water supplied (art. 6, para. 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 the target.

*The goal is to provide drinking water of a good quality and in sufficient quantity. The quality of the drinking water has to be comply with the prescriptions of the EU drinking water directive (directive98/83/EC), Luxembourg Control of Comestibles Act since 1953 and the grand-ducal regulation from October 2002 (Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine).*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*Prevent an exceedance of the threshold values by raising the awareness of the importance of the good and diligent maintenance of the infrastructure and careful monitoring of the quality of the drinking water among the drinking water supplier (syndicates and municipalities).*

*As already stated above, a water safety plan, which should identify preliminarily the weaknesses of the provisioning system and allow for a proactive stance, is under development.*

3. Assess the progress achieved towards the target.

*By constantly calling to the awareness among the drinking water supplier or the importance of the maintenance of the infrastructure and a careful quality monitoring of the distributed drinking water, the technical competency in matters of water management is constantly rising among the employees of the syndicates and municipalities. In the long term, we expect to further increase the quality of the distributed water and reduce the incidents which are mainly punctual and short-lived bacterial contaminations.*

*The overall quality of the drinking water is sufficient. The quality of water taken from surface waters as well as extracted from groundwater is closely monitored regarding qualitative parameters. The details regarding the monitoring of the distributed drinking water are fixed by a grand-ducal regulation (Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine). Early warning systems are in*

*place in order to stop the drinking water production in case of accidental pollution and drinking water producers have to inform the public about the measures taken to restore the quality of the drinking water.*

*Drinking water providers are obliged to publish the results of the quality of the drinking water which they distribute once per year and the Water Management Agency published regularly a survey of the drinking water quality<sup>9</sup>.*

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.

## **II. Reduction of the scale of outbreaks and incidents of water-related disease (art. 6, para. 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 the target.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. 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 target date have already been adopted, please describe them.

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

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<sup>9</sup> <http://www.eau.public.lu/publications/index.html> (Rapports d'activité de l'Administration de la gestion de l'eau, Rapport sur la qualité de l'eau potable)

### **III. Access to drinking water (art. 6, para. 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 the target.

*The target is to provide drinking water for the total population, to assure that the provided drinking water is of good quality, available in sufficient quantity and the delivery is assured (EU drinking water directive (directive 98/837EC, Luxembourg Control of Comestibles Act since 1953 and Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine)*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*Luxembourg does not suffer from droughts, so the provisioning with sufficient quantities of drinking water is guaranteed. The quality of the drinking water is constantly monitored, and in the cases of incidents (bacterial contaminations) immediate actions are taken. The threshold values guaranteeing the quality of the drinking water and the continued monitoring are specified in a grand-ducal regulation (Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine).*

*The drinking water is supplied by syndicates and the municipalities. It is the supplier, in this case, the syndicates and municipalities, which are responsible for the provision of sufficient quantities of drinking water meeting the quality set by above mentioned national regulation.*

3. Assess the progress achieved towards the target.

*According to the definition in “Part two: Common indicators – III Access to drinking water” already 100% of the population has access to drinking water.*

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.

### **IV. Access to sanitation (art. 6, para. 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 the target.

*In the area of waste water treatment, Luxembourg has to comply with the objectives of the EU directive regarding urban waste water treatment (directive 91/271/EEC). The objectives of that directive have been incorporated into Luxembourgish legislation by a grand-ducal regulation (Règlement grand-ducal du 13 mai 1994 relatif au traitement des eaux urbaines résiduaires).*

*The whole territory of Luxembourg has been defined, according to the urban waste water treatment directive as a sensitive area. On the basis of the directive, the following requirements must consequently be complied with:*

- *All agglomerations are provided with collecting systems for urban waste water:*
  - *at the latest by 31 December 1998 for those with a population equivalent of more than 10.000*
  - *at the latest by 31 December 2005 for those with a population equivalent of between 2.000 and 10.000*
- *Luxembourg has to ensure that urban waste water entering collecting systems shall before discharge are subject:*
  - *at the latest by 31 December 2005, to appropriate treatment as defined in Article 2 (9) of the directive in case for discharges from agglomeration with collecting systems and with a population equivalent of less than 2000*
  - *at the latest by 31 December 2005, to secondary treatment or an equivalent treatment as defined in Article 2 (8) of the directive in case for discharges from agglomeration with a population equivalent of between 2.000 and 10.000*
  - *at the latest by 31 December 1998, to secondary treatment or equivalent with elimination of phosphorus and nitrogen in case for discharges from agglomeration with a population equivalent of more than 10.000.*

