

## UNOFFICIAL WORKING TRANSLATION

### BRIEF COMPLIANCE REPORT TO THE PROTOCOL ON WATER AND HEALTH

#### THE REPUBLIC OF BELARUS

#### PART 1: GENERAL ASPECTS

##### *1. Setting of targets*

The Republic of Belarus joined the Protocol on Water and Health to the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (next – Protocol) according the Presidential Decree no. 159 of the Republic of Belarus on March 31, 2009, and became a legitimate Party of the Protocol since July 21, 2009. The responsible authorities to meet obligations under Protocol for the Republic of Belarus are the Ministry of Health of the Republic of Belarus and the Ministry of Natural Resources and Environment Protection of the Republic of Belarus.

It is planned to establish the Protocol Implementation Council for coordination the activities of the responsible bodies and institutions to meet obligations under the Protocol to the 1992 Convention of the Protection and Use of Transboundary Watercourses and International Lakes (next – Council). The main task of the Council will be development of the policy packages to meet obligations of the Republic of Belarus under the Protocol. Provision of organisational and technical support for the Council work will carry out the Ministry of Health of the Republic of Belarus. At the moment of preparation of the report, the Decision of the Ministry of Health of the Republic of Belarus “On Establishing the Council for Implementation of the Protocol on Water and Health to the 1992 Convention of the Protection and Use of Transboundary Watercourses and International Lakes, Adoption of the Decision on this Council and its Composition” is in the process of approval. The representatives from the following institutions will be included in the composition of the Council:

Ministry of Health of the Republic of Belarus,  
Ministry of Natural Resources and Environment Protection of the Republic of Belarus,  
Ministry of Housing of the Republic of Belarus,  
Ministry of Extraordinary Situations of the Republic of Belarus and  
Academy of Sciences of the Republic of Belarus.

According the obligations under the Protocol (p. 3, article 6), the targets and the target dates will be established in 2 years since the moment of becoming a Party of the Republic of Belarus.

On March 2010, the Implementation Plan on the Protocol was not adopted at the national level but some provisions of the Protocol are already implementing under the following state and national programmes and plans:

1. The State Programme on Water Supply and Sanitation “Clean Water” for 2006 – 2010, adopted by the Presidential Decree of the Republic of Belarus no. 208 on 10.04.2006 (National Register of the Legal Acts of the Republic of Belarus, no. 58, 1/7428, 2006);
2. The National Action Plan on the Rational Use of Natural Resources and Environment Protection of the Republic of Belarus for 2006-2010, adopted by the Presidential Decree of the Republic of Belarus no. 302 on 05.05.2006;
3. The State Programme on Provision of Security in Health and Disease Control of Population of the Republic of Belarus on 2007-2010, adopted by the Council of Ministers of the Republic of Belarus no. 1596 on 29.11.2006;
4. The State Programme on Rural Revitalisation and Development for 2005-2010;

5. The State Scientific-Technical Programme “Environmental Safety”;
6. The Sector Scientific-Technical Programme “Medical Ecology and Sanitary”;
7. The Sector Scientific-Technical Programme “Health and Environment”.

*The State Programme on Water Supply and Sanitation “Clean Water” for 2006 – 2010* (next – the State Programme) was developed on a basis of analysis of water supply and sanitation system conditions as well as on a basis of results reached under implementation of provisions of the State Programme on Water Supply and Sanitation “Clean Water” for 2002 – 2005. A major goal of the State Programme is accomplishment of the complex interrelated activities targeted to solve the following tasks:

- provision of a steady supply on quality drinking water to the population;
- provision of a rational water use and support to healthy environment for the population by means of implementation of modern technologies on waste water discharges treatment;
- modernization of a water supply and sanitation management, institutional structure of water facilities in order to improve quality on water supply and sanitation as well as financial conditions for water supply and sanitation facilities;
- cost reduction for services provided by the water supply and sanitation institutions using modern energy saving technologies, optimization of technology equipment functioning, reducing non-production costs and other activities.

Implementation of activities under the State Programme will support further development of water supply and wastewater treatment systems; will improve quality of drinking water supplied to consumers as well as treatment of waste water discharged; will increase protection of underground and surface water supply sources from contamination; will improve management for water supply and sanitation facilities systems, the control systems for water use, the legal norms in this sphere; will help to reach the targets and, finally, to solve the most important social problem with quality drinking water supply and creation of healthy environment for population.

It is planned a complex of organizational, technical and legal measures to reach a major goal of the State Programme. Development of the drinking water supply and treatment facilities is planned for the following directions:

- drinking water quality improvement;
- wastewater treatment quality improvement;
- water supply and sanitation services management perfection;
- normative legal basis for development, design, maintenance and use of water supply and sanitation systems perfection;
- local control and monitoring systems for water supply and sanitation systems development.

There are basic *estimated figures* for development in 2010 the water supply and sanitation systems: general for the country, specified by regions, separate for rural and urban population.

*Information on implementation of the State Programme* is analysed on a yearly basis. In accordance with the progress reached during the Programme implementation, the changes in the activities are introduced by the Presidential Decree of the Republic of Belarus no. 179 on 27.03.2008.

*The State Customer–Coordinator* of the State Programme is the Ministry of Housing of the Republic of Belarus, the *State Customers* are the Province Executive Committees, the Minsk Municipal Executive Committee, the Ministry of Architecture and Construction, *Executors* are the Ministry of Housing, the Ministry of Health, the Ministry of Industry, the Province Executive Committees, the Minsk Municipal Executive Committee, other municipal and province executive committees as well as organisations subordinated.

*Financial support* for the actions under the State Programme is provided from the sources of the republican and the local budgets, and the republican power bodies as well as from the own sources of participating institutions.

***The National Action Plan for Rational Use of Natural Resources and Environment Protection of the Republic of Belarus for 2006-2010*** (next – the National Plan) was developed with a goal to select a most effective ways for improving environmental situation in the Republic of Belarus and it is correlated with the major directions of the social and economic development of the country.

The National Plan is based on the Constitution of the Republic of Belarus, on the Law of the Republic of Belarus “On Environment Protection“, November 26, 1992, amended by the Law of the Republic of Belarus from July 17, 2002, and other legal acts in the sphere of environment and rational use of the natural resources. It also corresponds to the Concept of Legislation Perfection of the Republic of Belarus approved by the Presidential Decree of the Republic of Belarus no. 205 on April 10, 2002; the Concept of National Security of the Republic of Belarus approved by the Presidential Decree no. 390 on July 17, 2001; the National Strategy of Sustainable Social Economic Development of the Republic of Belarus till 2020; the Environmental Action Programme for Central and Eastern Europe (EAP) adopted by the 2<sup>nd</sup> Ministerial Conference “Environment for Europe” in Lucerne (Switzerland), April 28–30, 1993, and other documents adopted at the national level.

The National Plan follows-up the environment protection activities within the National Action Plan for Rational Use and Environment Protection of the Republic of Belarus for 2001 – 2005. The first priority activities on further improvement in use of the natural resources and protection of environment are stipulated by the National Plan on a basis of the analysis results on environment conditions and management tools in the sphere of environment, they are mentioned in the supplement. A management in the sphere of environment protection is based on the legal basis, economic tools of environment use and protection as well as on the information supply; environmental monitoring, mentoring, education and awareness in this sphere; environmental management in organizations and international cooperation. An important pre-condition for solving environmental problems is scientific support in rational use of natural resources and environmental protection.

*Management* of the National Plan implementation and its evaluation is provided by the Ministry of Natural Resources and Environment Protection.

*Information about progress of execution of the National Plan* is analysed on a yearly basis. If necessary, it is possible to make corrections and changes.

*Major sources of financing for the National Plan activities* are sources of the entities - environmental polluters.

Financing of some activities for environmental protection is done from the republican and the local budgets including the state budget special purpose funds for environment protection of all levels (next – environment funds). They include expenses for construction big environmental facilities; preservation of wild life and biodiversity; creation and support of the environmental protection bodies; organization of the service to provide monitoring and scientific research; for development of the technical legal norms to establish environmental criteria for products, its design, production, maintenance, storage, transportation, realization and utilisation for providing rational use of natural sources and protection of the environmental components; to control compliance with legislation on environment protection and rational use of natural resources; to education and training in environmental matters; for information of stakeholders about condition and contamination of environment, and activities for its protection.

