

Template for summary reports in accordance with article 7 of the Protocol on Water and Health adopted by the Meeting of the Parties at its second session (Bucharest, 23-25 November 2010)

Part One

General aspects

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

YES NO IN PROGRESS

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

Targets and target dates are based on EU legislation and on Treaty of Accession to the European Union. All the requirements of these documents are transposed into Estonian legislation. There was no specific process for public participation in setting targets and target dates, but relevant information concerning water and health is always provided to the public by the competent authorities.

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 Estonia the responsibility for implementing Protocol on Water and Health is divided between the Ministry of the Environment and the Ministry of Social Affairs

Under the authority of the Ministry of the Environment falls the responsibility for assuring and preserving the quality of the water (both ground water and surface water), which is to be used as a source of drinking water. The Ministry of the Environment is responsible for the following government functions: protection of the national environment and of nature; maintenance of the land and spatial databases; natural resources including estimation of the their quantities and regulation of their use, recycling, and protection; radiation safety; surveillance over the environment; organisation of meteorological, geological, cartographic, geodesic surveys and ecological/marine research; maintenance of the land and water cadastres; and drafting of legislation regarding these areas. In other words, the responsibility of the Ministry of the Environment is to organise and coordinate environmental policy.

Under the authority of the Ministry of Social Affairs falls the responsibility for protecting the health of the population and coordinating activities in this area. The Ministry drafts legislation aimed at assuring a healthful human environment, as well as strategies and policies to advance the same. The Health Board is a subsidiary agency of the Ministry of Social Affairs which is responsible for surveillance of drinking water and bathing water quality.

In Estonia, the arrangements for co-operation between the ministries and other competent authorities work well. Drinking water safety has been included in several national strategies: Environmental Strategy until year 2013, Oil shale Strategy 2008 to 2015, Radiation Protection National Strategy 2008 to 2017. Estonia has Public Health Strategy for 2009-2020 in which drinking water quality is addressed.

Estonia as a member of the European Union must implement the EU water policy. The aim and idea of the Protocol coincide a lot with the water policy in the EU. Estonian targets that are set are based on EU directives and on Treaty of Accession to the European Union.

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

Drinking water

In Estonia the responsibility for implementing Council Directive 98/83/EU is divided between the Ministry of the Environment and the Ministry of Social Affairs, specifically the latter's subsidiary agency, the Health Board (until 01.01.2010 Health Protection Inspectorate).

Legislation

The requirements of Council Directive 98/83/EU are promulgated in Estonian law in the Public Health Act, the Water Act, and regulations passed in implementation of these.

The Water Act is a framework law, which establishes the organisation of water protection and water use in Estonia. It specifies the basic conditions and responsibilities with regard to water use, the activities needed for protection of water supplies and the protection of water supply zones, and sets the procedure for estimating supplies of ground water.

The Public Health Act lays down basic requirements for health protection and the human environment, including the provision that drinking water must be safe with respect to human health and must meet quality requirements.

Regulations of the Minister of Social Affairs and the Minister of the Environment detail the requirements for quality and control of drinking water. These include in full all the purposes, responsibilities and requirements prescribed in the drinking water directive.

The regulations of the Minister of Social Affairs and the Minister of the Environment are as follows:

- (a) Regulation 82 (31 July 2001) of the Minister of Social Affairs: "Quality and control requirements for drinking water and methods for testing"
- (b) Regulation 152 (21 December 2002) of the Minister of Social Affairs: "Procedure for applying for, issuing, altering, suspending, and revoking licences for sale of drinking water which does not meet quality requirements but is not hazardous to health"
- (c) Regulation 58 (4 April 2003) of the Minister of Social Affairs: "Procedure for certifying persons who sample drinking water"
- (d) Regulation 1 (2 January 2003) of the Minister of Social Affairs: "Quality and control requirements for surface water and ground water) to be used or potentially used for production of drinking water"
- (e) Regulation 18 (26 March 2002) of the Minister of the Environment: "Procedure for issuing, altering, and revoking permits and temporary permits for the special use of water, list of materials which must be submitted in support of application, and forms for the permit"

Quality and control requirements for surface water which is to be used or may potentially be used for production of drinking water are in accordance with the responsibilities and requirements laid down in directives 79/869/EEC and 75/440/EEC.

Quality and control requirements for ground water which is to be used or may potentially be used for production of drinking water have been set at the national level such that the justification for precautions is described, the safety of drinking water is assured, contamination is rapidly detected, and deterioration of water quality is avoided at the level of the faucet.

Quality and control requirements for surface water and ground water which is to be used or may potentially be used for production of drinking water are laid down in the following regulations:

- 1.Regulation 1 (2 January 2003) of the Minister of Social Affairs: "Quality and control requirements for surface water and ground water which is to be used or may potentially be used for production of drinking water"
1. Regulation 18 (26 March 2002) of the Minister of the Environment "Procedure for issuing, altering, and revoking permits and temporary permits for the special use of water, list of materials which must be submitted in support of application, and forms for the permit"

Bathing Water

In Estonia the responsibility for implementing Council Directive 2006/7/EU is divided between the Ministry of the Environment and the Ministry of Social Affairs, specifically the latter's subsidiary agency, the Health Board (until 01.01.2010 Health Protection Inspectorate).

Under the authority of the Ministry of the Environment falls the responsibility for assuring and preserving the quality of the water.

Under the authority of the Ministry of Social Affairs falls the responsibility for protecting the health of the population and coordinating activities in this area.

The Water Act is a framework law, which establishes the organisation of water protection and water use in Estonia. It specifies the basic conditions and responsibilities with regard to water use.

The Public Health Act lays down basic requirements for health protection and the human environment, including the provision that bathing water must be safe with respect to human health and must meet quality requirements.

Regulation of the Government No 74 (03.04.2008) "Requirements for bathing water and bathing places" establishes requirements for bathing places, for bathing water quality, monitoring, classification, quality management and reference methods, also establishes the provision of information to the public.

Sanitation

Estonia must ensure waste water treatment according to Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment.

The Ministry of the Environment is responsible for implementation of this directive.

