LITHUANIAN SUMMARY REPORT UNDER THE PROTOCOL ON WATER AND HEALTH

PART ONE: GENERAL ASPECTS

To facilitate and coordinate the implementation of the Protocol on Water and Health the working group under the leadership of the Ministry of Health was established by the order of the Minister of Health and Minister of Environment on June 21, 2004. Invited specialists into Working group from: Ministry of Health, State Environmental Health Centre, Ministry of Environment, State Geology Service, Ministry of Agriculture, Institute of Hygiene, Communicable Diseases Prevention and Control Centre, Health Emergency Situation Centre, Association of Local Authorities in Lithuania, Water Supply Company „Vilniaus vandenys”.

The working group prepared the Outlines for the Implementation of the Protocol on Water and Health which were approved by the Order of the Minister of Health and the Minister of Environment on January 12, 2005, Nr. V-14/D1-22 (Official Gazette, Nr. 11-348, 2005). The approved Outlines set forth the objectives, directions for action and stages for the implementation of the Protocol on Water and Health. For progress evaluation we collect data on implementation of objectives from different institutions.

There were 10 targets:

1. To create legal, administrative and economic provisions that would be stable and would promote the implementation of the targets
2. To establish national arrangements for coordination between the competent authorities and for relations maintained with other states at the intergovernmental level;
3. To develop programs or incorporate the means in other relevant programmes which are being drawn up for other purpose;
4. With the aim to supply high quality drinking water to improve and maintain a legal and organizational framework for monitoring and enforcing standards for the quality of drinking water;
5. To develop a system of indicators designed to identify observe and control the spreading of water-related diseases;
6. To establish preventive, surveillance systems for the outbreaks of water-related diseases;
7. To develop water management plans at the transboundary and national level. Such plans may be incorporated in other relevant plans, programs or documents drawn up for other purposes;
8. To review national trends in changes of water and health indicators and to carry out a comparative analysis on the territory basis;
9. To collect and evaluate data concerned with the implementation of the Protocol and to assess the progress achieved;
10. To provide to the secretariat data about progress achieved.

In accordance with the Outlines for the Implementation of the Protocol on Water and Health the Ministry of Environment provides information on water to the Ministry of Health. This is the responsibility of the Ministry of Health to provide to the secretariat data about progress achieved and protocol implementation in Lithuania. State Food and Veterinary Service is responsible for water control and for reporting about drinking water quality to EU Commission under Directive 98/83/EC.

The Ministry of Health, the Ministry of Environment and State Food and Veterinary Service took part in the preparation of Lithuanian Summary Report under the Protocol on Water and Health. There were consultation with State Geology Service, The Environmental Protection Agency, Institute of Hygiene, Communicable Diseases and AIDS Centre.
Targets under the Protocol have not been formally adopted. Reporting under the Protocol is possible using the targets which have been set in Lithuanian legislation. Many of the activities under the Protocol are related to the implementation of the EU directives on drinking water, bathing water, urban waste water and water resources management. Future plans are closely related with WFD implementation (preparation of RB management plans).

The main target is to achieve the quality of drinking water for all urban and rural inhabitants to be in compliance with Lithuanian Standard (Hygiene Norm of Lithuania) HN 24:2003: Safety and quality requirements of drinking-water (Official Gazette, 2003, No. 79-3606; 2007, No. 127-5194) and EU requirements.

The indicator is “95% inhabitants of municipal public water services territory should be provided with public water services until the end of 2015 year”. This indicator will be used to measure progress defined in the Law of Republic of Lithuania on Supply of Drinking Water and Waste Water Management (Official Gazette, 2006, No. 82-3260).

The Law on Supply of Drinking Water and Waste Water Management, which came into force in 2007 year, was followed by the National Drinking Water Supply and Waste Water Management Development Strategy for 2008–2015 years (Official Gazette, 2008, No. 104-3975). They set the policy agenda and set targets on water infrastructure development in Lithuania. The investments over the period 2007–2013 years should result in significant progress and modernization of the water services and management. Despite these improvements, integrated information support is still missing. Such support would enable the monitoring and evaluation of the relevant policy actions from water source to consumers and would allow involvement of all information actors and the application of a public health-based approach.

About a million inhabitants (mostly in rural areas) use groundwater from dug wells for drinking and food preparation. Bacteriological contamination in half of the dug wells and also high levels of nitrates are the hazards that compromise drinking-water quality. According to a Ministry of Health order, the regional public health centres are responsible for controlling the dug well-water in places with pregnant women and babies up to 6 months of age.

The Lithuanian Geological Survey uses integrated environmental geological mapping techniques to examine the quality of groundwater supplied to the population and the sources of contamination. In response to water-related health risks, a programme that evaluates these risks and the use of groundwater resources for the drinking-water supply in Lithuania for 2007–2025 had the following main targets: (a) evaluate groundwater resources (2007–2009); (b) prepare measures that protect drinking-water resources and improve drinking-water quality (2007–2011); and (c) establish an integrated information system between the administrations involved. It is also worth mentioning that water safety plans that follow the WHO novel approach to drinking-water safety and health are being introduced in two Lithuanian cities: Klaipeda and Neringa.
PART TWO: COMMON INDICATORS

I. QUALITY OF THE DRINKING WATER SUPPLIED

A. Context of the data

In parts B and C information is provided on drinking water quality in water supply zones exceeding 1000 m\(^3\) per day as an average or serving more than 5000 persons. In the territories of the water supply zones about 58 per cent of the urban population is serviced. Water is supplied only to urban population.

Information is prepared on the basis of the annual report on the monitoring of drinking water carried out by the water suppliers.

B. Bacteriological quality

Indicator to be used: WatSan_S2: The percentage of samples that fail to meet the national standard for \textit{E. coli} and the percentage of samples that fail to meet the national standard for \textit{Enterococci}.

\begin{center}
\begin{tabular}{ | l | c | c |}
\hline
\textbf{WatSan\textsubscript{S2}} & \textbf{Baseline value} & \textbf{Current value} \\
 & \textbf{(please specify the year)} & \textbf{(please specify the year)} \\
\hline
\textit{E. coli} & 0,35 \% & 0,009 \% \\
\textit{Enterococci} & 0 \% & 0 \% \\
\hline
\end{tabular}
\end{center}

C. Chemical quality

Indicator to be used: WatSan\textsubscript{S3}. The percentage of samples that fail to meet the national standard for chemical water quality.

\begin{center}
\begin{tabular}{ | l | c | c |}
\hline
\textbf{Substance} & \textbf{Year 2005} & \textbf{Year 2008} \\
\hline
Fluoride & 18,9\% & 28,8\% \\
Nitrate and nitrite & 0 & 0 \\
Arsenic\textsuperscript{1} & 0 & 0 \\
Lead & 0 & 0 \\
Iron & 8,3\% & 4,72\% \\
Additional chemical parameter 1: Ammonium & 1,2\% & 0,89\% \\
\hline
\end{tabular}
\end{center}

\textsuperscript{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.
### Substance Year 2005 Year 2008

<table>
<thead>
<tr>
<th>Substance</th>
<th>Year 2005</th>
<th>Year 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional chemical parameter 2: Manganese</td>
<td>11.7%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Additional chemical parameter 3: Oxidisability</td>
<td>1.9%</td>
<td>0%</td>
</tr>
<tr>
<td>Additional chemical parameter 4: Sulphate</td>
<td>2.9%</td>
<td>3%</td>
</tr>
<tr>
<td>Additional chemical parameter 5: Turbidity</td>
<td>0.1%</td>
<td>0.19%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Integrative chemical failure rate</th>
<th>Baseline value (please specify the year) 2005</th>
<th>Current value (please specify the year) 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.80 %</td>
<td>1.8 %</td>
</tr>
</tbody>
</table>

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

Most often, we can not separate the cases related to drinking water from number of reported cases.