Specific environmental protection facilities construction and re-construction as well as amount of financing from the republican and local budgets including wild life funds are specified on a yearly basis, according to the established procedure, during the budgeting process for the next financial (budget) year.

***The State Programme on Provision of Security in Health and Disease Control of Population of the Republic of Belarus on 2007-2010*** (next – HDC Programme) was developed

with a glance to priority problems in order to prevent and/or minimize the negative influence of the environmental hazards (biologic, chemical, physical, natural, social) to the health of population of the republic and, as a result, reduction of the illnesses frequency.

Among major tasks of the HDC Programme are:

- policy development in the sphere of living environment and human health to provide sustainable development of the state, the hazards on human health control and effective prevention of harmful influence;
- reduction of incidence of the infection diseases among population;
- provision of population with quality drinking water.

HDC comply to the major directions of the social economic development of the country, with the State Programme on Rural Development for 2005-2010 approved by the Presidential Decree of the Republic of Belarus no. 150 on 25.03.2005, by the State Programme on Water Supply and Sanitation "Clean Water" for 2006 – 2010, approved by the Presidential Decree no. 208 on 10.04.2006; with the Presidential Programme "Children of Belarus" for 2006-2010 approved by the Presidential Decree of the Republic of Belarus no. 318 from 15.05.2006, with the National Action Plan for Children Welfare and Protection of Their Rights for 2004-2010 approved by the Presidential Decree of the Republic of Belarus no. 1661 from 18.12.2003 г.

The HDC Programme provides realisation of activities included in the Supplement 1 to the Programme.

*Information about the HDC Programme implementation* is analysed on a yearly basis. If necessary, it is possible to make corrections and changes.

*The State Customer and Coordinator* of the State Programme HDC is the Ministry of Health of the Republic of Belarus.

*Main Executors are:* the Ministry of Health, the Ministry of Education, the Ministry of Economy, the Ministry of Information, Ministry of Exceptional Situations, the Ministry of Agriculture and Food, the Ministry of Finance, the Ministry of Agriculture and Construction, the Ministry of Commerce, the Ministry of Forestry, the Ministry of Housing, the Ministry of Natural Resources and Environment Protection, the National Academy of Sciences of Belarus.

*Financial support* for the actions under the HDC Programme is provided from the sources of the republican and the local budgets as well as from the own sources of participating institutions.

## ***2. Information on this report processing.***

It was a working group created with participation of representatives from the Ministry of Health of the Republic of Belarus, the Ministry of Natural Resources and Environment Protection of the Republic of Belarus as well as the Ministry of Housing of the Republic of Belarus to prepare this report. Coordination functions belonged to the Ministry of Health of the Republic of Belarus.

The data from the Water Cadastre of the Republic of Belarus as well as from the informational and analytic centres for surface and underground waters monitoring within the National Environmental Monitoring System for the Republic of Belarus, and also information from the State Reports "About Sanitary and Epidemiological Situation in the Republic of Belarus" were used for the years mentioned.

## ***3. Additional information.***

Regulation in the sphere of drinking water supply is stipulated by the Law of the Republic of Belarus "On Drinking Water" no. 271-3 from 24.06.1999 (next – the Law) that also provides the state guarantees on drinking water supply for customers.

The basic principles for drinking water supply are stipulated by the Law, they are the following:

- the state guarantees on high priority drinking water supply for physical persons to satisfy their vital needs and to provide health protection;
- the state control and regulation on drinking water supply issues;
- the accountability of enterprises that provide water supply to the local executive and administrative bodies, to the state management bodies in housing, to the state management control and surveillance bodies in water use and protection as well as to the state management body in prevention and management of extreme situations and civil defence within the limits of its jurisdiction;
- providing safety, reliability and manageability of the drinking water supply systems with respect to their technologic features and selection of sources for drinking water supply on the basis of valid on the territory of the Republic of Belarus the obligatory standard requirements and norms to follow;
- high priority in use of underground waters;
- accountability and payment principles for drinking water supply;
- state support and development of the drinking water supply systems, production and supply of equipment and raw materials for them as well as chemicals for water treatment and disinfection.

The state management in the sphere of drinking water supply is provided by the Council of Ministers of the Republic of Belarus, by the local Councils of Deputies, by the executive and administration bodies, by the republican state management body in housing (the Ministry Housing) and its territorial branches as well as the others, specially authorized bodies, according legislation of the Republic of Belarus.

The systems of water supply can be in the state (republican and communal) ownership as well as in the ownership of legal and physical persons.

Transfer or change of the ownership rights on centralized or non-centralised systems of drinking water supply is assumed in case if this transfer or change does not violate the functioning of such systems.

The state control over organization of drinking water supply as well as use and protection of water resources and drinking water supply facilities is carried out by the local Councils of Deputies, by the executive and administration bodies, by the republican state management body in housing.

The state control over execution of the environmental requirements in a process of location, design, construction and maintenance of the drinking water supply facilities as well as over conditions, use and protection of drinking water supply sources and compliance with the established procedures of economical and other activities within sanitary protection zones of water sources and drinking water supply facilities is provided by the state management bodies for the natural resources and environment protection.

The state surveillance over compliance with the drinking water quality to the standard requirements and compliance with the established procedures of economical and other activities within sanitary protection zones of water sources and drinking water supply facilities is provided by the state sanitary surveillance bodies.

The state surveillance on compliance with the technical regulations establishing requirements to the drinking water as well as the state metrology surveillance in the sphere of drinking water supply is provided by the state management body on standardization, metrology and certification.

The state construction surveillance over construction of the water supply facilities is provided by the state construction surveillance bodies.

The state control and surveillance over drinking water supply activities is provided according the conditions established by the Decision on the State Control and Surveillance Regulation in the Sphere of Drinking Water Supply approved by the Council of Ministers of the Republic of Belarus.

The President of the Republic of Belarus has approved the State Programme on Water Supply and Sanitation “Clean Water” that establishes basic estimated figures on development of water supply and sanitation systems (access to sanitation).

According to this Law, *the drinking water consumers have the right:*

- on guaranteed drinking water provision from centralised and non-centralised systems of water supply according the standards on drinking water quality and consumption;
- to demand control over the quality of drinking water supplied through centralised and non-centralised drinking water supply facilities;
- to receive full, trustworthy and up-to-date information about drinking water quality and possible interruptions in water supply in accordance with the legal procedures established by legislation of the Republic of Belarus;
- to initiate execution of public ecological evaluation in accordance with the procedures established, to inform the relevant state management bodies about its results.

During recent years, a whole range of the normative legal acts to regulate activities in the sphere of water supply and sanitation (mentioned in the relevant sections) was developed in the Republic of Belarus. The sanitary rules and norms «Hygienic Requirements on the Bottled Drinking Water» no. 59 from 29.06.2007, approved by the Ministry of Health Regulation, are among them. The present sanitary rules for quality and safety of the bottled drinking water were harmonised with the requirements of the EU Directive from November 3, 1998 (98/83/EC).

## PART 2      GENERAL DATA

### I. QUALITY OF DRINKING WATER SUPPLIED

#### A. Information about the context of data in the sections B and C

##### *1. Population covered by water supply*

Population in the Republic of Belarus is provided with drinking water through centralized and non-centralised water supply systems. Statistical reporting on quality control and safety of the drinking water in the country is carried out with taking into account population coverage with centralised and non-centralised water supply, including both rural and urban population on a case-by-case basis. In the sections B and C of the report, information on the drinking water quality is presented by subsections:

- sources of centralised water supply,
- water in water pipes (centralised systems),
- sources of non-centralised water supply.

