

TARGETS OF THE PROTOCOL ON WATER AND HEALTH

SPAIN

*September
2020*

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SPAIN

TARGET. 1. AREA I. Quality of the drinking water supplied. Art. 6, 2 (a)

A. BACKGROUND RATIONALE

The aim is that the supplied drinking water is safe and clean and do not content any microorganism, parasite or substance in a quantity or concentration that may pose a risk to human health, in addition to meeting with everything specified in the regulations.

B. CURRENT SITUATION AND ISSUES

Spain has implemented a national information system called SINAC, which collects information on the quality of water for human consumption and information on the characteristics of the infrastructures of the supply areas. The data collected in this System offer information on drinking water corresponding to 84.2 percent of the population registered in Spain.

Data are collected not only from urban population (over 5,000 inhabitants) but were also collected data about the quality of drinking water in rural population (less than 5,000 inhabitants) SINAC have more than 78 million data actually.

<http://sinac.mscbs.es>

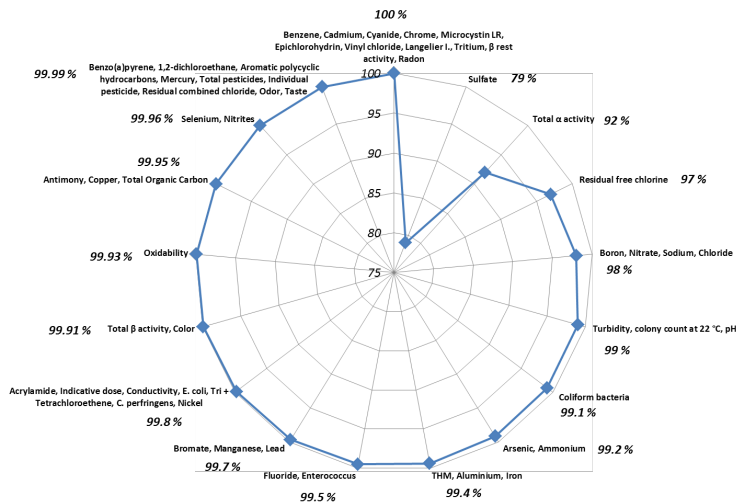
The sanitary quality of drinking water in recent years has been:

Health classification	2012	2013	2014	2015	2016	2017	2018	2019
Safe water for consumption	99.3 %	99.3 %	99.5 %	99.5 %	99.5 %	99.5 %	99.5 %	99.5 %

The compliance to the current regulations, taking in account groups of parameters have been:

Group of parameters	2012	2013	2014	2015	2016	2017	2018	2019
Microbiological	99.4 %	99.7 %	99.1 %	99.7 %	99.8 %	99.8 %	99.8 %	99.8 %
Chemicals	99.6 %	99.5 %	99.8 %	99.6 %	99.7 %	99.7 %	99.7 %	99.7 %
Pesticides	99.9 %	>99.9 %	>99.9 %	>99.9 %	99.9 %	99.9 %	99.9 %	99.9 %
Organoleptic	99.8 %	99.8 %	99.8 %	99.7 %	99.9 %	99.9 %	99.7 %	99.7 %
Quality indicators	97.7 %	98.5 %	98.6 %	98.2 %	96.6 %	97.1 %	97.0 %	98.6 %

Compliance for controlled parameter according to current regulations in 2019:



The parameters with lower percentage are due to the characteristics of the ground or the soil such as Sulphate, Alpha total activity, Chloride, Sodium, and Arsenic.

Added to those we have Bromate, Residual free chlorine, Combined chlorine, Iron, Trihalomethanes, Iron, pH, Coliform bacteria and Colony count at 22 °C as incidents in drinking water treatment.

Due to incidents in agricultural practices, appear Nitrates at groundwater.

These are the three most common causes of non-compliance for water intended for human consumption over the years.

The compliance of the sampling frequencies at routine controls for 2019 has been:

Population size	Compliance
> 5,000	90.5 %
501 – 5,000	81.2 %
≤ 500	99.8 %

Legal/ regulatory actions:

- Current regulations are:
 - ❖ Directive 98/83/EC of the Council, 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.
 - ❖ Order SCO 1591/2005, of 30 May, on the national drinking water information system (SINAC).
 - ❖ Order SCO/778/2009, of 17 March, on alternative methods for microbiological analysis of water intended for human consumption.
- Royal Decree 314/2016, of July 29, which modifies Royal Decree 140/2003, of February 7, which establishes the sanitary criteria for the quality of water for human consumption,

Royal Decree 1798 / 2010, of December 30, which regulates the exploitation and commercialization of natural mineral waters and spring waters packaged for human consumption, and Royal Decree 1799/2010, of December 30, which regulates the process of elaboration and commercialization of bottled prepared waters for human consumption.

- ❖ Royal Decree 902/2018, of July 20, which modifies Royal Decree 140/2003, of February 7, which establishes the sanitary criteria for the quality of water for human consumption, and the specifications of the methods of analysis of Royal Decree 1798/2010, of December 30, which regulates the exploitation and commercialization of natural mineral waters and spring waters packaged for human consumption, and of Royal Decree 1799/2010, of December 30, regulating the process of elaboration and commercialization of bottled prepared waters for human consumption.

Link:

<https://www.mscbs.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAgua/legislacion.htm>

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	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	Annual	Water suppliers Health Authorities (regional level) Ministry of Health
2.	Increase in the proportion of the population with access to water and reported in SINAC to 87 %	2025	Water suppliers Health Authorities (regional level) Ministry of Health
3.	Increase compliance in the sampling frequency by 5 % in each range of population.	2025	Water suppliers Health Authorities (regional level) Ministry of Health
4.	Keep compliance quality of drinking water above 99%	annual	Water suppliers Health Authorities (regional level) Ministry of Health

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
1.	Improved usability and accessibility of the information system SINAC	annual	Ministry of Health
2.	Increased surveillance and sanitary inspection	2025	Health Authorities
3.	Internal Data audit of SINAC	annual	Ministry of Health Health Authorities

E. INDICATORS

1. Number of Water Supply Zones (WSZ)
2. Number and type of sampling points
3. Number and type of analysis reports
4. Number and type of parameters controlled
5. Number of parameter determinations reported
6. % of compliance of analysis reports
7. % of compliance by parameter group
8. % of compliance of population interval with the sampling frequency
9. INFORMATION BY PARAMETER
 - a. Number of samples, total and for each type of sampling point (SP), with annual evolution in the last 3 years.
 - b. Number of WSZs that have controlled a specified 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.
 - i. Number of WSZ with non-compliance in a parameter, and number of non-compliances (1 or more than 1) for each parameter.
10. Reports of the Internal Data audits of SINAC.

