

THE PROTOCOL ON WATER AND HEALTH 5TH REPORTING

SPAIN



2022

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

April 2022





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.

In accordance with the Water and Health Protocol, Spain updated its targets on November 3, 2020.

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.

Goals and Targets have been updated in 2020 and reported to the Protocol Secretariat on November of that same year.

A link to such Goals and Targets is offered by the following webpage:

<https://www.miteco.gob.es/es/agua/temas/convenios-acuerdos-internacionales/>

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.

The coordination between the Ministry of Health (MHS) and the Ministry for the Ecological Transition and Demographic Challenge has been necessary to set the targets, and it must continue in order to achieve and follow-up their implementation.

Regarding to water and health matters, Spanish government has transferred the competency of several areas to autonomous communities and local entities: Therefore, a coordination process has to be undertaken whenever these matters are addressed. Moreover, special efforts must be done in order to coordinate the involved public authorities.

- 1) At National level: between Ministries.
- 2) Coordination between National and Regional levels in both Drinking and Bathing Waters through the "Environmental Health Taskforce of the Public Health Commission" Meetings.
- 3) Coordination between both Regional and Local levels.

MHS gathers the specific information about Drinking Water through the National Drinking Water Information System (In Spanish, SINAC). It is a system of information regarding to supply zones and the water intended for human consumption quality monitoring. Water suppliers, town councils and health authorities are urged to provide SINAC system with data.





Information is published in:

<https://sinacv2.sanidad.gob.es/SinacV2/index.html>

In addition to this, MHS collects information about Bathing Water in which Bathing Water quality, characteristics of the beaches as well as the conditions that could affect the Bathing Water points quality are included.

Information is published in:

<http://nayaDeciudadano.sanidad.gob.es/>

At last but not least, the Spanish information regarding to water and air quality community pools is published in SILOE National Information System.

<https://siloe.sanidad.gob.es/>

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.

It was considered convenient to develop the System of objectives as a result of the imminent publication of the Strategic Plan for Health and Environment promoted by the Government of Spain and at the request of the Compliance Committee of the Protocol on Water and Health.

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?

Public participation is required by the European Water Framework Directive in order to approve River Basin Management Plans, where objectives are set for water resources and measures established.

In the European Union, it is considered of the utmost importance to involve stakeholders, citizens, non-governmental organizations (NGOs) or local communities, by consulting processes or active participation, through the complaints procedures, in the legislation implementation process when environmental and health issues are involved to achieve greater transparency in the establishment of objectives.

On 16 December 2020, the European Parliament formally adopted the recasted Drinking Water Directive (Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption) and entered into force on 12 January 2021 with public participation of the most representatives stakeholders, governments, citizens and consumers.

Protocol on Water and Health is directly involved in this new Directive as well as it is contemplated in the 34th recital. Spain, since January 2021, began to draft the national rule according to European and National legislation. Consequently, stakeholders and Autonomous Communities were heard. The draft of Royal Decree was submitted to hearing process on 17 September 2021 and closed on 8 October 2021.

<https://www.sanidad.gob.es/normativa/audiencia/audienciasCerradasSan.htm>

Nowadays, MHS is in phase of reviewing all the presented amendments to move away with the legal procedure.





On the other hand, the Spanish Strategic Plan for Health and Environment was submitted to hearing process on 23 June 2021 (<https://www.sanidad.gob.es/gabinete/notasPrensa.do?id=5379>) and published on 24 November 2021 (<https://www.sanidad.gob.es/gabinete/notasPrensa.do?id=5574>)

This Plan is based on the *One Health Perspective* and is break down in 4 Topic Areas. The 2nd Topic Area is intended to Pollution in which the Water Quality matters are represented.

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.

MHS, responsible for health matters, at a national level and the Ministry for the Ecological Transition and Demographic Challenge, responsible for environmental issues are to be accounted for as the organisms to lead the development of the Plan what will meet with the Protocol on Water and Health.

The competents departments in each Ministry studied the legislation and set specific targets in accordance to Spanish laws and detailed or proposed further targets if it was necessary.

Considering that some of the competencies regarding water and sanitation has been transferred to regional or local administration, the data had to be gathered from different sources.

MHS collects the drinking water information through SINAC. It is a data information system related to supply zones and monitoring of the quality of water intended for human consumption. The water supplier, the town council and the health authority are obligated to notify all data and analysis bulletins to SINAC.

<https://sinacv2.sanidad.gob.es/SinacV2/index.html>

On the other hand, it also collects information referring to bathing water (water quality and characteristics of beach as well as the conditions what could affect the quality of bathing water points) through the NAYADE National Bathing Water Information System. Regional authorities are legally obligated to provide data to this system.

<http://nayadeciudadano.sanidad.gob.es/>

The information concerning water and air quality in swimming pools is collected by the National Information System called SILOE.

<https://siloe.sanidad.gob.es/>

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.

The warranty of drinking water supply is decentralized, at local level.





Part two. Targets and target dates set and assessment of progress

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

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 target is to provide safe and clean drinking water, without any content of microorganism, parasitism or substance in a quantity or concentration that could pose a risk to human health, in addition to complying with the current legislation.

- To report information about the quality of drinking water by the managers of the supply zones over 50 people, according to the current legislation and SINAC.
- To increase in the proportion of the population with access to water and reported in SINAC to 87%.
- To increase compliance in the sampling frequency by 5% in each range of population.
- To keep compliance quality of drinking water above 99%.

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).

Regarding legal/regulatory measures are stressed:

- Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.
- Royal Decree 140/2003, of 7 February by which health criteria for the quality of water intended for human consumption are established.
- SCO Order 1591/2005 of 30 May about the national drinking water information system.
- Royal Decree 902/2018 July 20, amending Royal Decree 140/2003, of February 7 by which health criteria for the quality of water intended for human consumption are established. Spanish laws transposing Directive 2015/1787, amending Annexes II y III of Directive 98/83/CE.
- Nowadays, Spain is transposing the new Drinking Water Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption. According to this, several meetings have been celebrated in order to draw and revise an improved legal disposition what recasts in an one legal act some laws concerning to water quality intended for human consumption.

On the other hand, in 2020, at the initiative of the Spanish Court of Auditors, on January 27, the audit report on the sanitary control of water carried out by MHS for the year 2017 is approved.





This inspection, approved by the Plenary Session of the Court of Auditors, has had the objective of analyzing the systems and procedures applied by MHS for the sanitary control of water quality, reviewing, among other things, the availability and reliability of the systems of information used to control the potential risks that can affect the sanitary quality of the water.

This audit is related to the activities carried out under the Protocol on Water and Health, including the Work Area I, for the investigation of the SINAC system.

The object of analysis of this audit has been the actions attributed to the state administration by the regulatory regulations.

In accordance with the mentioned report and to improve the surveillance system, the following measures have been established:

1. Improved usability and accessibility of the information system SINAC.
2. Increased surveillance and sanitary inspection.
3. Internal Data audit of SINAC.

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

The baseline has been established from the SINAC report and published data where the progression over the years of all the indicators can be observed.

<https://www.sanidad.gob.es/en/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicaciones.htm>

- Frequent use of SINAC via internet in the last 19 years by over a 8,500 professionals to inform of the quality of drinking water and the characteristics of supplies covering more than 84.1% of the Spanish population. (please, note there are a decrease in coverage related to the data reported in 2013. This drop is due to an improvement in data collection system and does not respond to a real coverage decrease. The 2013 data, could be not as accurate as expected before this changes).
- Information increasing collected regarding drinking water quality and the characteristics of supplies over the last 19 years.
- Compliance increasing respecting sampling frequency standards according to national and European legislation.
- Compliance maintenance over 99% of the water supplied respecting to current legislation.
- Warning System improvement in SINAC.
- Remedial actions are taken in a short-term basis after the detection of incidents in recent years.
- On April 2019, the Spanish Drinking and Waste Water Service Operators Association (In Spanish, AEAS), updated and published Part III of its Guide for the operation of water testing laboratories "Criteria for taking samples".

<https://www.aeas.es/component/content/article/12-manuales/manuales-y-guias-2019/7-guia-para-el-funcionamiento-de-los-laboratorios-de-ensayo-de-aguas-parte-3-criterios-para-la-toma-de-muestras-puntuales-actualizado?Itemid=101>

- MHS coordinated a Water Safety Plans Working Group in which AEAS and Ministry for Ecological Transition and Demographic Challenge participated to develop a tool for the Water Safety Plans (WSP) implementation. As a results of these discussions, the web tool for WSP Management (In Spanish, GEPSA) were launched. Currently, WSP are implemented in water supplies over 50,000 inhabitants.





According to the the document “Targets of the Protocol on Water and Health” for Spain, the following indicators have been assessed:

1. Number of Water Supply Zones (WSZ).

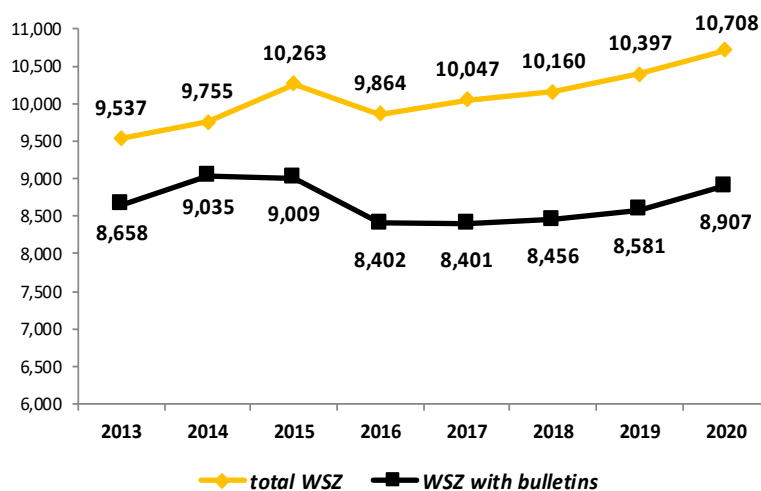
The following table shows the increase in the number of WSZ for the period 2013-2020.

YEAR	TOTAL WSZ	ANNUAL Δ
2013	9,537	NA
2014	9,755	2.29
2015	10,263	5.21
2016	9,864	-3.89
2017	10,047	1.86
2018	10,160	1.12
2019	10,397	2.3
2020	10,708	2.99

NA: data not available

Source: Informe Nacional de la Calidad de Aguas de Consumo 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf



2. Number and type of Sampling Points (SP).

TYPE OF SP	NUMBER OF SP
Catchment	21,753
Mains	1,416
Treatment	2,847
Reservoir	32,758





TYPE OF SP	NUMBER OF SP
Tanker	292
Distribution network	43,475
Installation within the premises	95,502
TOTAL	198,043

Source: National Report on Drinking Water Quality 2020.

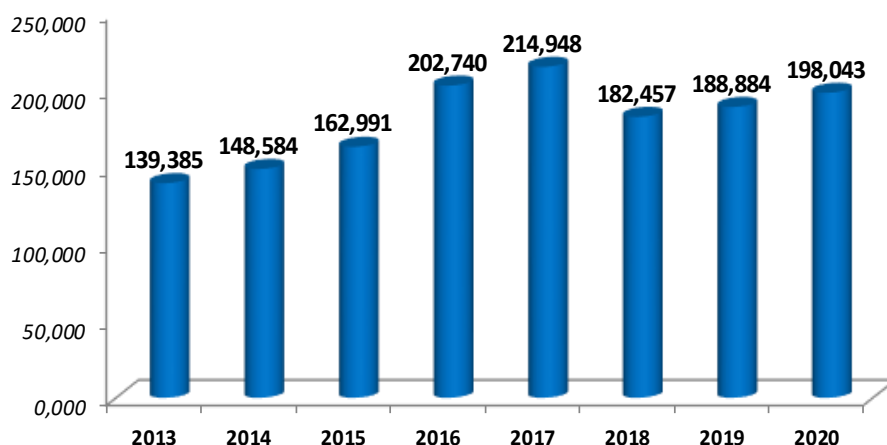
https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf

The trend that takes place in the 2013-2020 period is shown below:

YEAR	2013	2014	2015	2016	2017	2018	2019	2020
Nr sampling point	139,385	148,584	162,991	202,740	214,948	182,457	188,884	198,043
ANNUAL Δ	-	+6.6	+9.7	+24.39	+6.02	-15.12	+3.5	+4.8

Source: National Report on Drinking Water Quality 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf



3. Percentage (%) and type of analysis bulletins.

YEAR	2015	2016	2017	2018	2019	2020 (%)
Audit Monitoring	2.54	2.72	2.3	2.2	2.8	36,466 (2.94)
Check Monitoring	23.06	34.16	30.46	29.1	27.6	343,427 (27.69)
Tap Monitoring	5.74	4.22	4.26	3.9	4.0	43,707 (3.52)
Organoleptic Examination	14.43	14.23	16.33	17.3	18.1	216,433 (17.45)
Health Supervision	2.28	1.63	1.63	1.8	1.8	21,881 (1.76)
Disinfection Monitoring	46.36	35.8	35.8	40.0	39.8	497,352 (40.10)



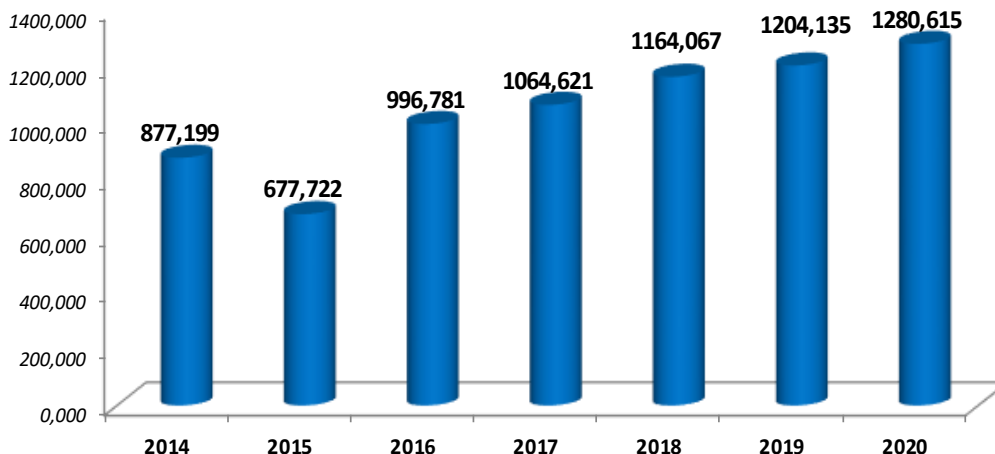


YEAR	2015	2016	2017	2018	2019	2020 (%)
Radioactivity Monitoring	NA	NA	0.72	1.1	1.1	11,958 (0.96)
Other Analyses	5.6	7.25	5	4.7	4.8	68,908 (5.56)

NA: data not available

Source: National Report on Drinking Water Quality 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf



4. Number of parametric determinations reported.

Type of parameter	Nr (2020)
Microbiological	755,268
Chemical	1,579,230
Pesticides	1,124,225
Individualized chemical parameters	370,464
Organoleptic	2,558,243
Quality indicators	4,166,002
Radioactivity	55,587
Other indicator parameters	219,528
Other microbiological parameters	15,693
Other chemical parameters	82,603

Source: National Report on Drinking Water Quality 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf





5. Percentage (%) of compliance of the analysis bulletins.

FITNESS	2015	2016	2017	2018	2019	2020
Fit for consumption (%)	99.5	99.5	99.5	99.5	98.3	98.5
Unfit for consumption (%)	0.5	0.5	0.5	0.5	0.5	0.5
Without qualification * (%)	-	-	-	-	1.2	1.0

(*). The unqualified bulletins correspond to those that, being in drinking water, all the parameters are radioactive and are not qualified, since the evaluation is carried out by the competent body (Annex X RD 140/2003)