Communicable diseases shown in the table below are included in the list of compulsory registered in Lithuania.

The number of outbreaks that could be potentially related to water

<table>
<thead>
<tr>
<th>Incidence</th>
<th>Number of outbreaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline (specify the year)</td>
<td>Current value (specify the year)</td>
</tr>
<tr>
<td>Baseline (specify the year)</td>
<td>Current value (specify the year)</td>
</tr>
<tr>
<td>Cholera</td>
<td>No registered No registered No registered No registered</td>
</tr>
<tr>
<td>EHEC&lt;sup&gt;3&lt;/sup&gt;</td>
<td>No registered No registered No registered No registered</td>
</tr>
<tr>
<td>Viral hepatitis A</td>
<td>No registered No registered No registered No registered</td>
</tr>
<tr>
<td>Typhoid fever</td>
<td>No registered No registered No registered No registered</td>
</tr>
</tbody>
</table>

<sup>3</sup> Enterohaemorrhagic E. coli.
III. ACCESS TO DRINKING WATER

<table>
<thead>
<tr>
<th>Percentage of population with access to improved drinking water</th>
<th>Baseline value (specify the year) 2005 m.</th>
<th>Current value (specify the year) 2008 m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>66</td>
<td>74</td>
</tr>
<tr>
<td>Urban</td>
<td>90-95</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>20-30</td>
<td></td>
</tr>
</tbody>
</table>

Currently, it's no accurate data how many people are served by individual wells. Lithuania in 2011 provides for periodic population and housing census, when according to the prepared form, persons will have to declare access to water services (such as centralized water supply or individual wells). It is expected, that in this way will remove shortages and unreliability of the data on drinking water supplies.

IV. ACCESS TO SANITATION

<table>
<thead>
<tr>
<th>Percentage of population with access to improved sanitation</th>
<th>Baseline value (specify the year) 2005 m.</th>
<th>Current value (specify the year) 2008 m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>58</td>
<td>63</td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Currently, we do not have accurate data of the number of people, who are served by the individual waste water treatment plant. 2011 in Lithuania provides for periodic population and housing census, when according to the prepared form, persons will have to declare an effluent treatment method (e.g., centralized waste water treatment or individual sewage: septic tank, sewage treatment plants). It is expected, that in this way will remove shortages and unreliability of the data on waste water management.

Lithuania, which became an EU member, undertook to organize water management, that it is consistent with the EU Water Framework Directive (European Parliament and the Council of 23 October 2000, the Directive 2000/60/EC establishing a Community action in the field of water policy) and other directives requirements for establishing drinking water supply, waste water management and other standards. To achieve these goals, the European Union funding was allocated support for the modernization of water sector. City and regional municipalities and water companies were provided financial and technical support for the modernization projects of water sector.

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

Water quality

Ecological status of surface water

<table>
<thead>
<tr>
<th>Percentage of surface water bodies classified as of</th>
<th>Current value for the period of preparation of 1st RBD management plan (2005-2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High status</td>
<td>24</td>
</tr>
<tr>
<td>Good status</td>
<td>25</td>
</tr>
<tr>
<td>Moderate status</td>
<td>43</td>
</tr>
<tr>
<td>Poor status</td>
<td>7</td>
</tr>
<tr>
<td>Bad status</td>
<td>1</td>
</tr>
</tbody>
</table>
Since 2005 Lithuania surface water status was observed under the new National Environmental Monitoring Program 2005-2010, which was based on the Water Framework Directive (2000/60/EB) requirements. Surface water status was assessed by physical, chemical, and biological quality hydromorphological indicators as well as hazardous wastes and priority hazardous substances (metals, pesticides, phenols and organic pollutants) in accordance with EU directives are included in the national lists, the results of monitoring.

Existing surface water bodies quality dependent on the state of human economic activity is carried out in river basin areas. The main factors which have a substantial impact on surface water status: nitrogen pollution and organic material from point and diffuse sources of pollution, pollution by hazardous substances; straightening of river beds, hydroelectric, cross-border pollution.

Ecological status of surface water (specified by surface water categories)

<table>
<thead>
<tr>
<th>Percentage of surface water bodies classified as of</th>
<th>Current value for the period of preparation of 1st RBD management plan (2005-2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>River WB</td>
</tr>
<tr>
<td>High status</td>
<td>17</td>
</tr>
<tr>
<td>Good status</td>
<td>24</td>
</tr>
<tr>
<td>Moderate status</td>
<td>50</td>
</tr>
<tr>
<td>Poor status</td>
<td>8</td>
</tr>
<tr>
<td>Bad status</td>
<td>1</td>
</tr>
</tbody>
</table>

Chemical status of surface water

<table>
<thead>
<tr>
<th>Percentage of surface water bodies classified as of</th>
<th>Current value for the period of preparation of 1st RBD management plan (2005-2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good status</td>
<td>99</td>
</tr>
<tr>
<td>Poor status</td>
<td>1</td>
</tr>
</tbody>
</table>

Chemical status of surface water (specified by water categories)

<table>
<thead>
<tr>
<th>Percentage of surface water bodies classified as of</th>
<th>Current value for the period of preparation of 1st RBD management plan (2005-2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good status</td>
<td>98 100 75 100</td>
</tr>
<tr>
<td>Poor status</td>
<td>2 0 25 0</td>
</tr>
</tbody>
</table>

The information about ecological and chemical status of surface water bodies is provided from draft version of first River Basin District management plan, prepared according to the requirements of Water Framework Directive 2000/60/EB. The second River Basin District management plan will be prepared till 2015 for the period 2010-2014 and will provide information about changes of status of water bodies as the result of implementation of programmes of measures.

Status of groundwaters

<table>
<thead>
<tr>
<th>Percentage of groundwaters classified as of</th>
<th>Baseline value 2005 m.</th>
<th>Current value 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good status</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Poor status</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

No groundwater bodies classified as being of poor status
Lithuania is one of the few countries in Europe and other parts of the world where people use only groundwater. Fresh groundwater is extracted from more than 20 water aquifers.