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

- ❖ Annual National Report:
 - <https://www.mscbs.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicaciones.htm>
- ❖ Report for the European Commission: every 3 years, last report 2014-2016:
 - <http://www.eionet.europa.eu/reportnet> .

TARGET. 2. AREA II. Reduction of the scale of outbreaks and incidents of water-related disease. Art. 6, 2 (b)

A. BACKGROUND RATIONALE

Article 6, paragraph 2 (b), of the Protocol requires the setting of targets and target dates related to the reduction of the scale of outbreaks and incidents of water-related disease. Article 8 specifies the national and local actions to be taken to develop surveillance and response systems. Safe drinking and bathing water is vital for the health of the population, particularly children. The number of outbreaks of water-related disease provides an indication of the quality of the drinking or bathing water and is linked to the performance of the water supply and the upstream sanitation systems.

B. CURRENT SITUATION AND ISSUES

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.

Legal/ regulatory actions:

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

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	Reduction in the number of outbreaks notified regarding drinking water.	2025	Drinking Water suppliers Health Authority Ministry of Health

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
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1.	Improve the reporting of waterborne outbreaks	annual	Health Authority
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E. INDICATORS

Nº of water outbreaks caused by bacteria, viruses and parasites

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

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

TARGET. 3. AREA III. Access to drinking water. Art. 6, 2 (c)

A. BACKGROUND RATIONALE

Access to safe drinking water for everyone is among the most important objectives of the Protocol (art.6, para. 1), and is fully in line with the recognition of water as a basic human right by the United Nations General Assembly 9 and the Human Rights Council. This includes the setting of targets and target dates as to the area of territory, or the population sizes or proportions, which should be served by collective systems for the supply of drinking water or where the supply of drinking water by other means should be improved. With a view to the transposition of the new Drinking Water Directive, it is planned to develop social action mechanisms to achieve 100 % access to water. The amount of water supplied shall be sufficient to cover the hygienic and sanitary needs of the population and for the development of supplied area; the minimum objective should be 100 liters per capita per day.

B. CURRENT SITUATION AND ISSUES

Spanish Official data show that 99.99 percent of population has access to drinking water with a minimum average amount of 100 liters per capita and per day. It has been achieved a decrease in consumption after saving campaigns of water household consumption, due to reiterated drought situations in some regions.

Legal/ regulatory actions:

Royal Decree 140/2003, by which health criteria for the quality of water intended for human consumption are established.

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	To maintain a minimum water supply in drought periods	annual	Drinking water suppliers Ministry of Ecological Transition and Demographic Challenge Ministry of Health Municipalities
2.	To achieve 100 % access to water for the whole Spanish population	2030	Drinking water suppliers Ministry of Ecological Transition and

No.	Targets	Target dates	Responsibility
			Demographic Challenge Ministry of Health Municipalities

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
1.	Awareness campaign on saving water aimed the general public and schools	annual	Ministry of Health Ministry of Ecological Transition and Demographic Challenge Ministry of Education

E. INDICATORS

1. Annual daily average provision per capita

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

- ❖ Drinking water Annual National Report:
<https://www.mscbs.gob.es/en/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicaciones.htm>

TARGET. 4. AREA IV. Access to sanitation. Art. 6, 2 (d)

A. BACKGROUND RATIONALE

Provision of sanitation to everyone is among the most important objectives of the Protocol (art. 6, para.1), and a human right recognized by the United Nations General Assembly and the Human Rights Council. Article 6, paragraph 2 (d), requires the setting of targets and target dates related to the area of territory, or the population sizes or proportions, which should be served by collective systems of sanitation or where sanitation by other means should be improved.

B. CURRENT SITUATION AND ISSUES

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 is essential. RBMPs according to Directive 2000/60/CE (Water Framework Directive, WFD), include the analysis of pressures and impacts, status assessment and measures to undertake for achieving environmental objectives. Compliance with Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment (aka UWWTD) is a basic measure of the RBMPs according to art. 11 of the WFD. The Spanish Water Act is the main regulatory framework for water planning and management and protection of inland surface and groundwater bodies and it fully transposes the WFD.

According to the technical report on the implementation of the UWWTD elaborated with the information reported by Spain to the European Commission, in 2016, Spain counted 2,084 agglomerations generating $\geq 2,000$ p.e. each, of which: 1,531 agglomerations, generating 50,651,183 p.e. of waste water, complied with the requirements of the Directive; and 553 agglomerations which, generating 14,168,094 p.e. of waste water, did not comply with the requirements of the Directive. The wastewater load generated in Spain in 2016 was reported to be 64,819,277 p.e. In 2016, Spain had not yet reached the target for collecting and treating waste water to fully comply with the Directive:

- 0.5% of the waste water load must still be collected (approximately 300,000 p.e.);
- 12% of the collected waste water must still undergo secondary treatment in line with the requirements of the Directive (approximately 7,400,000 p.e.);
- 34% 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 6,000,000 p.e.).

In order to speed up the compliance process with the UWWTD, an instrument called DSEAR Plan has been developed, based on the information above and more specifically with the information provided by the Programme of Measures of the current RBMPs. The elaboration of the DSEAR Plan will be running in parallel with the planning process of the RBMPs for the term 2022-2027.

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. In addition, the consultation process of the next RBMPs cycle for the term 2022-2027 has started with the drafting of the Significant Water Management Issues (SWMI) for each River Basin District. The Spanish reports include, inter alia, sanitation, point pollution from urban and industrial plants, non-point pollution, protection of sources for drinking-water supply and direct water reuse as SWMI. The link to the reports is: https://www.miteco.gob.es/es/agua/temas/planificacion-hidrologica/planificacion-hidrologica/ETI_tercer_ciclo.aspx

The General Directorate of Water of the Ministry for the Ecological Transition and the Demographic Challenge develops the National Plan for Wastewater, Sanitation, Efficiency, Saving and Reuse (DSEAR Plan). 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. A public consultation process has begun on October 22 for 45 business days, until December 31. To favour this process, various participatory activities will be developed, adjusted to the possibilities advised by the health context derived from COVID-19. The information related to the public consultation process is in this link: <https://www.miteco.gob.es/es/agua/temas/planificacion-hidrologica/planificacion-hidrologica/planes-programas-relacionados/>

Legal/regulatory actions and planning tools:

- 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)

G. TARGETS AND TARGET DATES

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	31 December 2000	- General Directorate of water - Autonomous Communities - River Basin Authorities
	- at the latest by 31 December 2005 for those with a p.e. of between 2000 and 15000.	31 December 2005	
	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	
	- 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	31 December 1998	

No.	Targets	Target dates	Responsibility
	discharges from agglomerations of more than 10000 p.e.		
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: - 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..	31 December 2005	

H. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

I. INDICATORS

- Percentage of the population with access to sanitation.
- Population connected to wastewater collection and treatment systems according to the requirements set by the Directive 91/271/CEE or the RBMPs.

J. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

Spain, as a Member State of the European Economic Area, 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.

TARGET. 5. AREA V. Levels of performance of collective systems and other systems for water supply. Art. 6, 2 (e).

A. BACKGROUND RATIONALE

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.

B. CURRENT SITUATION AND ISSUES

The level of performance of collective systems and other systems for water supply is considered within Annual Report of Drinking Water to fulfill the requirements of the Directive 98/83/EC of the Council, of 3 November 1998, on the quality of water intended for human consumption and the Royal Decree 140/2003 of 7 February, by which health criteria for the quality of water intended for human consumption are established.

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

The following table shows the number of drinking water supply zones and infrastructures in 2019 (SINAC)

Water supplies zones	Catchments	Conductions	Cisterns	Deposits	Distribution networks
10,397	20,258	1,098	245	25,115	16,990

In the 2019 National Report you can consult the evolution in number that the infrastructures have suffered since 2014.

In 2019, by water origin, without taking into account the catchments that have not reported this data (5.3 %), 85.5 % of the catchments come from groundwater, 14.4% from surface water and 0.1% from rainwater. While, 62.7% of the pipes are closed by pressure and 36.7% are closed by gravity. Open conductions do not reach 1 %.

Regarding the type of deposit, the most frequent is Surface (40.4 %) followed by Semi-buried (33.4 %). 57.8% of deposits have some type of protection, with 94.0% of ordinary use.

On the other hand, the majority type of network is constituted by the urban network (63.5 %), which distributes 95.8% of the volume of water per day and 85.6 % of the km of network. From the constructive point of view, the most frequent network is the mixed network (47.7 %) that

distributes 43.2 % of the water, and has 48.3 % of km of network, followed by the type of meshed network with 25.3 % of the networks, 49.8 % of the water and 42.4 % of the km of network.

Regarding laboratories, 33.1% were certified by the UNE-EN ISO 9001 standard, with private ones being those with the most certifications, 68.9%, followed by the laboratories of the managing companies with 13.6 %. 24.3 % were accredited by the UNE-EN ISO / IEC 17025 standard, of which 71.2% were private, followed by 9.8 % by municipal or supra-municipal laboratories. 9.2 % of the laboratories were accredited by UNE-EN ISO / IEC 17025 and also certified by the UNE-EN ISO 9001 standard, of these, 83.3 % were private and 9.0% municipal or supra-municipal.

Regarding the facilities in water supply zones, the majority of over 50,000 inhabitants are certified by the ISO 9001 standard.

The best method for calculating structural leakages in supply zones is currently being evaluated. Likewise, it is intended an improvement in the quality assurance systems in the supplies of more than 50,000 inhabitants.

Legal/ regulatory actions:

Current regulations are:

- ❖ Directive 98/83/EC of the Council, 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.
- ❖ Order SCO 1591/2005, of 30 May, on the national drinking water information system (SINAC).

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	To assess structural leakages in supply zones	2025	Drinking Water suppliers Ministry of Health
2.	To improve the efficiency of the supply system	2025	- Water suppliers - Ministry of Health - Autonomous Communities
3.	Implement a quality assurance system in supplies over 50,000 inhabitants	2025	- Drinking Water suppliers - Ministry of Health - Autonomous

No.	Targets	Target dates	Responsibility
			Communities

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
1.	To set a numerical calculation of structural leakages	2025	- Water suppliers
2.	To establish a mandatory requirement for water supplies over 50,000 inhabitants to be certified by the UNE-EN-ISO 9001 standard of quality management systems.	2025	- Ministry of Health - Autonomous Communities

E. INDICATORS

- ❖ N° of facilities
- ❖ N° of monitoring laboratories
- ❖ Calculated structural leakage index.
- ❖ N° and percentage of water supplies over 50,000 inhabitants that have implemented a certification system by UNE-EN-ISO 9001 standard.

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

- ❖ Drinking water Annual National Report:
<https://www.mscbs.gob.es/en/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicaciones.htm>

TARGET. 6. AREA VI. Levels of performance of collective systems and other systems for sanitation. Art. 6, 2 (e) (cont.)

A. BACKGROUND RATIONALE

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.

B. CURRENT SITUATION AND ISSUES

(See Target 4)

Legal/ regulatory actions:

(See Target 4)

C. TARGETS AND TARGET DATES

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.,	31 December 2000	- General Directorate of water - Autonomous Communities - River Basin Authorities
	- 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	31 December 1998	

No.	Targets	Target dates	Responsibility
	discharges from agglomerations of more than 10000 p.e.		
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 10.000p.e..	31 December 2005	- General Directorate of water - Autonomous Communities - River Basin Authorities

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

E. INDICATORS

- Volume treated wastewater.
- Degree of compliance with Directive 91/271/EC (% p.e.).
- Treatment capacity of wastewater treatment plants.

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

(See Target 4)

TARGET. 7. AREA VII. Application of recognized good practices to the management of water supply. Art. 6, 2 (f)

A. BACKGROUND RATIONALE

Article 6, paragraph 2 (f), of the Protocol requires the setting of targets and target dates related to the application of recognized good practices in the management of water supply and sanitation. Thus, emphasis is put on good but not necessarily the best practices, which have to be adapted to the local circumstances (not necessarily internationally recognized) and to implementation.

B. CURRENT SITUATION AND ISSUES

The WHO Guidelines for Drinking-water Quality recognize that the most effective means of consistently ensuring the safety of a drinking water supply is through the use of an approach incorporating comprehensive risk assessment and risk management. Such an approach is termed a water safety plan (WSP). The WSP approach complements the compliance-based approach and may reduce both the workload and financial expenses related to verification monitoring. With this target in mind, work began on the WSP of the supplies of more than 50,000 inhabitants according to the ISO 22,000 standard, the specifications of WHO or the UNE-EN 15975-2 standard, and it was created the *on-line* tool for the drafting of the Water Safety Plans, called GEPISA.