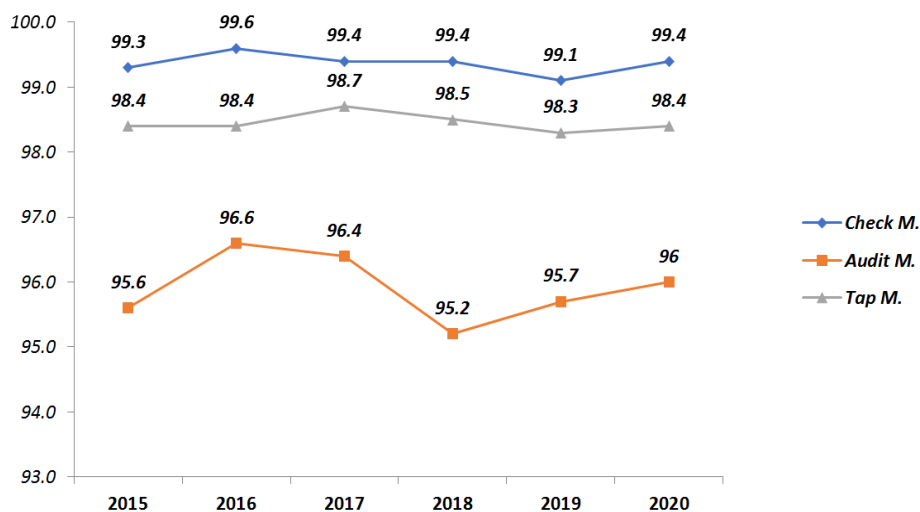
Source: National Report on Drinking Water Quality 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf

TYPE OF ANALYSIS	2015	2016	2017	2018	2019	2020
Check Monitoring	99.3	99.6	99.4	99.4	99.1	99.4
Audit Monitoring	95.6	96.6	96.4	95.2	95.7	96.0
Tap Monitoring	98.4	98.4	98.7	98.5	98.3	98.4
Organoleptic Examination	99.9	99.9	99.9	99.9	99.9	99.9
Scheduled Health Supervision	99.0	98.9	99.1	98.5	98.9	98.6
Disinfection Monitoring	99.9	99.9	99.9	100	100	99.9

Source: National Report on Drinking Water Quality 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf



6. Percentage (%) of compliance by parameter group.

PARAMETER GROUPS	2015	2016	2017	2018	2019	2020
Microbiologicals	99.7	99.8	99.8	99.8	99.8	99.8
Chemicals	99.6	99.7	99.7	99.7	99.7	99.7
Pesticides	99.9	99.9	99.9	99.9	99.9	99.9

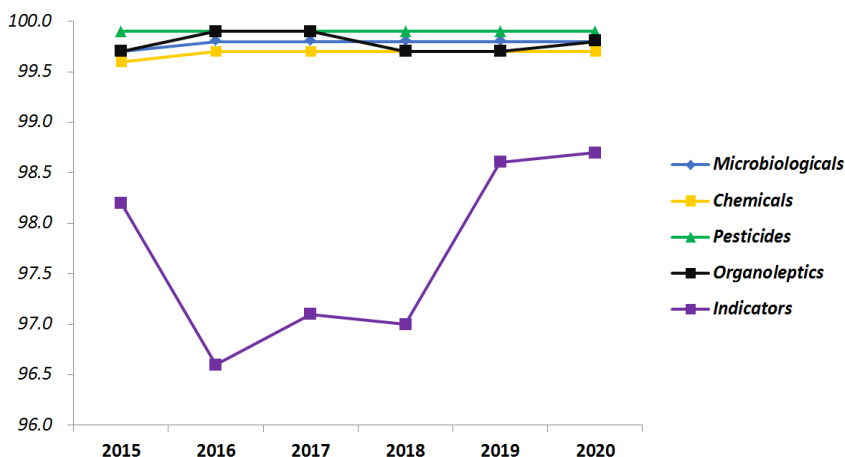




PARAMETER GROUPS	2015	2016	2017	2018	2019	2020
Organoleptics	99.7	99.9	99.9	99.7	99.7	99.8
Indicators	98.2	96.6	97.1	97.0	98.6	98.7

Source: National Report on Drinking Water Quality 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf



7. Percentage (%) of Compliance of population range with the sampling frequency.

The evolution of the conformity of the sampling frequency with respect to the WSZ size is shown below.

YEAR	WSZ > 5,000 inh. (%)			WSZ 501 – 5,000 inh. (%)			WSZ < 500 inh. (%)		
	Audit Monitoring	Check Monitoring	Tap Monitoring	Audit Monitoring	Check Monitoring	Tap Monitoring	Audit Monitoring	Check Monitoring	Tap Monitoring
2016	88.9	87.3	34.5	81.1	80.8	39.8	NA	75.5	50.5
2017	84.7	85.2	32.0	81.5	82.3	38.9	NA	74.8	41.8
2018	85.6	88.1	37.6	82.1	82.6	40.3	NA	95.3	72.9
2019	92.1	90.5	39.8	84.2	81.2	44.0	NA	99.8	75.8
2020	94.0	92.4	44.8	85.9	81.7	38.3	NA	100	72.5

NA: data not available

Source: National Report on Drinking Water Quality 2020. (tables 480, 482, 484).

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf

It can be appreciated an increase of % of compliance for Audit Monitoring as well as Checking Monitoring with independence of the WSZ size. However, only for WSZ > 5,000 inh., this trend can be observed for Tap Monitoring.





8. *Indicators for parameters*

- a. Number of samples, total and for each type of sampling point (SP), with annual evolution in the last 3 years.
- b. Number of WSZ that have controlled a specific parameter, and the correspondent population, differences between populations of more than 5,000 inhabitants and less than 5,000 inhabitants.
- c. Determinations by type of analysis, annual changes in the past 3 years and determinations of that parameter per 10,000 inhabitants.
- d. Means, maximum, minimum and standard deviation. Graphics of the mean value annual evolution and maps with the number of determination by municipality.
- e. By type sampling point averages with statistical analysis based on statistical differences and size of WSZ.
- f. Compliance with legislation (WSZ), population and evolution of annual determinations in the last 3 years.
- g. Compliance according to the size of the WSZ.
- h. Number of non-compliances (excendances, incidents, derogations).
- i. Number of WSZ with non-compliance in a parameter, and number of non-compliances (1 or more than 1) for each parameter.

The trend of all these indicators can be easily consulted in the reports and tables on the Quality of drinking water.

<https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicacion.es.htm>

9. *Reports of the Internal Data audits of SINAC.*

In 2021, an internal audit was carried out on SINAC. The results of this audit were communicated to the Autonomous Communities. This was the first year that this kind of audit was carried out.

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

Through legislation, joint work with MHS, Autonomous Communities, City Councils, water suppliers and the available tools (SINAC) contributes to provide safer and clean drinking water, without any content of microorganism, parasite or any kind of substance in a quantity or concentration what could pose risk to human health.

In accordance with this System and the legal commitments acquired, MHS annually publishes a technical report on the quality of drinking water in Spain. This report is included in the Inventory of Statistical Operations of the General State Administration (code 54025) and the National Statistical Plan dependent on the National Institute of Statistics (In Spanish, INE). In turn, the INE publishes information on the 2030 Sustainable Development Agenda. For Goal 6. "Ensure access to water and sanitation for all", the following Indicator and Goal are available.

Target 6.1. "By 2030, achieve universal and equitable access to safe and affordable drinking water for all".





Indicator 6.1.1. “*Proportion of population using safely managed drinking water supply services*”.

Sub-indicator 6.1.1.1. “*Percentage of the population that receives a supply covered by the National System of Water for Consumption*”.

It is necessary to point out that this sub-indicator is defined as a percentage of the population that receives a supply covered by the National System of Water for Consumption. However, currently, the WSZ with less than 50 inhabitants or that supply less than 10 m³ of water per day are exempt from notifying the SINAC information system. So, SINAC does not consider 100% of the population collected in the INE although all WSZ are included in the scope. Therefore, the data does NOT reflect that drinking water is not controlled in small supplies, but rather that they are not obliged to notify the results of their analyses.

In summary, this sub-indicator reflects, that percentage of the population covered by those supply zones with obligation to notify and, therefore, does not reflect the percentage of the registered population that actually receive water suitable for human consumption. This percentage is presumably higher than that reflected by the subIndicator.

The Spanish metadata of this sub-indicator are connected to the metadata published by the United Nations (<https://unstats.un.org/sdgs/metadata/>)





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

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.

Reduction in the number of outbreaks notified regarding drinking water.

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).

Royal Decree 2210/1995, Of 28th December, by which the National Epidemiological Surveillance Network is created. The epidemiological surveillance of water outbreaks in Spain is performed through the National Epidemiological Surveillance Network (In Spanish RENAWE). Autonomous Communities notify to RENAWE the legislation concerned outbreaks and epidemiological issues related to any cause (etiology) or transmission mechanism that occur on its territory.

Coordination actions with the General Directorate of Public Health in this area are carried out through its affiliated center, the Center for Coordination and Health Alerts (In Spanish, CCAES), which coordinates and maintains the National Early Warning and Rapid Response System (In Spanish, SIAPR). It establishes a network of regional liaison centers that allows permanent and rapid communication of risk situations in order to improve opportunity and coordinate the response at the national and international levels.

In this sense, a more fluid communication has been initiated with the National Epidemiology Center (CNE) of the Carlos III Health Institute (ISCIII).

In its field of competence, CCAA must develop these regulations in a way that guarantees the functional capacity of these activities at all administrative levels and ensures that the established epidemiological information is sent to the MSAN, with the periodicity and disaggregation that is established in each case.

On the other hand, Royal Decree 852/2021, of October 5, which modifies Royal Decree 139/2020, of January 28, which establishes the organic structure of the ministerial departments and Royal Decree 735 /2020, of August 4, which develops the basic organic structure of the Ministry of Health, and modifies Royal Decree 139/2020, of January 28, which establishes the basic organic structure of the ministerial departments, assigns to the General Directorate of Public Health, among others, the powers over the planning, coordination and development of the Public Health Surveillance Network, including RENAWE, in coordination with the General State Administration (In Spanish, AGE) bodies with powers in the matter and the services of the autonomous communities. Epidemiological surveillance is therefore based on RENAWE, which is managed by the CNE of the ISCIII.

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

According to the the document “Targets of the Protocolo on Water and Health” for Spain, the following indicator have been assessed:

Nr. of water outbreaks caused by bacteria, viruses and parasites.





As explained in Part 3.II, the SARS-CoV-2 pandemic has influenced the data reported for the years 2020 and 2021. A decrease in the incidence rate per 100,000 population of typhoid and Hepatitis A fever has been observed, while some increases in shigellosis, *Enterohaemorrhagic E. coli* infection and legionellosis compared to the reference value have been observed .

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

The notification of outbreaks of waterborne diseases indicates the areas of work in which we have to maintain the quality acquired over years and those that can improve safer and cleaner drinking water supply, without any content of microorganisms, parasites or substances in a quantity or concentration that could pose a risk to human health.

The high quality of drinking water and the bathing water surveillance condition that in Spain there will be no deaths attributable to water contamination. In addition, as can be seen in the data on the evolution of diseases attributed to water, in recent years there has been a general decrease in cases and outbreaks due to this cause. Thus, for water, Target 3.9 would be met “By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination” and 6.1. “By 2030, achieve universal and equitable Access to safe and affordable drinking water for all” y la Goal 11.6 “By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management”.

Strategic Plan on Health and Environment

On the other hand, in 2021 Spain approved and published its Strategic Plan on Health and Environment 2022-2026

https://www.sanidad.gob.es/ciudadanos/pesma/docs/241121_PESMA.pdf

As cited, the contemplated measures corresponding to water quality would respond to the Ostrava Declaration and the WHO Global Strategy on Health, Environment and Climate Change. Thus, among the different objectives and actions, the following are collected:

Health Prevention and Protection Objective: to protect people's health from the adverse effects of any type of water pollution; guaranteeing its access, health, quality and cleanliness, in each and every one of its uses.

Management, organization and coordination objective: Improve coordination between the competent administrations in matters of water management

Training and Risk Communication Objective: Improve the training of professionals and the information and knowledge of the population about the effects on health and poor water quality.

Research objective: Increase knowledge about the potential impact on health of water quality in specific geographic areas.

Objective of Monitoring, Evaluation and Indicators: Increase knowledge about the potential impact on health of water quality in geographic areas or specific uses.

National Plan for Adaptation to Climate Change (In Spanish, PNACC)





On the other hand, Climate Change plays a fundamental role in influencing the life cycles of potential parasites and the temporal and spatial expansion of certain diseases by acting as vectors. Within the framework of the PNACC, there is the Plan to Promote the Environment to Climate Change in Spain (In Spanish, PIMA Adapta) of the Ministry for Ecological Transition and Demographic Challenge, which includes actions in the field of water management and the hydraulic public domain.

In the period covered by this report, 2019-2021, 2 National Plans for Adaptation to Climate Change (In Spanish, PNACC-1 and PNACC-2) have been prepared: one between 2006 and 2020 and the second, which is currently in force, corresponds to the period 2021-2030.

Among the points selected and related to water and human health, the PNACC-2 aims to achieve the following objectives, among others:

- To identify the risks of climate change on human health and develop the most effective adaptation measures by integrating climate change into strategic plans on Health and Environment.
- To prevent health risks derived from vector and non-vector infectious and parasitic diseases favored by climate change.

Among their lines of action related to the activities of the Protocol on Water and Health, they would highlight:

Line of action for human health

The human health work area is closely related to other lines contemplated in PNACC, highlighting line 3 (water and water resources). In this sense, integrating visions gain value, such as the One Health initiative "One Health", aimed at increasing interdisciplinary communication and collaboration in the care of the health of people, animals and the environment, understanding that they are all linked together.

Line of action Integration of climate change in the Strategic Plan on Health and Environment

The Strategic Plan on Health and Environment will describe the main environmental factors that influence human health and will establish the objectives and lines of intervention of the National Health System in this matter.

Line of action. Monitoring and improvement of knowledge about the observable effects of climate change on water bodies and their uses

Therefore, with the aim of advancing in decision-making and in the development of adaptation strategies based on knowledge, the monitoring systems for climate change must integrate the other monitoring systems, including the information systems related to water quality.





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

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.

- To maintain a minimum water supply in drought periods. Target date: annual.
- To achieve 100% access to water for the whole Spanish population. Target date: 2030.

1. 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).

Since 2006, the Government of Spain has carried out work at the international level as a promoter - in close collaboration with the Government of Germany - of recognition by the United Nations of the right to drinking water and sanitation, an initiative that has led to the sending of Resolutions of the Assembly key in the matter, such as Resolution 68/157, of 2013 and Resolution 70/169, of 2015.

At national level, the following regulations have been established.

- Royal Decree 140/2003, February 7, by which health criteria for the quality of water intended for human consumption are established.
- Royal Decree 902/2018 20th of July amending Royal Decree 140/2003, of 7th February by which health criteria for the quality of water intended for human consumption are established. Spanish laws transposing Directive 2015/1787, amending Annexes II y III of Directive 98/83/CE.
- Royal Legislative Decree 1/2001, of July 20, approving the revised text of the Water Law .

On the other hand, due to the transposition of the new Directive (EU) 2020/2184, the Draft Royal Decree establishing the technical-sanitary criteria for the supply and quality control of drinking water. The objective of the standard is to protect people's health from the adverse effects of any type of water contamination, establishing technical health criteria that must be met by the supply and quality of drinking water and the facilities that allow its use. distribution from the masses of water to the user's tap and control of these; and also, guaranteeing and improving its access, availability, health, quality, cleanliness, sufficient quantity and adequate pressure. Specifically, article 10 of the text specifies the conditions for access to drinking water, includes measures to promote access to drinking water and, especially, tap water, and indicates to the Local Administration, in collaboration with health authorities and operators, as the one responsible for adopting all necessary measures to improve access to drinking water for the entire population, in particular for vulnerable and marginalized groups.

Thus, in its article 11 on the vulnerable population, it is stated that the Local Administration will adopt measures to guarantee and improve access to drinking water for the population considered vulnerable and marginal. For this, the Local Administration, together with the competent authority in social programs, shall:

- Identify vulnerable groups that do not have access to drinking water or with limited access and the reasons for the lack of access, either because they do not have access to drinking water for personal economic reasons (low income) or those who do not have access to drinking water. they have for economic reasons of the local administration (very high budget to bring water to these individuals).