Chemical composition and quality of underground accumulation water assessed in accordance with drinking water hygiene standards. In Lithuania the individual water users often use the closest to the earth's surface, poorly protected from surface contamination, ground water, which is an abstraction of shaft wells. Its chemical composition is very diverse, because groundwater is most vulnerable to human activities, and monitoring is essential. Meanwhile, deeper layers of groundwater, which used for the public water supply is sufficiently well protected. Groundwater quality is also variable, but generally good.

### Water use

<table>
<thead>
<tr>
<th>Water exploitation index</th>
<th>Baseline value 2005 m.</th>
<th>Current value 2008 m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>0,52</td>
<td>0,57</td>
</tr>
<tr>
<td>Industry</td>
<td>23,5</td>
<td>31,47</td>
</tr>
<tr>
<td>Domestic use</td>
<td>0,93</td>
<td>0,98</td>
</tr>
</tbody>
</table>
PART THREE: TARGETS AND TARGET DATES SET AND ASSESSMENT OF PROGRESS

I. QUALITY OF THE DRINKING WATER SUPPLIED, (ARTICLE 6, PARAGRAPH 2 (a))

The main target is to achieve the quality of drinking water for all urban and rural inhabitants to be in compliance with Lithuanian Standard (Hygiene Norm of Lithuania) HN 24:2003: Safety and quality requirements of drinking-water (Official Gazette, 2003, No. 79-3606; 2007, No. 127-5194) and EU requirements.

The Government of Lithuania in 2008 approved The National Drinking Water Supply and Waste Water Management Development Strategy for 2008–2015 years (Official Gazette, 2008, No. 104-3975). One of objectives – „to create favorable conditions for increasing the supply of drinking water and wastewater service availability and improve their quality”. The strategy includes the supply of drinking water and wastewater service availability in 2015 to at least 95 percent of the country's population, public drinking water safety and quality compliance requirements - at least 100 percent. In order to improve drinking water quality in the area, taking advantage of EU structural funds and the municipal budget, the planned construction / reconstruction of water treatment facilities in various Lithuanian cities and towns (Kretingalė, Klaipėda, Vydmantai, Salantai, etc.).

The State Food and Veterinary Service institutions carry in the state control on supplied drinking water quality, and the Ministry of Health sets criteria for safety for health. Lithuanian Geological Survey (at the Environment Ministry) performs the national groundwater monitoring.
II. REDUCTION OF THE SCALE OF OUTBREAKS AND INCIDENTS OF WATER-RELATED DISEASE
(ARTICLE 6, PARAGRAPH 2 (b))

Lithuania has compulsory reporting system which is suitable only for communicable diseases.

There are two legal acts:

- Order of the Minister of Health on the Rules for food-borne communicable diseases investigations in food handling enterprises.
- Order of the Minister of Health on the List of communicable diseases and health problems for which epidemiological surveillance and information dissemination.

This includes water-borne communicable diseases outbreaks: registration, urgent information dissemination, epidemiological investigation, control measures, information provision to responsible state institutions and public.

Preventive, surveillance systems for the outbreaks of water-related diseases include:

- monitoring of water-related diseases and their outbreaks;
- giving notification to the state authorized institution about the outbreaks of water-related disease and a significant threat of the spreading of diseases;
- information made available to the public about such outbreaks of water-related diseases and information about the means to be in order to avoid damage to their health or its reduction;
- rendering information to the relevant state authorities and, if necessary, to the public about preventive and remedial actions taken to improve the emerging situation.

According to the information available – from the surveillance of foodborne and waterborne diseases in Lithuania and, in particular, the decreasing rate of shigellosis and the levelling off of salmonellosis at low levels – Lithuania’s water and sanitation may be considered to be of relatively good quality. Nevertheless, rotavirus infections are on the rise, and the greatest share of foodborne and waterborne diseases occur in the home. The high rate of unspecified bacterial agents illustrates the need to further improve the existing surveillance system.
III. ACCESS TO DRINKING WATER
(ARTICLE 6, PARAGRAPH 2 (c))

According to the official data reported by Lithuania to the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation in 2006 and used in ENHIS Fact Sheet No. 1.2, 93% of the population in urban areas had access to an improved water supply in the home, and 57% in rural areas had access. This is important, because it indicates a considerable urban–rural disparity (Environment and Health Performance Review. Lithuania. World Health Organization, 2009) (attachment Fig. 1).

In 2007, 407 drinking-water providers maintained 1918 drinking-water facilities in Lithuania, and all drinking-water resources came from groundwater aquifers (State Environmental Health Centre, unpublished data, 2008). The well heads for the public water supply in most cases are located in urban settings and are considered as low risk. A considerable proportion of drinking-water facilities (90%) are small water suppliers. In 2007, 60% of all inspected drinking-water facilities (1845) were identified as having irregularities in water quality, and those mostly come from small water sources. The main quality problem is the increased concentration of iron, manganese, sulphate, chloride and fluorine.

About a million inhabitants (mostly in rural areas) use groundwater from dug wells for drinking and food preparation. Bacteriological contamination in half of the dug wells and also high levels of nitrates are the hazards that compromise drinking-water quality. According to a Ministry of Health order from 2002, the regional public health centres are responsible for controlling the dug well-water in places with pregnant women and babies up to 6 months of age.

The development of the drinking water supply and waste water management sector in the territory of municipality shall be carried out in compliance with the water supply and waste water management infrastructure development plan. Centralized drinking water pipes, individual domestic wells, sewage treatment plants, etc. must be selected for the assessment of local conditions and opportunities. The total water supply and waste water management infrastructure development plans prepared by 42 percent municipalities. A water supply and waste water management infrastructure development plan shall be reviewed and updated in accordance with the procedure established by the Law on Territorial Planning.

Water supplier must:
1. Provide information to subscribers (consumers);
2. Obtain, store, process and supply drinking water meeting the public health safety and quality requirements and other parameters set out in legal acts;
3. Ensure the quality and uninterrupted supply of drinking water and other water supply requirements;
4. In accordance with the established procedure, operate and maintain the water supply and waste water management infrastructure managed by the right of ownership or on other lawful grounds and other managed assets.

It is planned that in 2015 these costs in urban and rural areas should not exceed 4 percent of family income.

Legal measures:
Existing problems of unused water wells, illegal installation of wells, increased administrative penalties for drinking and water supply.

Financial instruments:
Becoming the European Union, Lithuanian drinking water supply and wastewater treatment sector has used European Union funds allocated to financial support - improved water management, drinking water quality.