Therefore, the WSP, in supplies more than 50,000 inhabitants, are already implemented or under development.

According to Directive 2000/60/EC (Water Framework Directive), Member States shall ensure the establishment of a register or registers of all areas lying within each river basin district which have been designated as requiring special protection under specific Community legislation for the protection of their surface water and groundwater. In particular, for the waters used for the abstraction of drinking water, Member States shall identify, within each river basin district: 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. Member States shall monitor those bodies of water which provide more than 100 m³ a day as an average. Member States shall ensure the necessary protection for the bodies of water identified with the aim of avoiding deterioration in their quality in order to reduce the level of purification treatment required in the production of drinking water. Member States may establish safeguard zones for those bodies of water. RBMPs shall include these provisions the protection of those bodies of water, the measures taken and the register of protected areas. The process of the development of the RBMPs for the third planning cycle 2022-2027 has already begun with the drafting of the Significant Water Management Issues (see Target 4). One of the Issues identified for all River Basin Districts is the improvement of the management of the protected areas for abstraction of water intended for human consumption.

Legal/ regulatory actions:

- 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, Drinking Water Information System.
- Royal Decree 902/2018, of July 20, which modifies Royal Decree 140/2003, of February 7, which establishes the sanitary criteria for the quality of water for human consumption, and the specifications of the methods of analysis of Royal Decree 1798/2010, of December 30, which regulates the exploitation and commercialization of natural mineral waters and spring waters packaged for human consumption, and of Royal Decree 1799/2010, of December 30, regulating the process of elaboration and commercialization of bottled prepared waters for human consumption.
- Royal Decree 907/2007, of July 6, which develops the drafting of the RBMPs. Royal Decrees which pass the RBMPs 2016-2021 in the Spanish River Basin Districts.

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	Improvement of the management of the supplies from catchment, treatment plants, storage and water distribution through Water Safety plans	annual	Drinking Water suppliers Health Authority Ministry of Health Ministry for Ecological Transition and Demographic Challenge
2.	Improvement of the drinking water quality control	annual	Drinking Water suppliers Health Authority
3.	Improvement of the transmission of information to citizens.	2025	Ministry of Health
4.	Maintenance and improvement of the tool for the development of the Water Safety Plans (GEPISA)	annual	Ministry of Health

K. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
1.	Review of WSP in supplies more than 50,000 inhabitants	annual	Drinking Water suppliers Health Authorities Ministry of Health Ministry for Ecological Transition and Demographic Challenge
2.	Implement of WSP in supplies from 5,000 to 50,000 inhabitants	2027	Drinking Water suppliers Health Authority Ministry of Health Ministry for Ecological Transition and Demographic Challenge
3.	Working Group (active since 2012) for updating of the GEPSA	annual	Ministry of Health
4.	Publicise and inform water suppliers about the management of GEPSA	annual	Ministry of Health Health Authorities

L. INDICATORS

- Number of supplies with implemented WSP (more than 50,000 inhabitants)
- Number of supplies with implemented WSP (from 5,000 to 50,000 inhabitants)
- Minutes of the Working Group for updating GEPSA meetings.
- Number of times the Information System web site is accessed every year by public (<http://sinac.mscbs.es>)

M. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

- Annual National Report:
<https://www.mscbs.gob.es/en/profesionales/saludPublica/saludAmbLaboral/calidadAguas/publicaciones.htm>
- Management of Water Safety Plans tool. GEPSA:
 - <https://gepsa.mscbs.es/gepsa/login.do>
- Reporting under the WFD and reports of the RBMPs implementation

TARGET. 8. AREA VIII. Application of recognized good practice to the management of sanitation. Art. 6, 2 (f) (cont.)

A. BACKGROUND RATIONALE

Article 6, paragraph 2 (f), of the Protocol requires the setting of targets and target dates related to the application of recognized good practices in the management of water supply and sanitation. Thus, emphasis is put on good but not necessarily the best practices, which have to be adapted to the local circumstances (not necessarily internationally recognized) and to implementation.

B. CURRENT SITUATION AND ISSUES

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

Legal/ regulatory actions:

- 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 RBMPs for the cycle 2021-2016 and DSEAR Plan (see target 4)

C. TARGETS AND TARGET DATES

The target set in Spain according to current legislation (Directive 91/271/EEC, Annex I) is:

No.	Targets	Target dates	Responsibility
1.	Waste water treatment requirements and their design, construction and maintenance shall be undertaken in accordance with the best technical knowledge not entailing excessive costs	Since approval of the legislation	- General Directorate of water - Autonomous Communities -River Basin Authorities

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

See Target 4

E. INDICATORS

Not applicable.

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

Not applicable.

TARGET. 9. AREA X. The occurrence of discharges of: (i) Untreated waste water; and (ii) Untreated storm water overflows from waste-water collection systems to waters within the scope of this Protocol. Art. 6, 2 (g)

A. BACKGROUND RATIONALE

Article 6, paragraph 2 (g), of the Protocol requires the setting of targets and target dates related to the occurrence of discharges of untreated wastewater. Access to sanitation is covered above under the target set out in paragraph 2 (d); thus, the target in 2 (g) concentrates on the (non-) treatment of wastewater.

B. CURRENT SITUATION AND ISSUES

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.

Furthermore the 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.

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

Legal/ regulatory actions:

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

C. TARGETS AND TARGET DATES

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 - Autonomous Communities - River Basin Authorities
2.	Prosecution of discharges without authorization.		
3.	Establishment of measures to limit pollution of receiving waters from storm water overflows.		

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

E. INDICATORS

- Number of discharge authorizations
 The Ministry of Agriculture, Food, and Environment publishes each year the number and volume of discharge authorizations granted by the Autonomous Communities and River Basin Authorities. There are two reports depending on whether the information refers to discharges to the sea (Maritime-Terrestrial Public Property) or to continental waters that constitute the Hydraulic Public Property.

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND REPORTING SYSTEMS

The update of the discharge census and the monitoring actions set by Competent Authorities aim to ensure that all discharges are known and controlled. Given that all discharges must have an authorization, those without permit will be prosecuted.

Regarding urban waste waters, biannual reports to the European Commission within the reporting obligation for UWWT Directive - Article 15 provide information on the treatment applied to wastewaters.

