

## **Template for summary reports under the Protocol on Water and Health**

### **Part One**

#### **General aspects**

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

*Please provide detailed information on the target areas in Part Three.*

YES             NO             IN PROGRESS

*If targets have been revised, please provide details here.*

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

*Please explain whether the targets and target dates were published, made available to the public (e.g. online, official publication, media) and communicated to the secretariat.*

*Not applicable*

3. Has your country established national or local arrangements for coordination between competent authorities for setting targets? If so please describe, including information on which public authority(ies) took the leadership and coordinating role, which public authorities were involved and how coordination was ensured.

Ministry of Foreign Trade and Economic Relations of BiH initiated a procedure for the establishment of a working group for implementation of PWH provisions. In this group will be the representatives from all competent authorities at state's, as well as at the entities level (Republic of Srpska, Federation BiH and Brcko District BiH).

We have planned that in WG will be included firstly governmental institutions and then, in the second phase, non-governmental institutions, regional development agency, some institutes, universities etc.

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

BiH

- Law on Ministries and Other Bodies of Administration of Bosnia and Herzegovina (Official Gazette of BiH No. 5/03, 42/03, 26/04, 42/04, 45/06, 88/07, 35/09, 59/09 i 103/09),
- Rulebook on Health Safety of Drinking Water (Official Gazette of BiH 40/10, 43/10, 30/12),

- National Action Plan for the Mediterranean Region in Bosnia and Herzegovina (2015)

#### Federation of BiH

- Law on Waters of the Federation of BiH (Official Gazette FBiH 70/06),
- Law on Water Protection FBiH (Official Gazette FBiH 33/03),
- Water management Strategy of the Federation of BiH 2010-2022.,
- Environmental Protection Strategy of Federation B&H for the plan period 2008-2018.

#### Republic of Srpska

- The Law on Environmental Protection of the Republic of Srpska (Official Gazette of RS no. 71/12)
- Law on Waters of the Republic of Srpska (Official Gazette of Republika Srpska 50/06, 92/09, 121/12),
- Integrated Water Management Strategy of the Republic of Srpska 2014-2024.

Other laws, strategies and roolbooks related to water management, environment and health protection.

5. Was cost-benefit analysis of targets set performed, and if so how?

*Alternatively, please explain to what extent financial implications were taken into account when setting targets.*

*Not applicable*

6. What has been done in your country to ensure public participation in the process of target setting in accordance with article 6, paragraph 2, and how was the outcome of public participation taken into account in the final targets set?

Not applicable

7. Provide information on the process by which this report has been prepared, including information on which public authorities had the main responsibilities, which other stakeholders were involved, etc.

In Bosnia and Herzegovina, the Protocol Water and Health entered into force in January 2012 and in April 2013, Bosnia and Herzegovina submitted to the UNECE and WHO/EURO Secretariat its 1st Summary report during the second reporting exercise.

Unfortunately, the national or local arrangements for coordination between competent authorities for setting targets in accordance with Protocol have not been established yet in Bosnia and Herzegovina.

With regards to the obligation to report on the progress achieved in the implementation of the Protocol on Water and Health in accordance with its article 7, and taking in account the facts stated above, the Summary report on the Protocol, for the third cycle, was prepared on the base of the data that are available at the time.

Having in mind a broad spectrum of issues covered by the Protocol, in preparation of the Summary report were included different authorities from the field of health, water management, sanitation and the environment, mainly the ministries responsible for public health and the ministries responsible for water resources.

Template for summary reports in accordance with article 7 of the Protocol on Water and Health was translated in the local language and distributed by the Ministry of Foreign Trade and Economic Relations BiH to all relevant ministries at state and entity levels: Ministry of Civil Affairs BiH, Food Safety Agency BiH, Ministry of Health and Social Welfare of Republic of Srpska, Ministry of Health Federation of Bosnia and Herzegovina, Ministry of Agriculture, Forestry and Water Management Republic of Srpska and Ministry of Agriculture, Water Management and Forestry Federation of Bosnia and Herzegovina

On the base of received feedback and having in mind that some responsibilities institutions have not submitted their data, Focal point for the Protocol and Ministry of Foreign Trade and Economic Relations prepared the consolidated Summary Report for BiH.

8. Report any particular circumstances that are relevant for understanding the report, e.g., whether there is a federal and/or decentralized decision-making structure, or whether financial constraints are a significant obstacle to implementation (if applicable).