*In 2015 Luxembourg had 242 municipal waste water treatment plants, including plants smaller than 2.000 population equivalent (p.e.), whereof 125 disposed of a primary treatment and 117 of a secondary treatment.*

	Capacity in population equivalent (p.e.)						Total
	≥ 15 < 500	≥ 500 < 2.000	≥ 2.000 < 10.000	≥ 10.000 < 50.000	≥ 50.000 < 100.000	≥ 100.000 < 500.000	
Mechanical waste water treatment plant	122	3	0	0	0	0	125
Biological waste water treatment plant	35	35	32	8	5	1	116
<b>Total</b>	<b>157</b>	<b>38</b>	<b>32</b>	<b>8</b>	<b>5</b>	<b>1</b>	<b>241</b>

	Quantity	Capacity (p.e.)
Biological waste water treatment plant	117	1.016.055
Mechanical waste	125	19.275

water treatment plant		
<b>Total</b>	<b>242</b>	<b>1.035.330</b>

At the 1<sup>st</sup> of January 2016, Luxembourg had, among its 105 municipalities, 59 with a population between 2.000 and 10.000 inhabitants and 9 with a population of more than 10.000 inhabitants. Luxembourg has identified 38 agglomerations with a population between 2.000 and 10.000 inhabitants and 12 with a population equivalent of more than 10.000 inhabitants.

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*The actions to reach the target have been taken in the river basin management plans. They can be found under the following links:*

*[http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2015-2021\\_2e\\_cycle/publication-du-plan-de-gestion/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2015-2021_2e_cycle/publication-du-plan-de-gestion/index.html)[http://www.eau.public.lu/actualites/2010/03/plan\\_de\\_gestion\\_fr/index.html](http://www.eau.public.lu/actualites/2010/03/plan_de_gestion_fr/index.html)*

*[http://www.eau.public.lu/actualites/2009/12/plan\\_de\\_gestion/index.html](http://www.eau.public.lu/actualites/2009/12/plan_de_gestion/index.html)*

3. Assess the progress achieved towards the target.

*In 2015 Luxembourg had a population equivalent of 16.121 inhabitants, which were not connected to a waste water treatment plant. The percentage of the population connected to the public waste water treatment networks is about 98 %. Those households which are not connected to a public waste water treatment plant have, in general, individual and decentralized septic tanks. It is foreseen to replace all septic tanks by biological waste water treatment plants.*

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.

## **V. Levels of performance of collective systems and other systems for water supply (art. 6, para. 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 the target.

*See part I and III*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*See part I and III*

*The owners of collective systems (in buildings) are responsible for the installations, drinking water is provided by the drinking water companies. The public water supply systems are controlled on safety aspects by the water companies. The quality of the drinking water at the tap has to fulfil the regulations.*

3. Assess the progress achieved towards the target.

*The drinking water network is in such good shape that treated water typically is in no need to be chlorinated to prevent recontamination in the network, so that water reaches the consumer without a taste or smell of chlorine.*

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.

## **VI. Levels of performance of collective systems and other systems for sanitation (art. 6, para. 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 the target.

*See part IV.*

*Luxembourg has to comply with the requirements of the EU directive regarding urban waste water treatment (directive 91/271/EC). Luxembourg is currently in compliance with Article 3 of the directive, but has to improve the level of compliance with Article 4 and 5.*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*See part IV.*

3. Assess the progress achieved towards the target.

*In 2013, the percentage of waste water treatment plants which were not in compliance with the urban waste water directive was about 11 %, representing a population equivalent of 148.500 inhabitants. The Water Management Agency published every a report containing, among others, information regarding the compliance of municipal waste water treatment plants with the provisions of the urban waste water directive<sup>10</sup>.*

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.

## **VII. Application of recognized good practices to the management of water supply, (art. 6, para. 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 the target.

