

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.

Taking into account the results of the activities within the Protocol on Water and Health related to setting targets and reporting as well as the national obligations under the EU Directives related to the water field, the process of the targets setting is under development.

The governmental institutions which have a key role in implementation of the Protocol, including the process of target-setting, are:

- *Ministry of Environment and Forests* is responsible for establishing the water resources quality standards and objectives, supervising the regulation of the waste water discharges from human agglomerations and agro-food industries, for the monitoring of the quality of surface water intended for the abstraction of drinking water and ensure the co-ordination of the implementation of drinking water and urban waste water directives and for control of the compliance with the legislation in force.

- *The Ministry of Health* is responsible for approval of legal measures for the quality of drinking waters, for inspection of water supply systems and water treatment, for surveillance and monitoring of drinking water. Its responsibilities include: authorization and inspection of drinking water suppliers, including those from the food industry, assessment of the risk on human health, and restriction of the consumption. Public health authorities are responsible for adequate information of the public, including the measures for public health protection in case of non-compliance.

Other involved governmental institutions/stakeholders:

- *Ministry of Administration and Interior* - centralizes the compliance plans elaborated by water/waste water operators, monitors and controls their implementation;

- *Ministry of Agriculture and Rural Development* – draws up the plan and the schedule for compliance of the food industry producers under the Directive 98/83/EC on the quality of the water intended for human consumption; regulates the field of irrigations, aquaculture.

- *institutions under the Ministry of Environment and Forests* (National Administration Apele Romane, Environmental Agencies, National Environmental Guard, etc)

- *institutions under the Ministry of Health* (National Institute for Public Health and Public Health Directorates)

- *the National Commission for Nuclear Activities Control* - establish the radioactivity parameters, the sampling points;

- *the National Authority for Regulating the Local Management Public Services (ANRSC)* - the national authority that exerts competences and attributions against all operators for local management public services. ANRSC coordinates 8 territorial bodies that serve the 8 regions of the country. It performs the following main activities: issues the operating license that includes the request to set the conformation plan, monitors the water operators, control and verify the operators, identify and accounts the operator, etc;

- *the county compartment of territorial agencies of ANRSC* - the monitoring, in real time, of public utilities services;

- *Local Public Authorities*

- *Water supply and water discharge system operators*; the producer and supplier will carry out the quality control of the drinking water, while the local public health authorities will carry out the quality monitoring of the drinking water;
- *River Basin Committees* (11 RBC organized at the level of each river basin: within these committees there are representatives of the Ministry of Environment and Forests, Ministry of Health through the Public Health Directorates and National Administration Apele Roman, county council, water users, NGO's,etc.)
- *Water Interministerial Committee* having the role to coordinate and to survey the implementation of the programmes for the development of water/waste water infrastructure.
- *Water Romanian Association* is an autonomous and professional, non-governmental and non profit association; it represents the main professional network in the water supply and sanitation field, by supporting the applied research and the information and good practices exchange, in order to assure the sustainable water management in Romania.

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?

See answer from point 1.

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 present report has been prepared by: Ministry of Environment and Forests, Ministry of Health, National Administration "Apele Romane", Public Health Directorates, Romanian Water Association.

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).

There are some constraints related to financial aspects regarding the development of the infrastructure for drinking water and waste water and sanitation.

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

The issue regarding the impact of the climate change on human health will be taken into account according with the Romanian Guide on the Adaptation to the Climate Change Effects.

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 2006, population coverage of the water supplies reported under drinking-water quality indicator is 88% (percent of total national population).

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

This Report contains data about microbiological and chemical quality of drinking water that supply both the urban and rural populations. To be more accurate, this data are obtained from audit and check monitoring of water suppliers who produced or distributed >1000 m³ of water each day within a supply zone.

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.

In this Report, the standards for compliance assessment signify the national standards. National standards for reported parameters did not deviate from the WHO Guideline values. Romania has set parametric values in accordance with 98/83/EC Drinking Water Directive.

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	Current value	
		2006	2007
E. coli	5,75	4,57	3,09
Enterococci	4,64	3,53	2,88

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.

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,
- Arsenic,
- Lead
- Iron.

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

Substance	Parametric value	Baseline value	Current value (please specify the year)	
			2005	2006
Fluoride	1,2 mg/l	0,68	0,96	N/A
Nitrate	50 mg/l	2,62	3,49	3,93
Nitrite	0,5 mg/l	1,14	1,06	0,74
Arsenic	10 µg/l	0,44	1,28	2,82
Lead	10 µg/l	2,89	0,88	1,18
Iron	200 µg/l	7,57	7,76	5,99
Pesticides - Total	0,5 µg/l	12,25	7,1	12,78
Ammonium	0,5 mg/l	6,36	5,49	6,03
Aluminium	200 µg/l	7,01	7,07	6,78
Chlorine	0,5 mg/l	16,68	16,17	16,87

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

	Baseline value (please specify the year)	Current value (please specify the year)
Integrative chemical failure rate		

² As defined in the WHO Guidelines.

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

For incidence, please report the total number of cases per year from all exposure routes.

For the number of outbreaks, please report cases that could be potentially related to water.

	Incidence			Number of outbreaks	
	Baseline (specify the year)	Current value (specify the year)		Baseline (specify the year)	Current value (specify the year)
	2005	2006	2007		
Cholera	0	0	0	N/A*	
Bacillary dysentery (shigellosis)	765	599	735		
EHEC³	No data for A04.3 (ICD-10) – Enterohaemorrhagic Escherichia coli infection, but only for the group A04 – Other bacterial intestinal infections				
Viral hepatitis A	8 278	5 351	4 990		
Typhoid fever	2	15	3		

**) requires changes to the reporting systems of communicable diseases*

³ Enterohaemorrhagic *E. coli*.

III. ACCESS TO DRINKING WATER

Percentage of population with access to improved drinking water	Baseline value 1990*	Current value 2006*
Total	76	88
Urban	93	99
Rural	55	76

*) According to the JMP, data related to the percentage of population with access to improved drinking water are given in different documents such as: World Health Organization and United Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Drinking Water and Sanitation: Special Focus on Sanitation. UNICEF, New York and Who, Geneva, 2008.

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.

Drinking water supply network	Baseline value	Current value
	2005	2008
Number of localities (municipalities, towns and communes) supplied with drinking water installation	1935	2123
of which: municipalities and towns	315	317
Simple length of network of the drinking water installation (km)	47 778	56 809
of which: municipalities and towns	25 171	26 396
Drinking water supplied to the users (mill.m ³)	1089	1075
of which: for households use	628	682

Source: Statistical Yearbook, 2009

IV. ACCESS TO SANITATION

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

Percentage of population with access to improved sanitation water	Baseline value 1990*	Current value 2006*
Total	72	72
Urban	88	88
Rural	52	54

*) According to the JMP, data related to the percentage of population with access to improved sanitation water are given in different documents such as: World Health Organization and United Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Drinking Water and Sanitation: Special Focus on Sanitation. UNICEF, New York and WHO, Geneva, 2008.

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.

Percentage of population with access to sanitation	Baseline value (2005)		Current value (2008)	
	Population*	% p.e**)	Population*	% p.e**)
Total	52	48,02	57,4	49.46
Urban	90	71,78	98.73	74.10
Rural	10	8.25	13.73	8.26

*) The figures are related to access of population to the sanitation centralized public services, including small decentralized sewerage systems, septic tanks and safe excreta disposal.

Source: the Romanian Water Association: Strategy for sustainable development of public drinking water and sewage services "Romania 2025"

***) The figures are related to access of population to the centralized public sanitation services according to the provisions of Urban Waste Treatment Directive 91/271/EEC, (for the urban area represents agglomerations with more than 10 000 p.e and for rural area agglomeration with 2,000 – 10,000 p.e)

Public sewerage	Baseline value 2005	Current value 2008
Localities (municipalities, towns and communes) with public sewerage installations (number)	692	760
of which: municipalities and towns	306	760
Total simple length of sewerage pipes (km)	18 149	20 364

Source: Statistical Yearbook, 2009

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

Water quality

On the basis of national systems of water classifications, the percentage of the number of water bodies or the percentage of the volume (preferably) of water⁴ falling into each defined class (e.g. in classes I, II, III, etc. for non-EU countries; for EU countries, the percentage of surface waters of high, good, moderate, poor and bad ecological status, and the percentage of groundwater/surface waters of good or poor chemical status).

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).

For non-European Union countries:

Status of surface waters

Percentage of surface water falling into class⁵	Baseline value (specify the year)	Current value (specify the year)
I		
II		
III		
IV		
V		

Status of groundwaters

Percentage of groundwaters falling into class⁶	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 2005**		Current value 2007***	
	Rivers – km (%)	Reservoirs and natural lakes (%)	Natural water bodies (%)	HMWBs and AWBs (%)
High status	29	16.07 -ultraoligotrophic	5.20	37.62

⁴ Please specify.

⁵ Rename and modify the number of rows as requested by the national classification system.