In accordance with the Constitution of Bosnia and Herzegovina and the Constitutions of the Federation Bosnia and Herzegovina (FBiH) and the Republic of Srpska (RS) as well as the Arbitration Decision for the Brčko District (BD BiH), the competencies for water management and health care in BiH are regulated by legal framework at the level of the Entities and the BD BiH.

At the state level, institutions are established with the main task of playing the role of overall coordinators in certain areas especially in the part of:

- Coordination of EU accession and
- Implementation of international obligations related to signed Conventions, agreements etc.

## **The main institutions at the state level in charge of implementation PWH:**

Based on the Article 9, paragraph (2) of the Law on Ministries and Other Bodies of Administration of Bosnia and Herzegovina<sup>1</sup>, the BiH Ministry of Foreign Trade and Economic Relations is competent to carry out tasks and activities which are under competences of BiH pertaining to the definition of policy, basic principles, coordination of activities and harmonization of plans of entity authorities and institutions at international level in the fields of agriculture, energy, environmental protection, development and utilization of natural resources, and tourism.

Regarding to the article 15, paragraph (2) of the same Law, The Ministry of Civil Affairs of BIH is responsible for carrying out tasks and discharging duties which are within the competence of BiH and relate to defining basic principles, co-ordinating activities and harmonising plans of the Entity authorities and defining a strategy at the international level in the fields of health and social care;

According to the BiH Law on Food<sup>2</sup> the Agency for Food Safety, in cooperation with the competent authorities of entities and BD of BiH, as well as in collaboration with laboratories for food control, the competent inspection authorities and public health institutions in BiH, is responsible for:

- collecting and processing data on safety of drinking water;
- assessment of the risks to human health;
- educating interested parties;
- cooperating with national and international institutions in the field of food safety;
- promotion of scientific research within its jurisdiction.

## **The main institutions at entity levels**

### **Federation of BiH:**

FBiH Ministry of Agriculture, Water-Management and Forestry has Administrative functions at F BiH level in the water sector.

FBiH Ministry of Environment and Tourism performs administrative, expert and other tasks related to the competence of the F BiH in the field of protection, conservation and improvement of the environment.

FBiH Ministry of Health among other activities directly performs administrative, expert and other tasks in the context of safety of water intended for human consumption.

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<sup>1</sup>“Official Gazette No. BiH”, Br. 5/03, 42/03, 26/04, 42/04, 45/06, 88/07, 35/09, 59/09 i 103/09.

<sup>2</sup> “O.G. of BiH”, No. 50/04.

FBiH Institute for Public Health is a health institution founded by the FBiH Parliament. One of the tasks of this Institute is to control the safety of water for human use

The FBiH Law on Waters<sup>3</sup> provides for the basis for the establishment of two water agencies in FBiH:

- Agency for the Sava River Catchments Area, based in Sarajevo;
- Agency for Adriatic Sea Catchments Area, based in Mostar.

They have responsibilities related to monitoring of water.

### **Republic of Srpska**

The Ministry of Agriculture, Forestry and Water Management is responsible for professional, administrative and technical services in the areas for which it has been organized. Based on the Law on Waters<sup>4</sup>

Public Institution "Vode Srpske" is a public institution which manages water, public water resources and hydro technical engineering structures and systems, rivers, streams and lakes of Republic of Srpska, in accordance with the provisions of the Law on Waters and other relevant legislation.

The Ministry of Spatial Planning, Civil Engineering and Ecology of RS perform administrative, professional and technical jobs in protection, preservation and improvement of the environment.

The Ministry of Health and Social Welfare of RS performs administrative, professional and technical duties in accordance with law. Especially it takes care of the quality of drinking water (for human consumption).

The Institute for Health Protection of RS is a health institution whose scope of work and activities are regulated by the Law on Health Protection of RS<sup>5</sup> and by the Law on Scientific and Research Work of RS.<sup>6</sup> The Department for Sanitary Chemistry of the Institute of Public Health of RS has the primary task to perform quality control and safety of water intended for human consumption.

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<sup>3</sup>“O.G. of FBiH”, No. 70/06

<sup>4</sup> „O.G. of RS”, No. 50/06 and 92/09 and 121/12

<sup>5</sup> „O.G. of RS”, No. 107/05.