- Assess the possibilities of improving access to water for these people and inform about them or about alternative means.
- Inform families with economic situations below the poverty line about social action mechanisms.
- Prepare a report on the situation of the vulnerable population of your municipality and the measures adopted to improve access to water for human consumption and how its use has been promoted, which will be sent to the Ministry of Social Rights and Agenda 2030, in the form and terms that it determines in coordination with the Spanish Federation of Municipalities and Provinces (In Spanish, FEMP).

With this, the Local Administration must implement mechanisms of social action to ensure the right to water for the entire population, thus addressing the problems suffered by the most vulnerable population, through the application of processes or administrative tools of social action that best adapt to the particularities of its territory and population. Said social action mechanisms may consist of bonuses contemplated in the rate, water price rate and/or in Solidarity Funds.

At regional level, of the 17 CCAA of Spain, there are 10 that have a comprehensive autonomous water law (supply and sanitation); two of them observe the Human Right to water (Aragon and Cantabria), while other 4 include it in their non-specific legislation (Andalusia, Catalonia, Region of Murcia and Community of Valencia).

For their part, various city councils in the State have applied or apply some type of Social Action Mechanism (In Spanish, MAS) on this service. These are administrative tools - mainly tariff reductions and solidarity funds, and plans to promote domestic water saving - that make it easier for vulnerable households to deal with service bills and minimize or avoid water cuts and that, therefore, Generally, they are regulated by a municipal ordinance.

Public policies applied during the pandemic

The COVID-19 pandemic has stressed the National Health Systems like never before in recent history. In accordance with this, the Government of Spain enacted a series of measures to guarantee access to water during the COVID-19 pandemic. On March 14, 2020, the national state of alarm is declared to manage the COVID-19 pandemic (Royal Decree 463/2020) and it is suspended on May 9, 2021 (Royal Decree 926/2020). The rule of declaration of the State of alarm urged public service operators to adopt *"the necessary measures to ensure the provision of essential services in order to ensure the supply of the population"* (Article 18, sections 1 and 2).

In addition, Royal Decree Law 8/2020, of March 17, on extraordinary urgent measures to deal with the economic and social impact of COVID-19, established that the home supply of drinking water for human consumption was an essential service that should remain guaranteed. Specifically, the measures adopted in this Royal Decree-law were aimed at a triple objective. First, reinforce the protection of workers, families and vulnerable groups; second, support continuity in productive activity and maintenance of employment; and third, strengthen the fight against the disease. In addition, in its chapter I, support measures were offered to workers, families and vulnerable groups that have been particularly affected by the circumstances due to the pandemic. Thus, among them, the coverage of vulnerable groups was expanded in the field of supply of essential public services, particularly in the field of water, natural gas and electricity. To this end, it was impossible to cut off the water supply due to breach of contract for consumers who had the condition of vulnerable, understanding as such those who have this condition in accordance with the regulations on the electricity sector. automatically extending until September 30, 2020 the validity of the social bonus for those beneficiaries of the same that expires before said date.





In relation to Royal Decree 8/2020, the Minister for the Ecological Transition and Demographic Challenge informs the Spanish Federation of Municipalities and Provinces by letter about the prohibition to cut off the water supply. It is also reported that "once the alarm situation is over, users who have not been able to face the receipt because they are in a vulnerable situation should contact their City Council. Local entities will be in coordination with social services and water service supply companies (public, private or mixed management) to implement this measure" (FEMP, Circular 9/2020, of March 19, 2020).

In Order SND/274/2020, of March 22, by which measures are adopted in relation to drinking water supply and wastewater sanitation services, several measures were adopted to guarantee the adequate supply of water, as well as the correct sanitation, enabling the companies and entities that carry out said water treatment processes necessary for the indicated services to be considered operators of essential services and at the same time have the hygienic products, substances and materials necessary to guarantee that can carry out their work with the maximum guarantees of success, in compliance with the health regulations applicable to water for human consumption and wastewater treatment.

On March 31, Royal Decree Law 11/2020 was approved, which includes, among the complementary urgent measures in the social sphere and while the state of alarm is in force, the prohibition of suspending the supply of water to any address that has the consideration of first dwelling. This action does not imply the cancellation of pending invoices, whose payment may be requested once the measures are suspended. Royal Decree Law 11/2020 explicitly implies the extension of the term of validity of Royal Decree Law 8/2020, until the end of the state of emergency, both for consumers in a situation of vulnerability and for the rest, in what refers to the prohibition of water cuts in their first dwelling.

Royal Decree Law 37/2020, of December 22, which addresses urgent measures to deal with situations of social and economic vulnerability, extends until the suspension of the state of alarm, the prohibition of cutting off the water supply to users with condition of vulnerable consumer, severely vulnerable or at risk of social exclusion (Fourth additional provision 1), including people who, complying with the conditions of article 3 of Decree Law 897/2017, cannot prove ownership of the water service (Additional provision fourth, 3). Regarding water supply, this rule, during its validity, paralyzes the computation of payment requirement deadlines and "*the suspension of supply due to non-payment established in the current regulations*" (Fourth additional provision, 2).

Prior to the end of the state of alarm decreed for May 9, 2021, Royal Decree Law 8/2021 of May 4 is approved, whose article 4 extends the water supply guarantee until August 9, 2021 to vulnerable consumers, provided for in Royal Decree Law 37/2020.

The Government of Spain has called "*Social Shield*" the set of urgent measures in the social and economic field to deal with COVID-19 initiated with Royal Decree Law 8/2020.

Through Royal Decree Law 16/2021, of August 3, the temporary extension of some measures is approved - including the prohibition of cutting basic supplies to vulnerable consumers -, until October 31, 2021.

On October 26, 2021, Royal Decree Law 21/2021 extends the *Social Shield* until February 28, 2022, the date until which the supply of "*water to those consumers in whom the condition vulnerable consumer, severely vulnerable consumer or at risk of social exclusion may not be suspended*".

With all of this, the protection measures for people in a situation of vulnerability framed in the "*Social Shield*" approved by the Government of Spain in a concatenated manner, including the prohibition of water cuts due to lack of ability to pay, have covered the entire period between the declaration of the state of alarm due to the COVID-19 pandemic, in March 2020, and its end, on May 9, 2021, as well as the extension until February 2022.





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

Since 2003, Royal Decree 140/2003, of February 7, guarantees at least that in each supply area people can use 100 liters per inhabitant and day, as a minimum objective.

Spanish stakeholders, and national and regional information systems estimate that over 99.9 percent of the population has access to drinking water with an average amount of 133 liters per capita and day. (Source INE, last published data: 2018).

As reflected in the previous point, regarding the transposition of the new Directive on Drinking Water, the local entities are competent in terms of guaranteeing the consumption of drinking water, and, therefore, responsible for the custody of information on the possible existence of water shortages due to lack of payment to people or groups in a situation of vulnerability.

In this sense, therefore, Local Entities are in charge of compiling the information regarding the number of water and sanitation outages due to non-payment that have occurred in households in a situation of vulnerability, especially in the state of alarm period decreed as a consequence of the COVID-19 pandemic.

Recently, some saving campaigns have been launched in order to drop the water household consumption, due to reiterated drought situations in some regions:

Regional scope:

Andalusia, Agriculture, Livestock, Fisheries and Sustainable Development department: "Cierra el grifo, no tenemos agua que perder". November 2019.

<https://www.youtube.com/watch?v=NUfaUtQZ2Ug>

Provincial Council of Jaen – Somajasa: "Campana de Ahorro de Agua". December 2021.

<https://www.horajaen.com/2021/12/09/somajasa-presenta-una-campana-de-ahorro-de-agua-ante-la-emergencia-hidrica-en-la-provincia/>

Govern Balear "Porque en estas islas tenemos muchas cosas, pero poca agua". June 2019.

<https://menorcaaldia.com/2019/06/26/video-una-maleta-para-meditar-sobre-el-consumo-de-agua-en-baleares/>

Local scope:

City Council of Madrid: "Cuál es la gota que colme el vaso?". July 2020 – March 2021.

<https://controlpublicidad.com/campanas-publicitarias/campana-para-concienciar-sobre-el-ahorro-de-agua/>

<https://www.september.es/2021/03/24/primera-campana-de-ahorro-de-agua-que-ahorra-agua/>

<https://consorcioagualanzarote.com/el-consorcio-del-agua-de-lanzarote-inicia-una-campana-de-concienciacion-de-ahorro-del-agua/>

<https://www.youtube.com/watch?v=xFFeUjXpPs>





Stakeholders and media platforms:

iAgua: "Ahorra agua en el baño y lucha contra la sequía". October 2019.

<https://www.iagua.es/noticias/aeopas/campana-aquatruco-ahorro-consumo-agua-hogar-1>

Greenpeace España: blog Julio Barea Luchena: "Ahorrar agua cuando aún la tenemos" September 2019.

https://es.greenpeace.org/es/noticias/ahorrar-agua-cuando-aun-la-tenemos/?utm_term=&utm_campaign=&utm_source=adwords&utm_medium=ppc&hsa_acc=357333233&hsa_cam=14792734073&hsa_grp=&hsa_ad=&hsa_src=x&hsa_tgt=&hsa_kw=&hsa_mt=&hsa_net=adwords&hsa_ver=3&gclid=EALaIQobChMI9IOaicPR9QIVxeJ3Ch3_8wtKEAMYAiAAEgK05fD_BwE

AQUAE Foundation: "10 tips para ahorrar agua". August 2019.

https://www.youtube.com/watch?v=J11-_CwaikY

Diario de Navarra: "12 consejos para ahorrar agua en casa: ¿qué podemos hacer?". March 2021.

<https://www.diariodenavarra.es/noticias/vivir/medio-ambiente/2021/03/22/12-consejos-para-ahorrar-agua-casa-que-podemos-hacer-721077-3281.html>

Finish y Mediaset: "Por un futuro con agua". March 2021.

<https://www.youtube.com/watch?v=nNhl-ycamrM>

Finally, note that there is a research group (WAPONET) subsidized by the Spanish Ministry of Science under the "Research Networks of Excellence" program (CSO2017-90702-REDT) dedicated to the quantification and definition of water poverty in the Spanish territory.

<https://waponet.org/>

Indicator

Annual daily average provision per capita: 0.3 m³ per capita and day. (According to data available in SINAC).

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

In this case, directly to achieve universal and equitable access to drinking water at an affordable price for all in accordance with objective 6 of the Agenda.

Access to drinking water in Spain is close to 99.99% of the population. All the municipalities have public fountains of drinking water in their shanty towns. It also exists, for families below the poverty line, social bonds.





The Indicator corresponding to that Target is 1.4.1. *“Proportion of the population living in households with access to basic services”*.

<https://www.ine.es/dyngs/ODS/es/Indicator.htm?id=5342> (Indicator Source: INE)

These established objectives would also be related to Target 1.5 *“By 2030, build the resilience of the poor and people in situations of vulnerability and reduce their exposure and vulnerability to extreme events related to the climate and other disturbances and economic, social and environmental disasters”* and Target 1.a. *“Ensure significant mobilization of resources from various sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programs and policies aimed at ending poverty in all its dimensions”*.

In this sense, the INE has established the following Indicator: 1.a.2 *“Proportion of total public spending intended to essential services (education, health and social protection)”*, Source: Ministry of Finance and Public Administration.

On the other hand, they would relate to Target 3.3: *“By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases”* and Target 3.9 *“By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination”*.

Regarding education, it would be directly involved in Target 4.a *“Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all”*.

INE: Indicator 4.a.1 *“Proportion of schools that offer basic services, broken down by type of activity”*. This indicator covers, among others, 6 sub-indicators related to WASH. (Source: Ministry of Education and Vocational Training).

These last indicators have been considered not relevant for most of the OECD countries, since practically 100% of the schools in these countries have the services included in the Indicator. In any case, its consideration as a global Indicator in the SDG 2030 framework and the WASH campaigns is considered important.

The established objective *“to achieve 100% of the population supplied by 2030”*, is directly related to Target 6.1: *“By 2030, achieve universal and equitable access to drinking water at and affordable price for all”*. It would also be related to Target 1.4: *“By 2030, ensure that all men and women, in particular the poor and vulnerable, have equal rights to economic resources and access to basic services, ownership and control of land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance”*.

The established objective of maintaining a water supply in periods of drought is directly related to Target 6.4: *“By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity”*.

Regarding objective 11 of the SDGs, the actions proposed in the Protocol on Water and Health would be directly related to Target 11.1 *“By 2030, ensure access for all people to adequate, safe and affordable housing and basic services and improve the slums”*.

To evaluate this objective, the following INE Indicator 11.1.1 *“Proportion of urban population living in marginal neighborhoods, informal settlements or inadequate housing”* has been proposed. (Source: INE).





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

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.

Given that the European legislation aims to protect and achieve a good status for all waters, the reduction of the pollution caused by urban waste waters seems essential. The streamlining of the different Directives comes up as a necessity.

Access to sanitation was considered within the National Plan for Water Quality (PNCA 2007-2015) in the following terms:

- To comply with the requirements of the Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment.
- To contribute to the compliance in 2015 with the environmental objectives set for water bodies according to the Water Framework Directive (WFD).

The National Plan for Water Quality (PNCA) covered the period from 2007 to 2015, coinciding with the deadline set by the European Water Framework Directive to achieve a "good status" for all waters.

The national legislation establishes requirements and deadlines for:

Collecting systems (article 4 of Royal Decree- Law 11/1995 and article 2 of Royal Decree 509/1996).

Secondary treatment for urban waste water (article 5 of Royal Decree- Law 11/1995 and article 5 Royal Decree 509/1996).

More stringent treatment for urban waste water discharging into sensitive areas (article 7 of Royal Decree- Law 11/1995 and article 6 of Royal Decree 509/1996).

The targets set in Spain according to current legislation (Directive 91/271/EEC, articles 3, 4, 5, 7 and Annex I) are:

No.	Targets	Target dates	Responsibility
1.	All agglomerations must be provided with collecting systems for urban waste water, - at the latest by 31 December 2000 for those with a population equivalent (p.e.) of more than 15000, and - at the latest by 31 December 2005 for those with a p.e. of between 2000 and 15000.	31 December 2000 31 December 2005	- General Directorate of water - Autonomous Communities - River Basin Authorities
	Collection systems should be provided at the latest by 31 December 1998 for agglomerations of more than 10000 p.e. when urban waste water discharge into receiving waters which are considered "sensitive areas".	31 December 1998	
2.	Urban waste water entering collecting systems shall before discharge be subject to secondary treatment or an equivalent treatment as follows: - at the latest by 31 December 2000 for all discharges from agglomerations of more than 15000 p.e.,	31 December 2000	





No.	Targets	Target dates	Responsibility
	- at the latest by 31 December 2005 for all discharges from agglomerations of between 10000 and 15000 p.e.,	31 December 2005	
	- at the latest by 31 December 2005 for discharges to fresh-water and estuaries from agglomerations of between 2000 and 10000 p.e	31 December 2005	
	Urban waste water entering collecting systems shall before discharge into sensitive areas be subjected to more stringent treatment for all discharges from agglomerations of more than 10000 p.e.	31 December 1998	
3.	Discharges from urban waste water treatment plants shall satisfy the relevant requirements set in the Directive (Annex I)	31 December 2005	
4.	Urban waste water entering collecting systems shall be subject to appropriate treatment (treatment by which after water discharged allows the receiving waters to meet the relevant quality objectives and other relevant provisions of the European legislation) in the following cases:	31 December 2005	
	- for discharges to fresh-water and estuaries from agglomerations of less than 2.000 p.e.,		
	- for discharges to coastal waters from agglomerations of less than 10.000p.e..		