Requirements of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment are transposed into Estonian legislation. This means that the requirements are set in Water Act and also in Government and ministerial regulations issued under the Water Act. Sanitation issues are regulated by:

1. Water Act
2. Public Water Supply and Sewerage Act
3. Regulation No. 269 (31 July 2001) of the Government of the Republic of Estonia "Requirements for Waste Water Discharged into Water Bodies or into Soil"
4. Regulation No 78 (24.05.2004) of the Minister of the Environment "Requirements for using sewage sludge in agriculture, green area creation and recultivation".
5. Was cost-benefit analysis of targets set performed, and if so how?

Cost-benefit analysis of targets was not performed.

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?

Same answer, as in point two.

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.

This report was prepared by the Health Board, the Ministry of Social Affairs and the Ministry of Environment.

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).

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.

According to the Emergency Act the drinking water supply and sewage are vitally important sectors.

Local government is responsible for continuity of the drinking water supply and of sewage handling.

The Emergency Act gives the Ministry of Social Affairs the responsibility for continuing surveillance over drinking water safety during an emergency situation.

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 below:

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

89,6% of population (01.01.2013) (Total population - 1 286 540 - 2012)

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

Both, rural and urban.

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

Samples were mostly taken from point of consumption and also from distribution system.

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.²

Council Directive 98/83/EU Drinking Water

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 In order to ensure consistency and quality of the data sets resulting from sampling programmes, countries may wish to consider ensuring compliance with appropriate international standards for sampling programmes. Examples of such international standards are the ISO 5667 family of standards, in particular:

- 5667-1:2006 Guidance on the design of sampling programmes and sampling techniques;
- 5667-3:2003 Guidance on the preservation and handling of water samples;
- 5667-5:2006 Guidance on sampling of drinking water from treatment works and piped distribution systems;
- 5667-11:2009 Guidance on sampling of groundwaters.

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*.

<i>WatSan_S2</i>	<i>Baseline value (2009)</i>	<i>Current value (2012)</i>
E. coli	1,5%	0,8%
Enterococci	3,2%	0,7%

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:

- Fluoride;
- Nitrate and nitrite;³
- Arsenic;
- Lead;
- Iron.

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

<i>Substance</i>	<i>Baseline value (2009)</i>	<i>Current value (2012)</i>
Fluoride	22,97%	12,8%
Nitrate and nitrite	0%	0%
Arsenic	0%	0%
Lead	0%	0%
Iron	37,96%	28,7%
Additional physico-chemical ⁴ parameter 1: Manganese	15,64%	21,2%
Additional physico-chemical parameter 2: Ammonium	5,8%	4,46%
Additional physico-chemical	19,1%	5,2%

³ As defined in the WHO Guidelines for drinking-water quality.

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

parameter 3: Boron		
Additional physico-chemical parameter 4: Pesticide____	0%	0%
Additional physico-chemical parameter 5: Benzo(a)pyrene	0%	0%

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

In filling out the following table, please specify if the numbers reported are related to all exposure routes or only related to water (in which there is epidemiological or microbiological evidence for water to have facilitated infection).⁵

	<i>Incidence(all exposure routes)</i>		<i>Number of outbreaks (related to water)</i>	
	<i>Baseline (2009)</i>	<i>Current value (2012)</i>	<i>Baseline (2009)</i>	<i>Current value (2012)</i>
Cholera	0	0	0	0
Bacillary dysentery (shigellosis)	52	34	0	0
EHEC ^a	4	8	0	0
Viral hepatitis A	19	63	0	0
Typhoid fever	3	2	0	0

^a Enterohaemorrhagic E. coli.

⁵ If possible, please distinguish between autochthonous and imported cases

III. Access to drinking water

<i>Percentage of population with access to drinking water</i>	<i>Baseline value (2009)</i>	<i>Current value (2012)</i>
Total	87%	89,6%
Urban		
Rural		

Please specify how access to drinking water is defined and calculated in your country.

Only waterworks with over 50 consumers or production of more than 10 cubic meter drinking water per day are shown in the table.

The WHO/UNICEF⁶ Joint Monitoring Programme (JMP) for Water Supply and Sanitation defines access to water supply in terms of the types of technology and levels of service afforded. Access to water-supply services is defined as the availability of at least 20 litres per person per day from an “improved” source within 1 kilometre of the user’s dwelling. An “improved” source is one that is likely to provide “safe” water, such as a household connection, a borehole, a public standpipe or a protected dug well.

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

Defining the availability of access to water to mean at least 20 liters per person per day from an “improved” source within 1 kilometer of the user’s dwelling, then approximately 100 % of Estonian population has access to improved drinking water.

According to Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, ‘Water intended for human consumption` means:

(a) all water either in its original state or after treatment, intended for drinking, cooking, food preparation or other domestic purposes, regardless of its origin and whether it is supplied from a distribution network, from a tanker, or in bottles or containers;

(b) all water used in any food-production undertaking for the manufacture, processing, preservation or marketing of products or substances intended for human consumption unless the competent national authorities are satisfied that the quality of the water cannot affect the wholesomeness of the foodstuff in its finished form; “domestic distribution system” shall mean the pipework, fittings and appliances which are installed between the taps that are normally used for human consumption and the distribution network but only if they are not the responsibility of the water supplier, in its capacity as a water supplier, according to the relevant national law.

This Directive shall not apply to water intended for human consumption from an individual supply providing less than 10 m³ a day as an average or serving fewer than 50 persons, unless the water is supplied as part of a commercial or public activity.

Therefore this report does not contain any data concerning private small waterworks.

⁶

IV. Access to sanitation

<i>Percentage of population with access to sanitation</i>	<i>Baseline value (2009)</i>	<i>Current value (2010)</i>
Total	81%	81,6%
Urban		
Rural		

Please specify how access to sanitation is defined and calculated in your country.

Public water supply and sewerage system means a system of structures and equipment by which others' properties are supplied with water and by which wastewater is led off; and which is administered by a water undertaking or serving more than 50 persons. Public water supply and public sewerage system separately or both together are deemed to be public water supply and sewerage system. Structures and equipment for leading off rain water, drainage water and other soil and surface water are deemed to be part of a public water supply and sewerage system unless the local government decides otherwise. A public water supply and sewerage system may be in the ownership of a legal person in public law or a person in private law.