<sup>6</sup>“O.G. of RS”, No. 6/12.

## **Cantonal and local level**

### **Federation of BiH**

According to the Constitution of FBiH, cantons regulate the manner and content of the performance of public utilities. In the context of water management, an important role in the affairs of cantons is to provide water for the use of citizens, social and economic subjects, and other users. Also, the cantons regulate the collection, treatment and disposal of wastewater.

Cantons regulate this area and specify the responsibilities and obligations of municipalities as units of local self-government.

### **Republic of Srpska**

The Law on Local Self-Government of RS stipulates that local authorities are obliged to provide direct services in the areas of water supply and wastewater collection and treatment. In order to perform these tasks, the local government may establish a separate company or assign duties to a company.

In the accordance with the provisions of the Law on Waters, local communities participate in the procedures of issuing water acts.

RS authorities and local governments, within their competence, manage water resources as a good of public interest and are responsible for protection from damage, destruction, or irresponsible and illegal use, in accordance with the Law on Water and other laws.

### **Brčko District of BiH**

Department of Agriculture, Forestry and Water Management of the Government of BD is be in charge of the domain of agriculture, forests and water management.

Department of Spatial Planning and Property Affairs is responsible for the field of nature conservation and biodiversity, waste management, air protection and spatial planning.

The Public Health Division supervises the quality and safety of drinking water, surface water, groundwater and waste water in accordance with the requirements of the Rules on Drinking Water Safety, which is harmonized with the corresponding EU Directive.

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

Not applicable

Part Two  
Common indicators<sup>7</sup>

**I. Quality of the drinking water supplied**

**A. Context of the data**

*Please provide general information related to the context of the data provided under sections B and C below:*

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

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<sup>7</sup> 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.

*The rationale of this question is to understand the population coverage of the water quality data reported under sections B and C below. Please describe the type of water supplies for which data is included in the following tables, and the population share covered by these supplies. Please also clarify the source of the water quality data provided (e.g., data from regulatory authorities).*

#### FBiH

Approximately 60% of the population in the FBiH is covered by public water supply systems, while the remaining 40% of the population is supplied from local water supply systems and individual sources (e.g. shallow wells, springs).

In urban areas the coverage by public water supply systems reaches 90% of the total population, while in rural areas the coverage is significantly lower at approximately 25%.

#### Republic of Srpska

According to the "Integrated water management strategy of the Republic of Srpska 2014 -2024", 48% of the population in RS is supplied with potable water from over 51 central public water supply systems and 52% of the population is supplied from a large number of water supply systems of local communities, small villages and individual water supply systems.

The coverage by public water supply systems in urban areas covers approximately 87% of the population.

#### BD BiH

In relation to the water supply systems of BD BiH, it is estimated that approximately 36.7% of the total population of BD BiH is connected to centralized water supply system of the District, of which over 90% of the population of the town of Brcko; about 30% of BD BiH population is connected to local water supply systems without adequate quality control; the rest of the population have been supplied from individual sources such as shallow wells.

Over 60% of District residents are not supplied with acceptable levels of water quantity or quality. This problem is particularly serious in the rural area where the smaller networks are either more damaged or not connected to the main water supply system of the BD BiH.

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

Water supply systems reported here supply both, the urban and rural populations.

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

*The rationale behind this question is to understand where the samples were primarily taken from for the water quality data reported in sections B and C below.*

For sampling, laboratory testing (microbiological, physical and chemical, radiological, and other parameters) and interpretation of the results obtained using the ISO 5667 series of standards. Samples/measurements are taken as a raw water, in the distribution system and in the some points of consumption.

4. In the reports, the standards for compliance assessment signify the national standards. If national standards for reported parameters deviate from the WHO guideline values, provide information on the values (standards) used for calculation.

