

# Template for summary reports in accordance with article 7 of the Protocol on Water and Health

## Executive summary

*Please provide an overall evaluation of the progress achieved in implementing the Protocol in your country during the reporting period. Please provide a short description of the main steps taken and highlight important achievements, key challenges, success factors and concrete good practice examples.*

*Suggested length: maximum 2 pages*

## 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 two.*

YES  NO  IN PROGRESS

*If targets have been revised, please indicate the date of adoption and list the revised target areas. Please provide detailed information in part two.*

2. Were targets and target dates 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.*

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.

Bosnia and Herzegovina has established the Working Group for monitoring of implementation BiH's obligations related to the Protocol Water and Health to the Water Convention. The Members of the Working Group are representatives of all responsible institutions at state and entity level. The Working Group has coordination role for the setting targets in accordance with article 6 of the Protocol, implementing measures and reporting as well for implementation of other BiH's obligations related to the Protocol.

The Working Group has made the draft of Target and Target dates for all Protocol areas stipulated on Article 6.2 of the Protocol. Defined targets are in accordance with SDGs and based on existing strategy documents at all administrative level in BiH. As well, having in mind that BiH is potential candidate for EU accession aims of water and health policy are in accordance with EU acquis. It means that National Protocol Targets of BiH are harmonised with EU requirements.

4. Was a programme of measures or action plan developed to support implementation of the targets? If so, please briefly describe that programme or plan, including how financial implications were taken into account.

Draft of defined targets in accordance with the Protocol in BiH are based on existing strategy documents at all administrative level. It means that for all targets exact measures which will

be implemented by responsible institutions in order to achieving the certain target and financial implication is considered as well.

5. 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?

Bosnia and Herzegovina, actually Working Group for monitoring of implementation BiH's obligations related to the Protocol Water and Health to the Water Convention has made draft of Baseline analysis with defined targets in Annex 1. Now, we are in process of public consultation in process of broad consultation on the proposed targets, target dates and indicators in accordance with proposed steps on Guidelines on the setting of targets, evaluation of progress and reporting under the Protocol on Water and Health. Baseline analysis is published on website for public consultation of BiH' government and also we plan to present national targets on some workshops and meeting which tackle these topics within the country as well publish on websites of responsible institutions.

6. Please provide information on the process by which this report has been prepared, including information on which public authorities had the main responsibilities and what other stakeholders were involved.

The Members of the Working Group are representatives of all responsible institutions at state and entity level. The Working Group has coordination role for the setting targets in accordance with article 6 of the Protocol, implementing measures and reporting about implementation of other BiH's obligations related to the Protocol in accordance with article 7 of the Protocol.. The members of the working group are representative of environmental, health and water sector/institutions in BiH, as follows:

Ministry of Foreign Trade and Economic Relations of BiH  
Public institution „Vode Srpske“, Focal Point BiH for the Protocol WH  
Ministry of Civil Affairs of BiH  
BiH Food Safety Agency  
Federal Ministry of Agriculture, Forestry and Water Management  
Ministry of Spatial Planning, Civil Engineering and Ecology of RS  
Federal Ministry of Environmental protection and Tourism  
Institute for Public Health of FBiH  
The Public Health Institute of RS  
Adriatic Sea Watershed Agency

7. Please report any particular circumstances that are relevant for understanding the report, including whether there is a federal and/or decentralized decision-making structure.

In accordance with the Constitution of Bosnia and Herzegovina and the Constitutions of the Federation Bosnia and Herzegovina (FBiH) and the Republika 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.

## Part two

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

*For countries that have set or revised 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 baseline conditions and/or targets considered under the relevant target areas.*

*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. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

According to the estimate from EAS BiH (Environmental Approximation Strategy of Bosnia and Herzegovina)<sup>1</sup>, 46% of the population in BiH is supplied with purified drinking water. The estimate covers only public water supply. The goal is to achieve coverage of 100% of the population of BiH up to 2025 years.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

- Having in mind that Bosnia and Herzegovina is potential candidate for EU accession, one of the key document in the environment sector of BiH is BiH Environmental Approximation Strategy (EAS) which is adopted as a State of BiH document, implementable in the entire territory of the country.
  - Based on EAS BiH, Directive Specific Implementation Plans (DSIPs) for Drinking Water Directive should be drafted and adopted by competent BiH authorities as the State of BiH and implementable in the entire territory of BiH as document for implementation of the EAS BiH.
  - Action Plans for Implementation of (EU) Directive (APIDs) should be created (as instruments applicable in the Entities and BD of BiH) and adopted by the respective authorities and in the respective procedures established by the entities and BD of BiH legislation for each EU Directive separately.
  - DSIPs and APIDs are developed under the project Capacity Building in the Water Sector in BiH, funded under IPA 2011.
  - In Accordance with these documents up to 2025 percentage of cover population with purified drinking water will be 100 %
- In 2018 on behalf of BiH the letter of interest for technical assistance for setting Water Safety Plans, WASH in schools, WASH in health facilities is submitting to WHO Regional Office for Europe.
- In May 2018, staff of the WHO European Centre for Environment and Health undertook a scoping mission with regard to water-related activities under the BCA 2018-2019. After

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<sup>1</sup> "Official Gazzete of BiH" No. 91/18

meeting several key stakeholders of both the Federation of BiH and the Republika Srpska, it was agreed that the WHO Regional Office would support the organization of a WSP sensitization/capacity building event with the aim to develop basic understanding of the WSP approach and to agree on a roadmap of activities in support to long-term WSP scale-up in the Federation of Bosnia and Herzegovina, Republika Srpska and Brcko District of Bosnia and Herzegovina. The activity is also integral part of the 2017-2019 programme of work under the Protocol, and as such organized with financial and technical support by the Ministry of Infrastructure and Water Management and the Public Health Institute of the Netherlands.

In May 2019 Workshop on scaling-up water safety plan capacities in Bosnia and Herzegovina will be organised by support WHO and Government of Netherlands.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

## **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. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Regarding the quality of drinking water, the Rulebook on health safety of drinking water was adopted (Official Gazette of BiH, 40/10, 43/10 and 30/12) pursuant to the Law on Food (Official Gazette of BiH, 50/04). The Rulebook on health safety of drinking water prescribes the requirements and standards for drinking water, maximum permitted values of health safety parameters, methods of laboratory tests and measures for monitoring the drinking water health safety. The purpose of this Rulebook is to protect human health against negative impacts, any pollution of drinking water and ensure its health safety.