Coverage of the population with centralised water supply (%) is presented in the Table 1:

Table 1

Year	Coverage with centralised water supply (%), incl.		
	total population	urban population	rural population
2004	79.3	91.9	47.2
2008	82.0	94.4	51.6
2010 (forecasting)	85.4	96.9	56.0

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##### ***For reference:***

*drinking water (water of drinking quality)* – water with organoleptic parameters, microbiologic and chemical composition that corresponds to the valid sanitary norms and standards and it is safe for human life and health;

*centralised system of drinking water supply* – a complex of facilities to provide the drinking water to a number of consumers;

*non-centralised system of drinking water supply* – a complex of facilities (pit well, well, stand-pipe, water purifier, etc) to provide the drinking water for separate groups or single consumers (*The Law of the Republic of Belarus no. 271-3 from June 24, 1999, «On Drinking Water Supply»*).

Table 2

Number of population of the Republic of Belarus for periods analysed

Number of population	Number of population, thousand persons			
	Year 2004	Year 2005	Year 2008	Year 2009
total	9849.1	9800.1	9689.8	9671.9
urban population	7045.5	7055.9	7108.1	7148.5
rural population	2803.6	2744.2	2581.7	2523.4

2. *Systems of water supply in the report cover both the urban and rural population.* See p. 1.

3. *Information on the national standards (indices) of drinking water safety mentioned in the report.*

#### **Bacteriological quality**

Information for index WatSan\_S2 (percent share of tests that do not correspond to the national standard on bacteriological water quality) for coli bacillus is mentioned in the report. Data for enterococcus is not mentioned as it is not included in the list of controlled indices in the Republic of Belarus.

The national microbiological and parasitological indices for epidemic safety control of the drinking water are included in the Table 3:

Table 3

Indices	Units	Standards
Thermo tolerant coli form bacteria (TCB)	Number of bacteria in 100 cm <sup>3</sup>	Missing in 300 ml
General coli form bacteria (GCB)	Number of bacteria in 100 cm <sup>3</sup>	Missing in 300 ml
Total bacteria count (TBC)	Number of bacteria colonized in 1 cm <sup>3</sup>	Not more then 50
Coli phage*	Number of focus-forming units (FFU) in 100 cm <sup>3</sup>	Missing
Spores of sulphite-reducing clostridia**	Number of spores in 20 cm <sup>3</sup>	Missing
Cysts of <i>Lambliia</i> *	Number of cysts in 50 cm <sup>3</sup>	Missing

Notes:

\* - tests are provided only for the systems of water supply from the surface water sources before water distribution via network;

\*\* - tests are provided in assessment efficiency of water treatment technology.

In each test is provided evaluation of TCB, GCB, and TBC. Probing procedure of other rated microbiological indices is determined during drafting of the work programme for operational control.

#### **Chemical quality**

Information for index WatSan\_S2 (percent share of tests that do not correspond to the national standard on chemical water quality) for 5 obligatory substances and 5 additional ones selected from pesticides, manganese, oil products, general hardness and surface-active agents is mentioned in the report. It is provided information there about non-compliance with the chemical water quality standard in general.

The national safety standards on chemical quality of drinking water are presented in the Table 4:

Table 4

no.	Values	Standards (maximum allowable concentration (MAC), no more than
<i>I. Obligatory chemical values:</i>		
1.	Fluoride	1.5 mg/dm <sup>3</sup>
2.	Nitrate (as NO <sub>3</sub> <sup>-</sup> ) and Nitrite (as NO <sub>2</sub> <sup>-</sup> )	45.0 mg/dm <sup>3</sup> 3.0 mg/dm <sup>3</sup>
3.	Arsenic	0.05 mg/dm <sup>3</sup>
4.	Lead	0.03 mg/dm <sup>3</sup>
5.	Iron	0.3 mg/dm <sup>3</sup>
<i>II. Additional chemical values:</i>		
1.	Pesticides: γ-HCH (hexachlorane/lindane) DDT 2,4-dichlorophenoxyacetic acid	0.002 mg/dm <sup>3</sup> 0.002 mg/dm <sup>3</sup> 0.03 mg/dm <sup>3</sup>
2.	Manganese	0.1 mg/dm <sup>3</sup>
3.	Oil products (cumulative)	0.1 mg/dm <sup>3</sup>
4.	General hardness	7.0 mmole/dm <sup>3</sup>
5.	Surface-active agents	0.5 mg/dm <sup>3</sup>

### B. Bacteriological quality

Table 5

	WatSan_S2 for coli form bacillus (% of tests that do not correspond the national standard)	
	Initial value 2005	Current value 2009
Sources of centralised water supply (incl. from surface water intake)	1.31 / 3.70	0.76 / 0.00
Water pipelines (centralised water supply)	2.10	0.99
Sources of non-centralised water supply	22.87	14.51

### C. Chemical quality

Table 6

<i>I. Sources of centralised water supply</i>			
No.	Chemical values controlled	WatSan_S3 Initial value 2005	WatSan_S3 Current value 2009
<i>I. Obligatory chemical values:</i>			
1.	Fluoride	0.73	0.30
2.	Nitrate and Nitrite	0.51	0.62
3.	Arsenic	0.00	0.12
4.	Lead	0.02	0.03



5.	Iron	46.48	44.78
<i>II. Additional chemical values:</i>			
1.	Pesticides	0.00	0.00
2.	Manganese	6.31	5.55
3.	Oil products (cumulative)	0.07	0.21
4.	General hardness	2.74	3.22
5.	Surface-active agents	0	0
<b>2. Water pipelines (centralised water supply)</b>			
No.	Chemical values controlled	WatSan_S3 Initial value 2005	WatSan_S3 Current value 2009
<i>I. Obligatory chemical values:</i>			
1.	Fluoride	0.36	0.23
2.	Nitrate and Nitrite	0.46	0.47
3.	Arsenic	0.00	0.00
4.	Lead	0.00	0.00
5.	Iron	31.49	25.73
<i>II. Additional chemical values:</i>			
1.	Pesticides	0.00	0.00
2.	Manganese	3.25	2.70
3.	Oil products (cumulative)	0.26	0.19
4.	General hardness	1.96	1.50
5.	Surface-active agents	0	0
<b>3. Sources of non-centralised water supply</b>			
No.	Chemical values controlled	WatSan_S3 Initial value 2005	WatSan_S3 Current value 2009
<i>I. Obligatory chemical values:</i>			
1.	Fluoride	0.19	0.64
2.	Nitrate and Nitrite	41.33	28.59
3.	Arsenic	0.00	0.00
4.	Lead	0.00	0.00
5.	Iron	5.82	3.68
<i>II. Additional chemical values:</i>			
1.	Pesticides	0.00	0.00
2.	Manganese	3.30	5.54
3.	Oil products (cumulative)	1.82	4.11 (2008)
4.	General hardness	11.45	5.66
5.	Surface-active agents	0	0.34

Table 7

**Non-compliance with the standard on chemical quality for drinking water in general**

For water from:	Cumulative deviation from the standard on chemical water quality	
	Initial value 2005	Current value 2009
- Sources of centralised water supply	45.40	36.96
- Water pipelines	25.56	21.06
- Sources of non-centralised water supply	43.12	30.14

**II. REDUCTION OF THE SCALE OF OUTBREAKS AND INCIDENTS  
OF WATER-RELATED DISEASES**

Table 8

Infectious diseases	Cases of diseases*		Number of outbreaks**	
	Initial value 2005	Current value 2009	Initial value 2005	Current value 2009
Cholera	–	–	–	–
Bacillary dysentery (Shigellosis)	1627 cases 16.72 cases for 100 thousand of population	165 cases 1.71 cases for 100 thousand of population	–	–
Enter hemorrhagic Escherichia coli (EHEC)	Not registered			
Viral hepatitis A	673 cases 6.92 cases for 100 thousand of population	85 cases 0.88 cases for 100 thousand of population	–	–
Abdominal typhoid	–	–	–	–
Note: * – it is mentioned a total number of cases of diseases during a year by taking into account of all sources of originators transfer; ** – it is mentioned a total number of cases of diseases that could be potentially related to water.				

### III. ACCESS TO DRINKING WATER

Information about access to drinking water is presented according to the statistical report. The statistical reporting on quality control and drinking water safety in the country is provided taking into account the population coverage with centralised and non-centralised water supply, including on a case-by-case basis for rural and urban population.