Difficulties:
Most of water supply companies (especially small) works at a loss, unable to self-invest (borrow), many of them unable to ensure the quality of services and development.
IV. ACCESS TO SANITATION
(ARTICLE 6, PARAGRAPH 2 (d))

The percentage of the population served by a sewerage system connected to a wastewater-treatment facility and a safe wastewater disposal system indicates the potential level of pollution to be expected from domestic point sources entering the aquatic environment. This is important because this pollution adversely affects the health of inhabitants. With the considerable progress made in Europe since 1995 to increase coverage, 69% of the population in Lithuania was connected to wastewater treatment facilities in 2005. This percentage is still relatively low (Environment and Health Performance Review. Lithuania. World Health Organization, 2009) (attachment Fig. 2). With 91% of the population connected to sanitation facilities in the home in urban areas, Lithuania is among the new EU members with highest proportion of the urban population connected (attachment Fig. 3), but a difference of 40 percentage points still remains between urban and rural dwellers.

Directive of Urban Waste Water Treatment 91/271/EEC must be implemented in Lithuania by 2010. The measures required for the implementation of this Directive are one of the most important and investment-intensive baseline measures which usually result in improvement of surface water quality. The baseline measures for the implementation of the Urban Waste Water Treatment Directive include construction and reconstruction of wastewater treatment facilities in agglomerations with a p.e. of more than 2000 so that the quality of effluents discharged therefrom conforms to the requirements set for discharges into surface water bodies.

Sewer service availability is very uneven in Lithuania. Lithuania centralized wastewater collection system used by about 70% of the population. This indicator is very different in urban and rural areas. The idea is that by 2015 public drinking water and wastewater service availability to consumers of not less than 95 percent (Drinking Water Supply and Wastewater Management Development Strategy for 2008–2015).

National legislation transposing the Directive:
- Regulation of wastewater treatment was started by the Law on Water;
- Law on Supply of Drinking Water and Waste Water Management;
- Waste water Management

Financial instruments:
- First source - technical assistance, consultation, supporting from PHARE programmes. The second source of support was the ISPA programmes.

Measures for the implementation of the Urban Waste Water Treatment Directive (construction and reconstruction of wastewater treatment facilities, construction of new sewerage networks and reconstruction of the old ones) in 2007-2013 have been provided for in a list of national projects:
- List of National Projects No. 1 under Measure No VP3-3.1-AM-01-V Renovation and development of water supply and wastewater management system (Official Gazette, 2009, No. 47-1882);
- List of National Projects No. 2 under Measure No VP3-3.1-AM-01-V Renovation and development of water supply and wastewater management system (Official Gazette, 2010, No. 24-1145).

Provides for the legal measures:
- In order to ensure individual wastewater management and control of the Ministry of the Environment and the Environmental Protection Agency in 2011 plans to develop the use of water
resources and pollutants discharged to water, the primary accounting and control procedures of the draft amendment, as necessary, individual sewage management program.

* - We have no accurate data on individual waste-water management.
V. LEVELS OF PERFORMANCE OF COLLECTIVE SYSTEMS AND OTHER SYSTEMS FOR WATER SUPPLY (ARTICLE 6, PARAGRAPH 2 (e))

Groundwater is the main source of fresh drinking water in Lithuania, which reserves should be sufficient for the next 20 years. Good quality of water supplied only about 70 percent population. Water service availability is very uneven between rural and urban areas.

Republic of Lithuania law on Water regulated the main water resource management, utilization, protection etc.

Republic of Lithuania law on drinking water supply and waste water management shall establish the principles of the state management and regulation of drinking water supply and waste water management and regulate legal relationships between water suppliers and subscribers (consumers).

Drinking water quality indicators are: the drinking water supply and drinking water pressure, drinking water quality, subscriber (consumer) service. The water supplier must ensure a supply of drinking water so that each resident could receive at least 200 liters of drinking water per day.

The idea is that by 2015 public drinking water and wastewater service availability to consumers of not less than 95 percent (Drinking Water Supply and Waste Water Management Development Strategy for 2008–2015).
VI. LEVELS OF PERFORMANCE OF COLLECTIVE SYSTEMS AND OTHER SYSTEMS FOR SANITATION (ART. 6 (2) (e) continued)

The state management and regulation objectives of water supply and waste water management shall be as follows (the Law of Republic of Lithuania on Supply of Drinking Water and Waste Water Management):

1. To ensure that as many persons as possible could supply themselves with drinking water meeting public health protection requirements and to handle waste water in accordance with the environmental requirements;

2. To ensure that public water supply in the whole territory of the country is carried out in compliance with the set requirements;

3. To improve the efficiency of the public water supply sector and to carry out uninterrupted and long-term water supply and waste water management in the whole territory of the country;

4. To develop the drinking water supply and waste water management price regulation system that would ensure the optimal price for subscribers (consumers) and recovery of costs incurred by water suppliers necessary for the proper carrying out of public water supply as well as the implementation of the polluter pays principle;

5. To ensure the protection of legitimate interests of subscribers (consumers) and water suppliers and to protect consumer rights.

Wastewater Management Regulation identifies the basic environmental requirements for waste water collection, treatment and release to protect the environment from pollution.
VII. APPLICATION OF RECOGNIZED GOOD PRACTICES TO THE MANAGEMENT OF WATER SUPPLY, (ARTICLE 6, PARAGRAPH 2 (f))

One of the priorities of the Programme of the Government of the Republic of Lithuania is promotion of a cleaner production method, which are based on innovative and effective technologies that will enable more cost-effective use of water resources and reducing the pollution effect. On the Programme 2008 – 2012 of the Government implementing the measure - to encourage enterprises of environmental management system.

According to the Programme's of the Government measures implementing, Ministry of Economy provides financial support to small and medium-sized enterprises for the costs of environmental management systems certification.

An enterprise or institution, having certified under the ISO 14001 standard for environmental management system, declares or informs interested parties that their activities are based on cleaner production techniques, BAT and good practice.

In order to increase the use of cleaner production and to promote environmental management suntan, the requirements for firms, whose environmental management system certified according to ISO 14001 standard or the EU Eco-Management and Audit Scheme (EMAS), IPPC permit are simplified - natural resource conservation and waste reduction plan not be required.

According to the Minister of Health, Minister of Environment, Ministry of Agriculture in 2001 23 November Order No. 612/564/411 "good laboratory practices for monitoring and evaluation procedures" (Official Gazette, No. 102-3643, 2001; No.152-5561, 2004) all laboratories carrying out monitoring, conducting the chemical substances in accordance with the Republic of Lithuania of chemical substances and preparations Law (Official Gazette, No. 36-987, 2000) requirements must comply with good laboratory practice.