TARGET. 10. AREA XI. Quality of discharges of waste water from waste-water treatment installations to waters within the scope of this Protocol. Art. 6, 2 (h)

A. BACKGROUND RATIONALE

Article 6, paragraph 2 (h), of the Protocol requires the setting of targets and target dates related to the quality of discharges of wastewater from wastewater treatment installations to waters within the scope of the Protocol. This indicator refers explicitly to the quality of wastewater discharges from wastewater treatment systems that are often not reported on and often do not comply with the legal requirements.

B. CURRENT SITUATION AND ISSUES

Several pieces of European Union legislation contain provisions aimed at protecting surface waters from chemical pollution. 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>

See also Target 4

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).

Legal/ regulatory actions:

See Target 4

C. TARGETS AND TARGET DATES

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

No.	Targets			
1.	For discharges from urban waste water treatment plants with secondary treatment or an equivalent treatment:			
	Parameters	Concentration	Minimum % of reduction ⁽¹⁾	Reference method of measurement
	Biochemical oxygen demand (BOD ₅ 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.)	<ul style="list-style-type: none"> • 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

No.	Targets															
	<p>(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.</p> <p>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.</p>															
2.	<p>For <i>discharges from urban waste water treatment plants to sensitive areas which are subject to eutrophication (human-induced enrichment with nutrients)</i>:</p> <p>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.</p> <table border="1" data-bbox="225 958 1442 1641"> <thead> <tr> <th data-bbox="225 958 435 1111">Parameters</th> <th data-bbox="435 958 798 1111">Concentration</th> <th data-bbox="798 958 1013 1111">Minimum % of reduction (1)</th> <th data-bbox="1013 958 1442 1111">Reference method of measurement</th> </tr> </thead> <tbody> <tr> <td data-bbox="225 1111 435 1375">Total phosphorus</td> <td data-bbox="435 1111 798 1375"> 2 mg/l P (10,000 – 100,000 p.e.) 1 mg/l P (more than 100.000 p.e.) </td> <td data-bbox="798 1111 1013 1375">80</td> <td data-bbox="1013 1111 1442 1375">Molecular absorption spectrophotometry</td> </tr> <tr> <td data-bbox="225 1375 435 1641">Total nitrogen (²)</td> <td data-bbox="435 1375 798 1641"> 15 mg/l N (10,000 – 100,000 p.e.) 10 mg/l P (more than 100,000 p.e.) (³) </td> <td data-bbox="798 1375 1013 1641">70-80</td> <td data-bbox="1013 1375 1442 1641">Molecular absorption spectrophotometry</td> </tr> </tbody> </table> <p>(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.</p>				Parameters	Concentration	Minimum % of reduction (1)	Reference method of measurement	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
Parameters	Concentration	Minimum % of reduction (1)	Reference method of measurement													
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													

Other target related with the Early Warning System is expressed in the following Table.

No.	Targets	Target dates	Responsibility
3.	Implementation of an 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.	Measures included in RBMPs	U	Ministry of Ecological Transition and Demographic Challenge

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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
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

E. INDICATORS

- Degree of compliance with Directive 91/271/EC of the pollutant load of treated urban waste water (% pe).
The Ministry of Agriculture, Food, and Environment publishes the degree of compliance with the provisions of Directive 91/271/EC on urban waste water treatment as a percentage of equivalent population (% p.e.) with wastewater treatment over the total amount of existing equivalent population.

- Microorganisms loads in the sanitation networks.
- Nº of notifications, reports, warnings and alerts performed from the Autonomous Communities.

F. RELEVANT REGIONAL OR GLOBAL OBLIGATIONS AND REPORTING SYSTEMS

The European Wastewater Directive 91/271/EEC sets standards for BOD, COD and total suspended solids. For discharges in sensitive areas, it also requires compliance with standards for nitrogen and phosphorus.

Information is uploaded to the Central Data Repository (CDR), where data reports on the environment are submitted and data collections 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]).

Other European obligations such as the Integrated Pollution Prevention and Control (IPPC) Directive 96/61/EC includes an indicative list of the main polluting substances to be taken into account if they are relevant for fixing emission limit values (Eionet>CDR>Spain>European Union (EU), obligations> E-PRTR data reporting (Art. 7) or E-PRTR practice and measures (Art.16)).

Directive 2008/105/EC (the Environmental Quality Standards Directive – EQSD – also known as the Priority Substances Directive) sets the quality standards as required by Article 16(8) of the WFD. The EQSD was used in 2008 to amend the list of priority substances in Annex X to the WFD, and the list and EQS were amended again by Directive 2013/39/EU. It requires the implementation of measures to eliminate or reduce pollution of the waters by such substances. Authorizations of discharges and specific programmes to reduce the occurrence of some substances in water are obligatory and emission standards have to be established. Regular reports are sent to the European Commission on this account (Implementation Report Dangerous substances). As the Water Framework Directive covers all impacts, including dangerous substances, data is submitted within that report.

TARGET. 11. AREA XII. Disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations. Art. 6, 2 (i1)

A. BACKGROUND RATIONALE

There is a big legislation effort developed in this area due both to the transposition of the EU legislation on the field and the national guidelines and improvement measures put in place. From 2011 there has been a new quantitative and qualitative national and regional legislative texts trying to improve the previous situation and to adapt to the new European legislative frame.

B. CURRENT SITUATION AND ISSUES

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.

Legal/ regulatory actions:

- 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.

C. TARGETS AND TARGET DATES

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

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

TARGET. 12. AREA XIII. Quality of wastewater used for irrigation purposes. Art. 6, 2 (i2)

A. BACKGROUND RATIONALE

The second part of article 6, paragraph 2 (i), of the Protocol requires the setting of targets and target dates related to the quality of wastewater used for irrigation purposes, taking into account the WHO/UNEP/FAO Guidelines for the safe use of wastewater and excreta in agriculture and aquaculture.

The Guidelines define verification as the application of methods, procedures, tests and other evaluations, in addition to those used in operational monitoring, to determine compliance with the system design parameters and/or whether the system meets specified requirements (e.g. microbial water-quality testing for *E. coli* or helminth eggs, microbial or chemical analysis of irrigated crops) (see Guidelines, vol. 1, p. 32). The Guidelines describe the minimum verification monitoring recommended to assess microbial performance targets for wastewater and excreta use in agriculture and aquaculture under conditions of urban and rural application of wastewater.