Table 9

Percent share of population with access to centralised systems of drinking water supply	Initial value 2004	Current value 2008
Total	79.3	82
Urban population	91.9	94.4
Rural population	47.2	51.6

### IV. ACCESS TO SANITATION

Table 10

Percent share of population with access to improved sanitation	Initial value 2004	Current value 2008
Total	61.9	67.5
Urban population	78.9	85.1
Rural population	18.9	23

### V. OPERATIONAL EFFICIENCY, PROTECTION AND USE OF FRESH WATER RESOURCES

#### Water quality

##### 1. Surface waters condition

Table 11

Surface waters characteristics by hydro chemical indices\*

Water quality ranking	Share of surface waters related to ranking below (%)**	
	Initial value 2005	Current value 2008
I – clean	1.4	6.2
II – relatively clean	51.2	79.0
III – moderately polluted	45.5	13.6
IV – contaminated	1.4	0.4
V – dirty	-	0.8
VI – very dirty	0.5	-

Notes:  
\* – quality characteristics of surface waters and assessment of conditions of surface waters as well as level of their contamination presented is made on basis of integral index – water contamination index (WCI);

\*\* – % from the total number of quality tests

**For reference:**

WCI evaluation is provided on a yearly average basis for concentrations of 6 ingredients: dissolved oxygen, unstable organic substances (for BOD<sub>5</sub>), ammonia nitrogen, nitrite nitrogen, phosphate phosphorus and oil products.

Classification of water quality by WCI is presented in the Table 12.

Table 12

Classification of water quality by hydro chemical indices

Water quality ranking	WCI value	Quality characteristic
I	≤ 0.3	Clean
II	0.3 – 1.0	relatively clean
III	1.0 – 2.5	moderately polluted
IV	2.5 – 4.0	Contaminated
V	4.0 – 6.0	Dirty
VI	6.0 – 10.0	very dirty
VII	< 10.0	extremely dirty

Table 13

Surface waters characteristics by hydro biological indices\*

Water quality ranking	Share of surface waters related to ranking below (%)**	
	Initial value 2005	Current value 2008
I – very clean	-	-
II – clean	-	-
II – III – clean – relatively clean	63.5	76.0
III – relatively clean	28.6	22.0
III – IV – relatively clean – contaminated	7.9	2.0
IV – contaminated	-	-
V – dirty	-	-
VI – very dirty	-	-

Notes:

- Quality classification for waters of reservoirs and water courses by hydro biological indices is provided on the basis of bio indication (GOST 17.1.3.07–82). Determinatives are the following indices: taxonomic composition, population and biomass of communities, dominant groups and varieties of aquatic organisms. Besides that, the Pantle-Buck's saprobity method modified by Sladeczek is used. Quality assessment of environment by analysis of benthal communities is provided using biotic indexes and Goodnight-Whitley (by abundance of oligochaetes) methods. General assessment of surface water quality ranking in each specific case is done by accumulation of hydro biological indices with respect to ecological identities of hydrobiocenose communities. It is assumed an assessment of transitional ranking of water quality.

\*\* – % from total number of quality tests.

**For reference**

Table 14

Criteria of quality classification for waters of reservoirs and water courses by hydro biological indices according to GOST 17.1.3.07-82

Ranking of water quality	Level of water pollution	By phyto -, zooplankton and phytoperiphyton	By zoo benthos	
		Pantle-Buck's saprobity index modified by Sladeczek	Goodnight-Whitley index, %	Biotic Index by Woodiwiss, score
I	clean	< 1,00	1 - 20	10
II	relatively clean	1.00 – 1.50	21 - 35	7 - 9
III	moderately polluted	1.51 – 2.50	36 - 50	5 - 6
IV	contaminated	2.51 – 3.50	51 - 65	4
V	dirty	3.51 – 4.00	66 - 85	2 - 3
VI	very dirty	> 4.00	86 - 100 or macrozoobenthos is missing	0 - 1

Table 15

Share of the tests with excess of the national standards established (MPC for surface waters for fish breeding activities) by key surface water quality indices (river and lake systems)

No	Quality index	Share of the tests with excess of the national standards established (%)	
		Initial value 2005	Current value 2008
1.	Biochemical Oxygen Demand (BOD <sub>5</sub> ) <i>MAC = 3 mgO<sub>2</sub>/l</i>	26.5	20.9
2.	amount of ammonium nitrogen <i>MAC = 0,39 mgN/l</i>	49.4	34.8
3.	amount of phosphate phosphorus <i>MAC = 0,066 mgP/l</i>	36.4	28.8
4.	amount of total phosphorus	17.7	9.6
5.	amount of heavy metals (cumulative Pb, Cr, Ni, Cd, As)	5.5	1.8

## 2. Underground water condition

The national classification system of the underground waters by their quality (by the European classification, bad or good quality) in the Republic of Belarus is not provided. In the Table 16 is presented information about percent share of the tests from monitoring observation network with excess of the national standards by the key indices on quality and safety of the underground waters.

Table 16

Percent share of the tests from monitoring observation network with excess of the national standards by the key indices on quality and safety of the underground waters

	Share of the tests with excess of standards, %	
	Initial value 2005	Current value 2008
amount of ammonia nitrogen	6	6
amount of nitrite nitrogen	4	2
acid permanganate capacity	18	12

### Water use

Table 17

#### Exploitation Index of water resources for major industry branches

Water use sector	Exploitation Index of water resources (yearly volume of fresh water abstraction to the total volume of fresh water regenerated), %		
	Initial value 2005	Current value 2008	Current value 2009
total	2.5	2.7	2.7
for agricultural needs	0.2	0.2	0.2
for production needs*	0.7	0.7	0.7
for residential needs**	1.2	1.0	0.8
for pond fish farming	0.4	0.5	0.5
Notes: * – the characteristic account for water abstraction for processing industry as well as for cooling of energy systems; ** – the characteristic account for public systems of water supply and does not correspond to non-centralised systems, it includes water use for drinking and residential needs.			

### *For reference*

Table 18

#### General characteristics of fresh water resource potential of the Republic of Belarus

	2004	2005	2006	2007	2008	2009
Volume of runoff formed in natural conditions on the territory of the country, km <sup>3</sup>	38.3	42.5	33.7	33.7	35.5	38.0
Real volume of river water intake on the territory of country from surrounding countries, km <sup>3</sup>	21.8	22.7	26.8	20.0	23.4	26.5

### PART 3: A SET OF TARGETS AND TARGET DATES, AND AN ASSESSMENT OF THE PROGRESS

#### I. QUALITY OF DRINKING WATER SUPPLIED (paragraph 2 a, article 6)

**Targets:**

1. *provision of the centralised drinking water supply systems for the settlements with water treatment facilities (%) in 2010* total for republic, by administrative division as well as with consideration of coverage for urban and rural settlements (Table 1). This target was established for both the national and the local levels.

Table 1

Settlements	Provision of the centralised systems of drinking water supply for settlements with water treatment facilities (%)	
	Initial situation 2004	<b>Target for 2010</b>
Total for republic, incl.	65.1	79.3
— urban	76.6	86.3
— rural	8.5	19.7

Reaching of this target is planned within the State Programme on Water Supply and Sanitation “Clean Water” for 2006-2010 as well as within The State Programme on Rural Revitalisation and Development for 2005-2010; it is also planned to continue during the next stages of these programmes in 2011-2015.

For reaching such targets are planned the following activities:

- construction, reconstruction and repair of 110 stations for water deferrization (at the moment, near 2 million of people use water with increased amount of iron);
- construction, reconstruction and repair of 61 purification installations.

2. *improvement of condition (reduction of depreciation) of the networks and treatment facilities for water supply in the settlements (%) in 2010* total for republic as well as with consideration of coverage for urban and rural settlements (Table 2). This target was established for both the national and the local levels.

Table 2

Settlements	Condition (depreciation) of the networks and treatment facilities for water supply in the settlements (%)	
	Initial situation 2004	<b>Target for 2010</b>
Total for republic, incl.	59.2	50.8
— urban	55.0	46.6
— rural	69.7	55.6

Reaching of this target is planned within the State Programme on Water Supply and Sanitation “Clean Water” for 2006-2010 as well as within The State Programme on Rural Revitalisation and Development for 2005-2010; it is also planned to continue during the next stages of these programmes in 2011-2015.

