

Water Resources Management

Update of 2018 State of the Environment Report



NCESD

NATIONAL CENTRE for the ENVIRONMENT
& Sustainable Development

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ISBN: 978-618-84787-8-7

Introduction

The National Center for the Environment and Sustainable Development (NCESD) was established in 2000 with the aim to contribute to the integration of the environmental dimension into broader development policy, sub-areas and strategic planning, providing an appropriate expertise and objective information.

NCESD was established by the Presidential Decree No 325/2000 (A '266) and in particular point (e) of paragraph 2 of Article 3, it is provided that the NCESD “shall report annually assessing the state of the environment in Greece and shall appraise objectives, directions and measures of the environmental policy.”

In November 2018, NCESD presented the 2018 State of the Environment Report (SoER 2018, https://ekpaa.ypeka.gr/wp-content/uploads/2019/10/181019_Book-YPEKA_LOW.pdf). It is the first since 2013 (concerning the period 2008-2011) and the 4th overall State of the Environment Report of Greece. The SoER 2018 is a comprehensive overview of developments and challenges that facing the main environmental sectors. The SoER aims to provide detailed information to the citizens and the State and also shows the linkage to the relevant European Environment Agency's report. NCESD cooperated with academic institutions, research centers and technical companies in order to prepare the Report. The SoER 2018 includes the latest, detailed information for the state of the environment in Greece in the fields of climate change, air quality, noise, nature, water, waste and horizontal environmental issues, thus providing to all interested stakeholders a useful database.

The revision of the SoER 2018 regarding Water Resources Management concerns bathing waters and flood risk management and was compiled based on the most recent available data. The two thematic subsections were composed by the Directorate of Protection and Management of the Aquatic Environment of Ministry of Environment and Energy.

The purpose of this revision is to provide an objective information basis as well as to contribute to the public debate on policy directions and measures in the field of Water Resources Management.

The Project Group that revised the SoER 2018 in the field of Water Resources Management consisted of P. Varelidis and K. Korizi.

We would like to warmly thank the Directorate of Protection and Management of the Aquatic Environment of Ministry of Environment and Energy for their cooperation and for providing the required data.

Petros Varelidis
Acting Director of NCESD

Zoi Vrontisi
President of NCESD

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Bathing Waters

Source: General Directorate of Water, Ministry of Environment and Energy

1. Bathing Waters Quality Monitoring

The quality of bathing waters in Greece has been systematically monitored since 1988 in the framework of the "Bathing Water Quality Monitoring Programme in Greece", initially implementing Directive 76/160/EEC and subsequently under Directive 2006/7/EC since 2010, as harmonized in Greek legislation with Joint Ministerial Decision (JMD) 8600/416/E103/2009 (Official Government Gazette 356/B/2009). Until 2015 the Special Secretariat for Water¹ of the Ministry of Environment and Energy was responsible for the implementation of the programme while since 2016 the programme is implemented under the responsibility of the Special Secretariat for Water¹ and the Directorates of Water of the Decentralized Administration.

The monitoring of the bathing water quality takes place during the bathing season of each year. The duration of the bathing season is determined each year by the decision of the Minister of Environment and Energy upon recommendation of the Special Secretariat for Water¹. For 2017 and 2018, the beginning of the bathing season was marked by the issuance of the Decision No 140782/5-5-2017 of the Deputy Minister of Environment and Energy and it was lasted from June 1st to October 31st.

Monitoring network

The selection of the monitored bathing shores and sampling points shall be made by the Water Districts of the Decentralized Administration in cooperation with the Special Secretariat for Water¹ of the Ministry of Environment and Energy, the relevant State Services and public participation, as provided under Circular No. 190856/1-8-2013 on the revision process of the bathing water quality monitoring network.

In 2014, the bathing water quality monitoring network was revised. The main principle of this revision was to assign a single representative monitoring point to each bathing shore in accordance with the Directive 2006/7/EC. In accordance with this principle, an existing bathing water with more than one sampling points is now monitored at one representative point. In the framework of the updating process of monitoring network, the sampling points, where deemed necessary, were relocated to a more representative position within the monitored coast, maintaining their historical background though. The selection of the representative sampling point of a coast follows the provisions of Articles 1 and 3 of the Directive 2006/7/EC, which provides that the Directive shall apply to any surface water area where most bathers are expected to swim and where it has not been

¹ On July 2019, according to Presidential Decree No 84/2019 (A' 123), the General Secretariat for Natural Environment and Water of the Ministry of Environment and Energy was established, to which the services that were under the Special Secretariat for Water were transferred.

imposed a permanent ban on bathing or it has not been issued a permanent bathing recommendation. Upon the completion of this process, the revised bathing water monitoring network for 2014 included 1542 sampling points at respective bathing waters whereas for 2013 there were 2164 sampling points for 1487 bathing waters. Following the revision of the monitoring network, in 2015 and 2016 the bathing water quality monitoring network included 1542 sampling points at respective bathing waters. In 2017 and 2018, the total number of monitoring points was 1598. With 1598 reported bathing waters Greece accounts for about 7.3% of the reported bathing waters of the European Union.