*In accordance with the national legislation (Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine) the drinking water suppliers, syndicates and municipalities, are responsible for the provisioning of drinking water in sufficient quantities and of a quality in accordance with the legislation. In order to guarantee the quality as specified in the legislation, the drinking water has to be monitored in regular intervals. The spacing of the monitoring intervals is also defined in the national legislation and is dependent on the number of inhabitants connected to the distribution system respectively to the amount of water distributed per day.*

*A further goal is to develop water safety plans in order to implement a risk management in the drinking water production and management. By switching to a proactive behavior and recognizing the importance of risk estimation and a risk management approach, an important risk reduction in the drinking water production and management should be possible.*

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<sup>10</sup> <http://www.eau.public.lu/publications/index.html> (Rapport d'activités de l'Administration de la gestion de l'eau)

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*Development and implementation of a water safety plan.*

3. Assess the progress achieved towards the target.

*The establishment of the water safety plan is 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.

## **VIII. Application of recognized good practice to the management of sanitation (art. 6, para. 2 (f) 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 the target.

*Luxembourg has to comply with the EU directive regarding urban waste water treatment (directive 91/271/EC). Collecting systems shall also be taken into account during the upgrade of the waste water treatment requirements.*

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

- *volume and characteristics of urban waste water,*
- *prevention of leaks,*
- *limitation of pollution of receiving waters due to storm water overflows.*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*The discharge from urban waste water treatment plants is constantly monitored and in the cases of incidents immediate actions are taken. The threshold values of the treated wastewater and the methodology used for the*

*monitoring are specified in a grand-ducal regulation (règlement grand-ducal du 13 mai 1994 relatif au traitement des eaux urbaines résiduaires).*

*See part IV*

3. Assess the progress achieved towards the target.

*See part IV*

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.

## **IX. Occurrence of discharges of untreated wastewater (art. 6, para. 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 the target.

*In 2015 Luxembourg had a population equivalent to 16.121 inhabitants, which were not connected to a waste water treatment plant, but most of them are connected to septic tanks. It is foreseen to replace all septic tanks by biological waste water treatment plants.*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*See part IV.*

3. Assess the progress achieved towards the target.

*See part IV*

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.

## **X. Occurrence of discharges of untreated storm water overflows from wastewater collection systems to waters within the scope of the Protocol (art. 6, para. 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 the target.

*Luxembourg has to comply with the EU Directive regarding urban waste water treatment (directive 91/271/EC). Collecting systems shall also be taken into account during the upgrade of the waste water treatment requirements.*

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

- *volume and characteristics of urban waste water,*
- *prevention of leaks,*
- *limitation of pollution of receiving waters due to storm water overflows.*

*The target is to reduce discharges of untreated storm water overflows to the receiving waters (limit the frequency of the overflows and the pollution caused in the receiving waters).*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*Luxembourg is replacing storm water overflows by rain overflow basins equipped with a fine screen. By doing this, Luxembourg follows the recommendation of the German Association of Water Management, Sewage and Waste, ATV-DVWK and in particular the standards for the dimensioning and design of storm water structures in combined sewers (ATV-A 128).*

*Some of the actions to reach the target have been foreseen in the river basin management plans which can be found under the following links:*

*[http://www.eau.public.lu/directive\\_cadre\\_eau/directive\\_cadre\\_eau/2015-2021\\_2e\\_cycle/publication-du-plan-de-gestion/index.html](http://www.eau.public.lu/directive_cadre_eau/directive_cadre_eau/2015-2021_2e_cycle/publication-du-plan-de-gestion/index.html)*

*[http://www.eau.public.lu/actualites/2010/03/plan\\_de\\_gestion\\_fr/index.html](http://www.eau.public.lu/actualites/2010/03/plan_de_gestion_fr/index.html)*

*[http://www.eau.public.lu/actualites/2009/12/plan\\_de\\_gestion/index.html](http://www.eau.public.lu/actualites/2009/12/plan_de_gestion/index.html)*

3. Assess the progress achieved towards the target.

*New housing projects are planned with separate sewage systems where waste water and rain waters are collected in separate sewage systems. The set-up of such a system allows separating the domestic sewage, which can directly be connected to the wastewater treatment plants from the stormwater, which is drained in the river.*

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.

## **XI. Quality of discharges of wastewater from wastewater treatment installations to waters within the scope of the Protocol (art. 6, para. 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 the target.

*See part IX*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*In 2014 municipal waste water treatment plants with a capacity of more than 2,000 population equivalent (p.e.) discharged a total of 2,467 tons of COD (Chemical Oxygen Demand), 809 tons of total nitrogen (N<sub>tot</sub>) and 95 tons of total phosphorus (P<sub>tot</sub>) into receiving surface waters. Municipal waste water treatment plants with a capacity of less than 2,000 population equivalent discharged a total of 953 tons of COD, 178 tonnes of total nitrogen and 33 tons of total phosphorus (P<sub>tot</sub>).*

*Data about the discharge from urban waste water treatment plants are collected annually in a national 'Rapport d'activité' which explain the methodology and show the results of the monitoring campaign.*

3. 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 target date have already been adopted, please describe them.