For reaching such targets are planned the following activities:

- construction, reconstruction and repair of 152 km of the water supply networks;
- establishing of the specialised maintenance engineering team for the rural water supply network services.

3. *coverage of the population by centralised water supply (%) in 2010* total for republic as well as with consideration of coverage for urban and rural settlements (see section III).

4. It is foreseen *transfer to use of the underground sources for centralised water supply* in such big cities of the Republic of Belarus as Gomel (in 2011) and Minsk (in 2015).

At the moment, sources of surface water are used by 600 thousand people of the country population.

5. *Targets for protection of the drinking water sources* are presented in the section XIV.

*Report on the progress in activities* is made on a yearly basis. During the progress review on reaching targets the necessity of reconsideration for them as well as for target dates did not appear.

In recent years, in the Republic of Belarus has been already developed a range of the legal norms that regulate activities in this sphere including the Instruction for organising and carrying out of the department laboratory control of the drinking water supply systems in the Republic of Belarus, Reg. No.135-1207, approved by the Chief Sanitary Doctor of the RB on 21.01.2008.

## II. REDUCTION OF THE SCALE OF OUTBREAKS AND INCIDENTS OF WATER-RELATED DISEASES (paragraph 2 b, article 6)

Reduction of the infectious diseases incidence of the population is one of the major tasks of the State Programme on Provision of the Sanitary-Epidemic Security of the Population of the Republic of Belarus for 2007-2010, approved by the Regulation of The Council of Ministers No. 1596 on 29.11.2006 (next – SES). For solving this task a range of activities is envisaged (including those mentioned in sections 1, 3-9, 11, 14 of part III) within SES and other state and national programmes.

Within SES there were additionally established *the following targets* for this direction and the activities planned for reaching them:

Target	Activities for reaching it	Executors
<b>1. Reduction morbidity by hepatitis A from 6.9 for 100 thousand of population in 2005 to 5 for 100 thousand of population in 2010.</b>	Introduction of immunization against hepatitis A among contingents of high risk focused in pre-school and general educational institutions	Target date: 2007-2010.  Executors: the regional executive bodies, the Minsk City Executive Body  Financial sources: local budgets
<b>2. Prevention of morbidity by acute enteric infections related to the drinking water in the educational institutions</b>	Providing of the bottled drinking water for educational institutions	Target date: 2007, 2009  Executors: the regional executive bodies  Financial sources: local budgets



<b>3. Awareness raising of population in prevention of infectious diseases</b>	Providing information for population about prevention of infectious diseases by: publications of related information in the state periodicals ; Providing for such goals the broadcast time by TV and radio channels	Target date: 2007-2010  Executors: Ministry of Health, the regional executive bodies  Financial sources: Republican budget, local budget
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These targets were established for both the national and the local levels.

Intermediate targets for this direction is not stipulated but at the same time, the results of the activities introduced are planned for publication in the yearly report with all paragraphs specified. Activities are carried out according to the plan in full volume.

Additional information:

— for paragraph 1: morbidity by virus hepatitis A from 2005 to 2009 has decreased in 8 times (6.92 cases for 100 thousand of population in 2005 against 0.88 cases for 100 thousand of population in 2009) mainly because of immunization of the children in the age of 6. For the first time, immunization against hepatitis A among contingents of high risk was carried out in 2003 for distinct cities further it was done by a system basis at the level of republic;

— for paragraph 2: morbidity by acute enteric infection diseases related to drinking water in the educational institutions is not registered. To develop this direction, it was additionally mentioned for developing legal norms (Sanitary regulations and norms) for children in pre-school institutions, recreation camps, labour and leisure camps, tent camps, etc, that all children in such institutions should be provided with bottled drinking or boiled water. In some of such institutions water is additionally treated.

**Targets** for this direction are also those established in all sections, especially in sections I, III - IX, XI –XII, XIV – XV.

### **III. ACCESS TO DRINKING WATER (paragraph 2 c, article 6)**

**Target: coverage of population of the centralised water supply (%) in 2010** total for republic as well as with consideration of coverage for urban and rural settlements (Table 1). This target was established for both the national and the local levels.

Table 1

Population	Population with access to drinking water from centralised water supply systems (%)	
	Initial situation 2004	<b>Target for 2010</b>
Total population, incl.	79.3	85.4
— urban population,	91.9	96.9
— rural population	47.2	56.0

Reaching of this target is planned within the State Programme on Water Supply and Sanitation “Clean Water” for 2006-2010 by development of the centralised water supply systems in both urban and rural settlements, as well as within the State Programme on Rural

Revitalisation and Development for 2005-2010; it is also planned to continue during the next stages of these programmes in 2011-2015.

***Progress in reaching the targets***

Increase in coverage of the population by the centralised water supply as a result of the programme implementation in 2006-2008 is presented in the Table 2.

Table 2

Population	Population with access to drinking water from centralised water supply systems (%)	
	Initial situation 2004	Intermediate result for the end of 2008
Total population, incl.	79.3	82
— urban population,	91.9	94.4
— rural population	47.2	51.6

According to the state statistical report, at the end of 2008, the centralised systems of water supply were provided to 100% of urban and 23.2% of rural settlements. Increase in the ordinary extension of the external water supply network in dynamics, from 2005 to 2008, is presented in the Table 3.

Table 3

	Ordinary extension of external water supply network, thousand km	
	Initial situation 2005	Intermediate result at the end of 2008
Total	23.0	24.2
In urban settlements	9.7	10.1
In rural settlements	13.3	14.1

During the progress review on reaching targets the necessity of reconsideration for them as well as for target dates did not appear.

**IV. ACCESS TO SANITATION**  
(paragraph 2 d, article 6)

***Target:***

***1. coverage of the population by the centralised and local sanitation (%) in 2010*** total for the republic as well as with consideration of coverage for urban and rural settlements (Table 1). This target was established for both the national and the local levels.

Table 1

Population	Population with access to improved sanitation, %	
	Initial situation 2004	<b><i>Target for 2010</i></b>
Total population, incl.	61.9	<b>70.3</b>
— urban population,	78.9	<b>88.2</b>
— rural population	18.9	<b>25.0</b>

Reaching of the target mentioned is planned within the State Programme on Water Supply and Sanitation “Clean Water” for 2006-2010 by development of the centralised and local systems of sanitation for both the urban and rural settlements, as well as within the State

Programme on Rural Revitalisation and Development for 2005-2010; it is also planned to continue during the next stages of these programmes in 2011-2015.

***Progress in reaching target***

Increase in coverage of the population by the improved sanitation (centralised and local systems of sanitation) as a result of the programme implementation in 2006-2008 is presented in the Table 2.

Table 2

Population	Population with access to improved sanitation, %	
	Initial situation 2004	Intermediate result at the end of 2008
Total population, incl.	<b>61.9</b>	<b>67.5</b>
— urban population,	<b>78.9</b>	<b>85.1</b>
— rural population	<b>18.9</b>	<b>23</b>

According to the state statistical report, at the end of 2008, the centralised systems sanitation was provided to 98% of urban and 7.4% of rural settlements. Increase in the ordinary extension of the external sanitation network in dynamics, from 2005 to 2008, is presented in the Table 3.

Table 3

	Ordinary extension of external <b>sanitation</b> network, thousand km	
	Initial situation 2004	Intermediate result at the end of 2008
Total	<b>7.1</b>	<b>7.2</b>
In urban settlements	<b>3.7</b>	<b>3.8</b>
In rural settlements	<b>3.4</b>	<b>3.4</b>

During the progress review on reaching targets the necessity of reconsideration for them as well as for target dates did not appear.

**V. LEVEL OF EFFICIENCY OF THE COLLECTIVE SYSTEMS AND OTHER SYSTEMS OF WATER SUPPLY (PARAGRAPH 2 e, ARTICLE 6)**

In conformity with info in paragraph 2 c, article 6.

**VI. LEVEL OF EFFICIENCY OF THE COLLECTIVE SYSTEMS AND OTHER SYSTEMS OF SANITARY-PROPHYLACTIC ACTIVITIES  
(continued - paragraph 2 e, article 6)**

In conformity with info in paragraph 2 d, article 6.