The Rulebook has been aligned with the Council Directive 98/83/EC on the quality of water intended for human consumption, and in term the alignment degree, it is partially aligned. Taking into account the newly published EU legislation, namely the Commission Directive (EU) 2015/1787 of 6 October 2015 amending Annexes II and III to the Council Directive 98/83/EC on the quality of water intended for human consumption, the Rulebook amending the Rulebook on health safety of drinking water was adopted by the Council of Ministers of BiH and published in the Official Gazette of BiH, 62/17.

The health safety of drinking water in the FBiH, RS and Brcko District of BiH is inspected by the FBiH Public Health Institute and the cantonal public health institutes, RS Public Health Institute and Department of Health and Other Services of the BDBiH Government

The Food Safety Agency of Bosnia and Herzegovina collects, compares, analyses and summarises scientific and technical data for entire territory of BiH.

In 2016, a total of 18 265 samples of drinking water were analysed and it was found that 3 580 samples (19.60%) were not complied with applicable regulations. In the reporting period for 2016, a total of 12.37 samples were analysed for the microbiological parameters of water, of

which 2 478 samples were not in compliance with applicable regulations in Bosnia and Herzegovina.

The largest number of unacceptable drinking water samples was in the category of individual water supply (wells, tanks, pumps, etc.) - 56.44%. When it comes to water from the public water supply system, the percentage of unacceptable samples was 17.21%, of which water samples from other public water supply facilities (44.85%) and public water system (11.50%). In the reporting period, a total of 6 525 samples of drinking water were analysed for physical-chemical parameters, of which 1 025 samples were not complied with applicable regulations. The most unacceptable drinking water samples were in the category of individual water supply (wells, tanks, pumps, etc.) - 32.02%. As for the water from public water supply system, the percentage of unacceptable samples was 14.24%, and 13.17% for water sold in the original packaging.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

In Republika Srpska Baseline analysis WASH in schools for healthcare facilities is carried out and WASH in schools is under preparation.

In FBiH is under preparation.

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

According to the Water Management Strategy of FBiH 2010-2022, about 60% of the population in the Sava River water area in FBiH is covered by public water supply while the remaining 40% of the population is supplied from local water supply systems and individual sources (e.g. shallow wells, springs). According to the River Basin Management Plan (RBM Plan) for the watershed of the Adriatic Sea in Federation of B&H (2016.-2021.), 62,41% of the population is covered by public water supply, based on the number of inhabitants in the watershed area of the Adriatic Sea in the FBiH determined by 2013. list (418.276 inhabitants).

According to the Water Management Strategy of 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%.

According to the "Integrated water management strategy of the Republika Srpska 2014 -2024", 48% of the population in Republika Srpska 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 watersupply systems of local communities, small villages and individual water supply systems.

Percentage of Republika Srpska population with access to drinking water from “centralized water supply systems” is about 60 and approximately 40% of population has access to drinking water from “non-centralized water supply systems” (wellsprings, wells).

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

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 Breko; 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.

In Accordance with Environmental Approximation Strategy of BiH up to 2025 percentage of cover population with drinking water supply will be 100 %.

3. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
4. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

The investment deficit and lack of investments data in BiH have direct effects on operational conditions and water infrastructure. Direct consequence of the existing problem, in terms of water supply, is the extremely high level of water losses, in general 55%.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The management of urban waste water and public sewage in Bosnia and Herzegovina is mainly entrusted to local self-government units, i.e. the legal entities whose founder is the local self-government. A total of 17 facilities for urban waste water treatment have been built in the entire country.

According to estimates, about 40% of the total population of the FBiH is connected to the public sewage system. What characterises the largest number of the settlements in the FBiH is the lack of a unified system for collection (and treatment) of waste water, as well as the fact that waste and storm waters are mostly received by a mixed sewage system and conducted to the nearest recipient in the shortest possible way. Part of the population individually solved the issue of final waste water disposal in the way that waste water is collected in septic tanks, mostly constructed so their contents filtrates into the ground or flows into the nearest stream,

which contaminates the groundwater and surface waters, and the danger coming from this method of waste water discharge is that it most commonly pollutes groundwater. Essentially, both methods of discharging waste water are uncontrolled, unsustainable and contrary to the principles of sanitation of the settlements.

Today, there are 14 urban waste water treatment facilities in the FBiH. It has been estimated that, after completion of trial operation of the urban waste water treatment facility in Bihać and Mostar, about 20% of the population of the FBiH will be covered by the waste water treatment.

Approximately 81% of the municipal centres in the Republika Srpska have a constructed sewage system with a different degree of coverage. The percentage of the population connected to the public sewage in the Republika Srpska is about 36%. The percentage of the population in urban areas connected to public sewage is about 60%. About 1700 km of the sewage network was built in the RS territory. More than 50% of the settlements have a mixed type of sewage. The production of waste water is about 40 million m<sup>3</sup> per year, and more than 60% of waste water comes from larger cities: Banja Luka, Bijeljina, Doboj and Prijedor. In Republika Srpska there are three urban wastewater treatment plant in operation, Bijeljina, Bileća and Trebinje. Less than 15% of the settlements in the Republika Srpska have some form of urban waste water treatment. Less than 5% of the population connected to the public sewage has urban waste water treatment.

A mixed sewage system was constructed in the Brčko District of BiH, the City of Brčko, where the sanitary waste water from the population, industrial waste water and part of storm waters are discharged. The city system does not include the whole city area.

In the rural part of the Brčko District of BiH, 10% of the settlements have sewage systems which mostly collect sanitary waste water from the population. The rural settlements without sewage systems discharge waste water into individual septic tanks or directly into watercourses or soil.

The recipients of waste water are the Sava, Brka and Tinja Rivers. No treatment of collected waste water is performed prior to discharge into the recipient - there are only two treatment plants, each with capacity of 600 EP.

5. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5 of the Protocol).

BiH not only lacks financial means to solely implement UWWD, but current legal and institutional framework in BiH still do not provide adequate sustainability for the communal utilities, thus subsidy schemes between municipal authorities and communal utilities as service providers are taking place. According to Environmental Approximation Strategy EAS, BiH has to adopt Directive Specific Implementation Plan (DSIP) two years upon adoption of EAS. Initial draft of DSIP was prepared on the basis of preliminary data and it strongly suggests that data has to be updated, particularly those related to size of population, recent infrastructure developments, household incomes and budgetary developments in BiH.

The WATSAN (Water and Sanitation) project is implemented in Both entities, in 48 municipalities. Thus far, this blending mechanism of 50% European Investment Bank (EIB) loans, grants and entity/local government financing was used to water sector reform in BiH.

General aims of this project is improving current living conditions of the population, securing adequate hygienic conditions in the area of water supply and sanitation, and implementation of environmental protection measures, in line with the obligations of EU accession and harmonization with EU Legislation

Through the implementation of WATSAN projects significant investments gaps are identified, thus further negotiations to extend loan financing for additional projects are already taking place.