Recently, the Spanish Ministry for the Ecological Transition and the Demographic Challenge, has adopted the Plan DSEAR (acronym of Spanish National Plan for Sanitation, Waste Water Treatment). It constitutes a governance instrument that aims to review some of the approaches developed so far in the matters of the Plan, looking for greater agility and effectiveness in the implementation of the measures of the RBMPs, particularly in the areas of wastewater, sanitation and water reuse. The DSEAR Plan consists of seven thematic objectives: 1) define criteria for prioritizing the measures in the RBMPs, 2) strengthen cooperation between public administrations, 3) improve the definition of actions that should be considered as of general interest of the state, 4) improve the energy and water efficiency of the wastewater and water reuse plants, 5) improve the financing mechanisms of the measures, 6) promote the direct reuse of wastewater, and 7) promote innovation and technology transfer in the sector of the Water. The DSEAR Plan will lead to legal and regulatory reforms, as well as good practices that will allow a better focus on the river basin management plans that are currently under review and whose drafts should be made public in the first quarter of 2021. You can access to the information of this Plan through the next link:

<https://www.miteco.gob.es/es/agua/temas/planificacion-hidrologica/planificacion-hidrologica/planes-programas-relacionados/>.

Furthermore, Spanish Government has recently adopted the PERTE of Digitization of the Water Cycle. This project will mobilize more than 3,000 million euros, between public and private funds, and will create around 3,500 jobs, opening new professional niches in the sector. This project proposes two calls for grants, with a total investment of 1,200 million, for cities can increase the implementation, among others, of measurement systems such as smart meters, communication systems and big data platforms to analyze all the information collected. This will allow citizens and administrations to have greater control over urban water and will facilitate the detection of losses or leaks in collection and distribution networks. This grants also includes advances in sensing,





monitoring and remote control of sanitation infrastructures will also be important, which will improve water purification and allow greater reuse of the resource. You can access to the information of this Plan through the next link:

<https://www.miteco.gob.es/es/prensa/ultimas-noticias/el-gobierno-aprueba-el-perte-de-digitalizaci%C3%B3n-del-ciclo-del-agua-para-modernizar-el-sector-y-avanzar-hacia-una-gesti%C3%B3n-m%C3%A1s-eficiente-y-sostenib/tcm:30-538429>.

The General Directorate of Water of the Ministry for the Ecological Transition and the Demographic Challenge develops progress reports on the follow-up of the RBMPs. In December 2019, a compiled Progress Report referring to the year 2018 has been completed and published on the Ministry website (in Spanish):

https://www.miteco.gob.es/es/agua/temas/planificacion-hidrologica/memoria_infoseg_2018_tcm30-482594.pdf

The report summarizes the progress made by the planning process by all Spanish River Basin Districts with the information provided by them plus other reference information regarding the follow-up of the RBMPs for the second planning process (2016-2021) according to the WFD.

The link to the reports is:

https://www.miteco.gob.es/es/agua/temas/planificacion-hidrologica/planificacion-hidrologica/ETI_tercer_ciclo.aspx

In addition, the public consultation period for the next cycle of the RBMPs for the period 2022-2027, which began on 23 June 2021, has recently ended. The basin organisations, after analysing the documents of proposals, observations and suggestions received (more than 6,000 in the case of the hydrological plans), with the aim of adjusting their contents, have sent the complete documentation of the Hydrological Plan to the Ministry for Ecological Transition and the Demographic Challenge, in order to face the final phase of the approval of the basin plans. The following link provide access to all the documentation of the draft hydrological plans for the 2022-2027 period:

https://www.miteco.gob.es/es/agua/temas/planificacion-hidrologica/planificacion-hidrologica/PPHH_tercer_ciclo.aspx

In order to achieve the targets the following measures are proposed:

No.	Measures and activities	Time frame	Responsibility
1.	Follow-up of the RBMPs	Up to 2027	General Directorate of water Regional governments
2.	Follow-up of the DSEAR Plan	2021-2027	General Directorate of water Regional governments
3.	Reporting under the Directive 91/271/CEE	Every two years	General Directorate of water Regional governments

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).

- **Royal Legislative Decree 1/2001 (Water Act, <https://boe.es/buscar/doc.php?id=BOE-A-2001-14276>).**





- Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment
- Royal Decree- Law 11/1995, of 28 December, which sets the standards for the treatment of urban waste water.
- Royal Decree 509/1996, of 15 March, which details the standards for the treatment of urban waste water. It has been modified by:
 - Royal Decree 2116/1998, of 2 October, which establishes the standards that have to be applied for the treatment of urban waste water.
 - Royal Decree 1290/2012, of 7 September, which establishes the standards that have to be applied for the treatment of urban waste water.

• Royal Decrees which pass River Basin Management Plans (2016-2021) (dedicated site for the RBMPs:

<https://www.miteco.gob.es/es/agua/temas/planificacion-hidrologica/planificacion-hidrologica/>).

- DSEAR Plan (see link above)
- PERTE of Digitization of the Water Cycle (see link above)

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

According to the technical report on the implementation of the UWWTD elaborated with the information reported by Spain to the European Commission, in 2018, Spain counted 2059 agglomerations generating $\geq 2,000$ p.e. each, of which: 1,548 agglomerations, generating 54,400,183 p.e. of waste water, complied with the requirements of the Directive; and 511 agglomerations which, generating 10,010,094 p.e. of waste water, did not comply with the requirements of the Directive. The wastewater load generated in Spain in 2018 was reported to be 64,500.000 p.e. In 2018, Spain had not yet reached the target for collecting and treating waste water to fully comply with the Directive:

- 0.27% of the waste water load must still be collected (approximately 176,811 p.e.);
- 10.3% of the collected waste water must still undergo secondary treatment in line with the requirements of the Directive (approximately 6,700,000 p.e.);
- 6.35% of the collected waste water load from agglomerations generating $>10,000$ p.e. and discharging into sensitive areas must still undergo more stringent treatment in line with the requirements of the Directive (approximately 4,100,000 p.e.).

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

This measures contribute to fulfil the Target 6.2 of SDG6 of Agenda which it s 2030, achieve access to adequate and equitable sanitation and hygiene services for all and end open defecation, paying particular attention to the needs of women and girls and people in situations of vulnerability. There are some reporting obligation derived from European and International regulations which have to take into account because they can let to follow the fulfillment of this target 6.2 of SDG6.

Spain, as a Member State of the European Economic Union, has to report every two years the information regarding the implementation and compliance with the Directive 91/271/CEE concerning urban waste water treatment to the. This report includes the data collected by competent authorities regarding the monitoring results of waters subject to discharges from urban waste water treatment





plants and amount and composition of sludges disposed of to surface waters (article 15), situation on the disposal of urban waste water and sludge (article 16) and implementation program (article 17). The information is uploaded to the Central Data Repository (CDR) which is part of the ReportNet architecture that aims to support and improve data and information flows. The Central Data Repository collects data reports on the environment submitted by Member States. For each country collection the data reports are arranged under the relevant reporting obligations or agreements (Eionet>CDR>Spain>European Union (EU), obligations> Urban Waste Water Treatment Directive monitoring(91/271/EEC) [Art 15]). The European Commission uses the data collected for delivering the implementation reports every two years https://ec.europa.eu/environment/water/water-urbanwaste/implementation/implementationreports_en.htm).

The OECD/Eurostat joint questionnaires (JQ) on the state of the environment are an attempt to set up worldwide coherent data collections on the main environmental issues. The OECD first established the data collection in 1980 and Eurostat joined the exercise in 1988. The United Nations Statistical Division (UNSD) set up environmental data collections that are on a more reduced scale but entirely compatible with the OECD/Eurostat Joint Questionnaire. The work on statistics for inland waters is covered by the European statistical programme 2013-17 extended to 2020 (Regulation (EU) No 2017/1951) and covers one of the most sensitive environmental topics. The questionnaires are regularly revised in line with changing needs. The latest major revision sought to improve the internal consistency of the questionnaire, clarify the variables requested, and harmonise terminology with definitions in European Union (EU) water directives and other standards. Tables 5 to 8 of the JQ address wastewater collection, discharge and treatment and sewage sludge disposal.

On the other hand, the Joint Monitoring Programme (JMP) for Water Supply and Sanitation monitors the proportion of the population with access to safe drinking water and improved sanitation under SDG6 of the Agenda 2030.





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

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.

Targets:

1. To assess structural leakages in WSZ.
2. To improve the efficiency of the supply system.
3. To implement a quality assurance system in supplies over 50,000 inhabitants.

Background:

The data about the levels of collective systems and other systems for water supply are notified to the SINAC System by suppliers and health authorities since 2003, although Spain collects these data since 1992 (in writing).

The following Table shows the number of drinking water supply zones and infrastructures in 2020 (SINAC).

WSZ	Catchments	Mains	Reservoirs	Tanks	Distribution system
10,708	21,219	1,119	287	26,277	17,590

Source: National Report on Drinking Water Quality 2020.

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf

In that year, by water origin, without taking into account the catchments that have not reported this data (4.6%), 81% of the catchments came from groundwater, 13.8% from surface water and 0.1% from rainwater. While, 49.95% of the pipes are closed by pressure and 47.87% are closed by gravity.

Regarding the type of deposit, the most frequent is Surface (41.84%) followed by semi-buried (33.73%). 66.99% of deposits have some type of protection, with 93.28% of ordinary use.

On the other hand, the majority type of network is constituted by the urban network (59.33%), which distributes 95.01% of the volume of water per day and 82.44% of the km of network. From the constructive point of view, the most frequent network is the mixed network (47.53%) that distributes 45.01% of water, and has 52.63% of km of network, followed by the type of mesh network with 25.16% of the networks, 48.03% of the water and 37.10% of the km of network.

In 2005, the facilities intended to the drinking water consumption were:

WSZ	Catchments	Mains	Reservoirs	Tanks	Distribution system
3,215	NA	NA	9	5,323	8,555

NA: data not available

Source: National Report on Drinking Water Quality 2020. (tables 480, 482, 484).

https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf

As it can be observed, the rise of such facilities and the information concerned to those have suffered a remarkable development.





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).

Legal/regulatory actions:

- Royal Decree 140/2003, of 7th February by which health criteria for the quality of water intended for human consumption are established.
- Order SCO/1591/2005, of May 30, on the National Information System for Drinking Water.
- Royal Decree 902/2018 20th of July amending Royal Decree 140/2003, of 7th February by which health criteria for the quality of water intended for human consumption are established. Spanish laws transposing Directive 2015/1787, amending Annexes II y III of Directive 98/83/CE.

A Guide recommendations for possible incidents with description of corrective and preventive measures and early detection procedures was developed in joint work between MHS, Ministry for the Ecological Transition and Demographic Challenge and Spanish drinking and waste water service operators Association (AEAS).

Those actors collaborated with the MHS to develop a tool for the implementation of the WSP that it is currently working, since 2018.

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

Frequent use of SINAC via internet in the last 19 years by over a 8,500 professional to inform of the quality of drinking water and the characteristics of supplies representing more than 84.1% of the Spanish population. (In 2015-2016, an evaluation of the data collected in the SINAC was performed with the development of a second updated version of the system. As the system is improved, the data is more reliable).

As mentioned above, in 2021, the Spanish Court of Auditors approved the audit report on the sanitary control of water carried out by the Ministry of Health, Social Services and Equality for the 2017 financial year.

The process of structural leakages assessment is currently in the implementation phase and has been included in the draft Royal Decree transposing Directive 2020/2184.

Recently, in 2021, an internal report was performed to audit SINAC. The results of such report were transferred to the CCAA.

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

The target and its assessment is contribute to provide safe and clean drinking water, without any content of microorganisms, parasites or substances in a quantity or concentration that could pose a risk to human health.

The objectives are clearly related to the following Targets and Indicators of the 2030 Sustainable Development Agenda:





Target 1.4 “By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance”.

Indicator 1.4.1 “Proportion of the population living in households with access to basic services”.

Target 3.9 “By 2030, substantially reduce the number of deaths and illness from hazardous chemicals and air, water and soil pollution and contamination”.

Indicator 3.9.1 “Mortality rate attributed to household and ambient air pollution”.

Indicator 3.9.2 “Mortality rate attributed to unsafe water or sanitation and poor hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services”.

Indicator 3.9.3 “Mortality rate attributed to accidental poisoning”.

Target 6.1 “By 2030, achieve universal and equitable access to safe and affordable drinking water for all”.

Indicator 6.1.1 “Proportion of population with safely managed drinking water supply services”.

Target 11.1 “By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums”.

Indicator 11.1.1 “Proportion of the urban population living in slums, informal settlements or inadequate housing”.





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

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.

Article 6, paragraph 2 (e), of the Protocol requires the setting of targets and target dates related to the levels of performance to be achieved by collective systems and by other means of water supply and sanitation.

The targets set in Spain according to current legislation (Directive 91/271/EEC, articles 4, 5, 7 and Annex I) are:

No.	Targets	Target dates	Responsibility
1.	Urban waste water entering collecting systems shall before discharge be subject to secondary treatment or an equivalent treatment as follows: - at the latest by 31 December 2000 for all discharges from agglomerations of more than 15000 p.e. - at the latest by 31 December 2005 for all discharges from agglomerations of between 10000 and 15000 p.e. - at the latest by 31 December 2005 for discharges to fresh-water and estuaries from agglomerations of between 2000 and 10000 p.e.	31 December 2000 31 December 2005 31 December 2005	- General Directorate of water - Autonomous Communities - River Basin Authorities
	Urban waste water entering collecting systems shall before discharge into sensitive areas be subjected to more stringent treatment for all discharges from agglomerations of more than 10000 p.e.	31 December 1998	
2.	Urban waste water entering collecting systems shall be subject to appropriate treatment (treatment by which after discharge allows the receiving waters to meet the relevant quality objectives and other relevant provisions of the European legislation) in the following cases: - for discharges to fresh-water and estuaries from agglomerations of less than 2,000 p.e. - for discharges to coastal waters from agglomerations of less than 10,000 p.e.	31 December 2005	- General Directorate of water - Autonomous Communities - River Basin Authorities

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 order to achieve the targets the following measures are proposed: (See Target 4).





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

See target 4.

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

See target 4.





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

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 current situation of good practices in the management of water supply is:

- Most of WSZ over 5,000 inhabitants are certified by the ISO 9001 - Quality management systems.
- Information has been reported on the characteristics of their infrastructure and quality of drinking water since 2003 in SINAC. This information in 2020 covered to the 84.1% of the counted population.
- Some of the supplies more than 50,000 inhabitants are being certified by ISO 22,000: food safety management system and hazard analysis and critical control points applied to a drinking water supply.

Therefore the situation of good practices in the Spanish supplies is either they are already implemented or under development.

Targets:

- Improvement of the management of the supplies from catchment, treatment plants, storage and water distribution through WSP.
- Improvement of the drinking water quality control.
- Improvement of the transmission of information to citizens.
- Maintenance and improvement of the tool for the development of the WSP (In Spanish, GEPSA).

1. 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).

At legal level, Spain has adopted the following actions:

- Royal Decree 140/2003, of February, 7 by which health criteria for the quality of water intended for human consumption are established.
- SCO Order 1591/2005 of May,30 about the national drinking water information system.
- SINAC.
- Royal Decree 902/2018 July, 20 amending Royal Decree 140/2003, of February, 7 by which health criteria for the quality of water intended for human consumption are established. Spanish laws transposing Directive 2015/1787, amending Annexes II and III of Directive 98/83/CE.
- MHS, in consultation with all the stakeholders involved: operators, General State Administration, regional administrations, and the Spanish Federation of Municipalities and Provinces, is currently transposing Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption. This new regulation, which takes the form of a Royal Decree, aims to combine previous regulations related to drinking water to create a





single legal framework that compiles all the requirements that must be met by both water intended for human consumption as well as the administrations and operators in charge of its management and health. The draft text has already passed the Public Hearing processes.

<https://www.sanidad.gob.es/normativa/audiencia/audienciasCerradasSan.htm>

Moreover, other actions taken are following described:

Currently Spain is updating the Guide recommendations for possible incidents with description of corrective and preventive measures and early detection procedures in joint work with Ministry for the Ecological Transition and Demographic Challenge and the Spanish Drinking and Wate Water Service Operators Association (In Spanish, AEAS).

On the other hand, with a view to good coordination between the Autonomous Communities and the Central Administration, in 1992 the inclusion of the Permanent Commission on Environmental Health was formalized within the Public Health Commission made up of the General Directors responsible for both the AGE and of the Autonomous Communities. In accordance with its objectives, the Reports, Commissions and Working Groups currently in operation, related to: Environmental Health; Coordination and Cooperation in Food Health; Program and Registry of Vaccination and Epidemiological Surveillance independently of others that may be established in the future.