Lithuanian National Accreditation Bureau under the Ministry of Environment is responsible for the accreditation of testing and calibration laboratories, inspection bodies, employees, products, management systems certification bodies and EMAS verifier and carries out their supervision, as well as to good laboratory practice compliance controls. In order to the provided functions, the National Accreditation Bureau carries out the periodically checks, whether the company properly complies with good laboratory practice and its other obligations. Existing authorizations of laboratory tests are public by a National Accreditation Bureau website - laboratories authorized to carry out sources of pollution emitted to the environment and pollutant elements in environmental measurements and tests list.
VIII. APPLICATION OF RECOGNIZED GOOD PRACTICE TO THE MANAGEMENT OF SANITATION (ART. 6, PARAGRAPH 2 (f) continued)

see the preceding ARTICLE 6, PARAGRAPH 2 (f))
IX. OCCURRENCE OF DISCHARGES OF UNTREATED WASTEWATER
(ART. 6, PARAGRAPH 2(g) (i))

Pursuant to the requirements of Lithuanian legislation, a programme of measures must be established for each river basin district in order to achieve water protection objectives. Each programme of measures comprises baseline measures which are the mandatory requirements under the Lithuanian laws regulating the water sector and the EU directives (construction of wastewater treatment facilities and manure storage facilities, balanced fertilisation, crop rotation, etc.). The approved programme of measures will be implemented in the period 2010-2015. The programme of measures will be updated every six years.


Purified water rates increased by 3.2 percent from 2007 to 2008 years. The greatest impact on water quality improvement was the new wastewater treatment plant in Kaunas. It is important not only to construct and reconstruct a water treatment plant, but also provide housing or new neighborhoods and settlements in connection to the sewage collection system.

1. Table. Domestic and industrial wastewater clearing (million m$^3$)

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<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaned up to standards</td>
<td>23,8</td>
<td>30,5</td>
<td>35,5</td>
<td>91,2</td>
<td>106,4</td>
<td>115,1</td>
<td>110,7</td>
<td>129,6</td>
<td>126,7</td>
</tr>
<tr>
<td>Insufficiently cleaned</td>
<td>142,4</td>
<td>139,0</td>
<td>133,6</td>
<td>74,3</td>
<td>64,8</td>
<td>56,0</td>
<td>53,6</td>
<td>57,2</td>
<td>47,8</td>
</tr>
<tr>
<td>Uncleaned</td>
<td>3,0</td>
<td>1,7</td>
<td>1,3</td>
<td>1,6</td>
<td>0,4</td>
<td>0,7</td>
<td>0,6</td>
<td>0,6</td>
<td>0,5</td>
</tr>
</tbody>
</table>

Lithuania domestic and industrial waste water is best cleaned in this regions of Lithuania - Marijampolë, Alytus, Klaipëda and Vilnius.

2. Table. Domestic and industrial sewage clearing in separate regions of Lithuania (million m$^3$)

<table>
<thead>
<tr>
<th>Indicator/year</th>
<th>Vilnius</th>
<th>Klaipëda</th>
<th>Kaunas</th>
<th>Siauliai</th>
<th>Panevëžys</th>
<th>Marijampolë</th>
<th>Alytus</th>
<th>Utena</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaned up to standards</td>
<td>49,024</td>
<td>29,588</td>
<td>14,113</td>
<td>9,751</td>
<td>8,288</td>
<td>7,268</td>
<td>6,443</td>
<td>5,189</td>
</tr>
<tr>
<td>Insufficiently cleaned</td>
<td>0,938</td>
<td>0,260</td>
<td>19,840</td>
<td>16,127</td>
<td>5,935</td>
<td>0,022</td>
<td>0,041</td>
<td>1,645</td>
</tr>
<tr>
<td>Uncleaned</td>
<td>0</td>
<td>0,543</td>
<td>0,003</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
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))

Surface run-off depends on the annual fluctuations in rainfall. Only a small portion of all collected surface water is cleaning in Lithuania.

According to the Law on Supply of Drinking Water and Waste Water Management, „waste water” means water used for household, economic or industrial purposes or surplus water (rainwater, surface water, drainage water, etc.) the holder whereof discharges, by means of the waste water management infrastructure, into the natural environment or into the waste water management infrastructure owned by other persons.

Surface water management regulation set out, that surface water shall be cleared separate from domestic, municipal and industrial wastewater.

Over the past eight years, cleanable surface water has increased only about 3 percent.

1. Table. Cleaning of surface wastewater (million m³)

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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaned up to standards</td>
<td>3.9</td>
<td>4.5</td>
<td>4.3</td>
<td>4.3</td>
<td>5.3</td>
<td>5.2</td>
<td>4.6</td>
<td>6.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Insufficiently cleaned</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
<td>0.5</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Uncleaned</td>
<td>47.7</td>
<td>51.1</td>
<td>44.7</td>
<td>43.8</td>
<td>44.4</td>
<td>42.8</td>
<td>40.2</td>
<td>50.4</td>
<td>45.8</td>
</tr>
</tbody>
</table>
XI. QUALITY OF DISCHARGES OF WASTEWATER FROM WASTEWATER TREATMENT INSTALLATIONS TO WATERS WITHIN THE SCOPE OF THE PROTOCOL (ART. 6, PARAGRAPH 2 (h))


Major Urban Waste water Treatment Directive's measures include the waste water treatment plant construction and reconstruction in settlements with pollution load of more than 2000 pe, so that the quality of discharged waste water meet the requirements of Waste water Treatment Directive.

When Lithuania joined the EU, the Urban Waste Water Treatment Directive requirements of the waste water quality have been transferred to the Lithuanian national legal framework applicable to all natural and legal persons, those planning to discharge waste water into the natural environment.

Provides for the legal measures:
In order to improve water use accounting and control Ministry of Environment intends to update and clarify the emission of environmental accounting procedures.

In order to provide for administrative penalties for violations of wastewater handling requirements, the illegal installation of wells and drinking water supplies Ministry of Environment is planning to update the Code of Administrative Offences Act of Republic of Lithuania.

In order to ensure the wastewater management, as well as individual sewage treatment and control Ministry of Environment with Environmental Protection Agency plans to review and adjust water use and pollution discharges to water, the primary accounting and control procedures.

Financial instruments:
Measures for the implementation of the Urban Waste Water Treatment Directive (construction and reconstruction of wastewater treatment facilities, construction of new sewerage networks and reconstruction of the old ones) in 2007-2013 have been provided for in a list of national projects:

List of National Projects No. 1 under Measure No VP3-3.1-AM-01-V Renovation and development of water supply and wastewater management system (Official Gazette, 2009, No. 47-1882);

List of National Projects No. 2 under Measure No VP3-3.1-AM-01-V Renovation and development of water supply and wastewater management system (Official Gazette, 2010, No. 24-1145).

In Lithuania, since regained its independence, surface water bodies wastewater discharges significant decreases. For example, one of the basic materials for promoting the eutrophication of water bodies is phosphorus, its quantity input into the environment decreased by more than two times.