Recently adopted River Basin Management Plans identify a set of measures related to reduction of organic, nutrient and hazardous pollution mainly originating from untreated urban wastewater. Organic, nutrient and hazardous pollution are determined as the significant water management issues at international river basins (Danube and Sava Rivers, Adriatic Sea) as well.

With IPA II assistance 2018-2020, the problem of proper waste treatment, as well as connection of local population to the drinking water supply and sewerage system, could be partially solved.

6. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

The main challenges in BiH related to waste water sector in BiH are:

- Lack of financial resources to solely implement UWWTD,
- Current legal and institutional framework in BiH still do not provide adequate sustainability for the communal utilities, thus subsidy schemes between municipal authorities and communal utilities as service providers are taking place.
- Missing baseline data and assessment such as number of PE (people equivalent) and discharges for each agglomeration,
- Lack of appropriate inventory of technical documentation and spatial planning documentation, sludge treatment, affordability etc.
- There is no systematic and methodologically uniform collection of data on investments and there is slow progress in development of water service statistics.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

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

In progress

## **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. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The investment deficit and lack of investments data in BiH have direct effects on operational conditions and water infrastructure. Direct consequence of the existing problem, in terms of water supply, is the extremely high level of water losses, in general 55%.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5 of the Protocol).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

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

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

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

In progress

## **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. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

A special protection is provided for water bodies and water sources for public water supply, and therefore the protection is enforced through the regulations prescribed by Articles 65, 66, 67, 68, 69 and 70 of the FBiH Law on Waters, which set out the protection of water resources from pollution, and the decisions with measures and source protection zones, depending on the competence and importance of the sources, are adopted by the FBiH, the cantons and the local communities (municipalities and cities) pursuant to the Rulebook on the manner to determine the requirements for defining the sanitary protection zones and protective measures for water sources intended for public water supply (Official Gazette of FBiH, 88/12).

The areas with sources of drinking water and water intended for human consumption, which, by quantity and quality may be used or are used in a public manner, are protected from pollution and other factors which may adversely affect the water health safety or the yield of the sources.

The boundaries of the sanitary protection zones, sanitary regime, protective measures and other requirements for implementation of the protective measures are determined according to the methodology of the Rulebook on protective measures, manner of determination, maintenance and marking of the sanitary protection zones. This Rulebook is adopted by the RS Ministry of Agriculture, Forestry and Water Management in cooperation with the RS Ministry of Health and Social Welfare.

No registers of protected areas have been established as prescribed by the Directive 2000/60/EC related to the Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources (91/676/EEC) in Federation BiH the register of areas intended for abstraction of drinking water, areas susceptible to eutrophication and areas sensitive to nitrates is established. In Republika Srpska there is not the register yet.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

	Godina/Year				Indeksi/Indices	
	2014	2015	2016	2017	2017/2016	
<b>Ukupno</b>	91.962	92.894	124.002	<b>116.916</b>	94,3	<i>Total</i>
<b>Neprečišćene vode</b>	87.475	87.754	68.121	<b>68.383</b>	100,4	<i>Untreated waste water</i>
<b>U vodotoke</b>	84.044	85.013	65.715	<b>65.695</b>	112,6	<i>To watercourses</i>
<b>U podzemne vode</b>	2.981	2.291	2.046	<b>2.303</b>	100,0	<i>To ground water</i>
<b>U akumulacije</b>	450	450	360	<b>385</b>	106,9	<i>To reservoirs</i>
<b>Prečišćene vode</b>	4.487	5.140	55.881	<b>48.533</b>	86,9	<i>Treated waste water</i>
<b>U vodotoke</b>	3.372	4.004	54.829	<b>47.441</b>	86,5	<i>To watercourses</i>
<b>U podzemne vode</b>	695	686	592	<b>617</b>	104,2	<i>To ground water</i>
<b>U more</b>	420	450	460	<b>475</b>	103,3	<i>To sea</i>

Source: BiH Agency for Statistics

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

## X. Occurrence of discharges of untreated storm water overflows from wastewater collection systems (art. 6, para. 2 (g) (ii))

For each target set in this area:

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

## **XI. Quality of discharges of wastewater from wastewater treatment installations (art. 6, para. 2 (h))**

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The issue of water protection is also regulated by the Decree on hazardous and harmful substances in waters (Official Gazette of FBiH, 43/07), i.e. the Decision was adopted on the characterisation of surface waters and groundwater, parameters for assessment of water status and water monitoring (Official Gazette of FBiH, 1/14) for the preparation of management plans.

### **FBiH**

The protection of water against pollution and the criteria under which waste water may be discharged after treatment into watercourses and public sewage systems are prescribed by the Decree on requirements for discharge of waste water into the environment and public sewage systems (Official Gazette of FBiH, 101/15 and 1/16).

Determination of the areas susceptible to eutrophication and sensitive to nitrates is regulated by the Rulebook on determination of areas susceptible to eutrophication and sensitive to nitrates (Official Gazette of FBiH, 71/09), while the monitoring method in the same areas is regulated by the Rulebook on monitoring in the areas susceptible to eutrophication and sensitive to nitrates (Official Gazette of FBiH, 71/09).

### **Republika Srpska**

In Republika Srpska in view of discharge of waste water from public sewage systems into the natural recipient, the Rulebook on requirements for discharge of waste water into surface waters (Official Gazette of Republika Srpska, 44/01) provides for the maximum permissible concentrations of hazardous and harmful substances in waste water which may be discharged into surface waters.

The Rulebook on treatment and drainage of waste water for cities and settlements without public sewage (Official Gazette of Republika Srpska, 68/01) provides for the protection of waters against pollution, unhindered and harmless use of water, protection of human health, fauna and flora and environmental protection, through the control of restrictions and prohibition of discharge of hazardous and harmful substances into waters.

Rulebook on requirements for discharge of waste water into public sewage (Official Gazette of Republika Srpska, 44/01) provides for protective measures for public sewage system, the limit values of hazardous and harmful substances which may be discharged into public sewage, as well as the manner of controlling the quality of this waste water.

The Decree on classification of waters and categorisation of watercourses (Official Gazette of Republika Srpska, 42/01) establishes the criteria for classification and classifies the quality of surface waters and groundwater, as well as the categorisation of watercourses.

In Brcko District of BiH same legislation as in RS is in place.