⁶ Rename and modify the number of rows as requested by the national classification system

Good status	37	23.2 -oligotrophic	59.17	
Moderate status	23	0.9 – oligo-mesotrophic	33.73	61.39
Poor status	7	20.54 - mesotrophic	1.26	0.99 - no information
Bad status	4	21.4 – eutrophic 1.79 – eutrophic-hipertrophic 16.1 - hipertrophic	0.64	

- *) For HMWBs (heavily modified water bodies) and AWBs (artificial waterbodies), the figures represent the percentage of the number of water bodies with ecological potential (good and above; moderate).
- **) The biological assessment of water status in 2005 was based on methods not fully in compliance with WFD requirements; for rivers – the figures express the biological quality (km-%) based on the saprobic index; for reservoirs and natural lakes – the figures express the percentage of the number of reservoirs and natural lakes classified based on the phytoplankton biomass (out of the trophic degree).
Source: Synthesis of water quality in Romania in 2005, National Administration “Romanian Waters”
- ***) The biological assessment of water status in 2007 was based on methods in compliance with WFD requirements.

Chemical status of surface water

Percentage of surface water classified as of	Baseline value 2005*	Current value 2007**
Good status	43.1	92.96
Poor status	56.9	7.04

*) In 2005, the chemical status of surface water were not evaluated, according with the requirements of WFD; the figures represent the percentage of the number of monitored control section within the chemical quality belongs to good status (classes I and II of national classification system) and poor status (classes III, IV and V of national classification system). Source: Synthesis of water quality in Romania in 2005, National Administration “Romanian Waters”

**) The chemical assessment of surface water status in 2007 was based on methods in compliance with WFD requirements, divided in natural and heavily modified water body as following as:

- 2791 natural surface water bodies (93.87% good chemical status; 6.13% poor chemical status;
- 606 heavily modified water bodies (88.8% good status).

Status of groundwaters

Percentage of groundwaters classified as of	Baseline value 2005*	Current value 2007**
Good status	60.66	86.62
Poor status	39.34	13.38

*) In 2005, the chemical status of ground waters was based on methods not fully in compliance with WED requirements; the figures represent the percentage of the number of monitoring drills which exceed the quality national standard limits (poor status): nitrates, phosphates, organic substances, ammonium, heavily metals, bacteriological indicators, chlorides, sulphates, phenols, etc.

Source: Synthesis of water quality in Romania in 2005, National Administration “Romanian Waters”

**) The assessment of ground water status in 2007 was based on methods in compliance with WFD requirements.

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 2005	Current value 2008
Agriculture ¹	9.2%	14.9%
Industry ²	69.3%	69.5%
Domestic use ³	21.5%	15.6%

¹) The figure includes water abstraction for irrigation, fish breeding, salmonide farms and agricultural and breeding farms;

²) The figure includes water abstraction for energy cooling, manufacturing industry and transports.

³) The figure refers only to public water supply systems

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.

Water is essential to sustain life, and a satisfactory supply must be available to all. Safe drinking-water does not represent any significant risk to health over a lifetime of consumption, including different sensitivities that may occur between life stages. Thus, a continuous effort should be made to maintain drinking-water quality at the highest possible level. Romania, at national level, established that until December 31, 2015 values of oxidability, ammonium, aluminium, iron, nitrate, lead, cadmium, pesticides and manganese will comply with Drinking Water Directive standards:

- by 31 December 2010
 - for oxidability, ammonium, turbidity, aluminium, iron, heavy metals, pesticides, manganese for localities of more than 100,000 inhabitants;
 - for oxidability and turbidity for localities with a population between 10, 000 and 100,000 inhabitants
 - for oxidability and manganese, for localities of less than 10,000 inhabitants.

- by 31 December 2015
 - for ammonium, nitrates, aluminium, iron, heavy metals, pesticides and manganese for localities with a population between 10, 000 and 100,000 inhabitants
 - for ammonium, nitrates, turbidity, aluminium, iron, heavy metals and pesticides for the localities of less than 10, 000 inhabitants.

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.

Council Directive 98/83/EC on the quality of water intended for human consumption has been fully transposed into National Laws, such as Law of drinking water 458/2002, modified by Law 311/2004, and Government Decision no. 974/2004 that established monitoring and inspection procedures. Total cost of infrastructure rehabilitation was estimated at 5,6 bill. Euros. Challenges encountered: monitoring and sampling procedures need improvement and it's urgent priority to facilitate cross-sectoral cooperation, mature surveillance system needed, improve institutional capacity, promotion proactive reaction to solve the issues.

3. Briefly assess the progress achieved towards the target.

Romania has set quality standards for water intended for human consumption established:

- compliance monitoring procedures to ensure compliance with monitoring standards,
- procedures for dealing with incidents of non-compliance and to implement remedial action,

- procedures for informing the public of actions needed to address noncompliant sources of drinking water,
- a monitoring network able to fully meet the requirements of the directive, including the relevant sampling protocols,
- procedures for assessing the efficiency of any disinfection treatment which is applied to water for human consumption,
- analytical procedures in line with the requirements of the directive,
- guidelines to assist the competent authorities to fulfil the obligations under the directive, including guidance on deciding what actions to taken to restrict use of waters that may pose a threat to human health,
- procedures for providing for derogations from the directive,
- procedures for informing the public as to the nature and timescale of any derogations,
- procedures for the review of derogations, guidelines
- procedures to meet the requirements on quality assurance of equipment and materials used in the preparation or distribution of water intended for human consumption.

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.

Council Directive 98/83/EC on the quality of water intended for human consumption replaced the original Drinking Water Directive (80/778/EEC) in 2003. It was necessary to adapt the original directive in the light of scientific and technical progress, but also in accordance with the principle of subsidiarity by reducing the number of parameters for which Member States were obliged to set water quality objectives and by focusing on compliance with essential quality and health parameters.

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 (ARTICLE 6, PARAGRAPH 2 (b))

For each target set in this area:

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

As a national target, until 31 December 2015, the incidence of water-related infectious diseases will be reduced to an annual level of 0,05 % among general population. The most common and wide spread health risk associated with drinking-water is microbial contamination, the consequences of which mean that its control must always be of paramount importance. Faecal derived pathogens are the principal concerns in setting health-based targets for microbial safety. Microbial water quality often varies rapidly and over a wide range. Short-term peaks in pathogen concentration may increase disease risks considerably and may trigger outbreaks of waterborne disease. Microbial contamination of major urban systems has the potential to cause large outbreaks of waterborne disease.

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 Act of Public Health no. 95/2006 and Act no. 458/2002 regarding drinking water are established for potentially hazardous water constituents and provide a basis for assessing drinking-water quality. Different parameters may require different priorities for management to improve and protect public health. In general, the order of priority is to ensure an adequate supply of safe water and maintain acceptability to discourage consumers from using potentially microbial unsafe water, manage key chemical contaminants known to cause adverse health effects and address other chemical contaminants.

3. Briefly assess the progress achieved towards the target.

In order to minimize the likelihood of outbreaks of disease, care is required to account properly for drinking-water supply performance both in steady state and during maintenance and periods of short-term water quality deterioration. Another way to prevent water-related diseases is the proper treatment of waste water. Effective treatment reduces the amount of oxygen-depleting substances as well as the amount of human origin bacteria. Safeguard a healthy environment is one of the major objectives. Hitherto we implemented regulations about prohibiting soil and groundwater pollution from agriculture, industrial or human activities.

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.

A more reliable view of the epidemiological situation is provided by using epidemiological data spanning several years to calculate relative risk in general population. There is agreement that E. coli and Enterococci indicators have proven to be useful in the setting of the drinking water directive and therefore are to be kept, but there is general agreement to remove Clostridium perfringens from the list of parameters for routine compliance monitoring. Routine monitoring for pathogens is not recommended. However pathogens need to be analysed in relevant outbreak situation, for known hazards identified in the course of water safety plans or if any other evidence shows the relevance of a certain pathogen. There is a need of suitable methods for pathogens. Safety is increased if multiple barriers are in place, including protection of water resources, proper selection and operation of a series of treatment steps and management of distribution systems (piped or otherwise) to maintain and protect treated water quality.

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.

Improvement of quality and access to water infrastructure by providing the water supply services in centralized system for the most of the urban and rural areas until 2015.

In 2002 the total population was of 21, 68 mil. inhabitants of which 52,7% in urban area and 47,3% in rural area; 68% of the total population was beneficiary of drinking water centralized system, out of which 98% in urban area and 33% in rural area.

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.

Water Law no 107/1996 with further amendments

Law no 458/2002 on the drinking water quality with further amendments

Government Decision no 974/2004 for approval of the Norms related to the surveillance, sanitary inspection and monitoring of the drinking water quality and for approval of the Sanitary Permitting Procedure of the drinking water supply and distribution.

The activities for improvement of the access of drinking water were oriented to :

- planning and design of drinking water projects in pre-accession and accession to EU in urban and rural areas with EU support (PHARE, ISPA, SAPARD, SAMTID and Cohesion Funds);
- construction of new water supply systems;
- rehabilitation/extension of network distribution;
- rehabilitation of water treatment plants;
- in order to extend the water supply at a affordable costs for population a better organization of water services trough water serices regionalisation is promoted.

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.

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

For each target set in this area:

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

Improvement of quality and access to wastewater infrastructure by providing the sanitation services in most urban and rural areas until 2018.

According with the requirements of UE Directives related to the water quality, Romania follows up to improve the quality and the access to the water and the waste water infrastructure by means of the water supply and sanitation services provision in the all localities/agglomerations areas; also it assigns to establish the efficient regional structures for the water/wastewater services management.

Council Directive 91/271/EEC concerning the urban wastewater treatment is one of the main directives which complete and timely implementation is crucial to achieve good ecological status of surface waters imposed by the Water Framework Directive. Romania committed itself to apply the provisions of Article 5 (8) of the Directive and declared its whole territory as a sensitive area. There were included the compliance deadlines with the *Directive for urban waste water collecting systems and urban waste water treatment plants*. The decision to declare the whole Romanian territory as a sensitive area requires a longer transition period, respectively 12 years.