Within this management coordination work, several Committees and Working Groups have been recognized.

<https://www.sanidad.gob.es/ciudadanos/saludAmbLaboral/medioAmbiente/Ponencia.htm>

MHS, together with AEAS, developed a tool called GEPSA (WSP manager), to facilitate the preparation of a Water Sanitary Plan. In principle, this tool is built for supplies located in Spanish territory. This system is constantly updated, the last of which was made on 02/21/2022.

<https://gepsa.mscbs.es/gepsa/login.do>

Finally, and to complete the assistance to the operators and agents involved, the Ministry of Health, together with a representation of the Autonomous Communities, published in 2019 the report "*Risk assessment derived from the exposure of the population to radioactive substances in water for human consumption*".

<https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicacion.es.htm>

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

- Frequent use of the information system (SINAC) via internet in the last 19 years by over a 8,500 professional to inform of the quality of drinking water and the characteristics of supplies representing more than 84.1% of the Spanish population. (In 2015-2016, an evaluation of the data collected in the SINAC was performed with the development of a second updated version of the system. As the system is improved, the data is more reliable).
- Increase of the information collected regarding drinking water quality and the characteristics of supplies over the last 19 years.
- Increase of the compliance with sampling frequency standards according to the current legislation.
- Maintenance of the compliance of over 99% of the water supplied with the current legislation.





- Improvement of the warning system in SINAC.
- Corrective measures are taken in a short term basis of time after the detection of incidents in recent years.
- Updating in the guide recommendations for possible incidents with description of corrective and preventive measures and early detection procedures.
- Currently, WSP are implemented in water supplies that supply more than 50,000 inhabitants.

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

The target and its assessment consists in contribute to provide safe and clean drinking water, without any content of microorganism, parasite or substance in a quantity or concentration that could pose a risk to human health.





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

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 European legislation concerning urban waste water treatment, and its transposition to the Spanish law, specifies that collecting systems shall take into account waste water treatment requirements and that their design, construction and maintenance shall be undertaken in accordance with the best technical knowledge not entailing excessive costs. Periodically a review of the state of sanitation will be carried out and, when necessary, future plans will be developed in order to comply or even improve the legal requirements set in that account.

Further information: See target 4.

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).

- Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment.
- Royal Decree-Law 11/1995, of 28 December, which sets the standards for the treatment of urban waste water.
- Royal Decree 509/1996, of 15 March, which details the standards for the treatment of urban waste water. It has been modified by:
 - o Royal Decree 2116/1998, of 2 October, which establishes the standards that have to be applied for the treatment of urban waste water.
 - o Royal Decree 1290/2012, of 7 September, which establishes the standards that have to be applied for the treatment of urban waste water.
- Royal Decrees which pass RBMPs for the cycle 2021-2016 and DSEAR Plan (see target 4).

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

See target 4.

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

See target 4.





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

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 European legislation (Directive 91/271/EEC) the discharge of untreated waste water is not allowed.

In addition, the Royal Decree 849/1986, of 11 April, passing the Regulation on Hydraulic Public Property establishes that all activity subject to cause pollution or degradation of the public hydraulic property and, in particular, the discharge of waters and residual products which pollute continental waters, requires an administrative authorization. This authorization will be granted when the discharge of waste waters is collecting to a treatment plant that ensures that the degree of treatment is suitable to the quality of the receiving area.

When necessary, new plans will be developed in order to comply both with European and National requirements.

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	Control of all discharges and management of discharge authorization.	Since the approval of the legislation	- General Directorate of water
2.	Prosecution of discharges without authorization.		- Autonomous Communities
3.	Establishment of measures to limit pollution of receiving waters from storm water overflows.		- River Basin Authorities

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).

- Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment.
- Royal Decree- Law 11/1995, of 28 December, which sets the standards for the treatment of urban waste water.
- Royal Decree 849/1986, of 11 April, passing the Regulation on Hydraulic Public Property.
- Royal Decree 606/2003, of 23 de May, which modified the Royal Decree 849/1986.





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

In order to achieve the targets the following measures are proposed:

No.	Measures and activities	Time frame	Responsibility
1.	Development/ Maintenance of the National Discharge Census	Annually	- General Directorate of water - Autonomous Communities - River Basin Authorities
2.	Inspection actions by the river basin authorities to control all discharges	Annually	- River Basin Authorities
3.	Measures included in the RBMPs and DSEAR Plan	Up to 2027	- General Directorate of water - Autonomous Communities

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





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

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.

Directive 91/271/EEC, establishes that national authorities shall take measures to limit pollution of receiving waters from storm water overflows via collecting systems under unusual situations, such as heavy rain.

Due to these needs the Royal Decree 849/1986, of 11 April, passing the Regulation on Hydraulic Public Property and the Royal Decree-Law 11/1995 were modified in order to include measures and specific conditions to prevent pollution from storm waters.

- Royal Decree 1290/2012 introduced new legislation on minimum water treatment for storm waters.

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	Establishment of measures to limit pollution of receiving waters from storm water overflows.		

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).

- Royal Decree 1290/2012 on minimum treatment for storm waters.

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

In order to achieve the targets the following measures are proposed:

No.	Measures and activities	Time frame	Responsibility
1.	Development/ Maintenance of the National Discharge Census	Annually	- General Directorate of water - Autonomous Communities - River Basin Authorities
2.	Inspection actions by the river basin authorities to control all discharges	Annually	- River Basin Authorities
3.	Measures included in the RBMPs and DSEAR Plan	Up tp 2027	- General Directorate of water - Autonomous Communities





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

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 European legislation concerning urban waste water treatment, and its transposition to the Spanish law, specifies the treatment that must be applied to urban waste water discharges. The requirements establish are:

- **For discharges from urban waste water treatment plants with secondary treatment or an equivalent treatment:**

Parameters	Concentration	Minimum percentage of reduction (1)	Reference method of measurement
Biochemical oxygen demand (BOD5 at 20° C) without nitrification (2)	25 mg/l O ₂	70 - 90 40 under Article 4 (2)	Homogenized, unfiltered, undecanted sample. Determination of dissolved oxygen before and after five- day incubation at 20 °C ± 1 °C, in complete darkness. Addition of a nitrification inhibitor
Chemical oxygen demand (COD)	125 mg/l O ₂	75	Homogenized, unfiltered, undecanted sample Potassium dichromate
Total suspended solids	35 mg/l (3) 35 under Article 4 (2) (more than 10,000 p.e.) 60 under Article 4 (2) (2,000-10,000 p.e.)	90 (3) 90 under Article 4 (2) (more than 10,000 p.e.) 70 under Article 4 (2) (2,000-10,000 p.e.)	- Filtering of representative sample through a 0.45 µm filter membrane. Drying at 105 °C and weighing - Centrifuging of a representative sample (for at least five mins with mean acceleration of 2,800 to 3,200 g), drying at 105 °C and weighing

(1) Reduction in relation to the load of the influent.

(2) The parameter can be replaced by another parameter: total organic carbon (TOC) or total oxygen demand (TOD) if a relationship can be established between BOD5 and the substitute parameter.

(3) This requirement is optional.

Analyses concerning discharges from lagooning shall be carried out on filtered samples; however, the concentration of total suspended solids in unfiltered water samples shall not exceed 150 mg/l.

- **For discharges from urban waste water treatment plants to sensitive areas which are subject to eutrophication (human-induced enrichment with nutrients):**

Table 2: Requirements for discharges from urban waste water treatment plants to sensitive areas which are subject to eutrophication as identified in Annex II.A (a). One or both parameters may be applied depending on the local situation. The values for concentration or for percentage of reduction shall apply.

Parameters	Concentration	Minimum percentage of reduction (1)	Reference method of measurement
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Table 2: Requirements for discharges from urban waste water treatment plants to sensitive areas which are subject to eutrophication as identified in Annex II.A (a). One or both parameters may be applied depending on the local situation. The values for concentration or for percentage of reduction shall apply.

Total phosphorus	2 mg/l P (10,000 – 100,000 p.e.) 1 mg/l P (more than 100,000 p.e.)	80	Molecular absorption spectrophotometry
Total nitrogen (2)	15 mg/l N (10,000 – 100,000 p.e.) 10 mg/l P (more than 100,000 p.e.) (3)	70-80	Molecular absorption spectrophotometry

(1) Reduction in relation to the load of the influent.

(2) Total nitrogen means: the sum of total Kjeldahl-nitrogen (organic n + NH₃), nitrate (NO₃) nitrogen and nitrite (NO₂) nitrogen.

(3) Alternatively, the daily average must not exceed 20 mg/l N. This requirement refers to a water

temperature of 12 °C or more during the operation of the biological reactor of the waste water treatment plant. As a substitute for condition concerning the temperature, it is possible to apply a limited time of operation, which takes into account the regional climatic conditions. This alternative applies if it can be shown that paragraph 1 of Annex I.D is fulfilled.

Several pieces of European Union legislation contain provisions aimed at protecting surface waters from chemical pollution, as the provisions in the Water Framework Directive 2000/60/EC (WFD). The WFD covers surface water pollutants in two ways – by identifying and regulating those of greatest concern across the European Union (EU) (the priority substances – listed in Annex X to the WFD) and by requiring Member States to identify substances of national or local concern (river basin specific pollutants – included by Member States in their River Basin Management Plans). Measures must be taken to reduce the emissions, discharges and losses of the priority substances and to phase out those of the most harmful (the priority hazardous substances). Member States must ensure that the Environmental Quality Standards (EQS) for the priority substances, set in the Environmental Quality Standards Directive, are met in order to achieve good chemical status in accordance with WFD Article 4 and Annex V point 1.4.3. They must set and meet EQS for the river basin specific pollutants as a component of ecological status. The list of priority substances has to be reviewed every six years. In order to improve the information available to identify the substances of greatest concern, a Watch List mechanism was established in 2013. This requires Member States to monitor substances of potential concern for up to four years to determine whether there is a risk. The work on the priority substances list and watch list, and the implementation of the WFD as regards chemicals in surface waters, is supported by the Common Implementation Strategy Working Group Chemicals. In order to improve the quality of the monitoring data obtained under the WFD, the Commission adopted Directive 2009/90/EC, the so-called “quality assurance, quality control” Directive. Further reading on <https://ec.europa.eu/environment/water/water-dangersub/index.htm>

Currently, Spain is developing, between the Ministry of Health and Ministry of Ecological Transition and Demographic Challenge, an Early Warning System of surveillance of outbreaks and pandemics such as SARS-CoV-2 (VatAR project).

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).

See Target 4.





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

In order to achieve the targets, the following measures are proposed:

No.	Measures and activities	Time frame	Responsibility
1.	Development/ Maintenance of the National Discharge Census	Annually	- General Directorate of water - Autonomous Communities - River Basin Authorities
2.	Inspection actions by the river basin authorities to control all discharges	Annually	- River Basin Authorities
3.	Measures included in the RBMPs and DSEAR Plan	Up to 2027	- General Directorate of water - Autonomous Communities
4.	Follow-up of the Early Warning System for virus, bacteria and parasites related with outbreaks and pandemics	2025	- Autonomous Communities - Ministry of Health - Ministry of Ecological Transition and Demographic Challenge

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





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

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.

Last solid data arrive until the end of 2012, showing big efforts and legislative modifications in order to achieve the ambitious European goals.

Royal Decree 1310/1990 on Use of Sewage Sludge on Agriculture, is improving the release of information from the treatment plans both in quantity and quality, being these plans obliged to inform each year of the work carried out. Also they must inform on the final destination of the Sewage Sludge, improving therefore, the transparency of the whole process.

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	85% of Sewage sludge valorization in agriculture 15% incineration	2020	National and regional governments

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).

- National Act 22/2011 on Waste Generation and Polluted Soils.
- Royal Decree 1310/1990 on Use of Sewage Sludge on Agriculture.
- Ministerial Order AAA/1072/2013 Standardizing Sewage Sludge Management for agriculture use.

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

In order to achieve the targets the following measures are proposed:

No.	Measures and activities	Time frame	Responsibility
1.	New web tools Inter-administrations coordination Standardization tools and guidelines Basic legislation revision Studies on new treatments Improve the inspection role	From 2013 on	National and Regional governments





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 2007 the Spanish Government established the basic conditions for the reuse of water, specifying the water quality required for treated wastewaters according to the uses considered. Royal Decree 1620/2007 established the quality criteria for the reuse of water for irrigation purposes. Water stress is already a reality today in the EU, so the European Commission embarked in 2012 in a series of actions in order to prepare operators and farmers to be ready to act also in those parts of the EU which will experience increasing water stress in the coming years and decades. The need to address the problem at EU level was acknowledged in the 2012 Commission Communication "A Blueprint to Safeguard Europe's Water Resources" (COM(2012) 673). A Fitness check of EU Freshwater policy (SWD(2012) 393) published in November 2012 as a building block of the Blueprint, concluded that "alternative water supply options with low environmental impact need to be further relied upon" in order to address water scarcity. A number of actions to promote water reuse were included in the Communication from the Commission "Closing the loop – An EU action plan for the circular economy" (COM(2015) 614), including an action to prepare a legislative proposal on minimum requirements for water reuse for irrigation and groundwater recharge. Such legislative act has been recently passed by the European Parliament and the Council as Regulation (EU) 2020/741 of 25 May 2020 on minimum requirements for water reuse (addressing agricultural use).

The Regulation sets out: Harmonised minimum water quality requirements for the safe reuse of treated urban wastewaters in agricultural irrigation; harmonised minimum monitoring requirements, notably the frequency of monitoring for each quality parameter, and validation monitoring requirements; risk management provisions to assess and address potential additional health risks and possible environmental risks; permitting requirements; provisions on transparency, whereby key information about any water reuse project is made available to the public. The new rules are to be situated in the context of the new Circular Economy Action Plan adopted in 2020, which includes the implementation of the new Regulation amongst Europe's priorities for the circular economy. The Action Plan also announces that the Commission will facilitate water reuse and efficiency in other sectors, including in industrial processes.

All RBMPs in Spain take into account direct water reuse as one of the potential sources for particular uses. However there is still an important and strategic potential for further volumes of regenerated water to be reused, being one of the objectives of the DSEAR Plan the promotion of water reuse, and also the full implementation.

Target on this issue:

No.	Targets	Target dates	Responsibility
1.	Quality requirements in Annex I of Regulation 2020/741: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0741&from=EN	26 June 2026 and every six years	DG Water and Ministry of Health
2.	Development of Water Reuse Risk Management Plans according to art. 5 and Annex II of Regulation 2020/741	26 June 2023	DG Water and Ministry of Health





No.	Targets	Target dates	Responsibility
	https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0741&from=EN		

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).

- **Regulation (EU) 2020/741 minimum requirements for water reuse**
- **Royal Decrees which pass RBMPs for the cycle 2021-2016 and DSEAR Plan (see target 4)**

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

In order to achieve the targets the following measures are proposed:

No.	Measures and activities	Time frame	Responsibility
1.	Compliance with quality and requirements of Regulation 2020/741: Set up and publish a data set containing information on the outcome of the compliance check	26 June 2026 and every six years	- General Directorate of water - Ministry of Health - Regional Government
2.	Promotion of water reuse through RBMPs and DSEAR Plan	Up to 2027	- General Directorate of water - Autonomous Communities

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





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

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 targets regarding drinking water are related to those established in articles 6 and 7 of Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (WFD):

- Identification and register, as protected areas, of waters used for the abstraction of drinking water by the revision of available water registers in the river basins, including:
 - all bodies of water used for the abstraction of water intended for human consumption providing more than 10 m³ a day as an average or serving more than 50 persons, and
 - those bodies of water intended for such future use.
- Assessment and implementation of the water quality monitoring programmes of waters used for drinking water abstraction.

The monitoring sites are set in those water bodies which provide more than 100 m³ a day as an average.

In accordance with the article 7 of WFD, the quality criteria of waters used as sources for drinking water will meet the objectives set for all of the surface water bodies and the Member.