The lack of systematic monitoring of quality and quantity of the effluents from industrial polluters resulted in having estimates of the pollution load of certain rivers based on the information obtained or based on measurements carried out to assess the production of waste water by large polluters or based on the estimates related to the type and volume of production of individual economic operators, which are conducted to obtain a basis for collecting waste water discharge fees.. After comparing the pollution loads of the population and the industry, a conclusion was mad that the industrial pollution load covered by the system for collection of

fees for water discharge and the pollution from the population at this time is approximately equal.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

In the both Entities exist strategy documents which prescribe measures for harmonisation legislation in BiH with EU(Water Framework Directive) in this part.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

FBiH

With a view to general water protection, the Law prescribes the obligation to obtain water deeds (preliminary water approval, water approval and water permit) for water abstraction, discharge of waste water into surface waters, indirect discharge of waste water into groundwater, artificial recharge of groundwater, extraction of materials from watercourses, permanent water level rise, construction of flood protection facilities, construction of roads, construction of bridges, construction of waste land fills, transport of hazardous substances and products deriving from these substances, as well as for all activities which may have a negative impact on the water regime authorisation (Article 109), and this is further regulated by the Rulebook on the content, form, requirements, manner of issuing and safekeeping of water deeds (Official Gazette of FBiH, 31/15).

The issue of water protection is also regulated by the Decree on hazardous and harmful substances in waters (Official Gazette of FBiH, 43/07), i.e. the Decision was adopted on the characterisation of surface waters and groundwater, parameters for assessment of water status and water monitoring (Official Gazette of FBiH, 1/14) for the preparation of management plans.

The protection of water against pollution and the criteria under which waste water may be discharged after treatment into watercourses and public sewage systems are prescribed by the Decree on requirements for discharge of waste water into the environment and public sewage systems (Official Gazette of FBiH, 101/15 and 1/16).

The operating method in the event accidents is regulated by the Rulebook on procedures and measures in the event of accidents on waters and coastal underwater land (Official Gazette of FBiH, 71/09). Determination of the areas susceptible to eutrophication and sensitive to nitrates is regulated by the Rulebook on determination of areas susceptible to eutrophication and sensitive to nitrates (Official Gazette of FBiH, 71/09), while the monitoring method in the same areas is regulated by the Rulebook on monitoring in the areas susceptible to eutrophication and sensitive to nitrates (Official Gazette of FBiH, 71/09).

A special protection is provided for water bodies and water sources for public water supply, and therefore the protection is enforced through the regulations prescribed by Articles 65, 66, 67, 68, 69 and 70 of the FBiH Law on Waters, which set out the protection of water resources from pollution, and the decisions with measures and source protection zones, depending on the competence and importance of the sources, are adopted by the FBiH, the cantons and the local communities (municipalities and cities) pursuant to the Rulebook on the manner to determine the requirements for defining the sanitary protection zones and protective measures for water sources intended for public water supply (Official Gazette of FBiH, 88/12).

Republika Srpska

The Law on Waters provides for general water protection (Article 57).

With a view to water protection, the Law prescribes the obligation to obtain water acts (water guidelines, water approval and water permit) for water abstraction in all economic branches and activities (industry, energy, agriculture, water supply, service activities using water in the technological process, tourist activities, etc.), for discharge of waste water into surface waters, indirect discharge of wastewater into groundwater, artificial recharging of groundwater, dislocation and extraction of materials from watercourses, permanent water level rise, construction of flood protection facilities, construction of traffic arteries, construction of bridges, construction of waste land fills, for the concession awarding procedure, transport of hazardous substances and products derived from these substances, as well as for all activities which may have a negative impact on water quality, on aquatic and semi-aquatic organisms, activities which may increase the risk of flooding or erosion or significantly reduce the water quantity, change morphology of watercourses, change the depth, water level or flow of watercourses and hinder the use of surface waters for recreational purposes (Article 121).

The Rulebook on protective measures, manner of determination, maintenance and marking of the sanitary protection zones, adopted by the RS Ministry of Agriculture, Forestry and Water Management and the RS Ministry of Health and Social Welfare, regulates the implementation of measures for the protection of areas where the sources are located which, in terms of quantity and quality, may be used or are used to supply the population with drinking water, i.e. if the water from this area is intended for human use, and which must be protected against deliberate or accidental pollution and other impacts which may adversely affect the health safety of water, as well as the manner of determining, maintenance and marking of the sanitary protection zones and establishment and implementation of measures for sanitary protection of such water.

Brčko District of Bosnia and Herzegovina

In the Brčko District of Bosnia and Herzegovina, Article 3 of the Law on Waters (Official Gazette of Republika Srpska, 10/98) provides for that waters are the common interest good

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

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

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Baseline/Current situation:

The Laws on Waters in FBiH and Republika Srpska have defined protected areas, among which are the surface water bodies for recreation purposes, including areas designated for bathing. Bathing area is an area intended for public recreation on water (swimming, etc.) and an area where bathing is not forbidden, being traditionally used for this purpose.

The regulation on the criteria for bathing areas has not been adopted. It was planned to be adopted and aligned with the Directive 2006/7/EC. Through the EU project entitled 'Capacity Building in the Water Sector in BiH', the alignment assessment of the provisions on bathing water from existing domestic regulations with the Directive 2006/7/EC has been made and the recommendations have been given for the transposition of this EU Directive, which is planned to be done in the following amendment of the Laws on Waters.

#### FBiH

The health safety control of bathing water is conducted by the laboratories of the public health institutes. The health safety control of water in swimming pools is conducted according to the Rulebook on health safety of drinking water (Official Gazette of BiH, 40/10 and 30/12). According to the analyses results, the percentage of chemically unsafe samples is higher than the microbiologically unsafe samples of these waters. The most common causes of physical and chemical irregularities are pH value, particulate matters and residual chlorine, and *Escherichia coli*, *Pseudomonas aeruginosa*, *Enterococcus faecalis* and *Enterobacter* species concerning microbiological irregularities

#### Republika Srpska

Public health institutes perform ad hoc monitoring of bathing waters (microbiological and physical-chemical parameters) in the summer period at traditional bathing sites. According to the monitoring results, the main sources of pollution of surface waters are urban waste water from settlements, industrial waste water and diffuse pollution from agricultural areas.

In accordance with the Law on Protection of Population against Communicable Diseases, the RS Ministry of Health and Social Welfare has adopted the Rulebook on sanitary, technical and hygienic requirements which lays down the sanitary, technical and hygienic requirements for swimming pools. This Rulebook prescribes the methods for swimming pool water testing, persons authorised to collect water samples, time-scale for sampling, framework for swimming pool water testing, procedures in the event of deviation of the testing parameters and keeping records.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

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

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

Different levels of governance in Bosnia and Herzegovina, based on the regulations they are competent to enforce, have established the institutions to monitor the quality standard of water, nitrates, drinking water, groundwater and bathing water. The main sources of pollution are

urban waste water from settlements, industrial waste water and diffuse pollution from agricultural areas, which is more precisely defined through the planning documents, Entity water management strategies and water management plans.