This decision means that all agglomerations with more than 10 000 p.e. shall ensure the infrastructure which is necessary for urban waste water treatment, which allows the advanced treatment of urban waste water treatment. As regards the other agglomerations, between 2000-10000 p.e. the secondary (i.e. biological) treatment is the general rule and for many agglomerations of less than 2,000 p.e., located in mountainous or hilly areas, where the geo-morphological or climatic conditions require specific and individual solutions: mini treatment plants, natural treatment in lagoons, other non-conventional modalities.

Background justification for the adoption of intermediate targets according to the Directive *91/271/EEC*

In 2002 the Romanian population was 21,680,974 inhabitants: 11,435,080 inhabitants in the urban area (52.7%) and 10,245,894 inhabitants in the rural one (47.3%). There were 42 counties and Bucharest municipality, 268 towns and 2686 villages (about 15,700 rural communities). 644 localities had public sewerage systems: 266 towns and 378 rural communities.

The total length of the wastewater network was 16,812 km, from which 15,736 km in towns. Only 51.8% of the total length of streets in the towns was equipped with sewage network. Beside the streets endowed with water supply network, only 73% had also sewage systems.

In 2002, in the existing 206 wastewater treatment stations was treating only 77% of the total flow discharge from the public sewerage system; the wastewaters from 47 towns were discharged to the rivers without any previous treatment.

During 2001 – 2003 have been established: number of agglomerations, status of the water supply on agglomeration categories, number of the inhabitants connected to the sewerage networks and to the waste water treatment plant for each type of agglomeration, waste water treatment plants type and treatment stages, estimative costs for rehabilitation, extension and building up of new water supply and sewage treatment systems. All these data for each county and for Bucharest Municipality were included in Annex 3 of the Implementation Plan of the Directive. All local action plans for the development of urban waste water infrastructure were based on the annex 3. The water treatment efficiency is negatively influenced by the treatment equipment inefficiency and obsolete and by the technical sewage network problems. For this reason a lot of projects were focus on the rehabilitation and modernisation of waste water treatment plants, mainly in agglomerations with more than 10000 p.e.

Intermediate targets

Actions plans for agglomerations have been prepared jointly with an assessment of the current waste water infrastructure. The deadlines for the implementation of the Directive vary depending on the size of the agglomeration and the impact on the receiving waters.

Transitional periods have been agreed until 31 December 2018 with intermediate targets for collecting and treatment of urban waste water:

- collecting of urban waste water, as follows:
 - by 31 December 2013, compliance with the Directive will be achieved in 263 agglomerations of more than 10,000 p.e;
 - by 31 December 2018, compliance with the Directive will be achieved in 2346 agglomerations of less than 10,000 p.e
 - interim target date: 31 December 2010 representing 61% of the total biodegradable load in p.e.;
 - interim target date: 31 December 2013 representing 69% of the total biodegradable load in p.e.;
 - interim target date: 31 December 2015 representing 80% of the total biodegradable load in p.e.;

- and for urban waste water treatment and discharge:
 - by 31 December 2015, compliance with the Directive will be achieved in 263 agglomerations of more than 10,000 p.e.,
 - by 31 December 2018, compliance with the Directive will be achieved in 2346 agglomerations of less than 10,000 p.e;
 - interim target date: 31 December 2010 representing 51% of the total biodegradable load in p.e.;
 - interim target date: 31 December 2013 representing 61% of the total biodegradable load in p.e.;
 - interim target date: 31 December 2015 representing 77% of the total biodegradable load in p.e.;

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

In Romania the acquis on urban waste water treatment and discharge into aquatic environment has been transposed by the Governmental Decision no 188/2002 for the approval of certain norms concerning the conditions of discharging the waste water into the aquatic environment, amended by GD no.352/2005.

Stakeholders and their responsibilities related to the implementation of Directive 91/271/EEC are shown in the following table:

Stakeholder	Responsibilities
Ministry of Environment and Forests	Establishment of standards and water quality objectives Elaboration of norms for discharging conditions Establishment of monitoring system of the waste water discharges
Ministry of Administration and Interior	Elaboration of the Action Plan for rehabilitation, modernization and construction of collection systems within agglomerations of more than 2,000 p.e.
Ministry of Regional Development and Tourism	Promotion of the standards and technical regulations concerning construction and exploitation of the collection systems and urban waste water treatment plants
National Environmental Guard National Administration “Romanian Waters” and (RBWD) River Basin Administrations	Inspection and control of waste water discharges Licensing/permitting of waste water discharge from agglomerations or assimilated agro-food industry, in accordance with technical norms NTPA 001/2005 and NTPA 002/2005 Monitoring the quality of surface water and natural receiving waters, in which urban and industrial waste water are discharged.
National Authority for Public Services of Communal Management	Licensing the operators for waste water treatment public services
Local Public Administration	Development of the sewage systems and urban waste water treatment
Local Water and Sewage Companies (under municipal authority-state ownership or private ownership)	Operation and maintenance of collecting systems and urban waste water treatment plants Self-monitoring and reporting to the RBWD Compliance with discharging conditions Sludge management and sludge disposal

For the rational management of water resources and for water resources protection against exhaustion and pollution, in connection with the water management and sustainable development principles, Water Law no. 107/1996 (amended by Law no. 310/2004 and GO no. 5/2010) stipulated the obligation of water user to request and obtain a “*water management permit*”, starting with the designing stage. The permit regulates the regime of the works carried out on water or related to water and the social-economical activities, with potential negative effects on the environment. The putting into operation or the operation of these works is made only on the basis of a “*water management licence*”. The legal framework for permit/licence are: Water Law no.107/1996 (amended by Law no. 310/2004) and the Ministerial Order no.661/2006. According to these norms, the National Administration “Romanian Waters” (NARW) and the Water Basin Administrations are the competent authorities for issuing water management permits and licenses. In order to harmonize with the compliance deadlines resulted from negotiations, National Administration „Romanian Waters” continued the activity of revision and adaptation of water management permits and licenses for urban wastewater discharges.

To comply with the EU standards and the *acquis* in the water sector the main objective is to extend and modernize the water and wastewater infrastructure to provide adequate water and sewerage services. Along with these objectives, innovative and efficient water management structures are envisaged to be developed.

The strategy will focus on developing large-scale integrated projects, to optimise investment and operating costs. Communities of more than 10,000 p.e. will be grouped together to develop regional

projects centred on their urban areas. Rural communities will be integrated into regional projects where significant environmental impact can be justified and/or cost-efficient components improve the sustainability of the overall investment.

In correlation with the National Strategy for Rural Fund the investments in the water infrastructure will be financed in rural areas, in accordance with the National Strategic Plan for Rural Development by the Ministry of Agriculture and Rural Development, taking account of the regional Master Plans prepared under the coordination of Ministry of Environment and Forests. There were developed projects for water and waste water infrastructure in rural area for localities under 10000 p.e. By ISPA Programme 2003/RO/16/P/PA/013.4 had prepared in 2006 regional Master Plans for 10 counties and other 15 Master Plants were prepared in 2007 for others 15 counties.

Taking into account the outcomes of these Master Plans it is possible to have changes in the configuration of the already established agglomerations due to the results of future feasibility studies for optimal technical solutions. There were noticed difficulties in delineate and establishment of agglomerations as a base of selections of prioritized investments due to the lack of experience and relevant data at local level (data from urbanism plan, old maps).

In addition, improvements will be made to the quality of the watercourses. Wastewater treatment plants will be built or functional improved and sludge management schemes are envisaged. Individual projects may be developed for localities that cannot be included in regional projects.

The funds

The main support came from the EU, through the pre-accession programmes (PHARE, ISPA, SAPARD), bilateral assistance from the EU Member States, Community programmes, loans from the EBRD and EIB etc. Other financing sources were provided by the World Bank (i.e. SAMTID), UNDP and UNEP (i.e. Global Environmental Facility), other International Financial Institutions.

The urban waste water treatment plants were in an advanced stage of rehabilitation within ISPA funds (cities Sibiu, Arad and Danutoni in Jiu Valley). By ISPA projects for the agglomerations with more than 10,000 p.e. will be provided only secondary treatment in urban waste water treatment plants. A more advanced treatment, tertiary one, will be fulfilled by Cohesion Funds, governmental and local funds and international loans till the end of 2015. The pre-accession funds (ISPA, SAPARD) are going to finance projects till 2010. ISPA concentrates on the most "heavy investment" environmental infrastructure projects (water/wastewater and waste). SAPARD programme is based on the National Agriculture and Rural Development Plan, approved by EC on 12th December 2000. Within this programme financial non-reimbursable assistance is foreseen for „Rural infrastructure development and rehabilitation” (Measure 2.1 in NARDP).

Under the new programming period 2007-2013, the interventions financed by pre-accession funds for water /waste water infrastructure are going to be continued through the Operational Programme financed by Cohesion Fund as well as through the National Rural Development Programme (NRDP) financed by the European Agricultural Fund for Regional Development.

The Sectoral Operational Programme for Environment (SOP ENV) is closely linked to the national objectives of the strategy laid down in the National Development Plan (NDP) and National Strategic Reference Framework (NSRF). The Priority Axis 1 "Extension and modernization of water and wastewater systems" from SOP is dedicated to the development of water/ waste water infrastructure.