The targets set in Spain according to current legislation (Water Framework Directive, article 6 and 7 and Royal Decree 1541/94, article 1) are:

No.	Targets	Target dates	Responsibility
1.	Follow-up of RBMPs regarding protection of areas of abstraction of water intended for human consumption	Up to 2027	- General Directorate of Water - Autonomous Communities - River Basin Authorities
2.	Development of water safety plans for the catchment area according to legislation	Since the approval of the legislation	- DG Water and Ministry of health

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).

- a) Amendments of Royal Legislative Decree 1/2001, of 20 July, approving the consolidated text of the Water Law, the Public Water Rules and Regulations of Water Planning.
- b) Royal Decree 60/2011, of 22 January, on environmental quality standards in the field of water policy.
- c) Royal Decree 907/07, of 6 July, with the Spanish Regulation for Water Planning.
- d) Order ARM/2656/2008, of 10 September, where Water Planning Instructions are approved.





- e) Royal Decree 1541/94, of 8 July, amending Annex No. 1 of the Regulation of the public water administration and water planning, approved by Royal Decree 927/1988, of July 29.
- f) Application of criteria for water quality established in the Royal Decree 140/2003, of 7 February, establishing the health criteria for water quality for human consumption.
- g) 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.

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

In order to achieve the targets, the following measures are proposed:

No.	Measures and activities	Time frame	Responsibility
1.	Creation and update of a register of protected areas which will include waters used for the abstraction of drinking water	2009	- River Basin Authorities
2.	Implementation of the water quality monitoring programmes	2007	- River Basin Authorities
3.	Revision of monitoring programmes in order to comply with legal requirements and/or improve the control over waters used for the abstraction of drinking water	Every 6 years	- River Basin Authorities
4.	Provision of measures in River Basin Management Plans in order to prevent the deterioration of the quality of water used for this purpose, thus contributing to reduce the level of purification treatment required to produce drinking-water sources	Every 6 years	- River Basin Authorities
5.	Periodic report of analytic results on waters abstracted for this purpose to Health Authorities	Periodic	- River Basin Authorities

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

Spain thus contributes to the achievement of Goal 6 of the 2030 SDA, guaranteeing, through management and inspection, high consumption drinking water to a massive part of the Spanish population, both in rural and urban areas.





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

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.

Due to the importance of the use of bathing water areas for human health, it is necessary to establish the quality health standards at national scale. These criteria will be applied to bathing waters and in those cases where there is not a specific bathing prohibition or a permanent advice against it.

Targets are set according to the Directive 2006/7/EC, of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/ECC, and transposed to the Spanish National Legislation by Royal Decree 1341/2007, of October, 11 concerning to the management of bathing water quality.

A system of bathing water profiles, appropriated to provide a better understanding of risks, is used as basis for management measures. Bathing water profiles were established for the first time before the start of the 2009 bathing season. The deadline for the updating of the bathing waters census or the profiles, if it is necessary, will be notified by March, 20 of each year.

All bathing waters were required to be classified as “sufficient” by 2015. National and regional authorities were involved in the implementation of the above targets.

The recasted Bathing Water Directive entered into force on March, 24, 2006. The overall objective of the revised Directive remains the protection of public health whilst bathing, but it also offers an opportunity to improve management practices at bathing waters and to standardize the information provided to bathers across Europe.

The targets set in Spain, according to current legislation are:

- To Register of all bathing waters, according to 2006/7/CE Directive (bathing water) and supply more information so the public can choose where to bathe.
- Improvement and maintenance of the National Information System of Bathing Waters (NAYADE).
- To update of the Bathing Water Profiles.
- To improve the infrastructures where the quality of the bathing water is insufficient or health risks have been detected.

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).

At legal/regulatory level, Spain took the following actions:

- Amendments of Royal Legislative Decree 1/2001, of July 20, approving the Water Law.
- Royal Decree 1341/2007, October 11, concerning to the management of bathing water quality.
- Amendments of Royal Decree 849/1986, of April 11, to regulate of Hydraulic Public Domain.

As management measures and information actions excel:

- Bathing Water Profiles of every bathing zone which were established for the first time before the start of the 2009 bathing season.





- Setting of the National Information System of Bathing Water called NAYADE.

<http://nayadeciudadano.sanidad.gob.es/>

NAYADE is a health information system that collects data on the quality of bathing water and the characteristics of beaches, both continental and maritime. It has been working since 2008.

The number of zones where bathing is allowed, according to current legislation, has increased from 1,941 in 2017 to 1,966 in 2020. However, the number of bulletins dropped from 23,969 in 2017 to 23,349 in 2020.

- Assessment of Cyanobacteria in inland bathing waters. Associated risks. Environmental risk management in inland bathing waters. Publication of a Spanish national guideline for assessing cyanobacteria blooms in inland waters: "*Catalogue of planktonic cyanobacteria potentially toxic in Spanish continental waters (2011)*".

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

In the last 20 years there has been an improvement in bathing water quality.

- Improved methods of analysis of the control parameters.
- Information is available about water quality and characteristics of the beach as the conditions that can affect the quality of more than 2,000 bathing water points.
- Improved access of information to citizens through NAYADE.
- Promotion of bathing water areas, health classification of bathing water is essential for classification of blue flags for beaches (www.adeac.es).

Data collected shows a very good quality of the coastal bathing areas, qualifying, in the year 2020, approximately 93% as excellent and 5% as good.

In terms of inland water bathing areas, the percentage of bathing waters suitable for use, according to current legislation, is approximately 80% in 2020.

The percentage of excellent coastal waters was more than 52% for that year. This keeps the same trend than last years.

The evolution of the bathing water quality according to the proposed indicators included in the updated document of Targets for the Protocol on Water and Health, indicating the year 2013 as the baseline is shown below:

1. **Indicator: Trend of inland bathing waters percentage qualified as "excellent".**

2013	2014	2015	2016	2017	2018	2019	2020
53.0	51.7	51.7	48.8	48.3	48.3	52.3	52.2

Source: Annual Report for Bathing Waters Quality 2020. (Table 44).

https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/aguasBanno/docs/calidad_aguas_ba no_accesible_2020.pdf





The impossibility of achieving the recommended social distancing measures during the COVID-19 pandemic was the main reason why it has gone from 5.3% of “Not qualifying” areas in 2019 to 14.1% in 2020.

The inland bathing waters quality regarding “*excellent value*” does not reflect a clear increasing trend.

2. Indicator: Trend of coastal bathing waters percentage classified as “excellent”.

2013	2014	2015	2016	2017	2018	2019	2020
88.0	86.9	88.4	88.7	90.5	92.2	93.2	93.4

Source: Annual Report for Bathing Water Quality 2020. (Table 46).

https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/aguasBanno/docs/calidad_aguas_ba no_accessible_2020.pdf

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

The effective control of the Goals and Indicators set by Spain provides the conservation of the Ocean and seas that surround the Iberian Peninsula as well as its marine resources for sustainable development according to Targets 14.1, 14.5.

The conservation of inland waters, with the monitoring and control of their associated infrastructures, provide protection and promotion of the sustainable use of the ecosystems associated with the banks of rivers and lakes in accordance with Goal 15 of the Agenda.





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

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.

Due to the importance of the use of bathing water areas for human health, it is necessary to establish the quality health standards at national scale. These criteria will be applied to bathing waters and in those cases where there is not a specific bathing prohibition or a permanent advice against it.

Targets are set according to the Directive 2006/7/EC, of 15 February, concerning the management of bathing water quality, repealing Directive 76/160/EEC, and transposed by Royal Decree 1341/2007, of 11 October, concerning the management of bathing water quality.

Target 1. Register of all bathing waters, as protected areas, according to article 6 of Water Framework Directive and supply more information so the public can choose where to bathe. Development of the National Information System of Bathing Waters (NAYADE)

Target 2. Development of Bathing Water Profiles by the Spanish river basin authorities:

A system of bathing water profiles, appropriate to provide a better understanding of risks, is used as basis for management measures. Bathing water profiles were established for the first time before the start of the 2009 bathing season. The deadline for developing profiles of all identified bathing waters is by the 20th of March each year.

The bathing water profile contains:

- o A description of the physical, geographical and hydrological characteristics of the bathing water, and of other surface waters in the catchment area of the bathing water concerned, that could be a source of pollution, which are relevant to the purpose of Directive 2006/7/EC and as provided for in Directive 2000/60/EC.
- o An identification and assessment of causes of pollution that might affect bathing waters and impair bathers' health.
- o An assessment of the potential for proliferation of cyanobacteria.
- o An assessment of the potential for proliferation of macro-algae and/or phytoplankton
- o If the assessment of causes of pollution shows that there is a risk of short-term pollution, the following information is required:
 - o The anticipated nature, frequency and duration of expected short-term pollution.
 - o Details of any remaining causes of pollution, including management measures taken and the time schedule for their elimination.
 - o Management measures taken during short-term pollution and the identity and contact details of bodies responsible for taking such action,
 - o The location of the monitoring point.





Target 3. Application of new water quality criteria and the pass/fail approach to classification based on four classes: poor/sufficient/good/excellent.

All bathing waters are required to be classified as 'sufficient' by 2015. National and regional authorities were involved in the implementation of the above targets.

The revised Bathing Water Directive entered into force on 24 March 2006. The overall objective of the revised Directive remains the protection of public health whilst bathing, but it also offers an opportunity to improve management practices at bathing waters and to standardise the information provided to bathers across Europe.

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).

Legal/regulatory actions:

- Amendments of Royal Legislative Decree 1/2001, of 20 July, approving the Water Law.
- Royal Decree 1341/2007, October 11, concerning the management of bathing water quality.
- Amendments of Royal Decree 849/1986, of April 11, to regulate of Hydraulic Public Domain.

Management measures and information actions:

- Bathing Water Profiles of all every bathing waters which were established for the first time before the start of the 2009 bathing season.
- NAYADE. National Information System of Bathing Waters

Assessment of Cyanobacteria in inland bathing waters. Associated risks. Environmental risk management in inland bathing waters. Publication of a Spanish national guideline for assessing cyanobacteria blooms in inland waters: "Catalogue of planktonic cyanobacteria potentially toxic in Spanish continental waters (2011)".

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

Over the last 20 years there has been an improvement of the quality of continental and coastal bathing waters.

Improvement of the analytical method of the control parameters.

Improvement of the notifications of information. Quality information of water and beach characteristics is available, as well as of the determinants that can modify the quality, in more than 2,000 bathing water points.

Improvement of citizens access to information through NAYADE.

Classification of most Spanish bathing water above the "sufficient" status.





The 2012 season was the second in which the criteria of the new legislation on bathing water have been applied. For that season's classification the values of the parameters *E. coli* and *Intestinal enterococci* from the three preceding bathing seasons were used, following the methods of assessment defined in Annexes I, II and IV of RD 1341/2007.

Classification of Spanish bathing water in 2012 season:

In inland waters, the distribution according to the classification of annual sampling points (230 SP) has been rated: Excellent: 54.0%, Good: 25.4%, Sufficient: 8.0%, Poor: 12.7%.

In marine waters, the distribution according to the classification of annual sampling points (1,926 SP) has been rated: Excellent: 88.9%; Good: 5.7%; Sufficient: 2.9%, Poor: 2.5%.

- Preparation of Environmental profiles of all bathing waters. Assessment of the potential for proliferation of Cyanobacteria-2009 Bathing Season. Cyanobacterial monitoring and Chlorophyll a analysis in bathing sites.

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





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

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.

Due to the importance of the use of swimming areas for human health, it is necessary to establish the quality health standards at national scale. The objective pursued is to protect users from possibly physical, chemical or microbiological risks to health derived from the use of facilities related to swimming pool water, to know their water quality and to guarantee the quality of the water and air without health risks.

Targets are set according to the Royal Decree 742/2013, September 27, which establishes the technical-sanitary criteria for swimming pools. The purpose of this Royal Decree is to establish the basic technical-sanitary criteria for the quality of the water and air in swimming pools in order to protect the health of users from possible physical, chemical or microbiological risks derived from their use. This regulation applies to any swimming pool for public use installed in Spanish territory or under the Spanish flag, excluding natural pools and thermal or mineral-medicinal pools.

Likewise, it establishes a series of criteria regarding actions and responsibilities (article 4), characteristics of swimming pools (article 5), water treatment (articles 6 and 7), personnel (article 8), laboratories and analysis methods (article 9), water and air quality (article 10), quality control (article 11) as well as the obligations regarding the notification of information to the authorities or general public (articles 12-15).

However, the different Autonomous Communities have legislated, within the scope of their powers, the legal and sanitary conditions that govern their swimming pools, so a harmonization of the measures is necessary.

Therefore, Spain has set the following targets:

- Improvement and maintenance of the National Information System in pools. (SILOE).
- To improve the implementation of regulations related to swimming pools.
- To improve the harmonization of regional regulations.
- To improve control and prevention against legionellosis.

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).

Information regarding swimming pools (water and air quality) is collected in SILOE.

<https://siloe.sanidad.gob.es/siloeWeb/index.jsp>

On the other hand, MHS has published a Guide for the elaboration of the swimming pool self-control protocol to make it easier for maintenance personnel their tasks related to minimize health risks.

Concerning to legal/regulatory actions as it is mentioned above, Spain has adopted multiple acts:

- Royal Decree 742/2013 of September 27, which establishes the technical-sanitary criteria for swimming pools.





- Regarding the mineral-medicinal waters that govern hot springs and spas, the control of legionellosis, Royal Decree 865/2003, establishes the hygienic-sanitary criteria for its prevention and control, even so, due to advances in technical and scientific knowledge, an updating of said regulation is necessary.

- Multiple regional regulations.

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

Several general goals have been achieved:

- Improvement in the management of health risks related to the use of swimming pools.
- In 2015, MHS started the development of a software tool in order to facilitate the preparation of a WSP for all Spanish public pools. This tool contributes to the improvement of risk management in pools, water parks, spas: establishment of corrective measures and application of preventive measures.

On the other hand, according to the Indicators updated in 2020, we proceed to evaluate the progress in recent years We proceed to evaluate the data:

1. Evolution of the number of swimming pools notified in SILOE (2014-2020).

The first year in which the data was obtained was 2014.

2014	2015	2016	2017	2018	2019	2020
2,486	6,310	6,841	7,233	7,392	7,759	7,983

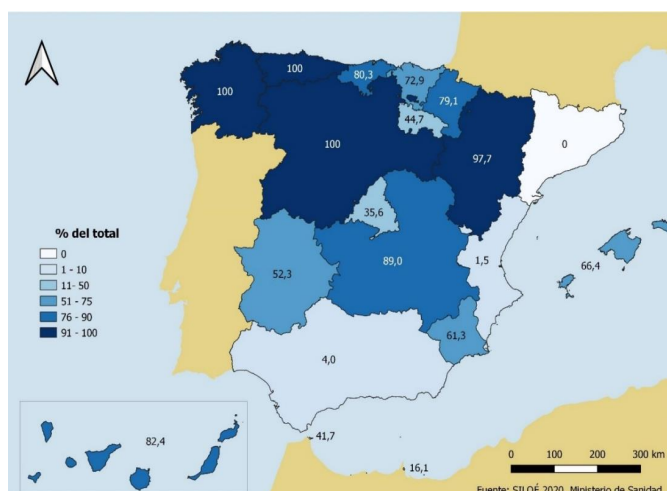
Source: *Annual Report for Spanish Swimming Pools Quality. 2020.* (Table 5).
https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/piscinas/pdf/INFORME_PISCINAS_2020_.pdf

It is not possible to calculate exactly, for the year 2020, the degree of compliance in the notification in accordance with Royal Decree 742/2013 because the data on the total number of swimming pools in Spain with the obligation to notify is not available. For this reason, the number of swimming pools declared in SILOE in each Autonomous Community has been compared with the Census of Swimming Pools and Sports Facilities collected by the Higher Sports Council (In Spanish, CSD), consulted. In this census, pools of Type 1 (public pool where the activity related to water is the main objective) and some of Type 2 (public pools that act as a supplementary service to the main objective) are collected, so the number actual pool total should be higher.

The differences observed between the pools declared in SILOE and the CSD Census (<https://escorpio.csd.gob.es/BusquedaPublicaMapa/Pages/PublicaAccesible.aspx?>) represent only a part with respect to the supposed sum of the pools Type 1 and Type 2 as a whole, so the percentage differences are underestimated.