(a) Coastal bathing waters

The number of monitoring points in coastal bathing waters increased from 683 in 1990 to 2158 in 2013. Due to the revision of the monitoring network and the fact that one monitoring point corresponds to each coastal bathing water, the number of points was 1538 in 2014. Concerning the exclusion of several monitoring points and the inclusion of new monitoring points during the revision of the monitoring network, the number of points increased to 1540 in 2015 and 2016, as well. In 2017 and 2018 the number of monitoring points was increased to 1595.

(b) Inland bathing waters

The number of inland bathing water monitoring points was increased from 4 in 1992 to 6 in 2013 (4 points at Vouliagmeni Lake and 2 points at Vegoritida Lake). Following the revision of monitoring network and assigning a monitoring point to each bathing water, the number of points in 2014 was 2 (1 point at Vouliagmeni Lake and 1 at Vegoritida Lake), same as in 2015 and 2016 while no new monitoring point was added during network revision. In 2017 and 2018, Great Prespa Lake was added and as a result the number of monitoring points was increased to 3.

Number of monitoring points of bathing water quality			
Year	Coastal bathing waters	Inland bathing waters	Total
2014	1538	2	1540
2015	1540	2	1542
2016	1540	2	1542
2017	1598	3	1598
2018	1595	3	1598

Bathing water quality assessment

The parameters considered, according to the requirements of Directive 2006/7/EC, are the following:

- **Microbiological:** "Escherichia coli" and "Intestinal enterococci", which were analyzed according to the laboratory methods described in Annex I of Directive 2006/7/EC and
- **Visually Monitored parameters:** tar residues, glass, plastic, rubber or any other waste.

The Special Secretariat for Water¹ evaluates the quality of bathing water based on all the qualitative data of monitoring of the microbiological parameters "Escherichia coli" and "Intestinal enterococci", which is formed in relation to the current bathing season and the three preceding bathing seasons, in accordance with Article 4 of Directive 2006/7/EC. Based on the assessment, bathing waters are classified, according to article 5 of Directive 2006/7/ EC, to the following categories.

Category	Quality
1	Excellent
2	Good
3	Sufficient
4	Poor

The Special Secretariat for Water² submits annually to the EU a list of monitored bathing waters and supervised the annual assessment report on the bathing water quality, which is also submitted to the EU. This report is based on the criteria set out in Directive 2006/7/ EC. The results of the Monitoring Programme of Bathing Water Quality are published on the website of the Ministry of Environment and Energy, on the European Environment Information and Observation Network (Eionet), on the European Environment Agency's interactive website and on the webpages of the Water Directorate of the Decentralized Administrations.

Bathing Water Profiles Registry

Bathing Water Profiles Registry was first established in 2012. The aim of the Bathing Water Profiles Registry is to describe and present the basic characteristics of the bathing waters, the hydrological and meteorological data of the area, the maps of the wider area, to identify the pollution sources that may affect water quality and to assess the magnitude of the effects, as well as to assess the occurrence of the eutrophication phenomenon. The Bathing Water Profiles Registry constitutes a guide for the choice of appropriate response measures for the consequences of pollution in bathing waters and provides for a more efficient management of the corresponding resources.

The Bathing Water Profiles Registry is updated and adjusted annually, under the supervision of the Special Secretariat for Water¹ and the Water Directorates of the Decentralized Administration. The update is made concerning any changes in the bathing water quality network, in the quality of bathing waters, in case of significant structural works or conversions in infrastructure projects in terms of bathing waters or near them, in the relation of coasts with water bodies and protected areas, in recognized pressures from pollution sources and pollution control measures, as well.