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 water⁷ falling under each defined class (e.g., in classes I, II, III, etc. for non-EU countries; for EU countries, the percentage of surface waters of high, good, moderate, poor and bad ecological status, and the percentage of groundwaters/surface waters of good or poor chemical status).

For non-European Union Countries

Status of surface waters

<i>Percentage of surface water falling under class^a</i>	<i>Baseline value (specify the year)</i>	<i>Current value (specify the year)</i>
I		
II		
III		
IV		
V		
Total number/volume of water bodies classified		
Total number/volume of water bodies in the country		

^a Rename and modify the number of rows to reflect the national classification system.

Status of groundwaters

<i>Percentage of groundwaters falling under class^a</i>	<i>Baseline value (specify the year)</i>	<i>Current value (specify the year)</i>
I		
II		
III		
IV		
V		
Total number/volume of groundwater bodies classified		
Total number/volume of groundwater bodies in the country		

^a Rename and modify the number of rows to reflect the national classification system.

⁷ Please specify.

For European Union countries**Ecological status of surface water bodies**

<i>Percentage of surface water classified as:</i>	<i>Baseline value 2009</i>	<i>Current value 2011</i>
High status	2%	1%
Good status	51%	52%
Moderate status	19%	18%
Poor status	3%	3%
Bad status	0%	0%
Good potential	18%	20%
Moderate potential	6%	5%
Poor potential	1%	1%
Total number/volume of water bodies classified	748	749
Total number/volume of water bodies in the country	750	750

Chemical status of surface water bodies

<i>Percentage of surface water bodies classified as</i>	<i>Baseline value 2009</i>	<i>Current value 2009</i>
Good status	99%	99%
Poor status	1%	1%
Total number/volume of water bodies classified	750	750
Total number/volume of water bodies in the country	750	750

Status of groundwaters

<i>Percentage of groundwaters classified as</i>	<i>Baseline value 2009</i>	<i>Current value 2012</i>
Good quantitative status	96%	96%
Good chemical status	96%	96%
Poor quantitative status	4%	4%
Poor chemical status	4%	4%
Total number/volume of groundwater bodies classified	25	25
Total number/volume of groundwater bodies in the country	25	25

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).

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.

At national level

<i>Water exploitation index</i>	<i>Baseline value (specify the year)</i>	<i>Current value (specify the year)</i>
Agriculture	0,00206% (2009)	0,00378% (2011)
Industry ^a	0,00177% (2009)	0,00186% (2011)
Domestic use ^b	0,00259% (2009)	0,00303% (2011)

^a These figures do not include water abstraction for cooling purposes in energy sector, but includes water abstraction for cooling purposes in other industry sectors

^b These figures only refer to public water supply systems

Part Three

Targets and target dates set and assessment of progress

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.

Starting with Estonia's accession to the EU (i.e., 1 May 2004), Estonia has had to assure the quality of drinking water and its monitoring and informing of public according to Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.

But in Estonia there is also a derogation period regarding indicators agreed upon during accession discussions; these and their expiration dates may be found in Treaty of Accession to the European Union 2003, specifically in Annex VI to the Treaty. These exceptions are as follows:

a) Estonia will not be required to achieve the required limit concentrations for colour, hydrogen ion concentration, iron, manganese, odour, and turbidity:

until 31 December 2007 at water works which supply drinking water to more than 2000 persons;

until 31 December 2013 at water works which supply drinking water to fewer than 2000 persons.

b) Estonia will not be required to achieve the required limit concentrations for chlorides, electrical conductivity, and sulphates:

until 31 December 2008 in communities of more than 2000 population;

until 31 December 2013 in communities of fewer than 2000 population.

The remaining quality indicators must conform to limit concentrations as of 1 May 2004. The directive however offers the possibility of requesting a derogation with respect to an indicator which does not conform to limit concentration. Such a derogation may be requested three times. The first two times the European Commission needs only to be informed; the third time the approval of the European Commission is needed. The reason for the requested derogation must be submitted to the European Commission along with an action plan. The derogation may not last longer than three years. Estonia has requested such a derogation for fluoride, trihalomethans and boron. The first derogation for fluoride was during the period 2006-2008 and the second is during 2009-2011. Currently the application for third derogation for fluorides has been submitted. Derogation period for trihalomethans was 2009-2011 and for boron also 2009-2011. Estonia informed European Commission for second derogation for boron. „Derogation period“ here means that the Health Board does not apply sanctions on the drinking water producer if the parameter exceeds limit value, just that the drinking water producer has time to resolve the problem.

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.

Requirements of Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption are transposed into Estonian legislation. This means that the requirements are set in Water Act and in Public Health Act and also in Government and ministerial regulations issued under the Water Act and Public Health Act. In order to fulfil the requirements given by Council Directive 98/83/EC a lot of money (state budget, EU funds, drinking water producer's own money) has been invested in order to ensure required quality of drinking water. Drinking water producers have to monitor drinking water quality. Surveillance monitoring is performed by Health Board. Consumers have access to data on their water quality via Health Board's homepage linked to Health Board's Water and Health Safety Information System.

Estonia has Public Health Strategy for 2009-2020 in which drinking water quality is addressed.

3. Assess the progress achieved towards the target.

According to latest data (data for the year 2012) 89,6% of population in Estonia is supplied by a central drinking water supply system, others have their own private wells. 87,7% of these who are connected to drinking water supply systems get water that meets the requirements of drinking water quality. In Estonia drinking water supply systems are divided into two: 1) systems that serve more than 2000 people and 2) systems that serve less than 2000 people. In 2012 there were 53 drinking water supply systems that serve more than 2000 people; 49 of them meet the drinking water quality requirements. Drinking water supply systems that serve less than 2000 people are problematic: 770 drinking water supply systems of 1052 meet the requirements

In cooperation of Ministry of the Social Affairs and Health Board "Water and Health Safety Information System" has been taken into use. This system allows water producers to send data about their water quality via internet to Health Board inspectors. Health Board uses this system to create reports about waterworks and bathing waters.