Considering the exclusive Entity competence for water management, the competent Entity institutions are monitoring the quality status of surface waters in the area of two river basin districts. Monitoring the status of groundwater and bathing waters is conducted in the area of the Adriatic River Basin District in Bosnia and Herzegovina, while this activity is not carried out continuously in the area of the Sava River Basin District. Among the parameters which are tested at the measuring points are those indicating the content of nitrogen and phosphorus in the waters, but the monitoring in accordance with the Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources 91/676/EEC has not been established. This Directive has been partially transposed into the legislation of the relevant levels of governance, even though this is still at a low level.

Article 77 of the FBiH Law on Waters provides for that areas intended for the protection of habitats of plant and animal species or aquatic species, where maintenance or improvement of the water status is an essential prerequisite for their survival or reproduction, are determined pursuant to the regulations on environmental protection and nature protection.

There are no new regulations adopted in the FBiH and aligned with relevant EU Directives which govern the quality of fish and shellfish waters. However, there are water quality parameters for fish and shellfish, as determined by the regulations from earlier period, i.e. the Decree on the classification of waters and coastal waters within the borders of the SR of Bosnia and Herzegovina (Official Gazette of SRBiH, 18/80) and the Decree on the categorisation of watercourses (Official Gazette of SRBiH, 43/67) which are still in force.

The Decree on classification of waters and categorisation of watercourses provides for that the quality class I surface waters may be used for the growth and development of noble fish species-trout (*Salmo trutta*), quality class II surface waters may be used for the growth and development of cyprinid fish species, and quality class III waters may be used for the growth and development of less noble fish species. The Decree classifies watercourses into categories, i.e. their parts and lakes according to normative definitions of ecological status and permitted limit values of quality parameters. Also, the quality of water suitable for fish farming, in the manner prescribed by the Directive on the quality of fresh waters requiring protection or improvement in order to support fish life (2006/44/EC), is not defined in the RS regulations.

The quality of waters shellfish farming is not considered in the RS regulations.

Pursuant to the Law on the Protection of Population against Infectious Diseases (Official Gazette of Republika Srpska, 14/10), the RS Ministry of Health and Social Welfare has adopted the Rulebook on sanitary, technical and hygienic requirements (Official Gazette of Republika Srpska, 68/14) which provides for the sanitary, technical and hygienic requirements for swimming pools. This Rulebook prescribes the methods for swimming pool water testing, person authorised for water sampling, time-scale for sampling, framework for swimming pool water testing, the procedures in case of deviation of the testing parameters and keeping records.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

**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. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

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

*For each target set in this area:*

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.
2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.
4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.
5. If you have not set a target in this area, please explain why.

In progress

**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. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

The regulations have been adopted at different levels of governance, in accordance with the Entity competences, the competences of the Brčko District of BiH and the FBiH cantons, based

on which the water management has been established (quality and quantity of water, flood risk, etc.). The water management strategies have been adopted, while the River Basin District Management Plans (Sava River Watershed Agency and Adriatic River Basin District) in both Entities are in the process of adoption. In February 2017, the BDBiH Government adopted the Water Management Plan for the Sava River Watershed Agency in the BDBiH. The Action Plan for Flood Protection and River Management in Bosnia and Herzegovina was adopted for the period 2014 - 2017. Preliminary flood risk assessments were completed in both Entities and the BDBiH, and the development of hazard maps and flood risk maps is underway, followed by the preparation of Flood Risk Management Plans.

The Danube River Basin Management Plan and the Flood Risk Management Plan were adopted under the activities of the International Commission for the Protection of the Danube River (ICPDR), while the Sava River Basin Management Plan was adopted under the activities of the Sava River Basin Commission, and the development of the Flood Risk Management Plan is underway.

On 24 May 2018, the FBiH Government passed a Decision on the adoption of the Water Management Plan for the Adriatic Sea basin in the FBiH (2016-2021) and a Decision on the adoption of the Water Management Plan for the Sava River Basin District in the FBiH (2016-2021).

On 8 February 2018, the RS Government passed a Decision on the adoption of the Sava River Basin (District) Management Plan of Republika Srpska (2018 - 2021), and a Decision on the adoption of the Trebišnjica River Basin (District) Management Plan of Republika Srpska (2018 - 2021).

On 2 February 2017, the BDBiH Government adopted a Water Management Plan for the River Sava Basin District in the BDBiH.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

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

In progress

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

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

1. Please describe the current target and target date. Please provide information on the background (including the baseline/starting point and reference to existing national and international legislation) and justification for the adoption of the target.

2. Please describe the actions taken (e.g., legal/regulatory, financial/economic, informational/educational and management measures) to reach the target (see also article 6, paragraph 5, of the Protocol).

3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

4. Please describe how the target set under this area contributes to fulfilling global and regional commitments, in particular the 2030 Sustainable Development Agenda.

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

In progress

## **Part three**

### **Common indicators<sup>2</sup>**

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

##### **1. Context of the data**

1. What is the population coverage (in millions or per cent of total national population) of the water supplies reported under sections 2 and 3 below?

The Food Safety Agency of Bosnia and Herzegovina collects, compares, analyses and summarises scientific and technical data, based on the Law on Food (Official Gazette of Bosnia and Herzegovina, 50/04), to enable the characterisation and monitoring of risks having direct or indirect impact on food and feed safety, aimed at ensuring a high level of protection of human life and health.

As for the quality of drinking water from public water supply system and to what extent it is aligned with current regulations, an important indicator are the reports on the conducted laboratory analyses of drinking water, which are regularly submitted to the Food Safety Agency of BiH by the laboratories conducting the analyses of drinking water.

*The rationale of this question is to understand the population coverage of the water quality data reported under sections 2 and 3 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).*

2. Please specify from where the water quality samples reported in sections 2 and 3 below are primarily taken (e.g., treatment plant outlet, distribution system or point of consumption).

*The rationale of this question is to understand where the samples were primarily taken from for the water quality data reported in sections 2 and 3 below.*

3. In sections 2 and 3 below, the standards for compliance assessment signify the national standards. If national standards for reported parameters deviate from the World Health Organization (WHO) guideline values, please provide information on the standard values.

*The rationale of this question is to understand any possible differences between the national standards for microbiological and chemical water quality parameters and the respective WHO guideline values.<sup>3</sup>*

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<sup>2</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.