Currently, compared to 1991, the emission levels significantly reduced from point sources in the surface water bodies: suspended matter up to 85%, crude oil and petroleum products 83%, 91% BOD7, 40% of total nitrogen, total phosphorus content decreased by 62%. In many towns reconstruction or construction of sewage treatment plants are finished, therefore the organic pollutants in the surface water bodies, in comparison with 1991, decreased by 10 times.

Pollution reduction depends on the implementation of environmental water management projects, constructed or reconstructed urban waste water treatment plants ensures appropriate and consistent with the requirements of the quality of wastewater discharged.
XII. DISPOSAL OR REUSE OF SEWAGE SLUDGE FROM COLLECTIVE SYSTEMS OF SANITATION OR OTHER SANITATION INSTALLATIONS
(ART. 6, PARAGRAPH 2 (i), first part)

By 2005, Lithuania had no the strategy for sludge processing, therefore about 80-90% of urban wastewater treatment plants generated sludge was accumulated sludge sites.

The main purpose of handling sewage sludge - sewage sludge shall not be waste, but it shall be the product, and, after appropriate treatment, sewage sludge can be used as fertilizers in agriculture, energy as a fuel (either directly or as feedstock for biogas production).

When Lithuania joined the EU, the requirements for sewage sludge, which used in agriculture, set in 1986 12 June European Council Directive 86/278/EEC, this requirements was transposed into national legal framework, approved by the Minister of Environment in 2005 28 November Order No. D1-575 (LAND 20-2001 "Requirements of using sewage sludge as fertilizer", the new version).

In order to the EU's liabilities and in order to solve the problem of excess sewage sludge, in 2006 the feasibility study "Investment program of sludge management in Lithuania" was prepared.

The feasibility study "Investment sludge management program in Lithuania” had chosen the optimal sewage sludge management practices and had created a sludge management strategy. Using the Cohesion Fund, the sludge tanks was constructed and are operating in Kaunas, Utena, Panevezys now, other cities' projects of sludge tanks will be prepared soon. Under the National strategic plan for municipal waste water treatment sludge generated at landfill sites or other areas must be terminated no later than 2013.
XIII. QUALITY OF WASTEWATER USED FOR IRRIGATION PURPOSES
(ART. 6, PARAGRAPH 2 (i), second part)

There are not qualitative requirements of wastewater use for irrigation in the Lithuanian legal framework, but some of the legislation focuses on the possible use of wastewater.

Framework of the European Parliament and Council Directive of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (91/676/EEC) was transposed into national legal, approved by Lithuanian Minister of the Environment and Minister of Agriculture in 2005 14 July Order No. D1-367/3D-342 "The environmental approval process for manure" (Official Gazette, 2005, No.92-3434). There is a provision about the possible use of wastewater as fertilizer in the previously order, but also specify the restrictions.

Surface wastewater management regulation (Official Gazette, 2007, no. 42-1594) establishes the possibilities of surface wastewater using, regulation requirements was transposed the provisions of the 1991 21 May Council Directive 91/271/EEC concerning urban wastewater treatment (planning areas, and in this areas it is intended to carry out economic activities in the design of surface wastewater management systems must be examined and, where possible, subject to technical solutions: reduction in the centralized environment of surface wastewater discharges (eg, the expected utilization of surface wastewater production, irrigation of green areas, fire-fighting purposes and the like.))
XIV. QUALITY OF WATERS USED AS SOURCES FOR DRINKING WATER  
(ART. 6, PARAGRAPH 2 (j), first part)

The main targets and dates concerning groundwater as drinking water resource in Lithuania were set in the “Programme of the evaluation and use of groundwater resources for drinking water supply for 2007-2025” approved by government in 2006. Main targets set in the “Programme of the evaluation and use of groundwater resources for drinking water supply for 2007-2025” are:
- Evaluate groundwater resources, their quality, quantity and potential use, applying modelling - 2007-2009;
- Prepare the measures to protect drinking water resources (establishment of sanitary protection zones, elimination of contaminated sites), to improve drinking water quality (optimisation of water treatment) – 2007-2011;
- Create an integrated information system between involved institutions - 2008-2009;
- Perform scientific research to solve some problems of groundwater resource formation - 2007-2011.

Operating underground water quality protection, improvement and control is implemented in several ways:

• Sanitary protection zones (SPZ) are developed and validated in accordance with the requirements of the Hygiene Norm HN 44:2006 Delineation and maintenance of sanitary protection zones of water extraction sites;
• Lithuanian Geological Survey performs the national groundwater monitoring (http://www.lgt.lt/index.php?page=227);
• Lithuanian Hygiene Norm HN 24:2003 Drinking water safety and quality requirements. The quality of drinking water in Lithuania is controlled by the Ministry of Health and the State Food and Veterinary Service.

The results of the supplied drinking water quality control shall be annually announced in accordance with the procedure laid down by the Law on Drinking Water. Law on Drinking Water adopted on 10 July 2001.

A water supplier must, in accordance with the procedure established by the Minister of Environment, provide information to subscribers (consumers) regarding the quality of drinking water, its deterioration, accidents, planned interruptions in the supply of drinking water and provision of waste water management facilities and other changes that may affect the subscribers (consumers), the use of water, safe and efficient use of water supply infrastructure, its development, water prices and services provided to the subscribers (consumers).

The Drinking Water Supply and Wastewater Management Development Strategy for 2008-2015 was approved by the Government on 27 August 2008. The Strategy aims at ensuring that drinking water supply and wastewater management services are accessible to at least 95% of the total population of the country and that compliance of drinking water supplied for public needs to safety and quality requirements is 100% by 2015.

The Law of the Republic of Lithuania on Water transposing the provisions of the EU Water Framework Directive requires that all water bodies, i.e. rivers, lakes, groundwater, transitional waters and coastal waters, achieve good ecological status, and heavily modified water bodies and artificial water bodies – good ecological potential by the year 2015. For groundwater bodies, in addition to the requirements of good status, any significant and sustained upward trend in the concentration of any pollutant should be reversed.
XV. QUALITY OF WATERS USED FOR BATHING
(ART. 6, PARAGRAPH 2 (j), second part)

The main target is to achieve the quality of bathing water to be in compliance with Lithuanian Hygiene Standard HN 92:2007: Beaches and their bathing water quality (Official Gazette, 2007, No. 139-5716) and EU requirements.

According to the data of the Institute of Hygiene, observation of the quality of water in the bathing-places within the year 2008 covered all the bathing-places at the seaside, rivers, lakes, ponds and pits, located at the territory of Lithuania. It included the seaside - 10%, rivers - 19%, lakes - 48%, ponds, pits and dikes - 23% of bathing-places. All 149 objects were selected with taking into consideration the workload (not less than 100 people during the bathing season). The microbiological, chemical and physical tests are periodically carried out during the bathing season (from May 15 till September 15).