To be sure that the drinking water everywhere in the EU is healthy, clean and tasty, the Drinking Water Directive sets standards for the most common substances (called parameters) that can be found in drinking water. Under the Directive, a total of 5 microbiological and 48 chemical parameters must be monitored and tested regularly. In principle, the WHO guidelines for drinking water are used as the basis for standards in the Drinking Water Directive

Food Safety Agency of BiH collects, processes and analyzes data on the sanitary quality of drinking water, which are regularly submitted to laboratories for food control in BiH. Table below presents the sanitary quality of drinking water from public water supply systems in BiH in relation to the legislation in force in BiH:

<b>Public Water Supply, 2009</b>			
<b>Physico-chemical Analysis</b>		<b>Microbiological analysis</b>	
<b>Total</b>	<b>Inadequate</b>	<b>Total</b>	<b>Inadequate</b>
14 666	2 056 (14.02%)	18 306	2 245 (12.26%)
<b>Total analyses</b>		32 972	
<b>Inadequate</b>		4 301 (13.05 %)	

<b>Public Water Supply, 2010</b>			
<b>Physico-chemical Analysis</b>		<b>Microbiological analysis</b>	
<b>Total</b>	<b>Inadequate</b>	<b>Total</b>	<b>Inadequate</b>
12 201	2 034(16.67%)	21 484	2 111 (9.82%)
<b>Total analyses</b>		33 685	
<b>Inadequate</b>		4 145 (12.28%)	

<b>Public Water Supply, 2011</b>			
<b>Physico-chemical Analysis</b>		<b>Microbiological analysis</b>	
<b>Total</b>	<b>Inadequate</b>	<b>Total</b>	<b>Inadequate</b>

13 532	1 119 (14.38%)	18 180	1 163 (6.40%)
<b>Total analyses</b>		31 712	
<b>Inadequate</b>		2 282 (7.20%)	

<b>Public Water Supply, 2012</b>			
<b>Physico-chemical Analysis</b>		<b>Microbiological analysis</b>	
<b>Total</b>	<b>Inadequate</b>	<b>Total</b>	<b>Inadequate</b>
7.111	942 (13.25%)	9 677	911 (9.41%)
<b>Total analyses</b>		16 788	
<b>Inadequate</b>		1 853 (11.04%)	

<b>Public Water Supply, 2013</b>			
<b>Physico-chemical Analysis</b>		<b>Microbiological analysis</b>	
<b>Total</b>	<b>Inadequate</b>	<b>Total</b>	<b>Inadequate</b>
8302	992 (11.94%)	13195	1901(14,41%)
<b>Total analyses</b>		21 497	
<b>Inadequate</b>		2893 (14,41)	

<b>Public Water Supply, 2014</b>			
<b>Physico-chemical Analysis</b>		<b>Microbiological analysis</b>	
<b>Total</b>	<b>Inadequate</b>	<b>Total</b>	<b>Inadequate</b>
6571	1353 (20,59%)	11 670	2 822 (24,18%)
<b>Total analyses</b>		18 241	
<b>Inadequate</b>		4175 (24,18)	

<b>Public Water Supply, 2015</b>			
<b>Physico-chemical Analysis</b>		<b>Microbiological analysis</b>	
<b>Total</b>	<b>Inadequate</b>	<b>Total</b>	<b>Inadequate</b>
6525	1025 (15.71%)	9986	1748 (17.50%)
<b>Total analyses</b>		16 511	
<b>Inadequate</b>		2773 (17,50%)	

Rules on the sanitary quality of drinking water<sup>8</sup> prescribe the requirements and standards that must be met by drinking water, the maximum allowed value of sanitary quality parameters, methods for laboratory tests, and measures to monitor sanitary quality of drinking water. Objective of these Rules is to protect human health from adverse effects of any contamination of water intended for drinking through ensuring sanitary quality of water. Food Safety Agency BiH initiated, proposed and created these Rules in cooperation with the competent authorities of the Entities and BD BiH. They were harmonized with the Council Directive 98/83/EC of 3 November 1998.

<sup>8</sup>Official Gazette of BiH no. 40/10, 43/10 and 30/12

## B. Bacteriological quality

Indicator to be used: WatSan\_S2: The percentage of samples that fail to meet the national standard for E. coli and the percentage of samples that fail to meet the national standard for Enterococci.

*Please comment on the trends or any other important information supporting interpretation of the data.*

<i>WatSan_S2</i>	<i>Baseline value 2005(%)</i>	<i>Value reported in the previous reporting cycle 2012(%)</i>	<i>Current value (2015)</i>
E. coli	RS: 5,7	RS: 1,4, FBiH: 3,6	FBiH:0,8
Enterococci	RS:13,2	RS:2,2; FBiH: 2,1	FBiH:1,7

## C. Chemical quality

Indicator to be used: WatSan\_S3. All countries shall monitor and report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to the following:

- (a) Fluoride;
- (b) Nitrate and nitrite;<sup>9</sup>
- (c) Arsenic;
- (d) Lead;
- (e) Iron.