<sup>3</sup> The latest edition of the WHO *Guidelines for Drinking-water Quality* is available at: [http://www.who.int/water\\_sanitation\\_health/publications/dwq-guidelines-4/en/](http://www.who.int/water_sanitation_health/publications/dwq-guidelines-4/en/).

## 2. Bacteriological quality

4. Please indicate the percentage of samples that fail to meet the national standard for *Escherichia coli* (*E. coli*). Parties may also report on up to three other priority microbial indicators and/or pathogens that are subject to routine water quality monitoring.

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” water supplies or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the column “area/category” in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

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

Food Safety Agency of BiH collects, processes and analyzes data on the sanitary quality of drinking water, which are regularly submitted by the public health institute laboratories which are relevant for drinking water control in each of entities BiH. In a table below are presented the percentages of total number samples in 2018 that fail to meet the microbiological standards for drinking water quality (including public water supply systems, water used in a food production facility, at a place where water is used in production, individual water supply like wells, tanks, pumps) in BiH in relation to the legislation in force in BiH. Total number of analyses was 10.795.

Parameter	Area/category	Value reported in	
		Baseline value (specify year)	the previous reporting cycle (specify year) Current value (2018)
<i>E. coli</i>	<b>Total</b>		14.5% (1597)
Enterokoki:	<b>Total</b>		12.4% (1363)
<i>Pseudomonas aeruginosa</i> :	<b>Total</b>		6.1% (675)
Broj kolonija na 22°C:	<b>Total</b>		12.9% (420)
Broj kolonija na 37°C	<b>Total</b>		20.1% (2221)
Koliformne bakterije	<b>Total</b>		17,1% (1887)
<i>Clostridium perfringens</i> (uključujući spore)	<b>Total</b>		5.8% (640)
Fekalne koliformne bakterije	<b>Total</b>		3.6% (398)
Fekalni streptokoki ( <i>Streptococcus faecalis</i> )	<b>Total</b>		3.8% (415)
Crijevne protozoe, crijevne helminte i njihovi razvojni oblici	<b>Total</b>		3.8% (415)

## 3. Chemical quality

5. Please report on the percentage of samples that fail to meet the national standard for chemical water quality with regard to the following parameters:

- (a) Arsenic;
- (b) Fluoride;

- (c) Lead
- (d) Nitrate.

6. Please also identify up to three additional chemical parameters that are of priority in the national or local context.

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” sanitation systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the column “area/category” in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

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

On the base of the data, which relevant public health institute laboratories submitted to Food Safety Agency of BiH, in a table below are presented the numbers of samples in 2018 that fail to meet the physico-chemical standards for drinking water quality (including public water supply systems, water used in a food production facility, at a place where water is used in production, individual water supply like wells, tanks, pumps) in BiH in relation to the legislation in force in BiH. Total number of analyses was 3.993.

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Number of samples that fail to meet the physico-chemical standards (2018)</i>
Arsenic	Total			3
Fluoride	Total			0
Lead	Total			1
Nitrate	Total			10
Aluminijum	Total			3
Akrlamid	Total			0
Antimon	Total			0
Benzen	Total			0
Benzo(a)piren	Total			0
Bor	Total			0
Bromat	Total			0
Cijanid	Total			0
Bakar	Total			0
1,2-dihloreten	Total			0
Detergenti anionski	Total			0
Detergenti neionski	Total			0
Epihlorohydrin	Total			0
Hrom	Total			0
Kadijum	Total			1
Mineralna ulja	Total			0
Nikl	Total			2
Nitriti	Total			7
Pesticidi	Total			0
PAHs	Total			0
Selen	Total			0
Tetrahloreten i trihloreten	Total			0

<i>Parameter</i>	<i>Area/category</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Number of samples that fail to meet the physico-chemical standards (2018)</i>
Trihalometani - ukupni (THM)	Total			0
Vinil hlorid	Total			0
Živa	Total			8
Amonijum	Total			34
Boja	Total			102
Elektroprovodljivost	Total			4
Hlorid	Total			9
pH	Total			14
Mangan	Total			278
Miris	Total			5
Natrijum	Total			9
Utrošak KMnO4	Total			31
Ukus	Total			0
Sulfat	Total			0
TOC	Total			0
Zamućenost	Total			500
Željezo	Total			107
Slobodni rezidualni hlor	Total			77
Tricij	Total			0
Ukupna indikativna doza	Total			0
Temperatura	Total			0
Ostalo	Total			19

## II. Outbreaks and incidence of infectious diseases related to water

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

*(a) For reporting outbreaks, please report confirmed water-related outbreaks only (i.e., for which there is epidemiological or microbiological evidence for water to have facilitated infection);*

*(b) For reporting incidents, please report the numbers related to all exposure routes. In your response:*

*(i) Please report cases per 100,000 population;*

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

*Please extend the list of water-related diseases, to the extent possible, to cover other relevant pathogens (e.g., enteric viruses, Giardia intestinalis, Vibrio cholerae).*

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

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

Disease	Incidence rate per 100,000 population (all exposure routes)			Number of outbreaks (confirmed water-borne outbreaks)		
	Baseline (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)	Baseline (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
	Shigellosis					
Enterohaemorrhagic <i>E. coli</i> infection						
Typhoid fever						
Viral hepatitis A						FBiH 2017 (0,18)
Legionellosis						
Cryptosporiosis						
Enterocolitis acuta:		2017 (231,24)				3 (2017)
Giardiasis:		2017 (0,14)				0 (2017)
Additional disease 3:						

### III. Access to drinking water

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” water supply systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

*Please comment on the trends or provide any other important information supporting interpretation of the data with regard to access to drinking water.*

Percentage of population with access to drinking water	Baseline value (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
<b>Total</b>			60% <sup>4</sup>
Urban			
Rural			

- Estimates provided by the WHO/United Nations Children’s Fund (UNICEF) Joint Monitoring Programme (JMP) for Water Supply and Sanitation. *JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.*
- National estimates. *Please specify how “access” is defined and what types of drinking-water supplies are considered in the estimates in your country.*

<sup>4</sup> Sources: Water Management Strategy of FBiH 2010-2022; The Strategy of Integrated Water Management of Republika Srpska 2015-2024, “Official Gazette Republika Srpska”, No. 17/16 River Basin Management Plan for the watershed of the Adriatic Sea in Federation of B&H (2016.-2021.), pg. 289., data for 2015

*In particular, please specify if the above percentage on “access to drinking water” refers to access to (tick all applicable):*

- Improved drinking water sources (as per JMP definition)
- Supplies located on premises
- Supplies available when needed
- Supplies that provide drinking water free from faecal contamination