**VII. IMPLEMENTATION OF RECOGNISED BEST PRACTICES IN THE SPHERE OF WATER SUPPLY MANAGEMENT (PARAGRAPH 2 f, ARTICLE 6)**

**VIII. IMPLEMENTATION OF RECOGNISED BEST PRACTICES IN THE SPHERE OF MANAGEMENT OF A SYSTEM OF THE SANITARY-PROPHYLACTIC ACTIVITIES (CONTINUED- PARAGRAPH f, ARTICLE 6)**

Targets in this sphere are not established.

According to legislation of the Republic of Belarus the centralised (common, i.e. public use) systems of water supply and sanitation has the state ownership of the corresponding territorial level. Arrangement of those systems and its development belong to the competence of the local executive and administrative bodies. Development of the systems is carried out on a basis of the relevant medium- and long-term projected documents – master plans, development schemes, etc.

Development (design, construction and maintenance) of the systems mentioned is realised according requirements of the legal normative and technical acts of the Republic of Belarus in the sphere of architecture and construction, health, environment protection, housing, etc.

According to the Law, the sanitary protected zones are established for protection of the sources for centralised drinking water supply.

Protection of sources for non-centralised water supply (pit wells and well-points) is stipulated in accordance with the sanitary norms requirements.

Efficiency of the sanitary prophylactic activities (functioning of sanitation systems and waste water treatments facilities) is determined by compliance with requirements on waste water treatment established by the bodies responsible for natural resources and environment protection for each single system of waste water treatment before discharge into water bodies.

According to the state statistical report, for the 1st stage of treatment and 1st municipal drainage waters the volume of discharges of insufficiently treated waste waters from the communal systems of sanitation reduced from 8.2 mln m<sup>3</sup> (1.1 % from total discharges in water bodies) in 2005 to 4.3 mln m<sup>3</sup> (0.7 %) in 2008.

**IX. FREQUENCY OF DISCHARGES OF UNTREATED WASTE WATERS (paragraphs 2 g and i, ARTICLE 6)**

Targets by frequency of waste water discharges correspond to the requirements on quality of waste water discharges mentioned in sections X and XI of part 3 (see sections X and XI).

***Background***

Discharge of waste waters untreated is possible in case of break down of waste water treatment facilities (during accidents); as of 2008, only 0.01 mln m<sup>3</sup> of waste waters were discharged without treatment (Table 1).

Table 1

The Republic of Belarus discharges of sewages polluted into water bodies (mln m <sup>3</sup> / year)				Share of waste water polluted in the total volume of waste waters discharged into water bodies (%)
year	total	without treatment	insufficiently treated	
2003	15.06	0.00	15.06	1.3
2004	11.14	0.00	11.14	1.0

The Republic of Belarus discharges of sewages polluted into water bodies (mln m <sup>3</sup> / year)				Share of waste water polluted in the total volume of waste waters discharged into water bodies (%)
year	total	without treatment	insufficiently treated	
2005	10.37	0.00	10.37	0.9
2006	9.35	0.00	9.35	0.86
2007	9.01	0.02	8.99	0.87
2008	10.84	0.01	10.83	1.1

**X. FREQUENCY OF DISCHARGES OF UNTREATED STORM WATERS FROM COLLECTOR SYSTEMS FOR SEWAGES INTO WATERS UNDER PROTOCOL (PARAGRAPHS 2 g and ii, ARTICLE 6)**

**Target:**

*1. coverage by the systems of surface waste water collection and removal of the settlements (%) in 2010* total for republic as well as with consideration to regional division (Table 1). This target was established for both the national and the local levels.

Table 1

Coverage by the systems of surface waste water collection and removal (%) total for republic	
Initial situation 2004	<i>Target for 2010</i>
40.5	<b>58.0</b>

Reaching of the target mentioned is planned within the State Programme on Water Supply and Sanitation “Clean Water” for 2006-2010 by construction of treatment facilities for storm sewage systems and by providing efficient treatment of storm run-offs at the storm water outfalls; it is also planned to continue during the next stages of this programme in 2011-2015.

During the progress review on reaching targets the necessity of reconsideration for them as well as for target dates did not appear.

**XI. QUALITY OF WASTE WATERS DISCHARGED FROM TREATMENT FACILITIES INTO WATERS UNDER THE PROTOCOLA (paragraph 2 h, article 6)**

**Targets:**

*1. quality provision of waste water treatment upon the norms by the centralised systems of sanitation for settlements (%) in 2010* total for republic, with consideration of regional division as well as coverage for urban and rural settlements (Table 1). This target was established for both the national and the local levels.

Table 1

Settlements	Provision of standard quality treatment for surface waste waters by the centralised systems of sanitation within settlements (%)	
	Initial situation 2004	<i>Target for 2010</i>
Total in republic, incl.	97.0	<b>98.6</b>
— urban	98.0	<b>99.7</b>
— rural	87.0	<b>94.0</b>

*2. provision of local treatment for industrial sewages (% of sewages volume discharged into centralised sanitation systems) in 2010* total for republic with consideration of coverage for regional division (Table 1). This target was established for both the national and the local levels.

Table 2

provision of local treatment for industrial sewages (% of sewages volume discharged into centralised sanitation systems) total for republic	
Initial situation 2004	<b>Target for 2010</b>
45.3	<b>51.3</b>

Reaching of this target is planned within the State Programme on Water Supply and Sanitation “Clean Water” for 2006-2010 by construction and reconstruction of waste water treatment facilities; it is also planned to continue during the next stages of this programme in 2011-2015.

In recent years, the legal norms on regulation in this sphere had been developed in the republic:

- Application instruction of «Methods for selection and control of efficiency technique of disinfection of sewage to protect surface water reservoirs used for recreation» no. 065-1109, adopted by the Chief Sanitary Doctor of RB on 24.11.2009.

During the progress review on reaching targets the necessity of reconsideration for them as well as for target dates did not appear. A problem state and a progress reached within the State Programme on Water Supply and Sanitation “Clean Water” in this direction are reflected in the Tables 3 and 4.

Table 3

Waste water discharge and capacity of treatment facilities in 2005 and 2008

Year	Sewages and mining waters discharged in the Republic of Belarus (mln m <sup>3</sup> / year)						Capacity of treatment facilities **
	total	into surface waters				into underground waters	
		total	contaminated (without treatment or insufficiently treated)	clean according the norms	treated according the norms		
2005*	1259	1146	10 (0.9 % of total volume of the sewages discharged into water bodies)	290	846	11.3	1329
2008	1091	990	11 (1.1 % of total volume of the sewages discharged into water bodies)	290	709	101	1450
Notes:							
* - including storm waters in 2005 and without it in 2008;							
** - provided capacity of treatment facilities for sewages at the final stage before discharge into water bodies.							

Table 4

Percent share of the sewages tests with excess of norms established for discharges, %

Indices characterising composition of	Share of the sewages tests with excess of norms
---------------------------------------	---

sewages	established, %				
	2005	2006	2007	2008	2009
biochemical oxygen demand	8.2	8.5	7.3	5.7	5.8
amount of ammonia nitrogen	7.2	8.9	7.1	6.5	6.1
amount of phosphate phosphorus	4.5	10.2	11.8	9.8	6.8
amount of heavy metals (cumulative Pb, Cr, Ni, Cd, As)	1.4	0.6	0.7	0.7	0.99

## **XII. REMOVAL OR UTILIZATION OF SEWAGE SLUDGE FROM COLLECTIVE SYSTEMS FOR SANITARY-PROFILACTIC OR OTHER SANITARY TREATMENT FACILITIES**

**(paragraph 2 i, article 6 – 1st part)**

Targets in this sphere are not established.

Methods of treatment (stabilization, dewatering and disinfection) of sewages according valid building regulations are determined in the process of design of water treatment facilities and are depend on the local climatic, hydro geological, urban planning, agricultural and other conditions.

Utilization of sludge in quality of fertilisers and for similar purposes does not provided due to heavy metals salts and other dangerous substances in its composition.

At the moment, in the Republic of Belarus, only sludge received in a process of sewages treatment on the centralised treatment facilities are kept within special installations (sludge platforms) of such facilities. It is a quite big accumulation of sludge in a volume of 3.7 mln ton estimated at the end of 2008.