B. CURRENT SITUATION AND ISSUES

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 of the

Legal/regulatory actions:

- 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)

C. TARGETS AND TARGET DATES

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 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0741&from=EN	26 June 2023	DG Water and Ministry of Health

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
2.	Promotion of water reuse through RBMPs and DSEAR Plan	Up to 2027	- General Directorate of water - Autonomous Communities

E. INDICATORS

- Quantity and quality of the reclaimed water supplied
- Percentage of the reclaimed water in the Member State supplied in accordance compared to the total amount of treated urban waste water

F. RELEVANT REGIONAL OR GLOBAL OBLIGATIONS AND REPORTING SYSTEMS

TARGET. 13. AREA XIV - Quality of waters which are used as sources for drinking water. Art. 6, 2 (j1)

A. BACKGROUND RATIONALE

The first part of article 6, paragraph 2 (j), of the Protocol requires the setting of targets and target dates related to the quality of waters used as sources for drinking water. Raw water quality is the key factor to ensure drinking water safety as protection of the source represents the first and basic barrier in a multibarrier approach. Protection of raw water sources should be considered important, since:

- (a) Prevention of pollution is often cheaper and easier than treatment;
- (b) Even advanced treatment technology does not necessarily ensure 100 per cent safety for drinking water, as there is always a risk of failure in the treatment process.

B. CURRENT SITUATION AND ISSUES

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.

See also Target 7

Legal/regulatory actions:

- 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.
- Royal Decree 60/2011, of 22 January, on environmental quality standards in the field of water policy.
- Royal Decree 907/07, of 6 July, with the Spanish Regulation for Water Planning.

- Order ARM/2656/2008, of 10 September, where Water Planning Instructions are approved.
- 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.
- 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.
- 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.

C. TARGETS AND TARGET DATES

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

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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	Every 6 years	- River Basin Authorities

No.	Measures and activities	Time frame	Responsibility
	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		
5.	Periodic report of analytic results on waters abstracted for this purpose to Health Authorities	Periodic	- River Basin Authorities

E. INDICATORS

Not applicable.

F. RELEVANT REGIONAL OR GLOBAL OBLIGATIONS AND REPORTING SYSTEMS

Information related with the Water Framework Directive 2000/60/EC is submitted to the European Commission using the Central Data Repository (CDR) of the European Environment Information and Observation Network (EIONET). The information submitted includes the revision of monitoring programmes and the update of the register of protected areas are included within the River Basin Management Plan which is uploaded every 6 years, jointly with the programme of measures.

TARGET. 14. AREA XV. Quality of waters used for bathing. Art. 6, 2 (j2)

A. BACKGROUND RATIONALE

The second part of article 6, paragraph 2 (j), of the Protocol requires the setting of targets and target dates related to the quality of waters used for bathing. Bathing waters differ significantly from country to country. Thus, each Government should classify its bathing waters (inland and coastal waters) and set standards for the different categories.

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.

B. CURRENT SITUATION AND ISSUES

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.

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 the update of the bathing waters census or the profiles if it is necessary, will be notified by the 20th of March each year.

The bathing water profile contains:

- 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.
- An identification and assessment of causes of pollution that might affect bathing waters and impair bathers' health.
- An assessment of the potential for proliferation of cyanobacteria
- An assessment of the potential for proliferation of macro-algae and/or phytoplankton
- If the assessment of causes of pollution shows that there is a risk of short-term pollution, the following information is required:
 - the anticipated nature, frequency and duration of expected short-term pollution
 - details of any remaining causes of pollution, including management measures taken and the time schedule for their elimination
 - management measures taken during short-term pollution and the identity and contact details of bodies responsible for taking such action,
- The location of the monitoring point.

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 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 standardize the information provided to bathers across Europe.

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.
- Establishment of the National Information System of Bathing Waters (NAYADE). <https://nayadeciudadano.mssi.es/>
- 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)”

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	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.	annual	Ministry of Health
2.	Improvement and maintenance of the National Information System of Bathing Waters (NAYADE)	annual	Ministry of Health
3.	Update of the Bathing Water Profiles.	triennial	Spanish River Basin authorities Competent authorities of the Autonomous Communities
4.	To improve the infrastructures where the quality	annual	Ministry of Environment

	of the bathing water is insufficient or health risks have been detected.		Municipalities
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D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
1.	To facilitate the improvement in wastewater treatment and outfalls	2025	Ministry of Ecological Transition and Demographic Challenge Municipalities

E. INDICATORS

- Nº and percentage of inland bathing waters classified as 'excellent'.
- Nº and percentage of coastal bathing waters classified as 'excellent'.

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

- ❖ Annual National Report: last one, 2019
<https://www.mscbs.gob.es/en/profesionales/saludPublica/saludAmbLaboral/calidadAguas/aguasBanno/publicaciones.htm>
- ❖ Report for European Commission: Annual, 2019:
<http://www.eionet.europa.eu/reportnet>

TARGET. 15. AREA XVII. Application of recognized good practice to the management of enclosed waters generally available for bathing. Art. 6, 2 (k)

A. BACKGROUND RATIONALE

The second part of article 6, paragraph 2 (k), of the Protocol requires the setting of targets and target dates related to the quality of enclosed waters generally available for bathing.

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 possible 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.

B. CURRENT SITUATION AND ISSUES

The target is 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. These regulations will apply 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 the 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.

As a notification and coordination instrument between the different administrations, the SILOÉ software tool has been created: <https://siloe.msssi.es/siloeWeb/index.jsp>

On the other hand, the Ministry of Health 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.

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 update of said regulation is necessary.

Legal/ regulatory actions:

- Royal Decree 742/2013, September 27, which establishes the technical-sanitary criteria for swimming pools.
- Royal Decree 865/2003, of July 4, which establishes the hygienic-sanitary criteria for the prevention and control of legionellosis.

Management measures and information actions:

- Maintenance and updating of the National Information System of Pools (SILOÉ). <https://siloe.msssi.es/siloeWeb/index.jsp/>

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	Improvement and maintenance of the National Information System pools. SILOÉ.	2027	Ministry of Health Competent authorities of the Autonomous Communities Municipalities
2.	To improve the implementation of regulations related to swimming pools.	2025	Ministry of Health
3.	To improve the harmonization of regional regulations.	2025	Ministry of Health Autonomous Communities Municipalities
4.	To improve control and prevention against legionellosis	2025	Ministry of Health

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
1.	To increase the number of swimming pools notified through SILOÉ	2025	Ministry of Health Competent authorities of the Autonomous Communities Municipalities

No.	Measures and activities	Time frame	Responsibility
2.	Internal assessment of the SILOÉ System. Review of the quality of the data contained in SILOÉ	2025	Ministry of Health
3.	Creation of a coordination group between all administrations in regulatory matters on swimming pools and thermal waters.	2025	Taskforce of environmental health of the Ministry of Health.
4.	Update national regulation for the prevention of legionellosis	2022	Ministry of Health