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.

It is not necessary to change the targets and target dates although during the revision of Council

Directive 98/83/EC some limit values of some parameters will be revised.

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.

According to the Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, Member States shall take the measures necessary to ensure that water intended for human consumption is wholesome and clean. For the purposes of the minimum requirements of this Directive, water intended for human consumption shall be wholesome and clean if it: (a) is free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health, and (b) meets the minimum requirements set out in directive Annex I, Parts A and B;

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 fulfil the requirements given by Council Directive 98/83/EC, a lot of money (state budget, EU funds, drinking water producers own money) has been invested in order to ensure required quality of drinking water. Drinking water producers have to monitor drinking water quality. Surveillance monitoring is performed by Health Board.

3. Assess the progress achieved towards the target.

There are no drinking water supply systems in Estonia which constantly fail to meet the requirements of microbiological parameters. Temporary deviations from required microbiological parameters have been noted in 0,036% of water works under surveillance. Mostly these deviations from requirements come up when there are some technical problems in the water supply. Due to implementation of improved methods and government monitoring, there have been no outbreaks associated with drinking water during the past 17 years.

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.

Current target dates do not need to be revised. Targets for next period are being discussed by competent authorities.

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

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.

Targets concerning improvement of access to drinking water are laid down in the Environmental Strategy 2030 (approved by the Parliament of Estonia on 14.02.2007) art 5.4: Goal: Drinking and bathing water must be safe Information for the public is available. Public must be informed about drinking and bathing water quality. Indicators: Increasing of the total number of persons who have access to a centralized drinking water supply system (baseline 87%).

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 increase the total number of persons who have access to a centralized drinking water supply system, a lot of investments have been made, including money from the state budget, EU funds, as well as drinking water producers themselves.

3. Assess the progress achieved towards the target.

89,7% of total population in 2012 had access to drinking water supply system; the remainders have private wells.

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.

Current target dates do not need to be revised. Targets for next period are being discussed by competent authorities.

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.

Estonia must ensure waste water treatment according to Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment. The requirements for Estonia on the Treaty of Accession to the European Union differ somewhat from those in Council Directive 91/271/EEC:

1) Estonia must ensure waste water treatment in agglomerations with more than 10 000 p.e by 31 December 2009

2) Estonia must ensure waste water treatment in agglomerations with 2000 up to 9999 p.e by 31 December 2010

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.

Requirements of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment is transposed into Estonian legislation. This means that the requirements are set in Water Act and also in Government and ministerial regulations issued under the Water Act. In order to fulfil the requirements given by Council Directive 91/271/EEC much money (state budget, EU funds, own money) was invested in order to ensure required quality of waste water. Surveillance procedures were changed in order to fulfil the monitoring requirements.

3. Assess the progress achieved towards the target.

According to the data for the year 2010 in Estonia has 59 agglomerations by pollution load 1 721 373 PE, 33 (pollution load 1 062 155 PE-61,7%) of waste water collection areas in agglomerations with more than 2000 p.e meet the requirements of Council Directive 91/271/EEC (in view of requirements of waste water purification and public sewerage system). 26 (pollution load 659 218 PE 38,3%) of waste water collection areas in agglomerations with more than 2000 p.e does not meet the requirements of Council Directive 91/271/EEC. Although there is no special requirement for % of people that must be served by a public sewerage system, there is quite good % of people served by a public sewerage system – in 2010 in agglomerations with more than 2000 p.e 93% of population was served by a public sewerage system.

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.

Revising of targets and target dates is impossible, because these are set in Council Directive 91/271/EEC.

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.
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.

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.
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.

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.

According to the Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, Member States shall take all measures necessary to ensure that regular monitoring of the quality of water intended for human consumption is carried out, in order to check that the water available to consumers meets the requirements of this Directive and in particular the parametric values set in accordance with Article 5. Samples should be taken so that they are representative of the quality of the water consumed throughout the year. In addition, Member States shall take all measures necessary to ensure that, where disinfection forms part of the preparation or distribution of water intended for human consumption, the efficiency of the disinfection treatment applied is verified, and that any contamination from disinfection by-products is kept as low as possible without compromising the disinfection.

- a. To meet the obligations imposed in paragraph 1, appropriate monitoring programmes shall be established by the competent authorities for all water intended for human consumption. Those monitoring programmes shall meet the minimum requirements set out in Annex II.
- b. The sampling points shall be determined by the competent authorities and shall meet the relevant requirements set out in Annex II.

According to the Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, Member States may be exempt from the provisions of this Directive if water intended for human consumption comes from an individual supply providing less than 10 m³ a day as an average or serving fewer than 50 persons, unless the water is supplied as part of a commercial or public activity.

According to the Water Act the regular monitoring of the quality of water is the water producer's responsibility.

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.

Concerning to the water intended for human consumption from an individual supply providing less than 10 m³ a day as an average or serving fewer than 50 persons, the Health Board worked out the guideline for small individual water supply (available on the Health Board web-page).

During 2009-2011 service standard was created by Health Board for Drinking water producers for monitoring programs according to Council Directive 98/83/EU

3. Assess the progress achieved towards the target.

“Water and Health Safety Information System” has been developed. Allowing water producers and Health Board to manage data of waterworks more easily. Water producer can send their self-control analyze results to Health Board via internet, so Health Board has better overview of waterwork’s water quality.

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.

Current target dates do not need to be revised. Targets for next period are being discussed by competent authorities.

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

Targets have not been set because responsibilities of the water producer are set in Water Act and Public Water Supply and Sewerage Act.

According to the Water Act water producer is responsible for:

- guaranteeing that drinking water conforms to the quality requirements
- presenting information regarding such quality to the consumer and to government surveillance workers
- assuring the performance of check and audit monitoring of all water within its system or issuing from its system, in accordance with the requirements of directive
- composing a drinking water monitoring schedule covering at least three years and submit this for approval of its local health protection service
- carrying out additional investigations when contamination is suspected as the cause of deviation from required values
- investigating the causes of deviation from required values

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

For each target set in this area:

5. 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.
6. 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.
7. Assess the progress achieved towards the target.
8. 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.
9. If you have not set a target in this area, please explain why.