The SOP's total budget for the 2007-2013 programming period is approximately Euro 4.900 billion (2004 prices), which represents 23,8% of the financial sources of the NSRF. Out of this, Euro 3.960

billion is envisaged as community support, more than Euro 940 million comes from the national budget.

The total investment needs for compliance with EU Directives on water and wastewater by 2018 amount to 19 billion Euro, out of which the funds allocated through SOP Environment in the period 2007-2013 represent about 17% of the total needs. After 2013 it is necessary to continue the investment programme taken into account different kind of financial support sources: approx. 60% international funds, loans, governmental and local funds, 26% EU funds planned sources, but 10% of investments are not covered with funds.

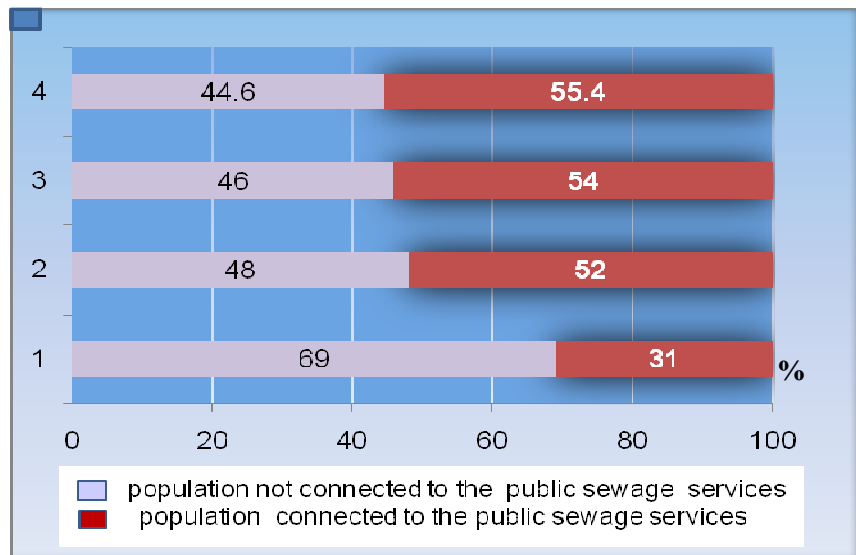
The purpose of the process of regionalization of water services, initiated by Romanian authorities and supported largely by pre-accession programmes (PHARE, ISPA), is to assist the local beneficiaries (Associations of Municipalities and Regional Operating Companies) in the creation of efficient water and wastewater service operators and in strengthening the capacity of local authority to monitor effectively their activities.

Other works will be financed using public funds and own funds of the economic units (operators of the communal services); the state guarantees the acquirement of the internal and external credits (from BEI, BERD, Word Bank etc.).

3. Briefly assess the progress achieved towards the target.

At the end of the 2008, the degree of the connection to the wastewater system was 49.46% population equivalents and the degree of the connection to the wastewater treatment plants was 42.18%. Today, there are 604 wastewater systems, only 513 are working; the other 91 are in the various constructive stages or, because they are not finalized, the population has not access. In Romania, approx. 12.364 million inhabitants (57.4%) out of the total population of 21.54 millions have access to waste water collecting and treatment services in 2008. The development of this index using as base the 1976 situation is presented in the following figure.

Trend of population access to public sewage services



Legend: 1– year 1976; 2– year 2002; 3– year 2005 4 – year 2007
(in 2008 the percent is 57.4%)

Regarding the total length of the wastewater network the situation is:

Year*)	2004	2006	2007	2008
Wastewater network length (km) - physical existing	16138.250	18075.737	18653.762	19649.664
Wastewater network length (km) achieved	668.455	645.829	578.025	613.664

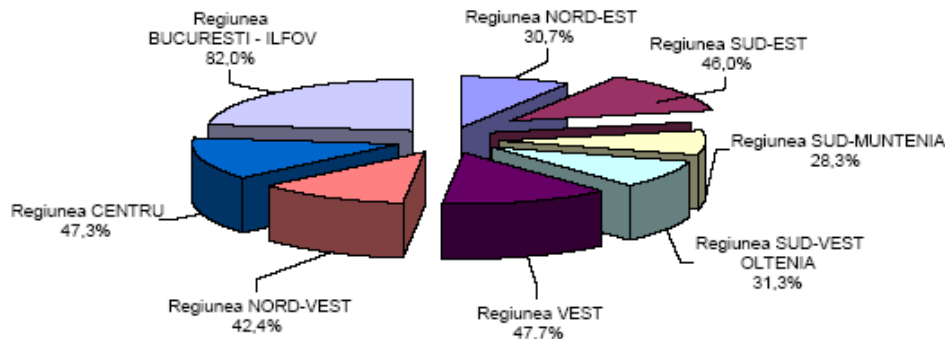
*) In 2005 the report was made only for the 10000 e.l. agglomerations

According to the **Statistic Yearbook of Romania for year 2007**, the total length of waste water collecting network was 19356 km (2007), out of which 17549.1 km are in urban area.

Trend of the localities number with waste water collecting network and the length of pipelines

Year	Total		Urban		Rural	
	No. localities	Length of pipelines (km)	No. localities	%	No. localities	%
2000	639	16348	264	41.3	375	58.7
2001	647	16590	264	40.8	383	59.2
2002	649	16812	266	40.9	383	59.1
2003	664	17183	276	41.6	388	58.4
2004	675	17514	287	42.5	388	57.5
2005	694	18381	306	44.1	388	45.9
2006	709	18602	308	43.4	401	56.6
2007	735	19356	309	42.0	426	58.0

The population rates with dwellings connected to sewage systems for development regions in 2007*)



In 2008 there were 361 wastewater treatment plants and 3 news finished, but where the population has not been connected. From the total number, 25 wastewater treatment plants (5.45%) have the connecting degree over 95%. The wastewater treatment plants for the agglomeration more than 10000 e.l. need the tertiary treatment.

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.

An improvement during 2006 – 2007 periods has noticed in the process of rehabilitation, construction and upgrading of collecting systems and urban waste water treatment plants, mainly for large agglomerations with more than 10,000 p.e. Also there were developed infrastructure projects for all agglomeration with more than 2000 p.e.

Taking into account the large number of agglomerations above 2000 p.e. and the first intermediate target 2010, which have to comply with the provisions of the UWWT Directive, all responsible authorities had applied to different financial sources for the integrated projects in water/waste water infrastructure. As regards investments in urban waste water infrastructure Romania should secure in the future the necessary funds to ensure adequate implementation of the UWWT Directive

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 (ARTICLE 6, PARAGRAPH 2 (e))

For each target set in this area:

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

Until December 31, 2015, Romania will initiate and implement all necessary measures to ensure drinking water supply in accordance with the Council Directive 98/83/EC on the quality of water intended for human consumption, establishing requirements for drinking water, inspection of water systems, drinking water quality surveillance and monitoring, disseminating information and reporting.

The targets taken into consideration are:

- water losses reduction from the drinking water centralized network through: improved performances of drinking water distribution network; replacement materials which do not meet European standards and regulations (in particular asbestos pipes);
- improvement of the water resources quality used as water supply
- improvement of the supplied drinking water quality
- water supply with no interruption (7/24/365)
- increasing of the percentage of population supplied by drinking water centralized systems
- accesible tariffs of the water services for population
- improvement of the drinking water distribution services by establish of efficient regional structure for public water services (regional water operators)
- providing of adequate drinking water quality in all urban and rural settlements

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.

Investment costs were estimated based on information from the counties.

Total investment cost needed to implement requirements of Council Directive 98/83/EC are of 4.320 billion Euro, of which: 37.2% for measures of rehabilitation / upgrading of existing infrastructure for water; 60.7% for measures of construction / expansion of infrastructure for water localities; 2.1% for other measures (staff training, research studies, solution studies, feasibility studies, etc..).

These costs will include operating costs and annual maintenance of approx. 394 million Euro.

Costs for implementation of the measures will be funded in the 2004-2015 period as follows: 39.92% of European funds (structural and cohesion funds through the Sectoral Operational Program Environment, ISPA, PHARE, SAPARD, SAMTID, etc.); 19.34% of the state budget and local budgets; 13.77% from its own public and private partnerships, bank loans (EIB, EBRD); for 26.97% of the costs has not been identified the financing.

In order to access European funds, the Ministry of Environment and Forests has developed Sectoral Operational Program (SOP ENV), in accordance with Guidelines of the Community Strategy, the National Development Plan, and National Strategic Reference Framework for the programming

period 2007 to 2013. The objective of Priority Axis 1 “Extension and modernization of water and wastewater systems” of the SOP ENV is to improve quality and access to water and wastewater infrastructure, by providing supply in most urban areas by 2013 and establish effective regional structures for water services management.

3. Briefly assess the progress achieved towards the target.

The activities for improvement of the access of drinking water were oriented to :

- planning and design of drinking water projects in pre-accession and accession to EU in urban and rural areas with EU support (PHARE, ISPA, SAPARD, SAMTID and Cohesion Funds)
- construction of new water supply systems
- rehabilitation/extension of network distribution
- rehabilitation of water treatment plants

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

The targets taken into consideration are:

- rehabilitation, modernization and extension of the sewage networks
- improvement of urban wastewaters treatment by: construction /extension /up grading of waste water treatment plants
- increasing of the number of connected inhabitants to the wastewater infrastructure
- provide adequate sewerage services, at affordable tariffs
- establishment of innovative and efficient water management structures (efficient regional structures for the wastewater services management)

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.