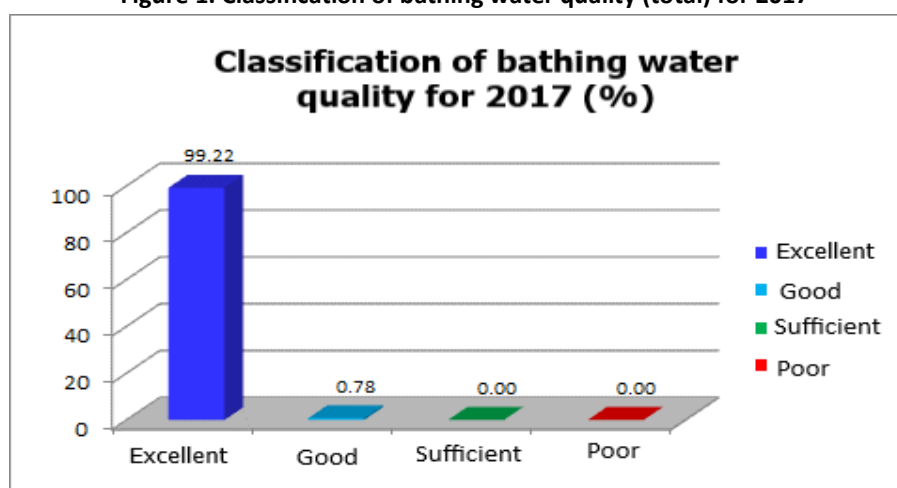
Upon completion of the Bathing Water Profiles Registry, an interactive website is operational through which the bathing water profiles are presented and the information of the public is achieved regarding the results of the monitoring programme, the classification of the bathing water quality and the appropriate management measures taken depending on the case. Additionally, it is possible for the interested public to make comments which are taken into account both for the improvement of the website, as well as for the formation and adoption of the appropriate management measures. All relevant data and information of the Bathing Water Profiles Registry are available on the <http://www.bathingwaterprofiles.gr/>.

² It was funded by NCESD

2. Bathing Water Quality Assessment for 2017

In 2017, all the qualitative data of the microbiological parameters monitoring for the years 2014-2017 were examined and the statistical analysis provided by the Directive 2006/7/EC for the assessment and classification of the bathing water quality was applied. Monitoring concerned 1598 points on an equal number of bathing waters, of which 1545 were evaluated, as for the period 2015 to 2017, 52 new points were observed for the first time that were not evaluated as the minimum number of samples, which is specified in Directive 2006/7/EC, was not considered. In addition, one point was not monitored because of the inaccessibility to the coast due to landslides and cut off sections of road. However, this did not affect the water quality at that point. According to the bathing water quality assessment, which was published by Special Secretariat for Water¹ "Greece Bathing Water Quality Report - Reference year 2017". Quality of 1545 bathing waters classified as "at least sufficient" (categories 1, 2 & 3), quality of 1533 bathing waters classified as "excellent" and none was not classified as "sufficient" and "poor". The results of the bathing water assessment for 2017 (coastal, inland and total), according to the criteria of Directive 2006/7/EC, are illustrated in the following figures and tables.

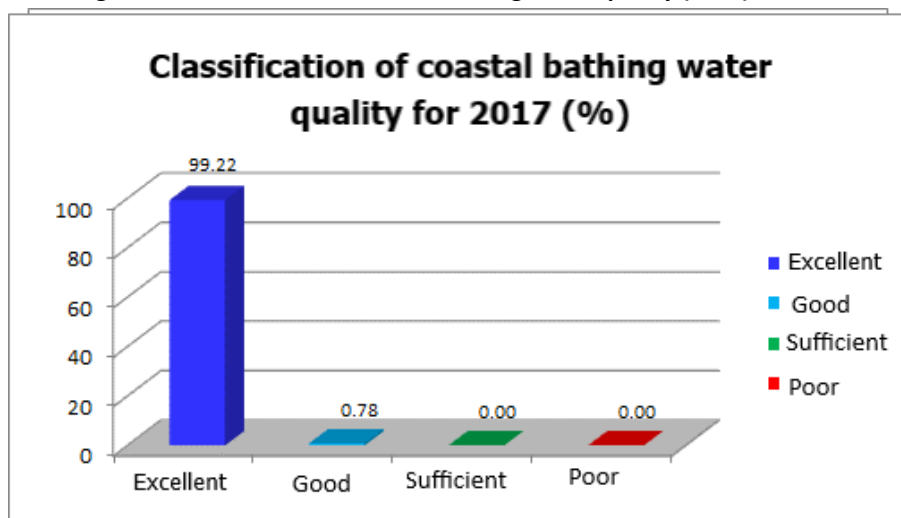
Figure 1. Classification of bathing water quality (total) for 2017