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

*Please comment on the trends or any other important information supporting interpretation of the data.*

<i>Substance</i>	<i>Baseline value 2005</i>	<i>Value reported in the previous reporting cycle 2010</i>	<i>Current value (2015)</i>
Fluoride			
Nitrate	RS. 0,7	RS:0,4	FBiH:0,3
Nitrite		FBiH.0,8	

<sup>9</sup> As defined in the WHO Guidelines for drinking-water quality.

<i>Substance</i>	<i>Baseline value 2005</i>	<i>Value reported in the previous reporting cycle 2010</i>	<i>Current value (2015)</i>
Arsenic		FBiH:0,3	FBiH:4,4
Lead			FBiH: 0,3
Iron	RS: 0,09	RS:0,01	FBiH:1,2
Additional physico-chemical parameter 1: _____			
Additional physico-chemical parameter 2: _____			
Additional physico-chemical parameter 3: _____			
Additional physico-chemical parameter 4: _____			
Additional physico-chemical parameter 5: _____			

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

In filling out the following table, please consider the following points:

(a) For reporting outbreaks, please indicate if the numbers reported are related to all exposure routes or only related to water (i.e., for which there is epidemiological or microbiological evidence for water to have facilitated infection);

(b) For reporting incidents:

(i) Please report cases per 10,000 persons;

(ii) Please differentiate between zero incidents (0) and no data available (-);

(iii) If possible, please distinguish between autochthonous and imported cases.

*Please consider extending the list of water-related diseases to cover other relevant pathogens (e.g., enteric viruses, Cryptosporidium, Giardia, Legionella).*

Please indicate how the information is collected (e.g., event-based or incidence based).

Please comment on the trends or any other important information supporting interpretation of the data.

	Incidence			Number of outbreaks		
	Baseline only RS: 2006	Value reported in the previous reporting cycle only RS: 2010	Current value (specify the year)	Baseline only RS:2006	Value reported in the previous reporting cycle only RS: 2010	Current value (specify the year)
Cholera	-	-		-	-	
Bacillary dysentery (shigellosis)	0.2	0.2		3	3	
Enterohaemorrhagic E. coli.	Do not	typing of	pathogens			
Viral hepatitis A	2.5	2.7		35	38	
Typhoid fever	-	-		-	-	

### III. Access to drinking water

Please comment on the trends or any other important information supporting interpretation of the data.

Percentage of population with access to drinking water	Baseline value 2002(%)	Value reported in the previous reporting cycle 2012(%)	Current value (specify the year)
<b>Total</b>	RS: 79,1	RS: 99,5 FBiH: 99,6	
Urban	RS: 98,1	BiH: 98,7	
Rural	RS: 62,4	BiH: 96,1	

\*Source: Household Survey (PHI) RS, 2002 and 2010 and MICS, 2012

Please specify if the above data is based on national estimates or estimates provided by the WHO/United Nations Children's Fund (UNICEF) Joint Monitoring Programme (JMP) for Water Supply and Sanitation.

If national estimates are provided, please specify how access is defined and estimated in your country.

JMP definitions and categories are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.

#### IV. Access to sanitation

Please comment on the trends or any other important information supporting interpretation of the data.

Percentage of population with access to sanitation	Baseline value 2002 (%) (specify the year)	Value reported in the previous reporting cycle 2010/2012 (%)	Current value (specify the year)
<b>Total</b>			
Urban			
Rural			

Please specify if the above data is based on national estimates or estimates provided by JMP for Water Supply and Sanitation.

If national estimates are provided, please specify how access is defined and estimated in your country.