- transposition and implementation of UWWT Directive (GD 188/2002 with amendments)
- harmonization and up dating of legal norms and technical standards with EU ones
- authorization of waste water discharges in natural receiving water
- implementation actions from Implementation Plan of the UWWTD
- training programs and TAIEX workshops for public water services operators
- establishment of new institutional structure for water/waste water infrastructure (Intercommunity Development Association, Regional Water Operators) and development of specific legal framework

3. Briefly assess the progress achieved towards the target.

Development of large investment programme for water/waste water infrastructure both in urban and rural area.

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.

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

For each target set in this area:

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

Water intakes are protected areas for drinking water abstraction. According to the Water Framework Directive (Annex IV) all protected areas were identified at the national level (including catchment protection areas for drinking water abstraction) and maps (in GIS) were elaborated.

Sanitary protection zones are required for protection of water bodies used for abstraction of water for human consumption. Establishment of sanitary protection zones is done in accordance with Water Law no. 310/2004, as amended by Law 112/2006 and *Governmental Decision 930/2005 on nature and size of sanitary protection hydrogeological zones*.

Around abstraction, constructions and installations for drinking water supply in accordance with Art. 5. (1) of the Water Law no. 107/1996, with subsequent modifications, are set up sanitary protection zones and hydro-geological protection zones, in order to prevent the pollution of water sources.

Areas of protection of water bodies used for abstraction of water intended for human consumption (providing on average at least 10 m³/day or serve at least 50 people) are identified. Depending on the degree of risk compared to other pollutants is established for each water catchment the sanitary protection zones, and hydro-geological protection perimeters.

Special measures according to GD no. 930/2005 apply for the following purposes: ground waters or surface waters, and their associated water intakes used for centralized drinking water supply of population, economic units/agents for food and pharmaceutical industry, health units, social and cultural, constructions and facilities systems components for drinking water ; mineral waters deposits and their associated abstractions used for internal cure or bottling, bottling plants and sludge treatment plants; lakes and therapeutic mud; groundwater or surface water intakes used for bottling drinking water other than natural mineral water.

Sanitary protection objectives are achieved by applying water quality protection measures for good practices to the management of water supply set by the laws in force, and the establishment of field areas protection, with different degrees of risk to the factors of pollution: sanitary protection area with strict regime, the sanitary protection of restriction regime, geological protection perimeter. Sanitary protection zones are meant to establish perimeters which imposed special conditions to prevent water pollution from different external factors.

Owners and/or operators of water intakes for water supply (which provide an average more than 100 m³ of water/day) must perform monitoring program under the rules stipulated by Government Decision no. 930/2005, starting no later than on January 1, 2007.

Water pollution may occur due to economic, social and human activity, the main risks being pollution by pathogens, chemicals and radioactive and thermal pollution of water with high temperature exhaust from the cooling of industrial units. In the category of chemicals is also included mercury.

The National Administration "Romanian Waters" establish and maintain computerized inventory of sanitary protection zones and protection perimeters of each hydrographic basin and send it at the end of each year to the central public authority in the water field (Ministry of Environment and Forests). These sanitary protection zones and protection perimeters are included in the Register of Protected Zones.

For all the activities in the hydro-geological protection perimeters an environmental impact assessment is needed. Environmental impact assessment should provide all the necessary measures to prevent any intrusion with chemicals readily degradable or non-degraded in groundwater or lakes and therapeutic mud, which will be the conditions imposed by the regulatory act.

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

In the 11 river basins of Romania there are 1 617 groundwater abstraction catchments for drinking water supply; for 1 379 (85.28%) there are established areas of sanitary protection. For 162 surface water intakes for drinking water supply (from a total of 213) had been established sanitary protection zones.

3. Briefly assess the progress achieved towards the target

In comparison with year 2005, in 2008 the number of sanitary protection perimeters has increased. In 2008 there are 1379 sanitary protection perimeters for groundwater and 162 sanitary protection perimeters for surface water, compared with 2005 (1319 sanitary protection perimeters for groundwater and 149 sanitary protection perimeters for surface water). In the future it is necessary to provide sanitary protection perimeters for all water abstractions (1617 for groundwater and 213 for surface 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.

Not applicable.

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

Not applicable.

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.

Full compliance with requirements of the 91/271/EEC Directive concerning urban wastewater treatment until 2018.

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.

- rehabilitation of sewage network with focus on waste water losses
- rehabilitation of old waste water treatment plants
- correlation of dimension of agglomeration with waste water treatment
- improvement of management of sludge and security of sludge storage

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 target date have already been adopted, please describe them.

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

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

For each target set in this area:

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

In Romania the main targets are to reducing the level of untreated wastewater from users, preventing and reducing the impact of accidental pollution (meaning the implementation of own plans at the level of potential pollution units) and implementation of the warning system for accidental pollution.

The target date for reducing the level of occurrence of untreated wastewater from users is correlated with the full implementation of European legislation in the water sector, respectively 2018. For the future it will be assigned, after implementation of measures to reduce the number of events.

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

- Implementing own plans to prevent and control accidental pollution of potentially polluting units

Organization of prevention and control of accidental pollution from potentially polluting water users is made in accordance with Law of Disasters 124/1995, Water Law 107/1996 with subsequent modifications. This activity is based on plans of potentially polluting units developed at each river basin plans. Methodological framework to establish a "plan to prevent and control accidental pollution" is specified in the Ministerial Order no. 278/1997.

The purpose of the *Plan* is to prevent pollution incidents and to ensure optimal management of crisis situations that arise during the event, including rapid intervention to combat accidental pollution.

The Plan is endorsed by the River Basin Committees of Water Basin Administrations. The National Administration "Romanian Waters" through its River Basin Administrations provides technical assistance to potentially polluting units for developing these plans. In 2008 such plans were developed for 843 users.

- Implementation of warning system in case of accidental pollution

In Romania, according to the Ministerial Order no. 226/2006, are operational: the Alarm System in case of pollution incidents (SAPA - ROM) – at national level and the Pollution International Alarm Centre in the frame of Convention on cooperation for the protection and sustainable use of the Danube River, Sofia 1994 (for accidental pollution with transboundary effects).

3. Briefly assess the progress achieved towards the target.

Before 2005, the average of occurrence of accidental pollution events was around $90 \div 100$. In 2005 there were registered 63 accidental pollution events, of which 39 with oil, 4 with organic substances, 3 with chemical products, 5 with suspended solids (including sterile mine) and 12 with other pollutants. In 2007 there were registered 77 accidental pollution events .

According to criteria of the International Commission for the Protection of Danube River (ICPDR), there were identified 24 industrial units which have high potential risk for accidental pollution and 5 areas with the potential for contamination of sites.

In 2008, 83 water pollution incidents were recorded of which: 49 pollution by oil products; 13 pollution with organic substances; 8 pollution of inorganic products; 13 other pollution.

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

Not applicable.

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

Not applicable.

**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.

The design the sewage systems had taken into account the storm water and the sewage system was mainly a divided one.

Relating with the impact of climate change conditions upon waste water installations the new sewage systems is designed as a separated one and is provided with the storage tanks for storm water.

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.

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

For each target set in this area:

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

According to the Water Framework Directive, the good status of all surface and groundwater bodies has to be achieved by the end of 2027.

In 2005, 79% of the total wastewater resulted from the main sources of pollution was discharged into natural effluents, especially rivers, without any treatment or insufficiently treated.

According to the statistical data, the situation of the wastewater discharged into rivers was:

- 2626.139 mil. m³/yr (65.1 %) need to be treated before discharge (of the total flow of 4034.808 mil. m³/year) ;
- 539.051 mil. m³/yr (20.5%) from the total of 2626.139 mil. m³/yr were adequately treated;
- 1193.851 mil. m³/yr (45%) was untreated and 893.237 mil. m³/yr (34%) were inadequately treated.

The wastewater flow quantity was discharged from the following activities: energy cooling (51%), communal services (36%), chemical processing (5%) and metallurgy (3%).

The quantity of wastewater which needed to be treated was discharged by communal services (56%), chemical processing (over 7%), and metallurgy (over 4%).

The quantity of untreated wastewater was discharged by communal services (over 49%); chemical processing (over 4%).

The activities that discharged inadequately treated wastewaters are: communal services (62%), chemical processing (11%), mining (2.6%), metallurgy (2.4%), and pulp and paper industry (2.3%).

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.

Legal framework and actions

According to the Water Law no. 107/1996, the National Administration "Apele Române" has the responsibility for: monitoring the discharged wastewater from the wastewater treatment installation and their effects on environment; monitoring of receiving waters at the point of discharging of the urban or industrial wastewaters; providing the licence for discharging wastewater from human agglomerations and from industrial agents.

The quality of the effluent from the urban wastewater plants is usually verified every 3 month and when there are some special problems.

The economic units having a major polluting potential which discharge pre-treated wastewater to public sewerage are verify at the moment they apply for licence (water management authorization).

The licence (water management authorization) specifies the quantity of the extracting water and the volume and the quality parameters of the discharged water, according to the Ministerial Order no. 662/2006.

The water management authorization could also include an annex developed after the authorisation is released which provides the measures and the works that must be done in order to assure the achievements of the adequate quality of the discharged wastewater. The adequate quality of the discharged wastewater is established by the Government Decision no. 188/2002, modified by GD. no. 352/2005. This act establishes the maximal concentration of the quality parameters in the discharged water both into the sewerage systems and into the rivers.