*No.*

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

## **XII. Disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations (art. 6, para. 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 the target.

*The use of sewage sludge is regulated by a grand-ducal regulation (Règlement grand-ducal du 14 avril 1990 relatif aux boues d'épuration).*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.

*The Environment Agency establishes every year a report with regard to sewage sludge generated by municipal waste water treatment plants. The reports for the years 2003 to 2014 can be downloaded at the following website: [http://www.environnement.public.lu/dechets/statistiques\\_indicateurs/index.html](http://www.environnement.public.lu/dechets/statistiques_indicateurs/index.html)<sup>11</sup>.*

*In 2014, 36,1% of the sewage sludge was used in the agriculture sector, 47,3% was reused as compost and finally 16,6% of the sewage sludge was incinerated.*

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.*

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<sup>11</sup> Statistiques sur les boues d'épuration

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

### **XIII. Quality of wastewater used for irrigation purposes (art. 6, para. 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 the target.

NA

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. 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 target date have already been adopted, please describe them.

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

### **XIV. Quality of waters which are used as sources for drinking water (art. 6, para. 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 the target.

*The quality of water distributed as drinking water is regulated by the EU drinking water directive (directive 98/83/EC), the EU water framework directive (directive 2000/60/EC), the Luxembourg Control of Comestibles Act since 1953 and a grand-ducal regulation (Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine).*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*In order to ensure the necessary protection for the waters used for drinking water purposes, drinking water safeguard zones are put in place<sup>12</sup>. The aim of the drinking water safeguard zones is to protect the quality of the waters used for drinking water purposes, avoid their deterioration and reduce the level of purification treatment required in the production of drinking water.*

*In drinking water safeguard zones some activities may be completely forbidden or are underlying specific authorisation procedures. These activities will be defined for each safeguard zone and will be retained in a grand-ducal regulation. For drinking water safeguard zones which will be put in place around groundwater wells, a grand-ducal regulation lists some administrative measures applicable in all these zones (Règlement grand-ducal du 9 juillet 2013 relatif aux mesures administratives dans l'ensemble des zones de protection pour les masses d'eau souterraine ou parties de masses d'eau souterraine servant de ressource à la production d'eau destinée à la consommation humaine).*

3. Assess the progress achieved towards the target.

*The designation of drinking water safeguard zones is still ongoing. Each water safeguard zone will be delimited and established by a grand-ducal regulation.*

<b>Number of drinking water safeguard zones designated by a grand-ducal regulation</b>	<b>Area (km<sup>2</sup>)</b>	<b>Number of drinking water safeguard zones for which the designation procedure is still ongoing</b>	<b>Area (km<sup>2</sup>)</b>
6 (groundwater: 5, surface water: 1)	51	+/- 80	+/- 280

*The overall quality of the drinking water is sufficient. The quality of water taken from surface waters as well as extracted from groundwater is closely monitored regarding qualitative parameters. The details regarding the monitoring of the distributed drinking water are fixed by a grand-ducal regulation (Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine). Early warning systems are in place in order to stop the drinking water production in case of accidental pollution and drinking water producers have to inform the public about the measures taken to restore the quality of the drinking water.*

*Drinking water providers are obliged to publish the results of the quality of the drinking water which they distribute once per year and the Water Management Agency published regularly a survey of the drinking water quality<sup>13</sup>.*

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.

<sup>12</sup> [http://www.eau.public.lu/eaux\\_souterraines/zone\\_protection/leitfaden\\_schutzzone.pdf](http://www.eau.public.lu/eaux_souterraines/zone_protection/leitfaden_schutzzone.pdf)  
[http://www.eau.public.lu/publications/brochures/ba\\_ZP\\_eau\\_potable/ZP\\_eau\\_potable\\_fr.pdf](http://www.eau.public.lu/publications/brochures/ba_ZP_eau_potable/ZP_eau_potable_fr.pdf)

<sup>13</sup> <http://www.eau.public.lu/publications/index.html>

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

## **XV. Quality of waters used for bathing (art. 6, para. 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 the target.