#### Population connected to wastewater treatment

	Year	2005	2012	2013
1 Total population of the country	million	3.843	3.839	3.791
2 Population connected to water supply industry	million	1.824	2.244	2.400
3 Percentage of population connected to water supply industry	%	47	58	63
4 Total population connected to a wastewater collecting system	million	1.071	1.312	1.344
5 Percentage of total population connected to a wastewater collecting system	%	28	34	35
6 Total population connected to waste water treatment facilities	million	0,062	0,074	0,072

	<i>Year</i>	<i>2005</i>	<i>2012</i>	<i>2013</i>	
7	Percentage of total population connected to waste water treatment facilities	%	2	2	2

\*Source: Agency for Statistics of BiH

[http://www.bhas.ba/index.php?option=com\\_content&view=article&id=226&Itemid=&lang=en](http://www.bhas.ba/index.php?option=com_content&view=article&id=226&Itemid=&lang=en)

RS

Percentage of the population that has a toilet in the household with conventional sewer connection and septic tank

Percentage of households with a toilet to flush the connection to the sewer network is significantly higher in urban (76,4%) than rural areas (18,8%), which is above the national average (92,6%). Flushing a toilet with connection to a septic tank 48,9% of households in Republic of Srpska. Percentage of households with flush toilet with connection to the septic tank is significantly higher in rural areas (65,2%) than in urban (23,2%).

RS Based on the data collected from the questionnaires in 2011, about 81% of local municipalities have sewerage systems with different scope (average degree of connections is 36%), while 19% of municipalities have no sewerage system.

RS has around 1500 km of sewerage network for fecal and precipitation waters. Over 50% of settlements have a mixed type of sewerage systems, which are old, outdated and have insufficient capacity.

45% of consumers of water are connected to sewerage systems and 60% of those are in urban areas.

Less than 15% of settlements in the RS have some form of treatment, and it's mostly mechanical filtration and sedimentation. Only four urban wastewater treatment plants with related small industries have been built.

## FBiH

According to estimated data approximately 33% of the total population are connected to public sewerage systems in the FBiH. The characteristic of most populated areas in the territory of the FBiH is the lack of a unified system for collection (and treatment) of waste water, and the fact that waste water and precipitation are usually collected by mixed sewerage system and transported to the nearest receptor by the shortest possible route. FBiH currently has a total of nine (9) plants for treatment of waste waters from citizens with total capacity of 94,000 population equivalents (PE).

*JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.*

## V. Effectiveness of management, protection and use of freshwater resources

### Water quality

On the basis of national systems of water classification, the percentage of the number of water bodies or the percentage of the volume (preferably) of water<sup>10</sup> falling under each defined class (e.g., in classes I, II, III, etc. for non-EU countries; for EU countries, the percentage of surface waters of high, good, moderate, poor and bad ecological status, and the percentage of groundwaters/surface waters of good or poor chemical status).

### For non-European Union Countries

#### Status of surface waters

<i>Percentage of surface water falling under class<sup>a</sup></i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle 2012(%)</i>	<i>Current value 2014 (%)</i>
I			
High		52	0.57
Good		37	27.12
Moderate		11	45.76
Poor			5.65

<sup>10</sup> Please specify.

<i>Percentage of surface water falling under class<sup>a</sup></i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle 2012(%)</i>	<i>Current value 2014 (%)</i>
Bad			20.90
<b>Total number/volume of water bodies classified</b>		132	177
<b>Total number/volume of water bodies in the country</b>			1534

<sup>a</sup>Rename and modify the number of rows to reflect the national classification system.

### Status of groundwaters

<i>Percentage of groundwaters falling under class<sup>a</sup></i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle 2012(%)</i>	<i>Current 2014 (%)*</i>
Good			84%
Bad			2%**
Unkown			14%
V			
<b>Total number/volume of groundwater bodies classified</b>			49
<b>Total number/volume of groundwater bodies in the country</b>			

*\*Only for Adriatic Sea River Basin*

*\*\* quantitative status*

<sup>a</sup>Rename and modify the number of rows to reflect the national classification system.

For European Union countries

### Ecological status of surface water bodies

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<i>Percentage of surface water classified as:</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
High status			
Good status			
Moderate status			
Poor status			
Bad status			
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<b>Total number/volume of water bodies classified</b>			
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<b>Total number/volume of water bodies in the country</b>			

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### Chemical status of surface water bodies

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<i>Percentage of surface water bodies classified as</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
Good status			
Poor status			
<hr/>			
<b>Total number/volume of water bodies classified</b>			
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<b>Total number/volume of water bodies in the country</b>			

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## Status of groundwaters

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
Good quantitative status			
Good chemical status			
Poor quantitative status			

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (specify the year)</i>	<i>Value reported in the previous reporting cycle (specify the year)</i>	<i>Current value (specify the year)</i>
Poor chemical status			
<b>Total number/volume of groundwater bodies classified</b>			
<b>Total number/volume of groundwater bodies in the country</b>			

Please provide any needed information that will help put into context and aid understanding of the information provided above (e.g., coverage of information provided if not related to all water resources, how the quality of waters affects human health).