Next, a map is represented where the % of swimming pools is represented in relation to the estimated total, taking into account the swimming pools registered by the CSD, by Autonomous Communities.





In the Autonomous Communities of Castile and Leon, Galicia and Asturias, the percentage exceeds 100% due to the fact that the CSD census does not include all swimming pools with an obligation to notify, mainly Type 2, as has already been mentioned.

2. Publication of the internal assessment report of SILOE.

In 2021, the internal report has been sent to the Autonomous Communities. This is the first year that SILOE has been internally assessed.

3. Publication of a new prevention regulation against legionellosis.

The Draft Royal Decree reinforcing the hygienic-sanitary criteria for the prevention and control of legionellosis was transferred to public information on February 22, 2021.

https://www.sanidad.gob.es/normativa/audiencia/docs/RD_CONTROL_LEGIONELOSIS.pdf

4. Nr of meetings of the Task Force on Environmental Health of MHS.

The number of meetings held within the Task Force on Environmental Health for the years 2019 – 2020 is presented below.

	2019	2020	2021
Nr of meeting	3	2	2

Internal source

In this cycle period of the Protocol on Water and Health, the number of meetings of the Task Force on Environmental Health in which some issues related to water have been discussed have been maintained.

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





By 2030, provide universal access to safe, inclusive and accessible green areas and public spaces, in particular for women and children, older adults and people with disabilities in accordance with Goal 11 of the SDGs, in particular Targets 11.1 and 11.7.





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

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.





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

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.

Management, protection and use of water resources are encompassed within the objectives established by the European Water Framework Directive. This European requirement establishes that water management is to be carried out at river basin district level, including coastal waters, through the development of river basin management plans and programmes of measures.

The Directive establishes a general objective, which is to achieve by 2015 the good status in all water bodies in Europe. In the case of surface water bodies, this means that good ecological status and good chemical status have to be achieved. Regarding artificial and heavily modified water bodies, the good ecological potential and good chemical status have to be reached. And, with respect to groundwater bodies, the good quantitative status and good chemical status have to be achieved.

In some cases, the normative allows to establish objectives that are different to the main one. In those water bodies, in which general environmental objectives are not achieved, it is possible to establish exceptions; there are four possible exceptions:

- The deadlines established may be extended (for reasons of technical feasibility, disproportionate costs, or because natural conditions do not allow timely improvement in the status of the body of water) for the purposes of phased achievement of the objectives for bodies of water,
- The environmental objectives may be less stringent.
- Temporary deterioration in the status of bodies may be allowed.
- Failure to achieve good status as a result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater or new sustainable human development activities.

Several exceptions have been applied in Spain both in surface water bodies and groundwater bodies.

Management process is cyclical (every 6 years) and the main tool to achieve the goals is the "River Basin Management Plan". The first management cycle covers the following deadlines: identification of River Basin Districts (RBD) and Authorities, characterization of river basin regarding pressures, impacts and economic analysis, finalisation and publication of the river basin management plan including the program of measures by 2009; to establish operational programmes of measures by 2012 and to meet environmental objectives by 2015.

Once the second management cycle is finished (2015-2021), a third management cycle (2021-2027) will begin; during this cycle river basin management plans and programmes of measures will be reviewed.

On the other hand, there are also agreements with neighboring countries to manage international river basin districts, such as the Spanish-Portuguese.

Albufeira Convention and the Spanish-French Toulouse Convention. Besides, other international treaties are focused on the maintenance and improvement of different aquatic ecosystems taking into consideration health and environmental issues. These international treaties are also contributing to fulfill the requirements of the health-environment nexus (such as the OSPAR convention on the North Atlantic Ocean, the Barcelona Treaty on the Mediterranean Sea and others).





Apart from the WFD there are other regulations related to water quality, whose objectives have been detailed in other sections.

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).

Legal/ regulatory actions:

- 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.
- Law 62/2003, of 30 December 2003, on fiscal measures, administrative measures and social order, which modified the text of the Water Law, approved by Royal Legislative Decree 1/2001, of 20th July. (Transposition of the Water Framework Directive through the article 129).
- Royal Decree 125/2007, which established the territorial jurisdiction of the RBD.
- Royal Decree 126/2007, which determinates the Committee of Competent Authorities.
- ORDER ARM/2656/2008, of 10th September, in which Water Planning Instructions are approved.

Each river basin authority establishes a plan and a program of measures for each River Basin District.

During such an ambitious planning process, it has been proven complex to coordination all the stakeholders and difficult to meet the deadlines established.

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

In the last years, Spain has been making a great effort in the development of the river basin management plans compliant with article 13 of the WFD. The second cycle of river basin management is in progress and the third cycle is now starting. The main objectives in this third cycle is to achieve a better understanding of the economic issues on water management and also to perform a streamlining process with the current European and international policies on climate change and energy.

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





XX. Additional national or local specific targets

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 current target proposed by the Government of Spain was the creation of a surveillance system for genetic material in wastewater in the face of the expansion of the SARS-CoV-2 pandemic in accordance with the international scientific community and the recommendations of the European Commission that could complement the clinical detection work and anticipate possible waves of the pandemic.

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).

Initially, this information system was created to control SARS-CoV-2 in wastewater as a complement to clinical surveillance and public health surveillance. However, this system aims to go further. Thus, the Wastewater-Based Epidemiological Tool (In Spanish, HEBAR) is an environmental health information system that collects the characteristics of the urban wastewater treatment and sanitation system and the levels of certain health parameters in the wastewater that it helps to monitor. epidemics or outbreaks caused by pathogens or drugs such as antibiotics to help the antibiotic resistance strategy or other emerging substances that are necessary to control in wastewater.

For the development of the system and its homologation at an international level, Spain has participated actively and since its inception in the forums and meetings organized by the European Commission, like other international organizations or the sector. MSAN and MITERD are national focal points at these meetings.

In 2021, Spain was granted aid from the Emergency Funds of the European Commission in its fight against COVID-19 (No 0600701/2021/864477/SUB/ENV.C2) "Support to the Member States to establish national systems, local collection points, and digital infrastructure for Monitoring Covid 19 and its variants in waste waters". This aid reinforces the work carried out by Spain in this regard.

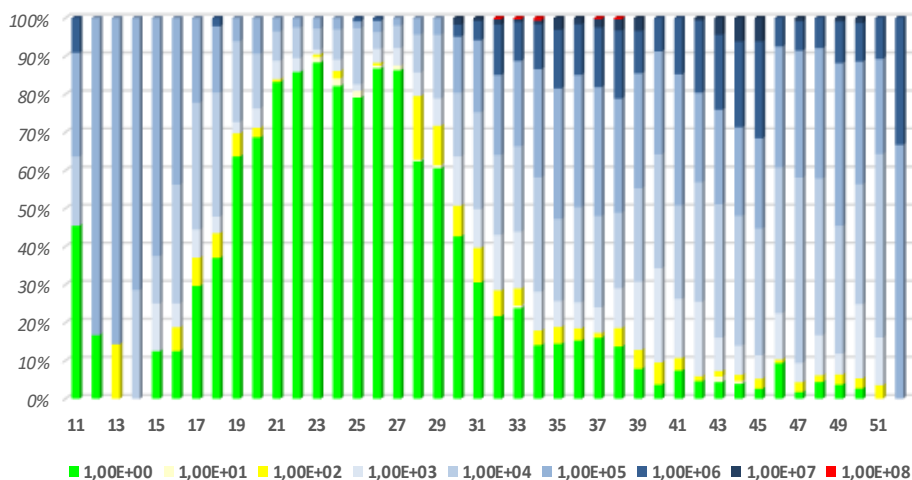
3. Please assess the progress achieved from the baseline towards meeting the target as well as any challenges encountered.

This system, in collaboration between the MSAN and the MITERD, has allowed to monitor the weekly variation in the concentration of genetic material of SARS-CoV-2 in the Spanish Wastewater Treatment Plants (WWTPs) as an indicator of the circulation of the virus in the population and the expansion of the different variants of interest and concern along the waves of the pandemic.

In 2020, 193 WWTPs were monitored in 360 SP with a total of 6,026 samples over 42 weeks with a population coverage of 37%.

The following graph shows the weekly concentration of genetic material in wastewater both at the WWTP inlet and in the sanitation network.

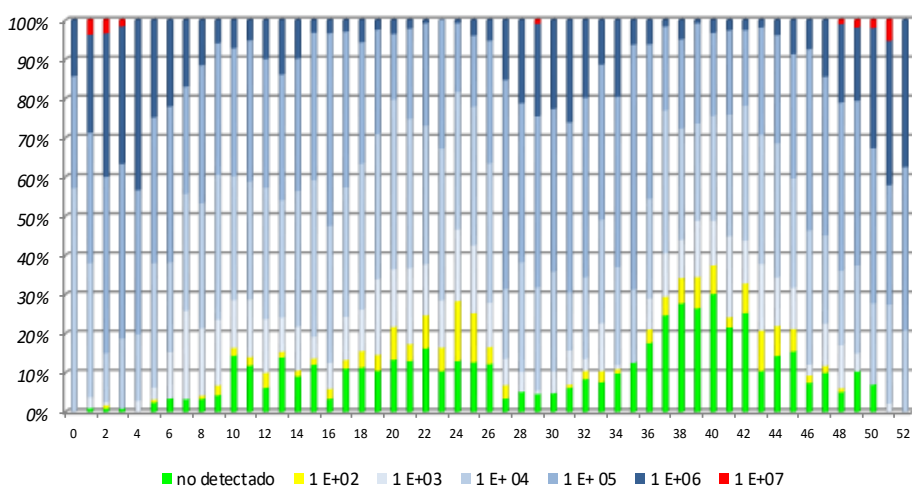




The evolution of the concentration in the period of confinement is perfectly observed and when the confinement is over, the concentration of genetic material of SARS-CoV2 in wastewater begins to rise. In week 27 began July 2020.

In 2021, 136 WWTPs were controlled in 155 SP with a total of 6,645 samples over 53 weeks with a population coverage of 35.4%.

The following graph shows the variations in the concentration of genetic material of SARS-CoV-2 in wastewater on a weekly basis and which coincides with the pandemic waves of 2021.



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

Undoubtedly, this objective is directly related to SDG 3, "Ensure a healthy lives and promote well-being for all at all ages" specifically in respect of Target 3.9 "By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination"





Part three. Common indicators¹

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 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).

The population covered in 2020 by WSZ and notified in SINAC (not all the supplies zones have the obligation to notify to SINAC) was 84.1% (47,450,795) of the reference population published by INE.

The relevant information on water quality has been extracted from SINAC.

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.

For drinking water, 10,708 WSZ were surveyed in 2020. By volume of water distributed per day, 39.86% of the supply zones correspond to the range of 10 to 100 m³. By population, 39.43% of the total people surveyed correspond to the range of 10,000 to 100,000 m³ with 16,207,014 inhabitants.

WSZ greater than 5,000 inhabitants represent 8.9% and 87.6% of the population surveyed while the WSZ less than or equal to 5,000 inhabitants correspond to 91.1% and 12.4% of the population.

A table with the number and type of SP notified for the year 2020 is presented below.

Type of SP	Nr. SP	%Nr. SP	SP with analysis	% SP with analysis
Catchment	21,753	11.0	3,302	15.18
Mains	1,416	NA	44	3.11
Treatment	2,847	1.4	1,113	39.09
Reservoir	32,758	16.5	18,580	56.72
Tanker	292	NA	41	14.04
Distribution system	43,475	22.0	24,398	56.12

¹In 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.





Type of SP	Nr. SP	% Nr. SP	SP with analysis	% SP with analysis
Point of consumption	95,502	48.2	22,391	23.45
Others	NA	0.9	NA	NA
TOTAL	198,043	100	69,869	35.28

NA: data not available

Source: National Report for Consumption Water Quality. 2020. (Table 65).

(https://www.sanidad.gob.es/profesionales/saludPublica/docs/INFORME_AC_2020_ANEXO_II_TABLAS_.pdf)

In 2005, SINAC had recorded 3,215 WSZ, of which 82% reported analytical results.

Moreover, in that year, the following figures were obtained:

Type of SP	Nr. SP	% Nr. SP	SP with analysis	% SP with analysis
Catchment	NA	1.4	NA	NA
Mains	NA	NA	NA	NA
Treatment	604	2.8	NA	NA
Reservoir	5,323	25.7	NA	NA
Tanker	9	< 1	NA	NA
Distribution system	8,555	40.7	NA	NA
Point of consumption	1,886	29.5	NA	NA
TOTAL	16,847	100	16,377	97

NA: data not available

Source: National Report for Consumption Water Quality. 2005. (pages 17-18).

(https://www.sanidad.gob.es/profesionales/saludPublica/docs/Calidad_agua_consumo_Informe_Trienio2005-07.pdf)

As it can be seen in the 2 tables above, the number of SP has increased exponentially since 2005. With the improvements introduced in 2013 with version 2 of SINAC, the obligation to notify the pipes associated with catchments was imposed and the system improved regarding the traceability of the analytical bulletins and WSZ.

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.²

² 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/.





Annex I

Parameters and Parametric Values.

A. Microbiological Parameters.

	Parameter	Parametric Value	Notes
1	<i>Escherichia coli</i>	0 CFU/100 ml	
2	Enterococci	0 CFU/100 ml	
3	<i>Clostridium perfringens</i> (Including spores)	0 CFU/100 ml	1 and 2

NOTES:

- (1) When the determination is positive and the turbidity is greater than 5 NTU, cryptosporidium or other microorganisms or parasites must be investigated in the water ex Drinking Water Treatment Plant (DWTP) or reservoir, if the health authority deems it appropriate.
- (2) Until the 1 of January 2004 *Clostridium sulfite reductase* could be measured instead of *Clostridium perfringens*. The conditions described in note 1 and the parametric value will be the same for both.

B.1. Chemical parameters.

	Parameter	Parametric Value	Notes
4	Antimony	5.0 µg/l	
5	Arsenic	10 µg/l	
6	Benzene	1.0 µg/l	
7	Benzo(a)pyrene	0.010 µg/l	
8	Boron	1.0 mg/l	
9	Bromate	10 µg/l	1
10	Cadmium	5.0 µg/l	
11	Cyanide	50 µg/l	
12	Copper	2.0 mg/l	
13	Chromium	50 µg/l	
14	1,2-Dichloroethane	3.0 µg/l	
15	Fluoride	1.5 mg/l	
16	Polycyclic aromatic hydrocarbons (PAH) Sum of:		
	Benzo(b)fluoranthene	0.10 µg/l	
	Benzo(ghi)perylene		
	Benzo(k)fluoranthene		
	Indeno(1,2,3-cd)pyrene		
17	Mercury	1.0 µg/l	
18	Microcystin	1 µg/l	2
19	Nickel	20 µg/l	
20	Nitrate	50 mg/l	3





	Parameter	Parametric Value	Notes
21	Nitrites	0.5 mg/l	3 and 4
22	Pesticides - Total	0.50 µg/l	5 and 6
	Individual pesticide	0.10 µg/l	
	Except for the case of:		
23	Aldrin	0.03 µg/l	6
	Dieldrin	0.03 µg/l	
	Heptachlor	0.03 µg/l	
	Heptachlor epoxide	0.03 µg/l	
24	Lead	10 µg/l	
25	Selenium	10 µg/l	
26	Trihalomethanes (THMs): Sum of:	100 µg/l	7 and 8
	Bromodichloromethane	µg/l	
	Bromoform	µg/l	
	Chloroform	µg/l	
	Dibromochloromethane	µg/l	
27	Trichloroethene + Tetrachloroethene	10 µg/l	

NOTES:

- (1) It shall be measured when ozone is used in the purification of drinking water and it shall be measured at least in the water ex Drinking Water Treatment Plant (DWTP).
- (2) It shall be only measured if there is reason to suspect of eutrophication in water from the catchment, microcystin shall be measured in the water ex DWTP or water tower.
- (3) The condition that $[\text{nitrate}]/50 + [\text{nitrite}]/3 < 1$, the square brackets signifying the in mg/l for nitrate (NO_3) and nitrite (NO_2), must be met.
- (4) Necessary only when chloramination is used as a disinfectant.
- (5) The sum of all pesticides defined in Article 2 (10), which are likely to be present in water.
- (6) Autonomous Communities shall ensure that necessary measures are taken in order to make them available to the health authority and the suppliers of the water supply, the list of plant protection pesticides mainly used in each one of the seasons against agricultural plagues and that they may be present in the water resources likely to be used for the production of water intended for human consumption.
- (7) Shall be measured when chlorine or its derivatives are used in the purification treatment.
If chlorine dioxide is used, chlorites in the water ex DWTP or water tower shall be measured.
- (8) Whenever the levels are above the parametric value, 2,4,6-trichlorophenol or other by-products of the disinfection shall be measured in the water ex DWTP or water tower.