In recent years, the works on implementation of sludge processing and use for production of renewable energy sources (biogas complexes and installations) started in the republic. According to the Plan of Implementation of the State Programme on Innovation Development of the Republic of Belarus for 2007-2010, in the cities Baranovichi and Slonim has started the works on biogas complexes installation for processing of sludge and receiving heat and electric power.

## **XIII. QUALITY STANDARDS FOR WASTE WATERS USED FOR IRRIGATION PURPOSES**

**(paragraph 2 i, article 6 – 2nd part)**

In the Republic of Belarus waste waters are not used for irrigation since 2002.

## **XIV. QUALITY STANDARDS FOR WATERS USED AS DRINKING WATER SOURCES**

**(paragraph 2 j, article 6 – 1st part)**



Basic activities for this direction are measures targeted on protection of drinking water sources (centralised and non-centralised ones). The group of such activities includes the following *targets u measures*:

**1. *improvement of condition (reduction of depreciation) of the networks and treatment facilities for water supply in the settlements (%) in 2010*** (section I).

It is planned construction, reconstruction and repair of 70 water intakes.

**2. *coverage of population with centralised and local sanitations (%) in 2010*** (see section IV);

**3. *provision of normative quality of waste water treatment by the centralised sanitation systems for settlements (%) in 2010*** (see sections IX, XI);

**4. *provision of local treatment of industry sewages (% of a volume of sewages discharged into centralised systems of sanitation) in 2010*** (see sections IX, XI);

**5. *coverage of the settlements by the systems of collection and disposal of the surface waste waters (%) in 2010*** (see section X);

**6. *dismantling of 2100 water well that can be no in use anymore*** with a goal of prevention the underground waters pollution.

Reaching of this target is planned within the National Action Plan on Rational Use of Natural Resources and Environment Protection of the Republic of Belarus for 2006-2010. Source of financing such activities are the republican and the local budgets as well as sources of environment protection funds and other institutions.

**7. *Repair of mining wells*** located in the zone of water intakes that supply Minsk.

Reaching of this target is planned within the State Programme on Water Supply and Sanitation "Clean Water" for 2006-2010 as well as within the State Programme on Rural Revitalisation and Development for 2005-2010; it is also planned to continue during the next stages of these programmes in 2011-2015.

**8. *Realisation of activities*** that were planned by the developed and legally approved *projects of the water protection zones of water bodies* according procedures established.

It is realising permanently according the acting legislation.

In recent years, there were some legal documents developed in the country to regulate activities in this sphere:

- The State Standard of the Republic of Belarus STB 1756-2007 «Sources of Centralised Drinking Water Supply. Hygienic and Technical Requirements and Standards of Selection» approved and put into force by the State Standard Regulations of the Republic of Belarus no. 32 on May 30, 2007;

- Sanitary Norms and Rules SanPiN 2.1.4.12-23-2006 «Sanitary Protection and Hygienic Requirements on Water Quality for Sources of Non-Centralised Drinking Water Supply to Population»;

- Instruction for Monitoring of Persistent Organic Pollutants in Drinking and Surface Water Sources Used for Drinking Water Supply, Reg. no 167-1206, approved by the Regulation of the Chief Sanitary Doctor of RB on 05.01.2007.

## **XV. QUALITY OF WATERS USED FOR RECREATION ACTIVITIES**

**(paragraph 2j, article 6 - 2nd part)**

Basic activities for this direction are measures for protection of surface waters from pollution. This group of activities may include the following *targets u measures*:

**1. provision of the normative quality of waste water treatment by centralised systems of sanitation for settlements (%) in 2010** (see sections IX, XI);

**2. provision of the local treatment of the industry sewages (% of a volume of sewages discharged into centralised systems of sanitation) in 2010** (see sections IX, XI);

**3. realisation of activities** that were planned by the developed and legally approved **projects of the water protection zones of water bodies** according procedures established.

It is realising permanently according to the acting legislation.

**4. coverage of the settlements by the systems of collection and disposal of the surface waste waters (%) in 2010** (see section X)/

In recent years, there were some legal documents developed in the country to regulate activities in this sphere:

- «Sanitary Norms and Rules of Selection, Support and Maintenance of Water bodies Used for Recreation Activities» approved by the Regulation of Chief State Sanitary Doctor of the RB in 2008;

- Application instruction «Health Safety Criteria for Population of the Water bodies in the Republic of Belarus that are Using for Recreation», Reg. no 139-1207, approved by the Chief State Sanitary Doctor of RB on 21.01.2008.

### **Background**

The info about condition of water in the reservoirs of the 2<sup>nd</sup> category (used for recreation) as well as percent share of tests that do not correspond to the national standards by chemical and bacteriological characteristics is presented in the Table 1.

Table 1

Quality of waters used for recreation (reservoirs of the 2<sup>nd</sup> category)

Characteristics	Share of tests that do not correspond to the national standards (%)	
	Initial value 2005	Current value 2009
sanitary-chemical	15.08	22.49
bacteriologic	9.02	10.05

## **XVI. QUALITY OF WATERS USED FOR AQUACULTURE OR COLLECTION OF SHELLFISH**

### **(paragraph 2 j, article 6 – 3rd part)**

Targets in this sphere are not established.

Requirements on quality and safety of waters for aquaculture are stipulated by the following legal acts:

1. STB 1943-2009 «Water for Fishery Ponds. Requirements» (determined basic standards of water quality for fish ponds);

2. Regulation of the Ministry of Natural Resources and Environment Protection of the Republic of Belarus and Ministry of Health of the Republic of Belarus, no 43/42 from May 8, 2007, «On Some Issues of Standardization on Water Quality for Fishery Water Bodies». A present document for water courses and lakes provides:

quality standards for fishery water bodies (5 general physical, 2 biological, 4 chemical) - Supplement 1;

norms for maximum allowable concentrations of 788 chemicals and other substances in water of the fishery water bodies - Supplement 2.

Compliance assessment of water quality for fishery water bodies to the standards established by the norms is provided by the fish farms. Compliance assessment of water quality for water courses and lakes established by the norms is in the competence of inspections of the Ministry of Natural Resources and Environment Protection of the Republic of Belarus.

Discharge conditions for fishery ponds into surface waters are regulated by the Ministry of Natural Resources and Environment Protection.

#### **XVII. IMPLEMENTATION OF RECOGNISED BEST PRACTICES IN THE SPHERE OF MANAGEMENT ON ENCLOSED WATERS WITH PUBLIC ACCESS FOR RECREATION ACTIVITIES (paragraph 2 k, article 6)**

Targets in this sphere are not established.

Sanitary hygienic and epidemiologic requirements to construction, equipment and maintenance of indoor and outdoor swimming pools for recreational, sport-training and popular physical education activities are included in the sanitary norms, regulations and hygienic norms «Hygienic Requirements to Construction, Equipment and Maintenance of Swimming Pools», approved by Regulation of the Ministry of Health of the Republic of Belarus no. 105 from 22.09.2009. The Requirements of the present Sanitary Rules are obligatory for the owners of the enclosed waters.

Quality of water running to the swimming pool should correspond to hygienic requirements on water quality in the drinking water supply systems. Quality water standards in the swimming pool (physical and chemical, microbiological and parasitological) should not exceed the hygienic requirements according Supplement 1 to the present Sanitary Rules. The owner of the swimming pools should provide operational control with established frequency.

The state sanitary epidemiologic surveillance to such objects is provided in accordance with the procedures established with established frequency. The forms of statistical reporting do not assume collection of such information.

#### **XVIII. DETECTING AND REHABILITATION OF HEAVILY POLLUTED SITES (paragraph 2 i, article 6)**

A basic strategic document that determines general directions and activities in the sphere of environment protection is the National Action Plan on the Rational Use of Natural Resources and Environment Protection of the Republic of Belarus for 2006-2010 (next – NAPRUNREP) developed for 5 years.

A list of activities formed under NAPRUNREP includes a special section on water management. The issues to be solved by activities realization are the following:

1. perfection of legislation in the sphere of rational use and protection of water resources;
2. provision of standard water quality;
3. decrease of pollution level for surface and underground waters;
4. provision of rational use of water resources.

