

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.

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

The Administration of Water management is responsible for all matters of ground water, surface water, drinking water, bathing waters and all matters of sewage water.

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

The technical competent body for health aspects is the Direction of Health (Direction de la Santé). Luxembourg, as a member of the EU, has to implement several EU directives, which deal with drinking-water, bathing water, sanitation as well as water management issues. Relevant national approaches, achievements and legal provisions have therefore to be taken into account with regard to these directives.

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?

The transposition of the Water Framework Directive [WFD, Directive 2000/60/EC], more specifically the elaboration of the river basin management plans [RBMP] were subject to a public consultation. All the comments and opinions expressed during the consultation were considered in the elaboration of the final version of the RBMP. Also the revision of the action plans for the second cycle of the WFD involves the consultation of the public, so the currently existing action plans are discussed at the communal level in order to be adapted for the second iteration of the WFD.

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 different sections of the questionnaire have been treated by the competent persons from the corresponding of the different administrations listed under question one of this chapter.

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).

PART TWO: COMMON INDICATORS¹

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?

In Luxembourg 99.8 % of the population are connected to the public drinking water system, 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 in the following are from all central drinking water supplies which provide drinking water to more than 5000 inhabitants or serve more than 1000 m³/day. These numbers take into account about 3875000 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 systems provisioning more than 5000 persons, there is no differentiation between rural and urban regions, so YES, the reported figures take into account as well rural as urban populations.

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.

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*.

WatSan_S2	Baseline value (2005)	Current value (2010)
E. coli	water works: 0 %	water works: 0.11 %
Enterococci	water works: 0.26 %	water works: 0.25 %

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 nitrite²,

¹ 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.

² As defined in the WHO Guidelines.

Integrative chemical failure rate		
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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 (2005)	Current value (2009)	Baseline (specify the year)	Current value (specify the year)
Cholera	0	0	0	0
Bacillary dysentery (shigellosis)	6	14	0	0
EHEC ⁵	3	2	0	0
Viral hepatitis A	1	5	0	0
Typhoid fever	NUS	NUS	0	0

The origin of cases is unknown, potentially imported cases.

III. ACCESS TO DRINKING WATER

Percentage of population with access to improved drinking water	Baseline value (2005)	Current value (2012)
Total	100 %	100 %
Urban	100 %	100 %
Rural	100 %	100 %

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 liters per person per day from an “improved” source within 1 kilometer 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.

In 2012, approximately 99.8% of the population was connected to the central water supply system, whereas an almost negligible number of households operated their own small-scale water supplies

⁵ Enterohaemorrhagic *E. coli*.

Percentage of groundwaters falling into class ⁸	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

Percentage of surface water classified as of	Baseline value (specify the year)	Current value (2009)
High status		0 %
Good status		10.61 %
Moderate status		45.54 %
Poor status		11.71 %
Bad status		32.14 %

Chemical status of surface water

Percentage of surface water classified as of	Baseline value (specify the year)	Current value (2009)
Good status		56.27 %
Poor status		43.73 %

Status of groundwaters

Percentage of groundwaters classified as of	Baseline value (specify the year)	Current value (2009)
Good status		60 %
Poor status		40 %

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 (2011)	Current value (2012)
Agriculture	0.49 million m ³ *	0.24 million m ³ *

⁸ Rename and modify the number of rows as requested by the national classification system

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 goal is to provide drinking water of a good quality and in sufficient quantity. The quality of the drinking water should be in accordance with the EU DWD 98/83/EC, art 4. 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. 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.

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 communities).

A water safety plan, which should identify preliminarily the weaknesses of the provisioning system and allow for a proactive stance is under development.

3. Briefly 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 communities. In the long term, we expect to increase the quality of the distributed water and reduce the incidents which are mainly punctual and short-lived bacterial contaminations.

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.

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 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 DWD 98/83/EC art 4. 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. 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.

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 the 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 of a provision of sufficient quantities meeting the quality set by national regulation (Règlement grand-ducal du 7 octobre 2002 relatif à la qualité des eaux destinées à la consommation humaine).

3. Briefly 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 targets date have already been adopted, please describe them.

No.

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

3. Briefly assess the progress achieved towards the target.

XXX

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.

XXX

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 (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.

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

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 chapter IV point 2.

3. Briefly 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 to 148.500 inhabitants.

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.

VIII. APPLICATION OF RECOGNIZED GOOD PRACTICE TO THE MANAGEMENT OF SANITATION (ART. 6, PARAGRAPH 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 such target.

Luxembourg has to comply with the European Directive regarding Urban Waste Water Treatment (91/271/EC). Collecting systems shall take into account 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. 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.

XXX

3. Briefly assess the progress achieved towards the target.

XXX

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.

**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.

Luxembourg has to comply with the European Directive concerning Urban Waste Water Treatment (91/271/EC). Collecting systems shall take into account 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. 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.

Luxembourg is replacing storm water overflow 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).

3. Briefly assess the progress achieved towards the target.

New housing projects are planned with separate sewage systems. The set-up of such a system allows a separation of the sanitary sewage collection from that of stormwater collection.

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.

**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.

Not applicable

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 legal basis of the use of sewage sludge is regulated by the 'Règlement grand-ducal du 14 avril 1990 relatif aux boues d'épuration'.

3. Briefly assess the progress achieved towards the target.

In 2011, 46,7% of the sewage sludge was used in the agriculture sector, 43,2% was reused as compost and finally 10,1% 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 targets date have already been adopted, please describe them.

XXX

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

**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.

The quality of water distributed as drinking water is regulated by EU DWD 98/83/EC art 4. 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. 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.

The overall quality of the drinking water is sufficient. The quality of water taken from surface waters as well as extracted from ground water bodies is closely monitored regarding qualitative parameters.

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.

**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.

Not applicable

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.

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

A soil protection law is currently being developed 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. 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.

XX. ADDITIONAL NATIONAL OR LOCAL SPECIFIC TARGETS

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

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 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: André WEIDENHAUPT

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Name and address of national authority:

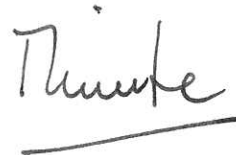
Ministère du Développement durable et des Infrastructures
Département de l'Environnement
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Signature:

Pour la Ministre de l'Environnement

André WEIDENHAUPT

Premier Conseiller de Gouvernement



Date: October 29, 2014

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.

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