B.2. Chemical Parameters that are monitored according to specifications of the product.

	Parameter	Parametric Value	Notes
28	Acrylamide	0.10 µg/l	1
29	Epichlorohydrin	0.10 µg/l	1
30	Vinyl chloride	0.50 µg/l	1





NOTE

(1) These parametric values refer to the residual monomer concentration in the water as calculated according to specifications of the maximum release from the corresponding polymer in contact with the water.

The company that commercialises these products shall provide water suppliers and the fitters of the installations within the premises with the documentation that credits the maximum release of the commercial product that is in contact with the water intended for human consumption when it is used according to the specifications of use provided by the manufacturer.

C. Indicator parameters.

	Parameter	Parametric Value	Notes
31	Coliform bacteria	0 CFU/100 ml	
32	Colonycount 22 °C	100 CFU/1 ml	
33	Aluminum	200 µg/l	
34	Ammonium	0.50 mg/l	
35	Total organic carbon	No abnormal change	1
36	Residual combined chlorine	2.0 mg/l	2, 3 and 4
37	Residual free chlorine	1.0 mg/l	2 and 3
38	Chloride	250 mg/l	
39	Colour	15 mg/l Pt/Co	
40	Conductivity	2,500 µS/cm at 20 °C	5
41	Iron	200 µg/l	
42	Manganese	50 µg/l	
43	Odour	3 at 25°C Index of dilution	
44	Oxidisability	5.0 mg O ₂ / l	1
45	pH:		5 and 6
	Minimum parametric value	6.5 pH units	
	Maximum parametric value	9.5 pH units	
46	Taste	3 at 25 °C Index of dilution	
47	Sodium	200 mg/l	
48	Sulphate	250 mg/l	
49	Turbidity:		
	At the ex ETAP and/or reservoir	1 NTU	
	In the distribution network	5 NTU	

NOTES:

- (1) Total organic carbon shall be measured for supplies of more than 10,000 m³ a day otherwise oxidisability shall be measured.
- (2) The parametric values refer to levels in the distribution network. These parameters could be also analysed in situ. In a food-production undertaking, this parameter need not be measured in water of the food processes.
- (3) It shall be analysed when chlorine or its by-products are used in the water purification treatment. If chlorine dioxide is used, chlorites shall be measured in the water ex DWTP.





- (4) *It shall be measured only when chloramination is used as a disinfectant.*
- (5) *The water should not be corrosive nor contain incrusting substances. The result to calculate the Index of Langelier should be included between +/- 0.5.*
- (6) *For a food-production undertaking, the minimum value may be reduced to 4.5 pH units.*

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.

Parameter	Area/category	Baseline value (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
<i>E. coli</i>	Total	0.24% (2007)	0.18% (2017)	6.59% (2020)
	Urban (>5,000 inhabitants)		0.03%	8.39%
	Rural (<5,000 inhabitants)		0.43%	6.37%
<i>Enterococci</i>	Total	0.2% (2007)	0.33% (2017)	2.9% (2020)
	Urban		0.10%	4.88%
	Rural		0.61%	2.58%
<i>Clostridium perfringens</i>	Total	0.41% (2007)	0.19% (2017)	5.1% (2020)
	Urban		0.11%	13.48%
	Rural		0.34%	4.05%
Additional parameter 3	Total			
	Urban			
	Rural			

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.

Parameter	Area/category	Baseline value (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
Arsenic	Total	0.05% (2007)	0.7% (2017)	1.26% (2020)
	Urban (>5,000 inh.)	-	0.07%	0.45%
	Rural (<5,000 inh.)	-	1.3%	1.4%
Fluoride	Total	0.33% (2007)	0.38% (2017)	1.08% (2020)
	Urban	-	0.11%	0.78%
	Rural	-	0.73%	1.13%
Lead	Total	0.18% (2007)	0.29% (2017)	1.28% (2020)
	Urban	-	0.30%	3.15%
	Rural	-	0.28%	0.99%
Nitrate	Total	1.75% (2007)	2.18% (2017)	4.26% (2020)
	Urban	-	-	3.21%
	Rural	-	-	4.43%
THM	Total	9.48% (2014)	1.12% (2017)	4.59% (2020)
	Urban	-	1.09%	10.53%
	Rural	-	1.15%	3.6%
Iron	Total	-	0.84% (2011)	2.82% (2020)
	Urban	-	-	5.74%
	Rural	-	-	2.38%





II. Outbreaks and incidence of infectious diseases related to water

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	0.49 (2009)	0.63 (2016)	1 (2019)	5 (2009)	3 (2016)	0 (2019)
Enterohaemorrhagic <i>E. coli</i> infection	0 (2010)	0 (2016)	0.62 (2019)	0 (2010)	0 (2016)	0 (2019)
Typhoid fever	0.16 (2009)	0.12 (2016)	0.07 (2019)	3 (2009)	0 (2016)	0 (2019)
Viral hepatitis A	5.94 (2009)	2.8 (2016)	2.01 (2019)	97 (2009)	3 (2016)	0 (2019)
Legionellosis	2.5 (2009)	2.03 (2016)	3.28 (2019)	57 (2010)	21 (2016)	1 (2019)
Cryptosporiosis	57 cases (2010)	243 cases (2016)	2.05 (2019)	0 (2010)	1 (2016)	0 (2019)
Giardiasis	-	-	10.07 (2019)	-	-	0 (2019)
Norovirus	-	-	-	-	-	2 (2019)
Intestinal disease	-	-	-	-	-	3 (2019)

Data source, 2019-2021 period: CNE (ISCIII).

The provisional results in incidence rate per 100,000 inhabitants for the period 2019-2021 are represented below.

Disease	Incidence rate per 100,000 population (all exposure routes)		
	2019	2020	2021
Shigellosis	1	0.32	0.53
Enterohaemorrhagic <i>E. coli</i> infection	0.62	0.37	0.35
Typhoid fever	0.07	0.04	0.03
Viral hepatitis A	2.01	0.64	0.42
Legionellosis	3.28	2.86	3.95
Cryptosporiosis	2.05	0.33	0.24
Giardiasis	10.07	2.62	2.46
Norovirus	-	-	-
Intestinal disease	-	-	-

Data Source: CNE (ISCIII).

2020 and 2021 data have been affected by the COVID-19 pandemic. Some Autonomous Communities have not reported the cases for 2020, to which are added those that have not reported data for 2021.





To calculate the rates, the population of the Autonomous Communities that have reported cases has been taken into account, but in 2021 it is not known if several Autonomous Communities have not reported cases or have truly not counted any.

Norovirus infection or intestinal disease are not monitored as isolated cases, so there is no information on these diseases; only information on outbreaks is available, since outbreak surveillance does include those produced by any agent.

No outbreaks caused by water have been reported in either 2020 or 2021. However, there are still many Autonomous Communities that have not reported outbreaks in 2020 or 2021.





III. 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)
Total	99.99% (2006)	99.99 (2017)	99.92% (2020) (sdg6data.org) 99.9% (2020) (https://washdata.org/data/household#!/esp) JMP
Urban (>5,000 inhabitants)	100%	100%	99.91% (2020) (sdg6data.org) 99.9% (2020) (https://washdata.org/data/household#!/esp) JMP
Rural (<5,000 inhabitants)	99%	99%	100% (sdg6data.org) 100% (https://washdata.org/data/household#!/esp) JMP

☐ 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.

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.

Percentage of population with access to sanitation	Baseline value (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
Total		95.06%	99.72% (2018)
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





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 water³ falling under each defined class (e.g., for European Union countries and other countries following the European Union Water Framework Directive⁴ 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

(i) Ecological status of surface water bodies

Information provided is referred only to two categories or ecological status: “good or better” and “moderate or worse”. The results are derived from the combination of different indicators, varying in each water body.

Percentage of surface water classified as:	Baseline value (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
High or good status		56.41% (year 2015)	60.3% (2020)
Moderate, poor or bad status		43.59% (year 2015)	39.7% (2020)
Total number/volume Classified of bodies		5,015 (year 2015)	
Total number/volume of water bodies in the country		5,122 (year 2015)	5,162 (year 2020)

(ii) Chemical status of surface water bodies

Percentage of surface water bodies classified as	Baseline value (specify year)	Value reported in the previous reporting cycle (specify year)	Current value (specify year)
Good status		92.65% (year 2015)	88.8% (year 2020)
Poor status		7.35% (year 2015)	15.2% (year 2015)
Total number/volume of water bodies classified		4,831 (year 2015)	
Total number/volume of water bodies in the country		5,122 (year 2015)	5,162 (2020)

³ Please specify.

⁴ 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.





(iii) Status of groundwaters

Percentage of groundwaters classified as	Baseline value (specify year)	Value reported in the previous reporting cycle (specify year)	Current (specify year)	value
Good quantitative status		75.4% (year 2015)	73.9% (year 2020)	
Good chemical status		65.02% (year 2015)	64.0% (year 2020)	
Poor quantitative status		24.6% (year 2015)	26.1% (year 2020)	
Poor chemical status		345.98% (year 2012)	36.0% (year 2020)	
Total number/volume of groundwater bodies classified		729 (year 2015)		
Total number/volume of groundwater bodies in the country		729 (year 2015)	762 (year 2020)	

(b) For other countries

- (i) Status of surface waters
- (ii) Status of groundwaters

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.

The WEI indicator is included in the third hydrological planning cycle that will be published once when basin plans are approved.





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.

The epidemiological surveillance of water outbreaks in Spain is carried out through the *National Epidemiological Surveillance Network (RENAVE)*. Autonomous Communities notify the National Epidemiological Centre of the outbreaks and epidemiological situations related to any cause (etiology) or transmission mechanism that occur on its territory.

- Royal Decree 2210/1995, of 28th December, by which the National Epidemiological Surveillance Network is created.

The Center for Coordination of Health Alerts and Emergencies (CCAES), created in 2004 is a Center dependent on the General Directorate of Public Health of MHS, whose function is to coordinate the management of information and support the response to situations of alert or national or international health emergency that pose a threat to the health of the population. National System of Early Warning and Rapid Response (SIAPR). The CCAES is also the unit responsible for the preparation and development of preparedness and response plans to address public health threats.

- ORDER SCO/564/2004, of 27 of February, by which the system of coordination of alerts and emergencies of Health and Consumption is established.
- ORDER SCO/3870/2006, of December 15, which designates the General Directorate of Public Health, Quality and Innovation as the National Liaison Center for the International Health Regulations (IHR).





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.

Up to date, CCAES primarily prepares and responds to any biological risks or to those of unknown origin and is working on other types of risks, for example:

- Monitoring and support in the investigation of outbreaks, pandemics, and/or any public health threat what occurs at national and international level (SARS-CoV-2).
- Preparation of guides and protocols.
- Enforcement and participation in simulations at national and international level.
- Preparation and advice against risks of intentional origin (bioterrorism).





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

MHS has a cordial relationship with all the stakeholders involved in the accessibility and healthiness of drinking water. As previously mentioned, it has established forums and working groups that help the parties understand each other. There are many actions that have been carried out in the last 3 years in order to promote public awareness, education, training, research and development and information in accordance with article 9 of the Protocol.

The SARS-CoV-2 pandemic has taught all countries and institutions the need for a coordinated global project, promoting synergies and the exchange of information and experiences not only in Europe but also worldwide. At the regional and local level, it has made visible the work of national institutions to try to minimize the impacts suffered as a result of the pandemic and facilitate effective coordination between all the agents involved.

An example of this good relationship has been the preparation and publication by MHS of documents related to the risk assessment on the use of drinking water and, later, in the de-escalation phase, the measures that professionals, workers and the general public should take in relation to bathing and swimming pool areas. In the preparation of these documents, the sector and the Autonomous Communities have been heard.

Thus, the following documentation could be cited that can be found in a specific section on Water and COVID-19:

- *Coronavirus and drinking water. May 14, 2020.*

https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAgua/AGUAYCOVID19/Covid_ac.pdf

- *SARS-CoV-2 virus and urban wastewater. May 20, 2020.*

https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAgua/AGUAYCOVID19/SARS_COV_2_y_aguas_residuales_20_05_2020.pdf

- *Recommendations for the opening of activity in swimming pools after the COVID-19 crisis. May 14, 2020.*

https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAgua/AGUAYCOVID19/SARS_COV_2_y_piscinas_14_05_2020.pdf

- *Recommendations for the opening of beaches and bathing areas after the COVID-19 crisis. May 23, 2020.*

https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAgua/AGUAYCOVID19/SARS_COV_2_y_playas_23_05_2020.pdf

- *Computer graphics: Enjoy the water this summer, safely. July 2, 2020.*





https://www.sanidad.gob.es/profesionales/saludPublica/ccayes/alertasActual/nCov/img/COVID19_Disfruta_del_agua.jpg

With the transposition of the new Drinking Water Directive, MHS has carried out numerous consultations with both the public and private sectors to develop an implementation plan for the new Directive at a national level. On the other hand, MHS is promoting a culture of transparency. Thus, and in accordance with article 10 of the Protocol, the databases corresponding to the years 2016-2020 are accessible to all citizens, supporting their consultation and research aimed at the Quality and safety of water for human consumption.

(<https://www.sanidad.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicacion.es.htm>)





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.

<i>Institutional setting</i>	<i>Current value (specify year)</i>
Schools	
Basic sanitation service	
Basic drinking-water service	100 (2019)
Basic hygiene service	
Health-care facilities	
Basic sanitation service	
Basic drinking-water service	100 (2019)
Basic hygiene service	

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

YES ☒ NO ☐ IN PROGRESS ☐

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

YES ☐ NO ☐ 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).





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.

- Royal Decree 140/2003, of 7 February by which health criteria for the quality of water intended for human consumption are established.
- Royal Decree 902/2018 20th of July amending Royal Decree 140/2003, of 7th February by which health criteria for the quality of water intended for human consumption are established. Spanish laws transposing Directive 2015/1787, amending Annexes II y III of Directive 98/83/CE.
- On January 2021, Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption came into force. Spain is developing the Royal Decree which transposes this new Directive. On 17 September 2021, Ministry of Health subjects to hearing and public consultation processes the draft of the new Royal Decree.

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 (-).

Percentage of population	Current value (specify year)
Total	74.2% (2022)

Source: GEPSA

This percentage corresponds to:

- Nr WSZ > 50,000 inhabitants in SINAC: 127 of which, only 1 has a date of approval by the Autonomous Community.
- Nr WSZ between 5,000 and 50,000 inhabitants in SINAC: 827 of which 3 have date of approval by the Autonomous Community. According to current legislation, these WSZ are not required to develop a PSA.

The total Spanish population that receives drinking water services under a PSA notified in SINAC is 35,133,916 inhabitants.





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).

- [Royal Decree 140/2003, of 7 February by which health criteria for the quality of water intended for human consumption are established.](#)
- [Royal Decree 902/2018 20th of July amending Royal Decree 140/2003, of 7th February by which health criteria for the quality of water intended for human consumption are established. Spanish laws transposing Directive 2015/1787, amending Annexes II y III of Directive 98/83/CE.](#)
- [Directive \(EU\) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption.](#)





Part seven. Information on the person submitting the report

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

National Focal Points of the Protocol on Water and Health from Spain

Ministry of Health

Ministry for the Ecological Transition and Demographic Challenge

First National Focal point

First National Focal point

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Name and address of national authority:

Ministry of Health
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Signature

Date

Pilar Aparicio Azcárraga
Director-General for Public Health

20th April 2022

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.

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