Funds

Romania benefits by important financial funds of the European Union (ISPA, SAPARD, SAMTID, PHARE).

Ministry Environment and Forests drew up the Sectoral Operational Programme for Environment (*POS Mediu*) in order to apply for European funds (cohesion funds for the environment infrastructure). One priority task included in the National Strategic Framework for 2007 -2013 is "*The Development and the Updating of the water and wastewater systems*" (3,267 billions Euros, from which 85% Cohesion Funds). The aim is the improvement of the quality and of the access to the water and wastewater infrastructure, providing the water supply, sewage and wastewater treatment in the majority urban areas till 2013 and the establishment of the regional management structures for the water services.

3. Briefly assess the progress achieved towards the target.

In 2008, 70% of the total wastewater resulted from the main sources of pollution was discharged in natural effluents, especially rivers, without any treatment or insufficiently treated.

According to the statistical data, the situation of the wastewater discharged into waters was:

- 1868.832 mil. m³/yr (35.6 %) need to be treated before discharge (of the total flow of 5254.565 mil. m³/yr) ;
- only 560.623 mil. m³/yr (30%) from the total of 1868.832 mil. m³/yr were adequately treated;
- 619.064 mil. m³/yr (33%) was untreated and 689.145 mil. m³/yr (37%) were inadequately treated.

The wastewater flow quantity was discharged from the following activities: energy cooling (66% l), communal services (25%), metallurgy (3.3%) and chemical processing (2.8%).

The quantity of wastewaters which needed to be treated was discharged by: communal services (84%), mining (5%), metallurgy (4%) and manufacturing industry (2.7%).

The activities that discharged inadequately treated wastewaters are: communal services (70%), chemical processing (11%), and mineral extraction (2.6%), energy cooling (7%), mining (4%) and manufacturing industry (2.7%).

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

Not applicable.

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

Not applicable.

**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.

Main target is the improvement of the sludge management coming from WWTP. This will be correlated with the general development of waste water infrastructure at national level.

For a strategy of sludge for long term (2020) Romania considers that there are not taken into consideration the following issues:

- the decline in Romanian population;
- the existence of 22 big cities with more than 150,000 p.e. which will have municipal wastewater treatment plants with tertiary treatment and will be responsible for the production of important sewage sludge quantities;
- the nutrient problem in the Danube river basin;
- a moderate development of agriculture during 2010-2020;
- expanding of the vulnerable areas at pollution caused by nitrates from agricultural sources, to 55% of agricultural surface of Romania.

Thus, Romania proposes the following 2020 scenario for the sewage sludge disposal:

- 20% use in agriculture;
- 10% incineration;
- 30% storage;
- 40% others methods
 - energetic recovery – 30%,
 - use for ecological reconstructions works of mined zones and use in forestry – 10%.

Concerning the sewage sludge disposal methods, in Romania during 2005 – 2006 from the total sewage sludge production about 97% has been storage and about 3% has been final disposal through other methods.

According with the 2005 Romania's Implementation Report of Directive 91/271/EEC concerning urban wastewater treatment sent to European Commission in 2007, in Romania are 22 agglomerations having generated pollution load of more than 150,000 p.e. The total amount of load is 9,562,512 p.e.

After Accession-elaboration and promotion of Sectoral Operational Programme in the period: 2007-2013

- Axe 1-The improvement of water/waste water infrastructure in Romania
- SOP is supported 75% from Cohesion Funds and 60% is for Axe 1;
- There were elaborated Master Plans for the water/wastewater infrastructure at county level (12 MP very approved by European Commission)
- The sludge management is developed at the level of each projects
- A sludge strategy will be elaborated within a Technical Assistance from SOP

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.

- As Member State Romania had transposed Directive No. 86/278/EEC regarding the application of sewage sludge to land.(Ministerial Order No 344/2004 regarding environment protection and in particular soils when sewage sludge is used in agriculture)
- In order to protect the Environment and in particular of the soil where Sewage Sludge is used in Agriculture the Ministerial Order No 344/2004 establishes more stringent values for concentrations of heavy metals and hazardous organic compounds. Also Sludge must be treated before agriculture using and a special environmental permit is needed. Prohibit the use of sludge or the supply of sludge for use on:
 - grassland or forage crops in certain soil in which fruit and vegetable crops are growing;
 - soil intended for the cultivation of fruit and vegetable crops which are normally in direct contact with soil.
- Sludge producers are responsible for unwanted environment and health effects of sewage sludge use.
- The management of sludge from urban waste water treatment plants, after Accession includes: correlation between treatment and the storage capacity of the sludge coming from UWWTPs; the process of improvement of treatment level (secondary level or tertiary level) will conduct to an increase of quantity of sludge in UWWTPs; investigation of the alternatives for the elimination/use of sludge in accordance with environmental legislation; auto-monitoring of sludge is compulsory for water service operators (GD no. 352/2005), keep up-to-date data on sludge characteristics and quantities applied; control and supervise the actions of sludge producers and users are made by National Environmental Guard.

3. Briefly assess the progress achieved towards the target.

Under the ISPA projects in progress, the modernization of the status of the urban wastewater treatment plants and upgrading measures for treatment will get to an improvement of the quality of sludge. Also, by anaerobic fermentation the sludge will produce biogas. In these processes, the drying sludge will be more effective by using new and more efficient installations.

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.

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

For each target set in this area:

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

In Romania wastewater is not more used for irrigation.

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 technical norm NTPA -001/2002 on establishment of limits of pollutants loads of urban and industrial wastewater at the discharging in the natural receptors recommend the use of wastewater which contain nutrients at the irrigation of the forestry or agricultural lands with the approval of the land owners and of the competent authorities in the land reclamation field. The use of wastewater for irrigation has to take into account the nature of agricultural crop and need to have the agreement of the territorial public health inspectorate.

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.

**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 waters used as sources for drinking water is established in specific legislation:

- Water Law 107/1996 modified and completed by Law 310/2004, Law 112/2006 and Emergency Ordinance no. 3/ 2010;
- Government Decision no. 100/2002 amended by GD 662/2005 and GD 567/26.04.2006 approving the quality standards of surface water used for the abstraction of drinking water and Norms on the methods of measurement and frequency of sampling and analysis samples of surface water for drinking water supplyn, with subsequent modifications;
- Government Decision no. 100/2002 concerns surface water used or intended for the abstraction of drinking water after appropriate treatment and supplied by public distribution networks. This Decision sets the minimum quality requirements to be met by surface fresh water:
 - parameters defining the physical, chemical and microbiological characteristics;
 - limit values and guide values for these parameters;
 - the minimum frequency of sampling and analysis;
 - common non-mandatory reference methods for measuring the parameters.
- Government Decision no. 930/2005 on nature and size of sanitary protection zones - have approved special rules on the character and size of sanitary and geological protection zones.
- Law no. 458/2002 on drinking water quality, as amended and completed by Law 311/2004 and Government Ordinance no. 11 of 29/01/2010.

In the technical norm NTPA 013 (approved by GD 100/2002 and amended by GD 662/2005 and GD no. 567/26.04.2006) the standard treatment technologies for transforming surface water of categories A1, A2 and A3 into drinking water are:

- **Category A1** - Simple physical treatment and disinfection, e.g. rapid filtration and disinfection;
- **Category A2** - Normal physical treatment, chemical treatment and disinfection, e.g. pre-chlorination, coagulation, flocculation, decantation, filtration, disinfection (final chlorination).
- **Category A3** - Intensive physical and chemical treatment, extended treatment and disinfection e.g. chlorination to break-point, coagulation, flocculation, decantation, filtration, adsorption (activated carbon), disinfection (ozone, final chlorination).

Characteristics of surface water intended for the abstraction of drinking water are:

Parameters	UM	A1		A2		A3	
		G	I	<u>G</u>	I	<u>G</u>	I
pH	pH units	6,5 – 8,5		5,5 – 9		5,5 – 9	
Coloration (after simple filtration)	mg/l Pt scale	10	20(C)	50	100(C)		
Total suspended solids	mg/l SS	25					

Temperature	°C	22	25(C)	22	25(0)	22	25(C)
Conductivity	µs/cm ⁻¹ at 20 °C	1 000		1 000		1 000	
Odour	(dilution factor at 25 °C)	3		10		20	
Nitrates*	mg/l NO ₃ ⁻	25	50(C)		50(C)		50(C)
Fluorides	mg/l F ⁻	0,7 - 1	1,5	0,7 - 1		0,7 - 1	
Total extractable organic chlorine	mg/l Cl ⁻						
Dissolved iron*	mg/l Fe	0,1	0,3	1	2	1	
Manganese*	mg/l Mn	0,05		0,1		1	
Copper	mg/l Cu	0,02	0,05(C)	0,05		1	
Zinc	mg/l Zn	0,5	3	1	5	1	5
Boron	mg/l B	1		1		1	
Beryllium	mg/l Be						
Cobalt	mg/l Co						
Nickel	mg/l Ni		0,05		0,05		0,1
Vanadium	mg/l V						
Arsenic	mg/l As	0,01	0,05		0,05	0,05	0,1
Cadmium	mg/l Cd	0,001	0,005	0,001	0,005	0,001	0,005
Total chromium	mg/l Cr		0,05		0,05		0,05
Lead	mg/l Pb		0,05		0,05		0,05
Selenium	mg/l Se		0,01		0,01		0,01
Mercury	mg/l Hg	0,0005	0,001	0,0005	0,001	0,0005	0,001
Barium	mg/l Ba		0,1		1		1
Cyanide	mg/l CN ⁻		0,05		0,05		0,05
Sulphates	mg/l SO ₄ ²⁻	150	250	150	250(C)	150	250(C)
Chlorides	mgCl/l	200		200		200	
Surfactants (reacting with methyl blue)	mg/l laurilsulphate	0,2		0,2		0,5	
Phosphates*	mg/l P ₂ O ₅	0,4		0,7		0,7	
Phenols (phenol index)	mg/l C ₆ H ₅ OH		0,001	0,001	0,005	0,01	0,1
Dissolved or emulsified hydrocarbons	mg/l		0,05		0,2	0,5	1
Polycyclic aromatic hydrocarbons	mg/l		0,0002		0,0002		0,001
Total pesticides (parathion, BHC, dieldrin)	mg/l		0,001		0,0025		0,005
Chemical oxygen demand (COD)*	mg/l O ₂	10		20		30	
Dissolved oxygen saturation rate*	%O ₂	> 70		>50		>30	
Biochemical oxygen demand (BOD5)(without nitrification)*	mg/l O ₂	<3		<5		<7	
Nitrogen by Kjeldahl method (except NO ₃)*	mg/l N	1		2		3	
Ammonia (NH ₄ ⁺)	mg/l	0,05		1	1,5	2	4(C)
Substances extractable with chloroform	mg/l SEC	0,1		0,2		0,5	
Total organic carbon	mg/l C						
Residual organic carbon after flocculation and membrane filtration (5 µ)	mg/l C						