With respect to recreational water environments in Lithuania, compliance with the mandatory guidelines of the European Commission Bathing Water Directive for both freshwater and coastal zones was very high in 2007. Of the coastal bathing waters, 93.3% met the mandatory values in 2007 (Environment and Health Performance Review. Lithuania. World Health Organization, 2009) (attachment Fig. 4). This is a decrease from the two previous years, when all coastal bathing waters met mandatory values. The same evolution can be seen in the compliance rate with the guideline values. In 2007, 60% of the coastal bathing waters met the more stringent guideline values, which is a decrease of 6.7%, compared with the 2006 season. One bathing water was not in compliance with the mandatory values (6.7%), which is an increase compared to 2006. No coastal bathing water had to be closed during the 2007 season.

Of the freshwater bathing waters, 98.6% met the mandatory values in 2007 (Environment and Health Performance Review. Lithuania. World Health Organization, 2009) (attachment Fig. 5), which is a slight improvement over the previous year. As in the previous year, there were no non-compliant and no prohibited bathing waters in 2007. For the third successive year, the compliance rate with mandatory values remained above 98%. This result is excellent. The compliance rate with guideline values has increased slightly during the last three years, but still remains below 50%.
XVI. QUALITY OF WATERS USED FOR AQUACULTURE OR FOR THE PRODUCTION OR HARVESTING SHELLFISH
(ART. 6, PARAGRAPH 2 (j), third part)

Council Directive 2006/113/EC on the waters, shellfish quality requirements transposed into national law framework:
1. Sea water shellfish, quality assurance procedures (Official Gazette, 2004, No. 52-1742);
2. Information procedure on sea water shellfish, the quality of the provision of the European Commission (Official Gazette, No. 68-2377, 2004).

Lithuanian marine waters have low salinity and the salinity does not meet the recommended and mandatory values. Lithuanian marine waters sufficiently enriched by oxygen, so the existing water quality does not meet the mandatory, moreover, the Lithuanian marine waters of living crustaceans and molluscs are not used for food production, failure to comply with their fishing. Can not currently be distinguished marine areas that are appropriate for shellfish breeding.
Lithuania is obligated to report about bathing water quality to EU Commission under Directive 2006/7/EC. Many of the activities under the Protocol highly relate with the implementation of the EU directives.


Bathing water quality monitoring program for 2009-2011 is intended both to improve the environment that it is conducive to human health and to ensure the collected data describing the health environment, reliability and availability.

The goal of this programme is to set and monitor bathing water quality in order to preserve and improve the bathing water, to provide secure conditions for human health.

Targets of this program:
1. To improve the monitoring of bathing water quality management according to European Commission Directive 2006/7/EC;
2. To observe and analyse microbiological and chemical pollution of bathing water in the short-term pollution or abnormal situations;
3. To evaluate and classify the bathing water quality, develop performance profiles;
4. To provide information to the public, governments and public authorities on bathing water quality in accordance with Lithuanian Hygiene Norm HN 92:2007 "Beaches and bathing Water quality 'during the bathing season;"
5. To provide information to the European Commission.
XVIII. IDENTIFICATION AND REMEDIATION OF PARTICULARLY CONTAMINATED SITES (ART. 6, PARAGRAPH 2 (I))

In 2012, Lithuania will prepare a national inventory of contaminated sites management program (1046 measure of Lithuanian Government Program). It will cover the order of the management of priorities and funding mechanisms. During this period, contaminated land, which has or may have adverse effects on water and may cause diseases related to water, risk identification and disposition policies are implemented through the programs:

(A) The POPs management program for the years 2006-2015 (Official Gazette, no. 108-4110, 2006)

(B) Pesticide waste storage sites such as waste and contaminated sites management program for the years 2007-2013 (Official Gazette, 2007, No. 43-1641)

In implementing of measure of the above programs, the results had achieved:

The legal framework, which regulates the contaminated areas are identified, investigated and organization, was prepared;

The old unused pesticides removed and safely destroyed;

More than 10,000 potentially contaminated sites was inventoried, it was conducted a preliminary contamination risk for the environment and human health assessment;

Information system of contaminated land was developed and updated. In 2011 the updated information about potentially contaminated and polluted sites will be available to the public through a developed information tools;

Also it was explored in detail and evaluated over 400 contaminated sites and environmental risks posed to human health;

There are already closed 405 old landfills and scrap-heap, territory of risk for groundwater resources;

In order to ensure contaminated sites management, through the year 2008 in 26 municipalities was collected and cleared of hazardous materials 10,123.273 tons of soil.
XIX. EFFECTIVENESS OF SYSTEMS FOR THE MANAGEMENT, DEVELOPMENT, PROTECTION AND USE OF WATER RESOURCES (ART. 6, PARAGRAPH 2 (m))

In order to increase the efficiency of water resources and water management, use and protection, Lithuanian rivers were combined into four river basin districts: Nemunas, Lielupes, Venta-Daugava river basin districts and within isolated water bodies - rivers, lakes, coastal and transitional underground water reservoirs. Management plans and programs for each river basin district is preparing and will be approving by the Government of the Republic of Lithuania. Plans and programs will be implemented in period of 2010-2015, and updated every six years, i.e. the 2015, 2021 etc. When the plans and programs is drawing up, it's considering not only environmental but also social and economic aspects.

River basin district management plans drawn up under the Water Law of the Republic of Lithuania, in line with European Union Member States and the European Commission's total in 2000 23 October European Parliament and Council Directive 2000/60/EC, who establishes a Community action in the field of water policy implementation strategy. River basin management plans describe the condition of each river basin district and provides information about the impact of human activity analysis, which affects water status, thus identifies the risk of country's water bodies, which by 2015 will not achieve in good condition, provide the measures to achieve the objectives of water protection and other information.

The program's of measures to achieve water protection goals of river basin (hereinafter - Programme) purpose - determine water use and protective measures for each river basin district.

The program aims establish water protection:
- prevention of surface and ground water condition deterioration;
- to achieve a good status of surface, underground water and dependent terrestrial ecosystems;
- the consistent reduction of water pollution by priority substances, to stay or to make a gradual disappearance of priority hazardous substances;
- to mitigate flood and drought;
- to promote long-term sustainable and rational use of water and water use and protection;
- to monitor compliance with the law of the Republic of Lithuania protected areas.

In order program's objectives and implementation of the measures, would be a positive impact not only the natural environment, but also the country's economic and social environment That in the part of water bodies by 2015, would be achieved a good condition, is expected to stop underground and surface water status deterioration, moreover create preconditions for achieving good status in all water bodies in order to meet the Water Framework requirements. The long-term sustainable and rational use of water resources and protection will be fostered.

Good condition of surface water bodies will ensure the assumptions of economic, related to development on water tourism, recreation, agriculture, fisheries, navigation, hydropower and other sectors. Human health will be achieved through long-term benefits of water as natural resources, provide recreational, cultural, scientific and existential advantage.