*The quality of bathing water is regulated by the EU bathing water directive (directive 2006/7/EC). The requirements of the bathing water directive have been transposed into national law by a grand-ducal regulation (Règlement grand-ducal modifié du 19 mai 2009 déterminant les mesures de protection spéciale et les programmes de surveillance de l'état des eaux de baignade). The bathing water directive foresees that Member States shall ensure that, by the end of the 2015 bathing season, all bathing waters are at least classified as being 'sufficient'. Besides, Member States shall take measures in order to increasing the number of bathing waters classified as 'excellent' or 'good'.*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

*According to the bathing water directive, bathing waters have to be monitored every year and the directive defines two main parameters (intestinal enterococci and escherichia coli) which are used for the monitoring and the assessment of the quality of bathing waters. Besides bathing water profiles have to be established for all bathing waters.*

3. Assess the progress achieved towards the target.

*According to their level of quality bathing waters are classified as poor, sufficient, good or excellent. By the end of the 2015 bathing season, all bathing waters had to be classified as being at least 'sufficient'. In Luxembourg the quality of the water in the designated bathing sites is in compliance with the bathing water directive and all bathing waters had reached excellent quality in 2015. During the summer locations might be closed due to algal blooms.*

*The Water Management Agency publishes every year a list with the bathing waters for the respective bathing season<sup>14</sup> as well as a summary of the results of the monitoring of the bathing waters<sup>15</sup>.*

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<sup>14</sup> <http://www.eau.public.lu/actualites/2016/03/Eaux-de-baignade/index.html>

<sup>15</sup> <http://www.eau.public.lu/publications/index.html> (Rapport d'activités de l'Administration de la gestion de l'eau)

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.

## **XVI. Quality of waters used for aquaculture or for the production or harvesting of shellfish (art. 6, para. 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 the target.

*NA*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. 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 target date have already been adopted, please describe them.

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

## **XVII. Application of recognized good practice in the management of enclosed waters generally available for bathing (art. 6, para. 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 the target.

*See part XV (Enclosed waters available for bathing are covered by the bathing water directive (directive 2006/7/EC)).*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. 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 target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

## **XVIII. Identification and remediation of particularly contaminated sites (art. 6, para. 2 (l))**

*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 the target.

*A soil protection law is currently being elaborated which will allow for a systematic approach to remediation goals for contaminated sites. The goals will be set depending on the foreseen use of the sites and will ensure durable and safe activities on the sites.*

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. 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 target 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, para. 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 the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. 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 target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

## **XX. Additional national or local specific targets**

*In cases where additional targets have been set, for each target:*

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 the target.

NA

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. 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 target date have already been adopted, please describe them.
  
5. If you have not set a target in this area, please explain why.

## **Part Four**

# **Overall evaluation of progress achieved in implementing the Protocol**

In this part of the summary report, Parties 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 possible, a succinct overview of implementation of activities related to, for example:

- (a) Response systems (article 8);
- (b) Public awareness, education, training, research and development and information (article 9);
- (c) Public information (article 10);
- (d) International cooperation (article 11);
- (e) Joint and coordinated international action (article 12);
- (f) Cooperation in relation to transboundary waters (article 13);
- (g) International support for national action (article 14).

This analysis or synthesis should provide a succinct overview of the status of and the trends and threats with regard to waters within the scope of the Protocol 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.

Suggested length: up to 3 pages

## Part Five

### Information on the person submitting the report

The following report is submitted on behalf of the Grand-Duchy of Luxembourg in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report: Anne-Marie Reckinger

E-mail: anne-marie.reckinger@eau.etat.lu

Telephone number: +352 24556-937

Name and address of national authority: Water Management Agency

1, avenue du Rock'n'Roll

L-4361 Luxembourg

Signature:

Date: 01 June 2016

### Submission

Parties are required to submit their summary reports to the joint secretariat, using the present template and in accordance with the adopted guidelines on reporting, by **18 April 2016**. Submission of the reports ahead of this deadline is encouraged, as this will facilitate the preparation of analyses and syntheses to be made available to the third session of the 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 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**

United Nations Economic Commission for Europe

Palais des Nations

1211 Geneva 10

Switzerland

E-mail: protocol.water\_health@unece.org

and

World Health Organization Regional Office for Europe

WHO European Centre for Environment and Health

Water and Sanitation Programme (WSN)

Platz der Vereinten Nationen 1

53113 Bonn

Germany

E-mail: watsan@ecehbonn.euro.who.int