Responsibilities of “water undertaking” are set in Water Act and Public Water Supply and Sewerage Act “water undertaking” means a legal person in private law who supplies the water supply of the registered immovable of a client through the public water supply with water which shall comply with the established requirements, or organises discharge of waste water from the sewerage facilities of the client.

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.

According to regulation No. 99 “Requirements for Waste Water treatment and Waste Water and Storm Water management, Waste Water and Storm Water pollution indicators and verification measures” of 29 November 2012 of the Government of the Republic of Estonia all waste water that is discharged into water body or into soil must meet the purification requirements set out in the regulation.

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 this regulation there are set parameters and their limit values which treated waste water must meet.

Each company or person who discharges purified waste water into soil or into water body has to have a special permit, where is stated elements and their limit values which purified waste water must meet and also monitoring requirements in order to be sure that purified waste water meet the requirements. Monitoring is organised by company or person who discharges purified waste water into soil or into water body, supervision is made by Environmental Inspectorate. In order to meet the requirements of the Governmental regulation also attestation of the persons who take samples and accreditation and intercalibration of laboratories that make analyses is carried out in order to ensure quality of analyses.

3. Assess the progress achieved towards the target.

As a result of rising awareness of companies and persons who discharge waste water into soil or into water body and as a result of supervision made by Environmental Inspectorate on the one hand and investments that are made in order to ensure waste water treatment to the requirements on the other hand, the situation is getting better in view of occurrence of discharge of untreated waste water.

According to the data for the year 2010 in Estonia has 59 agglomerations by pollution load 1 721 373 PE, 33 (pollution load 1 062 155 PE-61,7%) of waste water collection areas in agglomerations with more than 2000 p.e meet the requirements of Council Directive 91/271/EEC (in view of requirements of waste water purification and public sewerage system). 26 (pollution load 659 218 PE 38,3%) of waste water collection areas in agglomerations with more than 2000 p.e does not meet the requirements of Council Directive 91/271/EEC. Although there is no special requirement for % of people that must be served by a public sewerage system, there is quite good % of people served by a public sewerage system – in 2010 in agglomerations with more than 2000 p.e 93% of population was served by a public sewerage system.

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.

Revising of targets and target dates is impossible, because these are set in Council Directive 91/271/EEC.

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.

According to regulation No. 99 “Requirements for Waste Water treatment and Waste Water and Storm Water management, Waste Water and Storm Water pollution indicators and verification measures” of 29 November 2012 of the Government of the Republic of Estonia polluted storm water must be purified so that it will not affect the status of recipient (water body or groundwater). In order to avoid forming of polluted storm water or reducing pollutants in it, roads, fields and other areas within waste water collection area where storm water is discharged away must be cleaned regularly. In Estonia it is allowed to discharge storm water to water body via separate sewage systems if storm water meets the limit values set for dangerous substances and if it meet the requirement that limit values for suspended solids do not exceed 40mg/l and limit value for oil products do not exceed 5 mg/l, for BOD₇ do not exceed 15 mg/l, COD do not exceed 125 mg/l, P_{tot} do not exceed 1 mg/l, N_{tot} do not exceed 45 mg/l. It is not allowed to discharge storm water closer than 200 m from border of bathing place (water bodies with standing water) and for watercourse water bodies 50 m upstream and 200 m downstream from border of bathing place. During heavy rainfalls, storm water collected in a combined sewage system may be discharged into a water body via overflows if the ratio of storm water and waste water is not less than four to one.

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 regulation regulation No. 99 “Requirements for Waste Water treatment and Waste Water and Storm Water management, Waste Water and Storm Water pollution indicators and verification measures” of 29 November 2012 of the Government of the Republic of Estonia there are set requirements for storm water. Each company or person who discharges purified waste water into soil or into water body has to have a special permit, where is stated elements and their limit values which purified waste water must meet and also monitoring requirements in order to be sure that purified waste water meet the requirements. In such a permit there are also requirements for storm water. All the requirements are based on regulation No. 99. Monitoring is organised by company or person who discharges purified waste water into soil or into water body, supervision is made by Environmental Inspectorate. In order to meet the requirements of the Governmental regulation also attestation of the persons who take samples and accreditation and intercalibration of laboratories that make analyses is carried out in order to ensure quality of analyses

3. Assess the progress achieved towards the target.

As a result of rising awareness of companies and persons who are responsible to discharge waste water into soil or into water body and as a result of supervision made by Environmental Inspectorate on the one hand and investments that are made in order to ensure waste water treatment to the requirements on the other hand, the occurrence of discharge of untreated storm water is not a problem.

According to the data for the year 2010 in Estonia has 59 agglomerations by pollution load 1 721 373 PE, 33 (pollution load 1 062 155 PE-61,7%) of waste water collection areas in agglomerations with more than 2000 p.e meet the requirements of Council Directive 91/271/EEC (in view of requirements of waste water purification and public sewerage system). 26 (pollution load 659 218 PE 38,3%) of waste water collection areas in agglomerations with more than 2000 p.e does not meet the requirements of Council Directive 91/271/EEC.

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.

There is no need to change the target.

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.

Estonia must ensure waste water treatment according to Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment. On Treaty of Accession to the European Union there are stated different requirements for Estonia than in Council Directive 91/271/EEC:

1) Estonia must ensure waste water treatment in agglomerations with more than 10 000 p.e by 31 December 2009

2) Estonia must ensure waste water treatment in agglomerations with 2000 up to 9999 p.e by 31 December 2010.

Requirements of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment is transposed into Estonian legislation. This means that the requirements are set in Water Act and also in government and in minister degrees given on the basis of Water Act. Quality requirements for waste water discharges are set in regulation No. 99 “Requirements for Waste Water treatment and Waste Water and Storm Water management, Waste Water and Storm Water pollution indicators and verification measures” of 29 November 2012 of the Government of the Republic of Estonia. In this regulation there are set requirements for the waste water purifying process. Also there are set requirements for pH, dangerous substances and other pollutants to the waste water that is discharged into water body or into groundwater. The regulation also states requirements for controlling implementation of the regulation, this means that there are requirements for monitoring.