TOC							
Total coliforms 37 °C	Nr. coliforms/100 ml	50		5 000		50 000	
Faecal coliforms	Nr. coliforms/100 ml	20		2 000		20 000	
Faecal streptococci	Nr. coliforms/100 ml	20		1 000		10 000	
Salmonella	Nr/5000 ml	Absent		Absent			

I = mandatory

G = guide

0 = exceptional climatic or geographical conditions.

 *) see Article 7 paragraph 2 d

Surface water having physical, chemical and microbiological characteristics falling short of the mandatory limiting values corresponding to treatment type A3 may not be used for the abstraction of drinking water. However, such lower quality water may, in exceptional circumstances, be utilized by providing suitable processes - including blending - are used to bring the quality characteristics of the water up to the level of the quality standards for drinking water.

It is considered that a water resource qualifies for drinking water, if samples taken at regular intervals, the same control point used for drinking water intakes, shows that it corresponds in terms of quality, if:

- 95 % of the samples for parameters conforming to those specified in the I (G) columns,
- 90 % of the samples in all other cases,

Also, when a rate of 5-10% of the number of physical-chemical and bacteriological tests performed on certain water are not within the range stipulated by the regulatory quality, it is foreseen that this can be treated to potable purposes in the following conditions:

- the water does not deviate from the parametric values in question by more than 50 %, except for temperature, pH, dissolved oxygen and microbiological parameters;
- does not represent danger/threat to public health;
- consecutive water samples taken at statistically suitable intervals do not deviate from the relevant parametric values.

Exemptions from the provisions of this quality standard may be granted in the following situations: floods or other natural disasters; in case of certain parameters (marked with O in table) because of exceptional meteorological or geographical conditions; where surface water undergoes natural enrichment in certain substances as a result of which it would exceed the limits laid down for categories A1, A2 and A3 in the table; in the case of surface-water in shallow lakes or virtually stagnant surface water, for parameters marked with an asterisk in the table, this derogation being applicable only to lakes with a depth not exceeding 20 m, with an exchange of water slower than one year, and without a discharge of waste water into the water body.

These exemption clauses do not apply if the requirements for human health protection are not fulfilled.

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

In Romania in 2008 there have been inventoried a number of 269 abstraction of surface water intended for human consumption (intakes) and a number of 1617 groundwater abstractions.

Water bodies designated for the abstraction of water intended for human consumption are considered protected areas under Article 6 and Annex IV of the Framework Directive. Also, in accordance with Article 7 of Water Framework Directive, Member States must identify all water bodies used or will be in future used as sources for human consumption, which provides, on average, more than 10 m³ /day or serving more than 50 people. Also, Member States shall monitor all water bodies that provide more than 100 m³ /day (average).

National wide, for the 208 water intakes there have been set up water quality monitoring sections, in accordance with the Water Framework Directive.

Frequency of sampling and analysis of samples of surface water intended for the abstraction of drinking water (according to standard NTPA-014 on measurement methods and frequency of sampling and analysis of samples from surface waters) is presented in the table below:

Community served	Frequency
<10.000	4/year
10.000-30.000	8/year
30.000	12/year

The following measures are taken to ensure water quality compliance with requirements: building new groundwater and surface water intakes and to ensure their sanitary protection zones; the rehabilitation of existing water networks to improve water distribution and reduce the risk of accidents, water losses and subsequent contamination of water; building new distribution networks; rehabilitation of treatment technologies - improving treatment technologies; building new treatment plants; improve management of sludge resulting from the process water treatment.

To avoid adverse impacts on public health taking into account the relevant standards of the World Health Organization, the following measures have been taken: the surveillance activities and control of sanitary protection of water sources for human consumption, sanitary authorization of treatment plants (which approval shall be reviewed annually), water chlorination, regular health inspection of the treatment plant and distribution network, implementation of remedial measures, utilization of the construction materials and installation in contact with water approved by Ministerial Order (Order of the Minister of Health and Family no. 117 / 2002, Order of the Minister of Health and Family no. 536/1996), information of the population on inadequate parameters to public health and on measures to be taken, etc..

Measures taken by Romania to control sampling of water sources for users are:

- compliance with requirements of the permits and to water management, to establish conditions that amount to the taking of water sources for uses;
- checks planned common thematic activities and sampling of water sources for uses (monitoring of water users, water works built or have contact with water, checking the compliance of water consumption per unit of product or activity, saving water through judicious use, recycling and repeated use, measures to limit or temporary suspension of water use plans, restrictions on water use in poor period - drought). Checking the activity of water use is achieved by periodic control actions performed by National Administration „Romanian Waters”.

3. Briefly assess the progress achieved towards the target.

Under Council Directive 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water in the Member States, sampling sections are monitored.

The table below shows the evolution of surface water quality monitoring:

The total number of sampling sections:	Number of sampling sections monitored		
	Year 2006	Year 2007	Year 2008
Total	199	208	213
which are classed as A1 quality	55	73	71
which are classed as A quality	118	125	125
which are classed as A3 quality	26	10	17

Results of physico-chemical and biological characteristics of surface water samples show the following:

- in 2006 the total of 199 sampling sections / intakes (monitoring sections), in 55 sections to fit within the water quality category A1 in section 118 was within the category A2 water quality in 26 sections to water Quality framed in A3 category;
- in 2007 of a total of 208 sections of sampling / intakes (monitoring sections), in 73 sections corresponding water quality category A1, in 125 sections corresponding category as A2 and 10 sections corresponding to quality class A3;
- in 2008 of a total of 213 sections of sampling / intakes, in 71 sections corresponding water quality category A1, the section 125 water quality meets Class A2 and 17 sections corresponding water quality category A3.

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.

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

For each target set in this area:

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

Romania has to achieve important targets in the field of bathing waters, in accordance with the European aquis (regarding waters used for bathing):

- a) ensuring a high level of protection of bathing water,
- b) monitoring and classification of bathing water quality,
- c) the management of bathing water quality,
- d) informing the public on the results of the monitoring of bathing water quality and risk management measures in order to prevent health hazards, especially in the context of predictable short-term pollution or abnormal situations.

Intermediate targets:

- establishing the bathing water profile: 31 March 2011;
- monitoring quality parameters: 01 January 2012;
- assessment of the bathing water quality: 01 January 2015;
- public informing and involvement in establishing, reviewing and updating lists of bathing water.

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.

Legal framework:

- Government Decision No 459/2002 for approving water quality standards for natural bathing areas;
- Government Decision No 88/2004 for approving surveillance standards, health inspection and control of natural areas used for bathing;
- Government Decision No 546/2008 concerning the management of bathing water, which transposes Directive 2006/7/EC

Information and education measures:

- public information and education by installing the information boards in the touristic areas;
- mass- media communication;
- NGO's involvement.

Management measures:

- establishing a monitoring calendar;
- monitoring of bathing waters.

3. Briefly assess the progress achieved towards the target.

The deadline for compliance with the reference values of quality parameters for bathing water was five years, in accordance with the Government Decision 459/2002. This target has been achieved since 2007 bathing season.

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.

Directive 2006/7/EC, transposed by Government Decision 546/2008 has set new targets and target date as: establishing the bathing water profile, classification of bathing water quality, monitoring quality parameters, assessing bathing water quality, as mentioned above.

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

Not applicable

**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.

Ensuring the requirements concerning the waters quality used for aquaculture.

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.

Governmental Decision no 201/2002 on the approval of Technical Norms regarding the surface waters quality for shellfish, amended by GD 467/2006.

Four marine areas have been identified for the production and harvesting shellfish. A monitoring network has been established and the maps of these areas have been elaborated. Maximum admissible limits for heavy metals, organochlorine compound, water and sediments have been set up.

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.

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

For each target set in this area:

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of such target.
 - A. The setting up of a National Centre for Monitoring of Environment Risk Factors;
 - B. Elimination of healthy risk factors related to the quality of swimming pool waters.
 - C. Updating and improving of the current legislation in force, according to the new scientific development and the international legal provisions;

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.
 - A. Realised
 - B. monitoring of water quality; sanitary control of swimming pool; display of *Access Restricted* at the entrance in swimming pools for individuals with communicable disease, wounds or dermatitis.