### Water use

Please provide information on the water exploitation index at the national and river basin levels for each sector (agriculture, industry, domestic), i.e., the mean annual abstraction of freshwater by sector divided by the mean annual total renewable freshwater resource at the country level, expressed in percentage terms.

	<i>Baseline value (2006) million m<sup>3</sup></i>	<i>Value reported in the previous reporting cycle (2012) million m<sup>3</sup></i>	<i>Current value (2013) million m<sup>3</sup></i>
<i>Water exploitation index</i>			
Agriculture	2,4	1,5	1,4
Industry <sup>a</sup>			
Manufacturing	33,3	13,7	12,6
Electricity industry	-	-	-
Domestic use <sup>b</sup>			
Public Water Supply	114,1	115,9	109,3

*\*Source: Agency for Statistic of BiH*

<sup>a</sup>Please specify whether the figure includes both water abstraction for manufacturing industry and for energy cooling.

<sup>b</sup>Please specify whether the figure only refers to public water supply systems or also individual supply systems (e.g., wells).

## **Part Three**

### **Targets and target dates set and assessment of progress**

*For countries that have set targets and target dates, please provide information specifically related to the progress towards achieving them. If you have not set targets in a certain area, please explain why.*

*For countries in the process of setting targets, please provide information on the relevant target areas (e.g., baseline conditions, provisional targets, etc.)*

*Suggested length: one page (330 words) per target area.*

#### **I. Quality of the drinking water supplied (art. 6, para. 2 (a))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

#### **II. Reduction of the scale of outbreaks and incidents of water-related disease (art. 6, para.2 (b))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.

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

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

### **III. Access to drinking water (art. 6, para.2 (c))**

*For each target set in this area:*

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

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.

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

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

### **IV. Access to sanitation (art. 6, para.2 (d))**

*For each target set in this area:*

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

2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.

3. Assess the progress achieved towards the target.

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

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

**V. Levels of performance of collective systems and other systems for water supply (art. 6, para.2(e))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**VI. Levels of performance of collective systems and other systems for sanitation (art. 6, para. 2 (e) continued)**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**VII. Application of recognized good practices to the management of water supply, (art.6, para.2 (f))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

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

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

## IX. Occurrence of discharges of untreated wastewater (art. 6, para.2 (g) (i))

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

In agglomeration of more than 2.000 p.e., all physical and legal entities must discharge their wastewater into public sewerage system.

All agglomerations shall have public sewerage system for collecting waste waters at the latest:

- a) 6 years after BiH become Member State of European Union and for agglomerations of more than 15.000 p.e.;
- b) 12 years after BiH become Member State of European and for agglomeration between 2.000 and 15.000 p.e.;
- c) 18 years after BiH become Member State of European and for agglomerations over 10.000 p.e. which discharge waste waters into water bodies that are enlisted among sensitive areas.

The target values for WWTP effluent are as follows:

- |         |          |        |                   |     |                                   |
|---------|----------|--------|-------------------|-----|-----------------------------------|
| - BOD5  | 25 mg/l  | 70-90% | minimal reduction | 50% | for settlements above 1500 m s.l. |
| - CODCr | 125 mg/l | 75%    | minimal reduction |     |                                   |
| - TSS   | 35 mg/l  | 90%    | minimal reduction |     |                                   |

for discharge in sensitive area (tertiary treatment)

TP-2 mg/l (for agglomeration 10000-100000 PE) minimal reduction 80%

1 mg/l (for agglomeration > 100000 PE) minimal reduction 80%

TN-15 mg/l (for agglomeration 10000-100000 PE)

minimal reduction 70-80%

-10 mg/l (for agglomeration > 100000 PE)

minimal reduction 70-80%

If effluent is discharged into surface water used for recreation than microbiological parameters must be intestinal enterococci (cfu/100 ml)  
inland waters 330 transitional and coastal waters 185

Escherichia coli (cfu/100 ml) inland waters 900 transitional and coastal waters 500

All targets are set in Official gazette of FBiH no. 101/2014 and 1/2015) and are only relevant in Federation of Bosnia and Herzegovina

Background for this target are set in UWWT Directive (91/271/EEC)