E. INDICATORS

- Nº of pools notified in SILOÉ
- Publication of the internal assessment report of SILOÉ
- Publication of a new prevention regulation against legionellosis.
- Nº of meeting of the Taskforce of environmental health of the Ministry of Health

F. RELEVANT GLOBAL AND REGIONAL OBLIGATIONS AND RECOMMENDATIONS ON REPORTING

- ❖ Annual National Report: last one, 2018
<https://www.mscbs.gob.es/profesionales/saludPublica/saludAmbLaboral/calidadAguas/piscinas/Publicaciones.htm>

TARGET. 16. AREA XVIII. Identification and remediation of particularly contaminated sites. Art. 6, 2 (I)

A. BACKGROUND RATIONALE

Article 6, paragraph 2 (I), of the Protocol requires the setting of targets and target dates related to the identification and remediation of particularly contaminated sites that adversely affect waters within the scope of this Protocol or are likely to do so, and that thus threaten to give rise to water-related diseases.

B. CURRENT SITUATION AND ISSUES

The second River Basin Management Plans (2016-2021) have updated the existing inventory of pressures (water discharges, water uses, dam and reservoirs authorizations, works, public domain uses, etc.).

On the one hand the surface water bodies under different group of pressures (WFD definition), it is clear the most important pressures affecting the highest number of water bodies are the hydro morphological ones (53%), followed by the one source pollution (43%) and diffuse pollution sources (41%). The over abstraction pressures affected 29% of the surface water bodies.

On the other hand, ground waters suffer from diffuse pollution as the main pressure (55%), the second source is the one source pollution type and the over abstraction (28%).

Programs of measures aim to set actions to improve the current situation of water bodies into the target situation described in art. 4 of the WFD.

Legal/ regulatory actions:

- Royal Decree 1/2016 passing the second cycle River Basin Management Plans (RBMP) containing the programs of measures.

C. TARGETS AND TARGET DATES

The targets set in Spain according to current legislation are:

No.	Targets	Target dates	Responsibility
1.	Those of the RBMP, objectives under article 4 of the WFD	2016-2021	Central Government

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

Follow-up of RBMPS regarding environmental objectives up to 2017

E. INDICATORS

The indicators used to picture the effect of the WFD implementation are the assessment of the RBMP and the improvement of the water bodies under pressure. Usually the studies carried out by the RB Authorities and results of the monitoring programmes are also used as indicators.

TARGET. 17. AREA XIX - Effectiveness of systems for the management, development, protection and use of water resources. Art. 6, 2 (m)

A. BACKGROUND RATIONALE

Article 6, paragraph 2 (m), of the Protocol requires the setting of targets and target dates related to the effectiveness of systems for the management, development, protection and use of water resources, including the application of recognized good practice to control pollution from sources of all kinds. In addition, according to article 6, paragraph 5 (b), Parties shall establish water management plans in transboundary, national and/or local contexts, preferably on the basis of catchment areas or groundwater aquifers. The public shall be involved.

In accordance with article 5 of the Protocol: (a) water resources shall be managed in a sustainable way (art. 5, para. (d)); (b) action to manage water resources should be taken at the lowest appropriate administrative level (article 5, para. (f)); (c) efficient use of water should be promoted through economic instruments and awareness-raising (art. 5, para. (h)); and (d) water resources should, as far as possible, be managed in an integrated manner on the basis of catchment areas, with the aim of linking social and economic development to the protection of natural ecosystems and of relating water resource management to regulatory measures concerning other environmental mediums. Such an integrated approach should apply across the whole catchment area, whether transboundary or not, including its associated coastal waters, the whole of a groundwater aquifer or the relevant parts of such a catchment area or groundwater aquifer (art. 5, para. (j)).

Moreover, article 13 of the Protocol encourages Parties to establish, with other Parties bordering the same transboundary waters, joint or coordinated water management plans.

B. CURRENT SITUATION AND ISSUES

Management, protection and use of water resources are encompassed within the objectives marked by the 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, a good ecological potential and a good chemical status have to be reached. And, with respect to groundwater bodies, a good quantitative and chemical status has 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 of the physical characteristics of a surface water body or alterations of 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 covered the following issues: identification of River Basin Districts (RBD) and Authorities, characterization of river basin regarding pressures, impacts and economic analysis, finalization 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 first management cycle finished, a second management cycle begin; during this cycle river basin management plans and programmes of measures will be reviewed. In January 2016 most of the River Basin Management Plans of the second cycle were passed reviewing the previous ones and meeting the requirements of the European Commission.

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. Some of which have been already been detailed in other sections, others such as the Nitrate Directive 91/676/EEC or the Integrated pollution prevention and control Directive 2008/1/EC also contribute to control and avoid or reduce the contamination of water resources.

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.

C. TARGETS AND TARGET DATES

The targets set to current legislation (Water Framework Directive, article 3, 5, 7, 8, 11 and 13)

No.	Targets	Target dates	Responsibility
1.	Achievement by 2015 of a good status in all water bodies.	2015	- General Directorate of water - Autonomous Communities - River Basin Authorities
2.	Identification of River Basin Districts (RBD) and Authorities	2004	
3.	Characterization of the river basin and analysis of pressures, impacts and economic analysis	2005	
4.	Establishment of programmes for the monitoring of water status	2007	
5.	Creation of a register of protected areas	2009	
6.	Publication of the River Basin Management Plans (RBMP), including the program of measures	2009	
7.	Analysis of the progress in the implementation of the programme of measures planned	2012	
8.	Compliance with future planning cycles	Every 6 years since 2009	
9.	Coordination between countries when dealing with international river basin districts	2009	- General Directorate of water - River Basin Authorities

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

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

No.	Measures and activities	Time frame	Responsibility
1.	Development and follow up of the RBMP and review of the program of measures.	Every 6 years	- General Directorate of water
2.	Follow-up of the works and agreements under	Regularly	- Autonomous Communities

No.	Measures and activities	Time frame	Responsibility
	the Albufeira Convention		- River Basin Authorities

E. INDICATORS

- **Water quality:** on the basis of national systems of water classification, percentage of water falling into each defined class (e.g.. in classes I, II, III, etc. for non-EU countries; for EU countries, percentage of surface water bodies with high, good, moderate, poor and bad ecological status; percentage of water bodies with good or poor chemical status; and percentage of groundwaters of good or poor status).
- **Water quantity:** water exploitation index at the national and river-basin levels for each sector (agriculture, industry, domestic): mean annual abstraction of freshwater by sector divided by the mean annual total renewable freshwater resource at the country level, expressed in percentage terms.