3. Briefly assess the progress achieved towards the target.
 - A. Realised – adoption of the *Governmental Decision no. 1414/2009 for setting up, organising and functioning of the National Public Health Institute*
 - B. In progress
 - C. Standards for design and manufacture of swimming pools and provisions on the quality and monitoring of enclosed waters at public pools are laid down in Ministry of Health Order No. 536/1997.

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.

The economic activities in Romania produced many typologies of geological medium contaminations: contamination with oil and petroleum products, hazardous chemical substances, organic substances, pesticides, radioactive substances, etc. The recent or actual economic activities continue to produce accidental contaminations of the geological medium.

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.

General legal provisions of the Government Emergency Ordinance no. 195/2005 on environmental protection approved with subsequent amendments by Law no. 265/2006 with further amendments include aspects related to the geologic medium and contaminated sites issues, the soil, subsoil and terrestrial ecosystems issues.

Legislative framework with direct, complete and complex references regarding the contamination issues includes 2 Governmental Decisions:

- Government Decision no. 1408 /2007 on soil and subsoil assessment and investigation ways
- Government Decision no. 1403 /2007 concerning the restoration of areas where the soil, subsoil and terrestrial ecosystems were affected

Legislative framework with direct references to the groundwater contamination includes:

- Government Decision no. 53/2009 for approving of the National Plan for the protection of the groundwater against pollution and deterioration,
- Order of the Minister of Environment no. 137/2009 on the approving of the threshold values for groundwater catchment in Romania

Indirect references to the contamination issue are given by:

- Order of the Minister of Water and Environment Protection no. 756/1997 for approving of regulations on environment pollution assessment
- Government Emergency Ordinance no. 68/2007 on environmental liability regarding the prevention and restoration of environmental damage.

According with the G.D no 1408/2007, Romania started the preliminary achievement of the national inventory of the contaminated sites.

During 2010 the inventory will be validated and approved by a joint order of Ministers of environment, economy, finances and agriculture.

3. Briefly assess the progress achieved towards the target.

Romania pays attention to the reuse of the contaminated land, to the ecological safety requirements and environmental safety for the environment and population protection.

The field regarding the management of the contaminated sites in Romania is in an initial phase of development, its basis been started only after 2005

In this sense, some action programmes at national and sectoral level are necessary in order to ensure the achievement of the national and European requirements for the investigation and knowledge of contaminated sites, the risk assessment caused by these, the promoting of recovery solutions for the affected geological environment.

The main tool used for planning to achieve these goals is represented by the National Strategy for the contaminated sites management. The Strategy developed in 2009 presents clear objectives, ways for their achievement and the necessary resources for a short, medium and long term. At the same time, the measures to achieve and maintain a high level of ecological security and environmental safety for the estimated periods of time, are anticipated. This also shows the Romania's situation and needs, the activities and measures with a national impact which has been implemented.

In the process of the strategy development 2 types of experiences have been taken into consideration:

- the European experience related to the contaminated sites management, including a large diversity of concepts and approaches which were generated by the different national experiences of the states
- the Romanian experience with an important value regarding the investigation, assessment and knowledge of the geological environment and of the natural geological resources.

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

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

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

For each target set in this area:

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

The national infrastructure for water management system consists of lakes, dams, flood defence works, channels, derivations, water intakes and other specific works, and surveillance national water infrastructure systems, hydro and water quality monitoring, etc.

The target for management, development, protection and use of water resources is to reach the good water status till the end of implementation of requirements of Water Framework Directive, meaning 2015, 2021 and 2027.

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 efficiency of Romanian water management system consists of its integrated character. To achieve an integrated management of water resources, National Administration "Romanian Waters" had undertaken measures related to technical and economical, legal organizational and social framework at central and river basin level. In this way the main attributes of the water resource administrator are: sustainable management of water resources; implementation of European Directives to achieve "good status" of water; knowledge, conservation and protection of water resources; flood protection; operation and maintenance of water management works; warning of water users and local authorities regarding danger of occurrence of accidental pollution; ensure consistent development of infrastructure for water management through the development of national public interest objectives, consisting of new sources of water and flood defence works; informing the public about water issues and environmental protection.

All the measures related to the integrated water management are part of the River Basin Arrangement and Management Master Schemes:

- a good status for surface water for artificial water bodies or heavily modified a good ecological potential and good chemical status of surface waters;
- good chemical status and balance between the amount collected for all water and recharging groundwater resources;
- optimum water supply for all users;
- reduce the harmful effects of water due to floods, droughts and accidental pollution.

Additionally the the River Basin Arrangement and Management Master Schemes at river basin scale will integrate the requirements of Flood Directive: preliminary evaluation of the flood risk, hazardous flood risk map, Flood risk Management Plan.

The financial and economical mechanism for quantitative and qualitative water resources management includes the contributions, payments, bonification and penalties as part of the way of financing on economic principles of the National Administration "Romanian Waters" (and implicitly of all Water Basin Administrations) for the safe operation of the National System for Water Management according to art. 108 of the Romanian Constitution, republished the article 4

paragraph (5) Government Emergency Ordinance on the establishment of the National Administration "Apele Române" nr.107/2002

The payment system is based on the beneficiary pays principle and the polluter pays principles. Depending on the use of water resources, bonification can be granted to users who demonstrate concern for the use and protection of water quality or penalties for users to determine which deviations limits exceed the limit from water management authorization

In compliance with Law 310/2004 National Administration "Romanian Waters" is the only entitled to apply the system of payments for specific activities of all water management users (not for geothermal waters).

The Nitrates Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources was fully adopted by the Government Decision no. 964/2000 for the approval of the Action Plan for the water protection against pollution caused by nitrates from agricultural sources as further amended.

In 2009 according to the G.D no. 964/2000, following the redesignation of the nitrates vulnerable zones by the Joint Ministerial Order no.1552/743/2008 for the approval of the list containing the localities by counties where there are sources of nitrates from agricultural activities, the Action Programs for the new vulnerable zones were elaborated and were subject of public consultation.

For 2010 the short – term priority is the approval of the Action Programs on the context of the Ministerial Commission for the implementation of the Action Plan for the protection of water against pollution caused by nitrates from agriculture sources, which includes specialists of the Ministry of Environment and Forestry, Ministry of Agriculture and Rural Development and Ministry of Health.

In order to support the Nitrates Directive implementation, during 2002 – 2007, the Ministry of Environment obtained a grant from the World Bank for the Agriculture Pollution Control Project that was implemented in Calarasi County. This Project aimed to significantly increase the use of good agricultural practice in rural areas, to reduce the discharge of fertilizers from agricultural sources within the Danube and the Black Sea by an integrated water and soil management. Following the success of this Project, during 2008 – 2013 the Ministry of Environment and Forestry implements at national level the "Integrated Nutrient Pollution Control" Project financed by a World Bank loan of 50 million euro and by a GEF grant of 5.5 million USD. This Project has as general objective to support the Romanian Government in its efforts to comply with the Nitrates Directive requirements thorough: a) the reduction of the nutrients discharges within the water bodies; b) the promotion of the behavioural changes at regional level; c) the regulation frame and institutional capacity strengthening. The global environmental objective is to reduce on long term the nutrients discharges in the water courses that flow into the Danube and Black Sea.

3. Briefly assess the progress achieved towards the target.

The process is already started; measures related to all European legislation in the water management field have been defined and will coming into force in 2013.

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

Not applicable.

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

Not applicable.

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 FOUR: OVERALL EVALUATION OF PROGRESS ACHIEVED IN IMPLEMENTING THE PROTOCOL

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

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

The process of the implementation of the Protocol is in progress. This implementation of the Protocol is made through the implementation of the EU Directives in the water field which contribute to the achievement of the objectives of the Protocol.

In order to fulfil the requirements of the Protocol, the process of setting targets is under development. The transition periods required by Romania for the implementation of the Directives are taken into consideration for the setting of the data targets under the Protocol.

The cooperation between institutions with attributions in the field of water, environment, health and agriculture and different stakeholders is necessary for the achievements of the targets and during the process of reporting.

Different activities including *inter alia* targets setting and reporting, public participation, climate changes, impact on water and health, water related diseases surveillance developed / to be developed within the Protocol represent an important support for the implementation of the requirements under the Protocol.

Some constrains during the implementation process are related to the financial aspects regarding the development of the infrastructure for drinking water and waste water and sanitation.

PART FIVE: INFORMATION ON THE PERSON SUBMITTING THE REPORT

The following report is submitted on behalf of Romania in accordance with article 7 of the Protocol on Water and Health.

Name of officer responsible for submitting the national report: Ana Drapa, senior adviser E-mail: ana.drapa@mmediu.ro Telephone number: 00 40 21 316 21 84 Name and address of national authority: Ministry of Environment and Forests General Directorate for Water Management 12 Libertatii Bld., sector 5, Bucharest, Romania	Name of officer responsible for submitting the national report: Adriana Carlan E-mail: adriana.carlan@ms.ro Telephone number: 00 4021 3072662 Name and address of national authority: Ministry of Health Cristian Popisteanu Street, No. 1-3, 010024, Bucharest, Romania
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Signature:

Gheorghe Constantin
General Director
Ministry of Environment and Forests

Date: 31 March 2010

Submission

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

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

Joint secretariat to the Protocol on Water and Health

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