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 fulfil the requirements given by Council Directive 91/271/EEC and regulation No. 99 “Requirements for Waste Water treatment and Waste Water and Storm Water management, Waste Water and Storm Water pollution indicators and verification measures” of 29 November 2012 of the Government of the Republic of Estonia a lot of investments (state budget, EU funds, own money) have been done in order to ensure required quality of purified waste water. Also arrangements are done in order to fulfil monitoring requirements. Each company or person who discharges purified waste water into soil or into water body has to have a special permit, where is stated elements and their limit values which purified waste water must meet and also monitoring requirements in order to be sure that purified waste water meets the requirements. All the requirements are based on regulation No. 99. Monitoring is organised by company or person who discharges purified waste water into soil or into water body, supervision is made by Environmental Inspectorate. In order to meet the requirements of the Governmental regulation also attestation of the persons who take samples and accreditation and intercalibration of laboratories that make analyses is carried out in order to ensure quality of analyses.

3. Assess the progress achieved towards the target.

As a result of rising awareness of companies and persons who are responsible to discharge waste water into soil or into water body and as a result of supervision made by Environmental Inspectorate on the one hand and investments that are made in order to ensure waste water treatment to meet the requirements on the other hand, there is a rising trend to meet the requirements set for quality of waste water discharged into surface water and into soil.

According to the data for the year 2010 in Estonia has 59 agglomerations by pollution load 1 721 373 PE, 33 (pollution load 1 062 155 PE-61,7%) of waste water collection areas in agglomerations with more than 2000 p.e meet the requirements of Council Directive 91/271/EEC (in view of requirements of waste water purification and public sewerage system). 26 (pollution load 659 218 PE 38,3%) of waste water collection areas in agglomerations with more than 2000 p.e does not meet the requirements of Council Directive 91/271/EEC.

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.

Revising of targets and target dates is impossible, because these are set in Council Directive 91/271/EEC.

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.

Requirements for the use of sewage sludge in agriculture, green area creation and recultivation are established by a regulation of the Minister of the Environment No 78 "Requirements for using sewage sludge in agriculture, green area creation and recultivation". Sewage sludge is a suspension separated from waste water by using physical, biological or chemical methods. Sewage sludge is divided into two: treated and untreated on the basis of treatment efficiency of organic matter in it. In agricultural purposes only treated sewage sludge use is allowed. According to Waste Act, sewage sludge is waste, person who gives sewage sludge for using it in agriculture, green area creation and recultivation must have special waste permit. Person who uses sewage sludge do not have to have a special waste permit. In the regulation No 78 there are set limit values for heavy metals containing in sewage sludge and in soil. Untreated sewage sludge is allowed to use only in green area creation and recultivation. Sewage sludge is not allowed to use on land where vegetables, berries, medicinal herbs or potherbs grow. Person who gives sewage sludge and person who use sewage sludge must collect and retain data on sewage sludge. Person who gives sewage sludge for use must ensure that all necessary analyses are made in order to be sure that sewage sludge meet the requirements. Person who uses sludge must ensure analysis of soil in order to be sure that soil meet the requirements that are necessary for sewage sludge use.

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 fulfil the requirements given by regulation No. 78 "Requirements for using sewage sludge in agriculture, green area creation and recultivation" there is supervision made by Environmental Inspectorate in order to ensure that person who gives sewage sludge for using it in agriculture, green area creation and recultivation must have a special waste permit. Also inspections are made in order to be sure that requirements for using sewage sludge are met. In order to meet the requirements of the regulation No 78 also attestation of the persons who take samples and accreditation and intercalibration of laboratories that make analyses is carried out in order to ensure quality of analyses.

3. Assess the progress achieved towards the target.

As a result of rising awareness of persons who give sewage sludge for using it or persons who use it and as a result of supervision made by Environmental Inspectorate on the one hand and investments that are made in order to ensure that sewage sludge meet the requirements there is rising trend for meet the requirements.

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.

There is no need to change the target

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.
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.

In Estonia waste water is not used for irrigation purposes, so there are no targets.

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.

Quality and control requirements for surface water and ground water which is to be used or may potentially be used for production of drinking water are laid down in the Regulation 1 (2 January 2003) of the Minister of Social Affairs: "Quality and control requirements for surface water and ground water which is to be used or may potentially be used for production of drinking water"

Surface water

Surface water intended for drinking water is divided into three categories, which are taken into account in processing the water, the first category being the highest quality surface water and the third category the worst. In order to achieve healthful and safe drinking water, processing methods must be implemented which are appropriate to the quality or category of the surface water to be used. If the surface water does not meet quality indicators (recommended as well as required) of any of the categories, it may not be used for drinking water. For category 1 surface water, the simplest processing methods – filtration and disinfection – are adequate for the production of drinking water. For category 2 surface water chemical processing is required – e.g., prior chlorination, coagulation, flocculation. For category 3 surface water the most thorough processing methods must be used – coagulation, flocculation, filtration/decantation, follow-up purification and disinfection. In order to use surface water for production of drinking water, before the potential water source can be put into use it must be under surveillance for one year to confirm the stability of the quality of the water source. To demonstrate stability of the quality, water samples are taken from the same site on a fixed schedule at least 12 times over that year

Surface water is used for the water supply in Tallinn and Narva.

Ground water

Ground water intended for drinking water is also divided into three categories, which are taken into account in processing the water, the first category being the highest quality water and the third category the worst. In order to achieve healthful and safe drinking water, processing methods must be implemented for 2 and 3 category of the ground water to be used. For drinking water production from ground water in quantities less than 500m³ per day, there must be one quality assessment of the ground water before that drinking water source can be taken into use. For drinking water production from ground water in quantities of 500m³ or greater per day, stability of the quality of the drinking water source must be demonstrated by at least two tests for chemical parameters and four tests for microbiological parameters over a period of one year. The quality class of the source water is set in the course of testing; this quality class will determine the processing methods to be used

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 reach the targets there is a requirement in Water Act that every water source must have a sanitary protection zone. The sanitary protection zone of a water intake is an area of land and water surrounding a place where drinking water is abstracted in which activities and movement are

restricted to prevent the deterioration of water quality and protect the water intake constructions.