F. RELEVANT REGIONAL OR GLOBAL OBLIGATIONS AND REPORTING SYSTEMS

Information related with the Water Framework Directive 2000/60/EC is submitted to the European Commission using the Central Data Repository (CDR) of the European Environment Information and Observation Network (EIONET). River Basin Management Plan must be published every 6 years and uploaded to the Central Data Repository within the three months of their publication.

Other relevant directives mentioned, such as the Directive 2008/1/EC concerning integrated pollution prevention and control or the Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources, are also available in this repository (CDR) under their own obligation report.

TARGET. 18. AREA XX. Frequency of the publication of information on the quality of the drinking water supplied and of other waters relevant to the protocol. Art. 6, 2 (n)

A. BACKGROUND RATIONALE

Countries shall set the frequency of the publication of information on the quality of the drinking water supplied and of other waters relevant to the targets set in the intervals between the publication of information on the collection and evaluation of data on the progress towards the targets. Such publication should take place at least every three years.

B. CURRENT SITUATION AND ISSUES

There are requirements to report information to the European Commission under different Directives, as well as other obligations with the European Environmental Agency and other international organizations. Within the scope of this Protocol some of the obligations are:

Drinking Water Directive 98/83/EEC: publication of a report every three years on the quality of water intended for human consumption.

Urban Wastewater Treatment Directive 91/271/EEC: a two yearly report to verify the compliance of the discharges from urban waste water treatment plants with the emission control standards.

Bathing Water Directive 2006/7/EC: annual report of an inventory of identified bathing waters and the results of the monitoring and with the bathing water quality assessment.

Water Framework Directive 2000/60/EC: to comply with this Directive there are several requests of information within a planning cycle. Every 6 years a River Basin Management Plan must be drawn up for every river basin district.

Nitrate Directive 91/676/EEC: every four years a report with monitoring results, preventive actions taken to reduce the pollution caused by nitrates from agricultural sources, vulnerable zones... is sent to the European Commission.

Moreover, public access to environmental information is an issue addressed by the European Union (Directive 2003/4/EC). Member States must provide the information requested as well as determine the practical arrangements under which such information is effectively made available. These arrangements shall guarantee that the information is effectively and easily accessible and progressively becomes available to the public through public telecommunications networks, including publicly accessible lists of public authorities and registers or lists of environmental information held by or for public authorities. Acting in accordance with these requirements there are different information systems which provide information of the quality of both drinking and bathing waters. The National Information System of Water for Human Consumption (SINAC) collects information about the facilities, supply zones and the quality data of the water provided for each province, municipality and area. On the other hand, the National Information System of

Bathing Waters (NAYADE) collects information about the bathing zones features, their profiles and the quality data of the Bathing Waters.

C. TARGETS AND TARGET DATES

No.	Targets	Target dates	Responsibility
1.	Comply with the reporting obligations set in the current legislation to international organizations	As required by obligation	
2.	Supply and/ or publication of existing information, when possible.	When required, it should be made available: - As soon as possible or, at the latest, within one month after the receipt by the public authority - Within two months after the receipt of the request if the volume and the complexity of the information are such that the one-month period referred to in cannot be complied with.	- General Directorate of water - Autonomous Communities - River Basin Authorities
3	Comply with the reporting obligations set in the current legislation to international organizations regarding Drinking Water Directive and Bathing Water Directive	As required by obligation	Ministry of Health

D. PROPOSED MEASURES TO ACHIEVE TARGETS AND TARGET DATES

No.	Measures and activities	Time frame	Responsibility
1.	Establishment of procedures between different administrative bodies in order to comply with the different requirements set by the existing obligations	As necessary	- General Directorate of water - Autonomous Communities - River Basin Authorities
2.	Maintenance and further improvements of the existing information systems, or creation of new systems if necessary.	As needed	- General Directorate of water - Autonomous Communities - River Basin Authorities

No.	Measures and activities	Time frame	Responsibility
			- Ministry of Health
3.	Establishment of procedures within the different organisms in order to supply information to applicants.	As necessary	- General Directorate of water - Autonomous Communities - River Basin Authorities - Ministry of Health
4.	Maintenance of SINAC and NAYADE as an information gathering tool.	Continually	Ministry of Health Water Suppliers Regional authorities

E. INDICATORS

- Annual Report on Quality of drinking water for human consumption in Spain
- Annual Report of bathing water quality in Spain
- Bathing Water Quality Reporting under Directive 2006/7/EC
- Drinking Water Quality Reporting under Directive 98/83/EC

F. RELEVANT REGIONAL OR GLOBAL OBLIGATIONS AND REPORTING SYSTEMS

The European Commission has developed 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. In this website information submitted is public and can be view by any user (when no restriction is set by the Member State). For each country collection the data reports are arranged under the relevant reporting obligations or agreements. The reports mentioned above can be consulted in this website:

- Drinking Water Directive 98/83/EEC: Eionet>CDR>Spain>European Union (EU), obligations> Drinking Water Directive Report 98/83/EEC
- Urban Wastewater Treatment Directive 91/271/EEC: Eionet>CDR>Spain>European Union (EU), obligations> Urban Waste Water Treatment Directive monitoring (91/271/EEC) [Art 15]
- Bathing Water Directive 2006/7/EC: Eionet>CDR>Spain>European Union (EU), obligations> Bathing Water Directive 2006/7/EC Report
- Water Framework Directive 2000/60/EC: Eionet>CDR>Spain>European Union (EU), obligations> Water Framework Directive: River Basin Management Plans
- Nitrate Directive 91/676/EEC: Eionet>CDR>Spain>European Union (EU), obligations> Nitrates Directive Report (91/676/EEC)

On the other hand, the National Information System of Water for Human Consumption (SINAC) and the National Information System of Bathing Waters (NAYADE) are available to the public and can be consulted in the website of the Ministry of Health.

- SINAC: <http://sinac.msc.es/SinacV2/>
- NAYADE: <https://nayadeciudadano.mssi.es/>

The Ministry for Ecological Transition and Demographic Challenge also publishes information in their website such as the Public Bank of Environmental Indicators (BPIA), the Annual Report of Indicators, the Statistical Yearbook or the number of authorizations per year in public property (both hydraulic and maritime – terrestrial). Citizens may also require information on other subjects through the Environmental Information Office.

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