Number of monitoring points	Category	Quality	%Percentage
1533	1	Excellent	99,22%
12	2	Good	0,78%
0	3	Sufficient	0,0%
0	4	Poor	0,0%

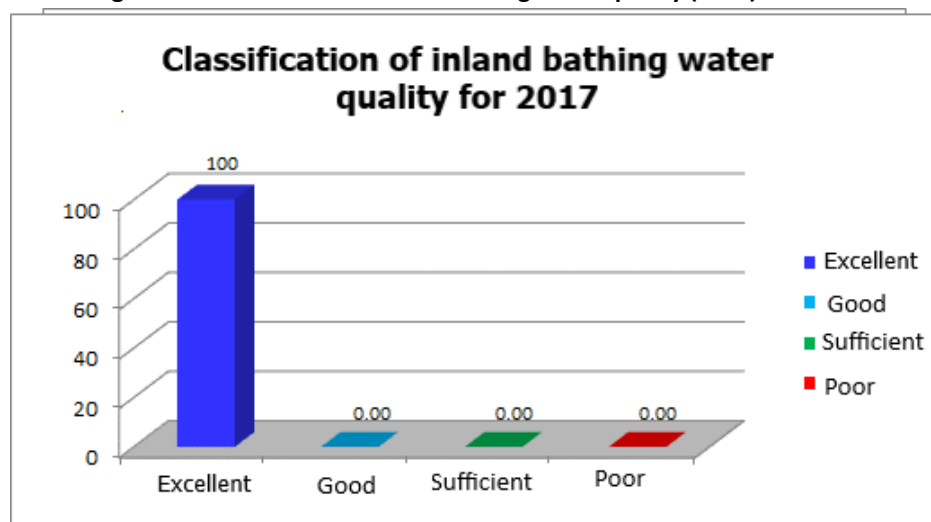
Total number of coastal bathing waters is in full compliance with the requirement of the Directive for bathing waters of at least sufficient quality, as these are classified as a whole in excellent and good quality and none of them in sufficient and poor quality. Respectively, all inland bathing water are in full compliance with the requirement of the Directive for bathing waters of at least good quality, as these are classified as a whole in excellent quality waters.

Figure 2. Classification of coastal bathing water quality (total) for 2017



Number of monitoring points	Category	Quality	%Percentage
1531	1	Excellent	99,22%
12	2	Good	0,78%
0	3	Sufficient	0,0%
0	4	Poor	0,0%

Figure 3. Classification of inland bathing water quality (total) for 2017³



Number of monitoring points	Category	Quality	%Percentage
2	1	Excellent	100%
0	2	Good	0,0%
0	3	Sufficient	0,0%
0	4	Poor	0,0%

³ One out of three monitoring points and specifically the Great Prespa Lake point was not evaluated.

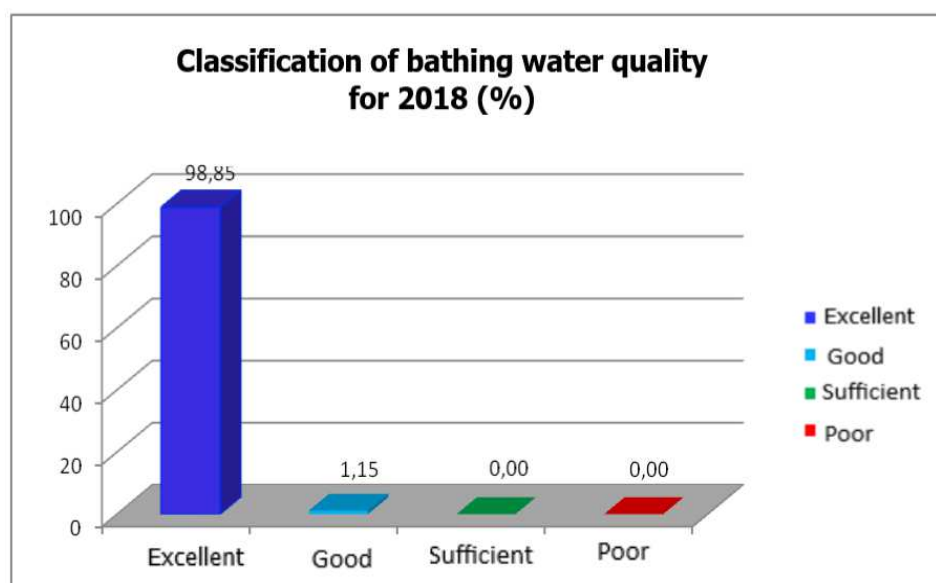
Figure 2. Bathing Waters Monitoring Points and quality classification in Greece during the 2017 bathing season