3. Assess the progress achieved towards the target.

As a result of targets for water used or potentially be used as a source of drinking water and also regulation concerning sanitary protection zones source water quality is under control and suitable for drinking water production.

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.

There is no need to change the target

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.

Requirements for bathing water are set in the regulation of the Government No 74 "Requirements for bathing water and bathing places" (03.04.2008). The requirements of Directive 2006/7/EC are transposed in Estonian law in the Public Health Act, the Water Act, and regulation implementing them in 2008.

According to Health Act the bathing water must be safe for the health. According to regulation No 74, bathing water shall be deemed to conform to the relevant parameters if the bathing water is classified as "sufficient", "good" or "excellent". Also Estonia has set national limits for *Escherichia coli* and intestinal enterococci in Regulation no 74 for assessing every individual bathing water sample. Limit value for *Escherichia coli* is 1000 cfu/100 ml and for intestinal enterococci is 100 cfu/100ml.

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 requirements of Directive 2006/7/EC are promulgated in Estonian law in the Public Health Act, the Water Act, and regulation implementing them in 2008.

Quality and control requirements for bathing water are laid down in the Regulation of the Government No. 74 from 3rd April 2008 "Requirements for bathing waters and bathing sites".

3. Assess the progress achieved towards the target.

Quality requirements and parameters for bathing water, also assessment of bathing water changed in year 2008.

2011

First time bathing water quality was assessed in accordance to assessment rules of the Directive 2006/7/EC in year 2011. According to year 2011 assessment 39 bathing waters classified as "excellent", 11 as "good", 3 as "sufficient" and surprisingly 2 as "poor" quality. Those two bathing waters classified as "poor", because percentile values for E.coli were worse than "sufficient" and "good" values set out in Directive 2006/7/EC Annex I. While percentile values for intestinal enterococci were better than "excellent" and "good". Those bathing waters were classified as "poor" because E.coli value in samples ranged from 1 to 750 cfu/100 ml (limit value is 1000 cfu/100 ml) which caused that the standard deviation, what is used in calculation, was high.

Escherichia coli and intestinal enterococci were analysed in 924 times in 462 samples. Intestinal enterococci exceeded limit values in 21 samples and *Escherichia coli* in 10 samples.

2012

All Estonian bathing waters are classified as "sufficient", "good" or "excellent" in year 2012: 35 bathing waters classified as "excellent", 12 as "good", 5 as "sufficient" and 1 as "new".

Escherichia coli and intestinal enterococci were analysed in 870 times in 435 samples. Intestinal enterococci exceeded limit values in 16 samples and *Escherichia coli* in 3 samples.

Non-compliance with the parameters limit values occurred usually once or twice during the bathing season in some bathing places. Non-compliant samples make ca 2-3% from all the samples.

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.

There is no need to change the target.

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.

In Estonia there are set special quality requirements for natural salmonid and cyprinid waters. These requirements are based on Council Directive 78/659/EEC of 18 July 1978 on the quality of fresh waters needing protection or improvement in order to support fish life.

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 fulfil the requirements stated in the Council Directive 78/659/EEC these requirements from directive are transposed into Estonian law by a Water Act and by regulation of the Minister of the Environment No 58 and No 73. There are requirements for water chemical quality, monitoring and requirements for physical quality of water body (restrictions for damming). This means that there is approved special list of salmonid and cyprinid water bodies for which are set special requirements for chemical and physical quality of water body. For the list there are set limit values for various water quality parameters, monitoring requirements and restrictions for damming and water level. In Estonia there is also approved by the Government of Estonia special investment programme for dealing with dams on salmonid rivers in order to ensure that fish can pass through these dams. Besides that in Estonia there is also another financial resource (Environment Investment Centre), where is possible to apply finances in order to ensure good quality of water body, including finances for ensuring that fish can migrate through dams.

3. Assess the progress achieved towards the target.

As in Estonia there has already made investments for waste water treatment and for ensuring good status of water bodies there is no big problems with chemical quality of salmonid and cyprinid waters but a lot of work has to be done in order to ensure that dams on salmonid rivers are in such condition that fish can migrate through dam.

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.

There is no need for change the target.

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.
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.

There are no enclosed waters generally available for bathing in Estonia.

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.

In order to ensure good groundwater and surface water quality, contaminated sites must be cleaned.

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 Estonia there is about 300 contaminated sites. In environmental register there is information on 75 most important contaminated sites. There are shown locations on the map and described hazardousness of the contaminated sites to environment and human.

In order to ensure good groundwater and surface water quality there is an investment plan for the years 2009-2013 approved by the Government of Estonia to remediate contaminated sites. During this period 14 most important contaminated sites will be remediated. All objects are on the list of top 75 important contaminated sites.

Besides this investment plan, there is also possible to apply finances from Environment Investment Centre to remediate contaminated sites. By the end of 2012 31 contaminated sites from TOP75 list were remediated or made safe from finances by Environment Investment Centre.

After the remediation process, there will be monitoring programme on the cleaned sites.

According to Water Act, the status of polluted, or poor or bad, water shall be remedied by the polluter or, if it is not possible to determine the polluter, by the owner of the water body or, in the case of an aquifer, by the state.

Requirements for liquidation of polluted areas and monitoring requirements of these areas are stated in Environment Liability Act.

According to Waste Act, pollution with waste on state owned land must be liquidated by Environmental Board, but this does not include liquidation of contaminated soil. There is a plan to regulate contaminated soil issues in Water Act. Before the regulation we have to renew the list of contaminated areas and also look over the potential risks (environmental and health risks) of sites and the investment needs.