#### IV. Access to sanitation

*If possible, please provide segregated data for urban and rural areas in the table below. If this is not possible, please consider reporting by alternative categories available in your country, for example by “non-centralized versus centralized” sanitation systems or by population number-based categories. If you do so, please indicate the reported categories by renaming the rows in the table below accordingly.*

*If data can be reported neither for urban and rural areas nor for alternative categories, please report total (national) values only.*

*Please comment on the trends or provide any other important information supporting interpretation of the data with regard to access to sanitation.*

<i>Percentage of population with access to sanitation</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
<b>Total</b>	≈ 45% connected to sewerage systems and 5% connected to UWWTP		≈ 45% connected to sewerage systems and 5% connected to UWWTP <sup>5</sup>
Urban			
Rural			

- Estimates provided by JMP. *JMP definitions are available at <http://www.wssinfo.org/definitions-methods/watsan-categories>.*
- National estimates. *Please specify how “access” is defined and what types of sanitation facilities are considered in the estimates in your country.*

*In particular, please specify if the above percentage on “access to sanitation” refers to access to (tick all applicable):*

- Improved sanitation facilities (as per JMP definition)
- Facilities not shared with other households
- Facilities from which excreta is safely disposed in situ or treated off site

<sup>5</sup> Sources: Sava River Basin Management Plan (RBM Plan) for the Sava River Basin in the Federation of B&H (2016.-2021.), pg. 45. and pg. 117. Number of inhabitants in the Sava River Basin in the FBiH determined by 2013. list was 1.962.731 inhabitants; The Strategy of Integrated Water Management of Republika Srpska 2015-2024, “Official Gazette Republika Srpska”, No. 17/16; According to the River Basin Management Plan (RBM Plan) for the watershed of the Adriatic Sea in Federation of B&H (2016.-2021.), pg. 289., data for 2015

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

### 1. Water quality

1. On the basis of national systems of water classification, please indicate the percentage of water bodies or the percentage of the volume (preferably) of water<sup>6</sup> falling under each defined class (e.g., for European Union countries and other countries following the European Union Water Framework Directive<sup>7</sup> classification, 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 other countries, in classes I, II, III, etc.).

#### (a) For European Union countries and other countries following the European Union Water Framework Directive classification

FBIH

There are 539 water bodies with basin surface over 10 km<sup>2</sup> in the Sava basin district, 23 of them are candidates to become “heavily modified water bodies” and six candidates to become “artificial water bodies”. Evaluation of ecological and chemical status of surface water bodies is in line with the sublaw document for cca 80 (15.5%) water bodies for which the monitoring results were available for the period 2011-2013. (pg. 101 RBM Plan for the Sava River Basin in the Federation of B&H 2016.-2021.).

Republika Srpska

As data source for the assessment of ecological and chemical status of surface water bodies are used Sava River Basin Management Plan of Republika Srpska (2018-2021) and Trebisnjica River Basin Management Plan of Republika Srpska (2018-2021). The next assessment of ecological and chemical status is going to be done for the preparation of 2nd RBMP cycle.

The status of water bodies in Sava and Trebišnjica river basins of Republika Srpska were determined on the basis of the findings of the surface water quality monitoring whenever those findings available. In a far greater number of cases, however, the status of the surface water bodies which have not been monitored and, therefore, had no ecological and chemical status data available was assessed on the basis of risk analysis. The assessment of water quality based on the findings of the analyses conducted in Republika Srpska was done in line with the Decree on Classification of Waters and Categorisation of Water Courses (“Official Gazette Republika Srpska,” No. 42/01). In accordance with the Decree, the ecological status classification of water bodies is done based on the least favourable values of the analysed biological quality elements, general chemical and physicochemical parameters and specific pollutants (2009-2014).

#### (i) Ecological status of surface water bodies

Percentage of surface water classified as:	Value reported in		
	Baseline value (specify year)	the previous reporting cycle (specify year)	Current value <sup>8</sup> (specify year)
High status	1,4% (5 WB)		1,4% (5 WB)
Good status	56,1% (203WB)		56,1% (203WB)

<sup>6</sup> Please specify.

<sup>7</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

<sup>8</sup> Sources: Sava River Basin Management Plan (RBM Plan) for the Sava River Basin in the Federation of B&H (2016.-2021.); Sava River Basin Management Plan of Republika Srpska (2018-2021) and Trebisnjica River Basin Management Plan of Republika Srpska (2018-2021) “Official Gazette Republika Srpska”, 23.4.2018, Publication 1 and 2; River Basin Management Plan (RBM Plan) for the watershed of the Adriatic Sea in Federation of B&H (2016.-2021.),

<i>Percentage of surface water classified as:</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value<sup>8</sup> (specify year)</i>
Moderate status	35,9% (130 WB)		35,9% (130 WB)
Poor status	4,7% (17 WB)		4,7% (17 WB)
Bad status	1,9% (7 WB)		1,9% (7 WB)
<b>Total number/volume of water bodies classified</b>	362		362
<b>Total number/volume of water bodies in the country</b>	1546		1546

(ii) *Chemical status of surface water bodies*

<i>Percentage of surface water bodies classified as</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (specify year)</i>
Good status	58,8% (90 WB)		58,8% (90 WB)
Poor status	41,2% (63 WB)		41,2% (63 WB)
<b>Total number/volume of water bodies classified</b>	153		153
<b>Total number/volume of water bodies in the country</b>	1546		1546

(iii) *Status of groundwaters*

**FBiH**

On the territory of the FBiH there are 20 groups of groundwater bodies (GGWB), of which 3 are internal, 13 inter-entity, 2 across-the-border, 1 inter-entity and across-the-border, while one lays across the border, in both entities and Brčko Distrikt BiH (source: Sava river Basin Management Plan for the Sava River basin in the Federation of BiH 2016-2021, pg.36.). On the Sava River Basin in the Federation of BiH, groundwater monitoring is underdeveloped. Data on quantitative and qualitative groundwater status are available and reported only for the watershed of the Adriatic Sea in Federation of B&H.

**Republika Srpska**

In Republika Srpska, groundwater monitoring in line with relevant Directive has not been established yet.

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value<sup>9</sup> (specify year)</i>
Good quantitative status			79,6% (39)
Good chemical status			81,6% (40)
Poor quantitative status			0,02% (1)
Poor chemical status			0
<b>Total number/volume of groundwater bodies classified</b>			40

<sup>9</sup> Data on quantitative and qualitative groundwater status are available and reported only for the watershed of the Adriatic Sea in Federation of B&H.

<i>Percentage of groundwaters classified as</i>	<i>Baseline value (specify year)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value<sup>9</sup> (specify year)</i>
<b>Total number/volume of groundwater bodies in the country</b>			N/A

**(b) For other countries**

*(i) Status of surface waters*

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

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

(ii) *Status of groundwaters*

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

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

2. Please provide any other 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).

## 2. Water use

3. 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.