Comparison of Wastewater discharge and capacity of treatment facilities in 2012.and 2015 on watershed of the Adriatic sea

<i>Year</i>	<i>Total sewage water discharged in mil m<sup>3</sup>/year based on specific consumption of 200 l/PE</i>	<i>Total untreated or partially treated water mil m<sup>3</sup>/year</i>	<i>Treated according the norms mil m<sup>3</sup>/year</i>	<i>Total capacity of municipal treated facilities</i>	<i>Percent of treated water</i>
2012	32	30,905	1,095	15000 PE	3,4 %
2015	32	29,555	2,445	33500 PE	8%

**X. Occurrence of discharges of untreated storm water overflows from wastewater collection systems to waters within the scope of the Protocol (art. 6, para. 2 (g) (ii))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XI. Quality of discharges of wastewater from wastewater treatment installations to waters within the scope of the Protocol (art. 6, para.2 (h))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XII. Disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations (art. 6, para.2 (i), first part)**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XIII. Quality of wastewater used for irrigation purposes (art. 6, para.2 (i), second part)**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XIV. Quality of waters which are used as sources for drinking water (art. 6, para. 2 (j), first part)**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XV. Quality of waters used for bathing (art. 6, para.2 (j), second part)**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XVI. Quality of waters used for aquaculture or for the production or harvesting of shellfish (art. 6, para.2 (j), third part)**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XVII. Application of recognized good practice in the management of enclosed waters generally available for bathing (art. 6, para.2 (k))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XVIII. Identification and remediation of particularly contaminated sites (art. 6, para.2 (l))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XIX. Effectiveness of systems for the management, development, protection and use of water resources (art. 6, para.2 (m))**

*For each target set in this area:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

**XX. Additional national or local specific targets**

*In cases where additional targets have been set, for each target:*

1. Describe the target, target date and baseline conditions. Please include information on whether the target is national or local, and intermediate targets as relevant. Also include information on the background and justification for the adoption of the target.
2. Describe the actions taken (e.g., legal/regulatory, financial/economic and informational/educational, including management measures) to reach the target, having regard to article 6, paragraph 5, and, if applicable, the difficulties and challenges encountered.
3. Assess the progress achieved towards the target.
4. In the review of progress achieved towards the target, has it appeared that the target and target date need to be revised, e.g., in the light of scientific and technical knowledge? If so, and if the revised target and target date have already been adopted, please describe them.
5. If you have not set a target in this area, please explain why.

## **Part Four**

### **Overall evaluation of progress achieved in implementing the Protocol**

In this part of the summary report, Parties shall provide an analysis and synthesis of the status of implementation of the Protocol. Such an overall evaluation should not only be based on the issues touched upon in the previous parts, but should also include, as far as possible, a succinct overview of implementation of activities related to, for example:

- (a) Response systems (article 8);
- (b) Public awareness, education, training, research and development and information (article 9);
- (c) Public information (article 10);
- (d) International cooperation (article 11);
- (e) Joint and coordinated international action (article 12);
- (f) Cooperation in relation to transboundary waters (article 13);
- (g) International support for national action (article 14).

This analysis or synthesis should provide a succinct overview of the status of and the trends and threats with regard to waters within the scope of the Protocol sufficient to inform decision makers, rather than an exhaustive assessment of these issues. It should provide an important basis for planning and decision-making as well as for the revision of the targets set, as needed. Suggested length: up to 3 pages

## **Part Five**

### **Information on the person submitting the report**

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

Name of officer responsible for submitting the national report:

**Focal point of BiH:**

Jelena Vicanovic,  
Public Institution "Vode Srpske" Bijeljina  
Miloša Obilića 51, Bijeljina

**Ministry of Foreign trade and Economic  
Relations of Bosnia and Herzegovina:**

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Name and address of national authority:

Ministry of Foreign trade and Economic  
Relations of Bosnia and Herzegovina  
Musala 9, Sarajevo

Signature:

Date: 18<sup>th</sup> April 2016

### **Submission**

Parties are required to submit their summary reports to the joint secretariat, using the present template and in accordance with the adopted guidelines on reporting, by **18 April 2016**. Submission of the reports ahead of this deadline is encouraged, as this will facilitate the preparation of analyses and syntheses to be made available to the third session of the Meeting of the Parties.

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

#### **Joint Secretariat to the Protocol on Water and Health**

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and

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