**XIX. EFFICIENCY OF THE SYSTEMS ON RATIONAL USE, MAINTENANCE,  
ENGINEERING, PROTECTION AND USE OF WATER RESOURCES  
(paragraph 2 m, article 6)**

A basic strategic document that determines general directions and activities in the sphere of environment protection is the National Action Plan on the Rational Use of Natural Resources and Environment Protection of the Republic of Belarus for 2006-2010 (next – NAPRUNREP) developed for 5 years.

A list of activities formed under NAPRUNREP includes a special section on water management. A list of activities formed under NAPRUNREP includes a special section on water management. The issues to be solved by activities realization are the following:

1. perfection of legislation in the sphere of rational use and protection of water resources;
2. provision of standard water quality;
3. decrease of pollution level for surface and underground waters;
4. provision of rational use of water resources (including:
  - development of individual accountability for water in residential sector,
  - provision of increase in volume of water recycling and recirculation;
  - reduction of water volume used for unit of product.

***Basic legal documents in the sphere of water use and protection***

– Law of the Republic of Belarus «On Environment Protection» no. 1982-XII from 26.11.1992;

– Water Code of the Republic of Belarus: the Law of the Republic of Belarus from July 15, 1998;

– Law of the Republic of Belarus «On Drinking Water Supply» from 24.06.1999;

– On Approval of the Regulation on the State Control and Surveillance in the Sphere of Drinking Water Supply: the Regulation of Council of Ministers of the Republic of Belarus no. 2001 from December 24, 1999;

– On Approval of the Regulation on Issuing Permits for Special Water Use and Provision of Water Bodies for Stand-Alone Water Use: Regulation of the Council of Ministers of the Republic of Belarus no. 669 from May 7, 1999;

– On Some Issues of Execution of Permits for Special Water Use and the Documents Presented to Obtain It: Regulation of the Ministry of the Natural Resources and Environment Protection of the Republic of Belarus no. 14 from April 2, 2003;

– On Measures for Regulation of Tariffs for Services on Waste Water Treatment Provided by the Legal Entities affiliated to the Belarusian State Concern for Oil and Chemistry, and for other legal entities: Decree of the President of the Republic of Belarus no. 588 from November 11, 2000;

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– On Approval of the National Strategy on Implementation of Complex Environmental Permissions in 2009-2020: Resolution of Council of Ministers of the Republic of Belarus no. 980 from July 25, 2009;

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– Аб зацвярджэнні пагаднення паміж Урадам Рэспублікі Беларусь і Урадам Расійскай Федэрацыі аб супрацоўніцтве ў галіне аховы і рацыянальнага выкарыстання трансгранічных водных аб'ектаў: пастанова Савета Міністраў Рэспублікі Беларусь № 1420 ад 14 кастрычніка 2002 г.

## **XX. ADDITIONAL SPECIFIC TARGETS AT THE NATIONAL OR LOCAL LEVELS**

Targets in this sphere are not established.

## **PART 4: GENERAL ASSESSMENT OF A PROGRESS REACHED IN THE SPHERE OF PROTOCOL IMPLEMENTATION**

The Republic of Belarus is a fully legitimate Party of the Protocol since July 21, 2009. The bodies responsible for execution of commitments adopted by the Republic of Belarus on the

Protocol are the Ministry of Health of the Republic of Belarus and the Ministry of Natural Resources and Environment Protection of the Republic of Belarus. There will be an Interdepartmental Council on Fulfilment of Protocol on Water and Health to the 1992 Convention of the Protection and Use of Transboundary Watercourses and International Lakes (next – Council) established for coordination of activities of the competent bodies and authorities providing fulfilment of the obligations on Protocol.

As of March 2010, the Plan on the Protocol implementation at the national level was not adopted yet but some positions of the Protocol are implementing now under the following state and national programmes and plans:

1. The State Programme on Water Supply and Sanitation “Clean Water” for 2006 – 2010, adopted by the Presidential Decree of the Republic of Belarus no. 208 on 10.04.2006 (National Register of the Legal Acts of the Republic of Belarus, no. 58, 1/7428, 2006);

2. The National Action Plan on the Rational Use of Natural Resources and Environment Protection of the Republic of Belarus for 2006-2010, adopted by the Presidential Decree of the Republic of Belarus no. 302 on 05.05.2006;

3. The State Programme on Provision of Security in Health and Disease Control of Population of the Republic of Belarus on 2007-2010, adopted by the Council of Ministers of the Republic of Belarus no. 1596 on 29.11.2006;

4. The State Programme on Rural Revitalisation and Development for 2005-2010;

5. The State Scientific-Technical Programme “Environmental Safety”;

6. The Sector Scientific-Technical Programme “Medical Ecology and Sanitary”;

7. The Sector Scientific-Technical Programme “Health and Environment”.

Basic directions for activities to solve the issue are the following:

- policy-making in the sphere of environment protection and human health for sustainable development of the state, control over hazards influence on condition of health population and effective prevention of harmful effects;

- reduction of infectious diseases of population morbidity;

- supply of population with good quality drinking water;

- improvement of quality on waste water treatment;

- management perfection in the sphere of providing services on water supply and sanitation;

- perfection of legislation in the sphere of development, design, maintenance and use of water supply and sanitation systems;

- development local control and monitoring systems for water supply and sanitation systems.

The activities planned are implementing in a full scale according to the time schedule and it is expected that a result will be reached in full measure. It is necessary to mention a reduction of morbidity of infectious diseases potentially related to water: bacillary dysentery (in comparison with 2005, in 10 times), viral hepatitis A (in comparison with 2005, in 8 times).

In 2005-2010, development of the priority directions for scientific and technical activities in the sphere of health population protection, rational environmental management and protection in the republic was provided by a wide range of the researches included in the State Scientific and Technical Programme «Environmental Safety», sectoral scientific and technical programmes «Medical Ecology and Hygiene», «Health and Environment», a list of the state scientific and technical programmes on solving the most significant economical, environmental and social problems for 2005 – 2010 (financing from the republican budget), scientific researches financed from the sources of environment protection funds. As a result of scientific activities, technical legal acts, methodical, advisory, instructive documents regulating this sphere were developed.

The Republic of Belarus interacts on a permanent basis with the major international organisations in the sphere of health and environment protection: the World Health Organisation, the UN Environment Programme (UNEP), the UN Economic Commission for Europe (UNECE),

the UN Development Programmes (UNDP), the Organisation for Economic Cooperation and Development (OECD).

Implementation of the international conventions and the Protocols to them is of great importance for the Republic of Belarus. All necessary activities were taken to join:

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes from March 17, 1992, adopted by a Decree of the President of the Republic of Belarus no. 161 from April 21, 2003;

The Convention on Transboundary Effects of Industrial Accidents – Law of the Republic of Belarus from 30.04.2003;

The Stockholm Convention on Persistent Organic Pollutants – Decree of the President of the Republic of Belarus no. 594 from December 26, 2003;

The Convention on the Conservation of Migratory Species of Wild Animals from June 23, 1979 – Decree of the President of the Republic of Belarus no. 102 from March 12, 2003;

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity – the Law of the Republic of Belarus from May 6, 2002.

Bilateral and multilateral contract relations are developing. There were prepared and are implementing the whole range of the projects on transboundary monitoring and use of water resources in the Dnipro River Basin (with Ukraine and Russian Federation), Western Bug (with Republic of Poland) and Western Dvina (with Latvian Republic and Russian Federation) according to the planned and signed bilateral and multilateral intergovernmental agreements of the Republic of Belarus with such countries.

In general, it should be mentioned that major problems in this sphere are already determined and the actions for their solving under the acting programmes and the concepts of the programmes planned for the period ahead are taken.

## **PART 5: INFORMATION ABOUT A PERSON THAT PRESENTS A REPORT**

An actual report is presented on behalf of **THE REPUBLIC OF BELARUS** according to the article 7 of the Protocol on Water and Health.

***Name of a person responsible for presentation of the National Report:***

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**Phone number:**

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**Title and address of the national authority:**

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220048, Minsk, Myasnikova St., 39

**Signature:**

**Date:**

**31.03.2010**



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