3. Assess the progress achieved towards the target.

There is Governmental action plan in order to ensure the target. According to the plan 14 most important contaminated sites will be cleaned during 2009-2013. Besides this investment plan, there is also possible to apply finances from Environment Investment Centre to remediate contaminated sites. By the end of 2012 38 objects which were on TOP 75 list were remediated financed by Environment Investment Centre. By the end of 2013 the number of remediated sites must be over 47. And by the end of 2015 our target is to clean up or make safe more than 52 areas from TOP 75 objects.

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.

Targets and target date are set not long time ago, so there is not yet information on necessity to change the target and target date.

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.

Targets on water management are set in Water Act. These are based on EU Water Framework Directive 2000/60/EU. Measures for water protection and use shall be planned in the water management plan of a river basin or sub-river basin, which shall be taken into consideration in the compilation, review or revision of the public water supply and sewerage development plan, comprehensive plan and detailed plan of the local government. A river basin or a sub-river basin is an area of land or water in a circular boundary which is made up of one or more catchment areas together with groundwater or coastal waters and which is designated as the main unit for the management of catchment areas. River basins and sub-river basins to be covered by a water management plan shall be designated and their water management plans shall be approved by the Government of the Republic. The objective of a water management plan is to ensure sustainable development and a class of water which is as natural as possible, and to maintain the quality, quantity and water flows of seawater, surface water and groundwater in a condition on which human impact is the minimum possible by complying with the quality requirements resulting from the peculiarities of water use and protection. This target has to be achieved by 22.12.2015. This requirement is from EU Water Framework Directive 2000/60/EU.

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 decree by Government of Estonia, there are 3 river basins and 9 sub-river basins. Coordination of compilation of river basin water management plans is responsibility of Ministry of

the Environment and compilation of sub-river basin water management plans is responsibility of Environmental Board. All data that is collected and prepared during the process of compilation of water management plans is processed and stored in Estonian Environment Information Centre. There was formed water management plan compilation commission which task is to ensure compilation of water management plans in river basins and sub river basins by unified principles and unified action. Water Management plans for Estonian river basins were approved by Government on 1.April 2010. They are available on the web site of Ministry of the Environment

3. Assess the progress achieved towards the target.

Sub-river basin water management plans are approved, river basin management plans are also approved and publicly available. Implementation of the plans is in process.

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.

Targets are from EU Water Framework Directive, so it is impossible to change 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.
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 article 9 on public awareness, education, training, research and development and information; article 10 on public information; article 11 on international cooperation; article 12 on joint and coordinated international action; article 13 on cooperation in relation to transboundary waters; and article 14 on international support for national action.

This analysis or synthesis should provide a succinct overview of the status 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.

In the field of water and health, the situation in Estonia is improving via setting new national targets. The Ministry of Social Affairs has composed the Estonian National Health Plan. The National Health Plan (hereafter referred to by its Estonian acronym, ERTA) is designed to ensure that the people of Estonia live longer, happier, healthier lives. This is something that can only be achieved if everyone works together: not just the people who live in the country, but also the state, local governments and the private and third sectors. ERTA provides recommendations and indicates the directions we should be taking in the name of good health and brings all of the tasks that lie before us together. It also assembles a large number of strategic documents which have already been implemented or which are soon to be implemented in other fields that have a role to play in achieving ERTA's objective. ERTA sets targets regarding drinking water and health (there is also target for waste water). In the next period of target setting regarding the Protocol, we can use ERTA and the Protocol to work together achieving goals on water and health. Targets for next period are being discussed by competent authorities.

Another important achievement in 2012 was the Water and Health Safety Information System. The system was worked out and taken into use out by the Ministry of Social Affairs and the Health Board. The system allows water producers to send data about their water quality via internet to Health Board inspectors. Health Board uses this system to create reports about waterworks and bathing waters. The public and consumers have access to data on their water quality via Health Board's homepage linked to Health Board's Water and Health Safety Information System. This system yet needs some improvement and further development but we are sure it is a good tool for implementing the Protocol on Water and Health.

Consistent work on drinking water safety has lead to drinking water quality improvement in most parameters. 2.6% more consumers than in 2009 get their drinking water from central waterworks. There has been no water related outbreaks in the recent years and this is clear sign of well working water quality supervision.

According to the data for the year 2010 in Estonia has 59 agglomerations by pollution load 1 721 373 PE, 33 (pollution load 1 062 155 PE-61,7%) of waste water collection areas in agglomerations with more than 2000 p.e meet the requirements of Council Directive 91/271/EEC (in view of requirements of waste water purification and public sewerage system). 26 (pollution load 659 218 PE 38,3%) of waste water collection areas in agglomerations with more than 2000 p.e does not meet the requirements of Council Directive 91/271/EEC. Although there is no special requirement for % of people that must be served by a public sewerage system, there is quite good % of people served by a public sewerage system – in 2010 in agglomerations with more than 2000 p.e 93% of population was served by a public sewerage system.

In the course of 1992-2010, the pollution load on water bodies resulting from the waste water of urban areas and from the industry has decreased considerably. While during the first five years of that period pollution decreased due to the drop in production and water consumption of the population, during the last decade good progress has been made mainly by building new treatment plants and renovating old ones. A noticeable change for the better has taken place in the water quality of water bodies. In the 1960s-1980s, the main problem with water bodies in Estonia was the low quality of water, but now there are only a small number of rivers where the limiting factor to biota is the quality of water. Most of the waste water (about

60%) in Estonia is discharged to the coastal seas, as majority of the population and industry are concentrated to seaside towns. Almost all the rest of waste water is discharged into rivers and lakes, and only a fraction goes to surface or groundwater and it is treated as required.

To meet the requirements in 2008-2010 were open 2 EU Fund projects applications rounds, which funded a total of 58 large-scale water and sanitation projects in total cost of 440 million euros. 17 projects running 2009-2015, smaller projects have been implemented more quickly, but the biggest projects will be completed by the end of the period. The projects aim is to ensure the high-quality drinking water and proper treatment of waste water.

Part Five

Information on the person submitting the report

The following report is submitted on behalf of Estonia [name of the Party or the Signatory] in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report:

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Director General

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Signature:

Date:

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 **29 April 2013**. 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.

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