Since the start of project preparation the public and various institutions was informed about the forthcoming management plan for each river basin district. Management plans of river basin districts have been placed in the Environmental Protection Agency's website and it was sent letters of inviting comment on the document to various institutions and coordinating board members. It was also held meetings with the public, the Nemunas River Basin District Coordination Council, composed of concerned public institutions, agencies and non-governmental organizations. Management plans of river basin districts deal with the Council of water problems, which consists of a variety of our scientists working in the field of water protection.
PART FOUR: OVERALL EVALUATION OF PROGRESS ACHIEVED IN IMPLEMENTING THE PROTOCOL

After analyzing and summarizing information on status of implementation of the Protocol we highlighted 8 stages:

- Setting up a coordination mechanism.
- Baseline analysis (Existing legal framework, Environmental and health situation), Identification and prioritization of problems).
- Preparation of National strategy.
- Implementation of National strategy and National programmes. Review and implementation of the National measures. Determination of targets.
- Preparation of National report.
- Baseline analysis (water quantity/quality, diseases etc.)
- Identification of gaps
- Revision of targets

After summarizing the information we identified main problems:

- There is no separate financial support for target setting and for Protocol implementation in Lithuania.
- The cooperation between different institutions involved is no sufficient.
- Structural reorganization and changes

The gaps identified in the reporting process can become the subject of future actions:

- To focus on the process of interinstitutual collaboration
- To identify the gaps in data collection and evaluation of indicators
- To identify the gaps of Strategy and programmes.
- To attend to include the public into the process
- To establish new active working group for bringing together the ongoing activities
- To do the presentation and explanation of guidelines
- To organize discussion about this items
- To pay attention to importunacy of training programmes in Lithuania

Information about Water and Health Protocol implementation and targets in the field of water needs to be more frequently used as a basis for policy discussions and political decisions. In particular, this requires the provision of data on the cost-effectiveness of environmental health actions and on the economic benefits of adequate environmental conditions. Information and campaigns need to be better communicated to the public, and environmental health aspects should systematically be covered in educational curricula for communities of health experts. Closer collaboration with nongovernmental organizations is suggested, to further increase the voice of the public in the field of environment and health politics.

One of the problems is water of dug wells. There are no Monitoring system for dug wells water quality in Lithuania. About 1 million inhabitants (mostly in rural areas and suburbs) use groundwater from dug wells for food. Well water is often polluted and does not meet drinking water safety and quality requirements. It is the only source of drinking water for the inhabitants. It is dangerous, first of all, due to the bacterial contamination (50% of dug wells) and high contents of nitrates (40%). Usually well water is shallow groundwater (mostly at depths of 5-15 m deep), thus farming is very important for the quality of this water. Well water quality depends on the location of the well, its installation of maintenance. As small garden-plots are used for intensive farming, it is impossible to find a remote place for a well. Redundant fertilizers, which are not absorbed by the plants, pass into groundwater and contaminate the drinking water supplies by nitric compounds and bacteria. Only about 3,000 well are controlled year by year. According the order of Minister of Health, "Diagnostics and prophylaxis for the water pollution with nitrites and nitrates“ municipal
Public Health Centers examine and control water from dug wells in the places were pregnant women and babies (until 6 months) are living and using water from wells).

The Ministry of Environment publish background information, relating to water quality management through the telecommunications equipment (mainly the Ministry of Environment website), where is placed:
- The European Union and national legislation and other documents, related to the management of the water quality;
- The documents, strategy, action plan and program, which are related to the Baltic Sea protection and policy;
- Other relevant public information (about individual water management, etc.).

Environmental Protection Agency provides information on water quality and human activities on surface water status in Lithuania. Every year, EPA prepares and releases statistical information brochure - "State of the Environment", where the most pressing and important environmental issues and the country's direction on this review, an analysis of findings are published.

According to 1991 21 May Council Directive 91/271/EEC, concerning urban waste water treatment, every two years EPA submits a report to inform the public about waste water and sludge management in Lithuania. It is also EPA's website the public can access the state of lakes and river monitoring data, pollutant discharges registry data, rivers, lakes and ponds cadastral data.

Information on drinking water supply and waste water management for subscribers (users) assigned to water suppliers. According to the Order of the Minister of Environment water suppliers must inform the subscribers (users) of drinking water quality deterioration, accidents, planned potable water supply and waste water management services interruptions and other changes that may affect the retail (consumer), water use, safe and efficient water supply infrastructure, the development of water pricing, and retail (consumer) services, outreach plan for the creation and enforcement of the provision of information to subscribers (consumers) in accordance with their requests.

The new water management system based on the principle of river basin districts, is in cooperation with national experts and researchers from different sectors of state and municipal authorities. In order to the general public awareness and involvement in water management system in 2006 was prepared and approved the River Basin Management Plans timetable for the public and Coordinating Councils, when they could to access the activities envisaged in the field of water management. There are scheduled management action plans of river basin districts, their execution dates and responsible authorities.

Currently, the public can obtain information on water quality in the presence of assessing the economic impact on the environment, spatial planning, delivery notes and suggestions for new legislation. Communities could be created and represent their views, volunteer water monitoring could be carried. There are allowed for public to access accepted reporting procedures. In order to facilitation of information access, the body of the information service is established (the "one-stop" personal service unit), etc. there is department or employee responsible for providing information.

There is growing awareness encourages people to live cleaner and secure environment, a better living and working conditions, forcing the public interest surrounding the quality of management through its impact on public administration information about the issues locally, regionally, with the active participation of public administration decision-making on the problems of exclusion.

However, the deficiencies noted that during coordination of any plan or program the public interest is generally low, but when project are started, they express their dissatisfaction. The advantage was that, in order to align plans and programs with the public, less of resistance of the planned project are received.
PART FIVE: INFORMATION ON THE PERSON SUBMITTING THE REPORT

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

Name of officer responsible for submitting the national report:
   Natalja Šliachtič
   Tatjana Bulavskaja

E-mail:
slechtin@takas.lt
t.bulavskaja@am.lt

Telephone number:
+370 5 236 0481
+370 5 266 3494

Name and address of national authority:

   Natalja Šliachtič
   Focal Point
   Environmental Health Division
   Center for Health Education and Disease Prevention
   Ministry of Health
   Kalvariju str. 153
   LT-08221 Vilnius
   Lithuania

   Tatjana Bulavskaja
   Chief Desk Officer, Water Resources and Norms Division, Department of Waters
   Ministry of Environment
   Jaksto st. 4/9,
   LT-01105 Vilnius,
   Lithuania

Signature:

Date:
30 – 03 - 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**

United Nations Economic Commission for Europe  
Palais des Nations  
CH-1211 Geneva 10  
Switzerland  
E-mail: protocol.water_health@unece.org

and

Regional Office for Europe of the World Health Organization  
Via Francesco Crispi 10  
I-00187 Rome, Italy  
E-mail: watsan@ecr.euro.who.int