Volume of water delivered to users '000 m<sup>3</sup> from public water supply systems\*

<i>Water exploitation index</i>	<i>Baseline value (2016)</i>	<i>Value reported in the previous reporting cycle (specify year)</i>	<i>Current value (2017)</i>
Agriculture	1.285		1.402 (Index 109)
Industry <sup>a</sup>	12.147		12.662 (Index 104)
Domestic use <sup>b</sup>	113.470		116.402 (Index 103)

*Source: BiH Agency for Statistics*

<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 to individual supply systems (e.g., wells).

## Part four

### Water-related disease surveillance and response systems

1. In accordance with the provisions of article 8 of the Protocol:

Has your country established comprehensive water-related disease surveillance and early warning systems according to paragraph 1 (a)?

YES  NO  IN PROGRESS

Has your country prepared comprehensive national or local contingency plans for responses to outbreaks and incidents of water-related disease according to paragraph 1 (b)?

YES  NO  IN PROGRESS

Do relevant public authorities have the necessary capacity to respond to such outbreaks, incidents or risks in accordance with the relevant contingency plan according to paragraph 1 (c)?

YES  NO  IN PROGRESS

2. If yes or in progress, please provide summary information about key elements of the water-related disease surveillance and outbreak response systems (e.g., identification of water-related disease outbreaks and incidents, notification, communication to the public, data management and reporting). Please also provide reference to existing national legislation and/or regulations addressing water-related disease surveillance and outbreak response.

There are no national plans that are exclusively related to water-related illnesses. Water-related diseases surveillance is part of the general surveillance related to all communicable diseases in the both entities.

The monitoring of water-related diseases is part of the general surveillance of all infectious diseases in accordance with the provisions of the Law on Protection against Infectious Diseases of the Federation of Bosnia and Herzegovina ("Official Gazette of the Federation of BiH, No. 29/05) and The Law on Protection against Infectious Diseases of Republika Srpska ("Official Gazette RS No.90/17). Rulebook about reporting infectious diseases FBiH ("Official Gazette of FBiH", No. 22/07) regulate the manner of reporting of contagious diseases, ie illnesses, conditions and deaths from contagious diseases.

Program of measures for prevention and suppression, elimination and eradication of infectious diseases in the RS area (adopted every year)

3. Please describe what actions have been taken in your country in the past three years to improve and/or sustain water-related disease surveillance, early warning systems and contingency plans, as well as to strengthen the capacity of public authorities to respond to water-related disease outbreaks and incidents, in accordance with the provisions of article 8 of the Protocol.

## **Part five**

### **Progress achieved in implementing other articles of the Protocol**

Please provide a short description of the status of implementation of articles 9 to 14 of the Protocol, as relevant.

*Suggested length: up to two pages*

## Part six

### Thematic part linked to priority areas of work under the Protocol

#### 1. Water, sanitation and hygiene in institutional settings

1. In the table below, please provide information on the proportion of schools (primary and secondary) and health-care facilities that provide basic water, sanitation and hygiene (WASH) services.

*Basic services refer to the following:*

(a) *Basic sanitation service: Improved facilities (according to JMP definition), which are sex-separated and usable at the school or health-care facility;*

(b) *Basic drinking water service: Water from an improved source (according to JMP definition) is available at the school or health-care facility;*

(c) *Basic hygiene service: Handwashing facility with water and soap available to students (schools) or patients and health-care providers (health-care facilities).*

*If the above definitions/categories do not apply in your country, please report for alternative categories for which data are available. In this case, please indicate the reported categories by renaming the rows in the table below accordingly.*

*Please indicate the source of data. If data is not available, please put (-).*

<i>Institutional setting</i>	<i>Current value (2018)</i>
<i>Schools</i>	
Basic sanitation service	
Basic drinking-water service	
Basic hygiene service	
<i>Health-care facilities</i>	Republika Srpska
Basic sanitation service	88,58%
Basic drinking-water service	99,62%
Basic hygiene service	100%

2. Has the situation of WASH in schools been assessed in your country?

YES  NO  in FBiH IN PROGRESS  X in Republika Srpska

3. Has the situation of WASH in health-care facilities been assessed in your country?

YES  in RS NO  in FBiH IN PROGRESS

4. Do approved policies or programmes include actions (please tick all that apply):

- To improve WASH in schools
- To improve WASH in health-care facilities

5. If yes, please provide reference to main relevant national policy(ies) or programme(s).

There is no National Policy For WASH in Bosnia and Herzegovina (Federation B&H, Republika Srpska and Brcko District) The different WASH areas are covered by several policies specific to water, sanitation, education or health.

**2. Safe management of drinking-water supply**

6. Is there a national policy or regulation in your country, which requires implementation of risk-based management, such as WHO water safety plans (WSPs), in drinking water supply?

YES  NO  IN PROGRESS

7. If yes, please provide reference to relevant national policy(ies) or regulatory documentation.

Strategy of Integrated Water Management in the Republic of Srpska 2014-2024;planning activities that will follow up water management development.

Strategy on waste management from the 2017-2026;The Strategy include the nine goals.

Action Plan for Children of Banja Luka 2016-2020, it exists only at municipality level. Includes objectives relating to the provision of health safety of drinking water and sanitation for children.

Policy for Improvement of Health of the Population in the Republic of Srpska by the Year 2020. One of the Policy goal is carrying out control of non-communicable and communicable diseases and enhancing health security.

Program of measures for prevention and control, elimination and eradication of infectious diseases for the area of the Republic of Srpska, year 2018.

8. In the table below, please provide information on the percentage of the population serviced with drinking-water under a WSP.

*Please indicate the source of data. If data is not available, please put (-).*

<i>Percentage of population</i>	<i>Current value (specify year)</i>

**3. Equitable access to water and sanitation**

9. Has the equity of access to safe drinking-water and sanitation been assessed?

YES  NO  IN PROGRESS

10. Do national policies or programmes include actions to improve equitable access to water and sanitation (please tick all that apply):

- To reduce geographical disparities
- To ensure access for vulnerable and marginalized groups
- To keep water and sanitation affordable for all

11. If yes, please provide reference to main relevant national policy(ies) and programme(s).

## **Part seven**

### **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:

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**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: 23<sup>th</sup> April 2019

#### **Submission**

1. 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, 210 days before the next session of the Meeting of the Parties. 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 Meeting of the Parties.

2. Parties are requested to submit, to the two addresses below, an original signed copy by post and an electronic copy by e-mail. Electronic copies should be available in word-processing software.

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

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