3. Bathing Water Quality Assessment for 2018

For 2018, all the qualitative data of the microbiological parameters monitoring for the years 2015-2018 were examined and the statistical analysis provided by the Directive 2006/7/EC for the assessment and classification of the bathing water quality was applied. Bathing water monitoring in 2018 concerned 1598 points on an equal number of bathing waters, 3 points of which are in inland bathing waters and the remaining 1595 in coastal bathing waters. According to the bathing water quality assessment, which was published by the Special Secretariat for Water¹, "Greece Bathing Water Quality Report - Reference year 2018", 1568 out of 1598 monitoring points were evaluated as for the period 2017-2018 were monitored 58 new points, 30 of which were not evaluated. These 30 new points were not evaluated because the minimum required number of samples had not been filled in yet, as defined by the Directive 2006/7/EC. Quality of 1550 bathing waters classified as "excellent", 18 bathing waters as "good" and none as "sufficient" and "poor". The results of the bathing water assessment for 2018 (coastal, inland and total), according to the criteria of Directive 2006/7/EC, are illustrated in the following figures and tables.

Figure 3. Classification of bathing water quality (total) for 2018

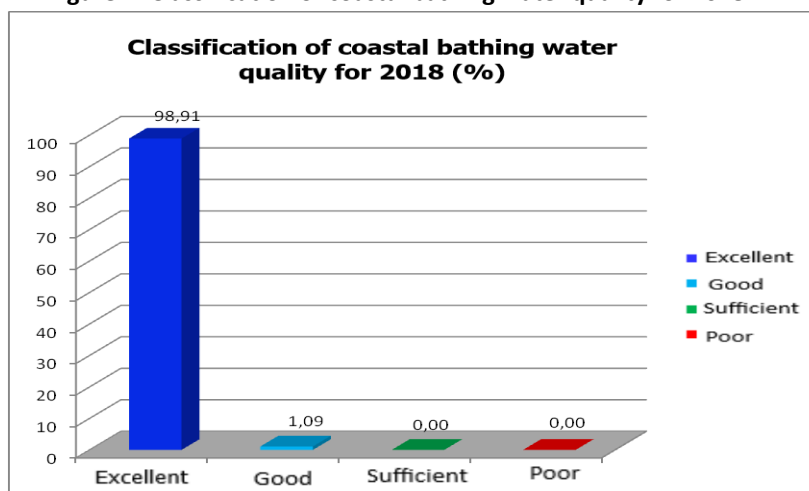


Number of monitoring points	Category	Quality	%Percentage
1550	1	Excellent	98,85%
18	2	Good	1,15%
0	3	Sufficient	0,0%
0	4	Poor	0,0%

Total number of coastal bathing waters is in full compliance with the requirement of the Directive for bathing waters of at least sufficient quality, as these are classified as a whole in excellent and good quality and none of them in sufficient and poor quality. Respectively, the total number of inland bathing waters is in full compliance with the requirement of the Directive for bathing waters of at

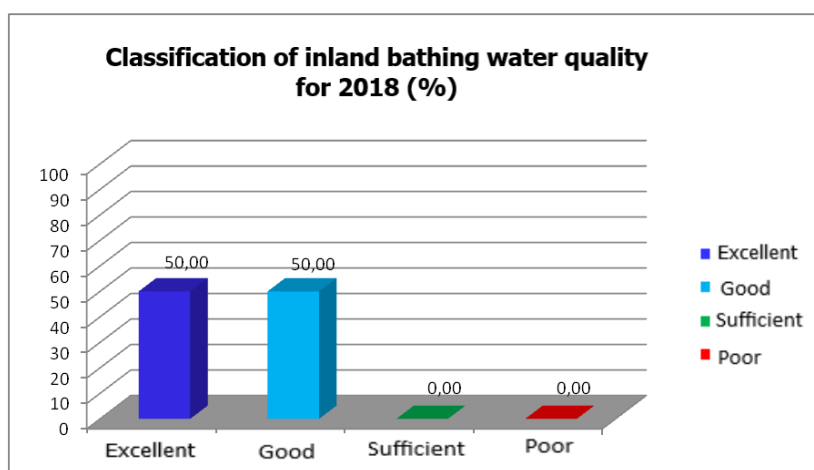
least sufficient quality, as these are classified as excellent and good quality bathing waters. None of inland bathing waters had sufficient and poor quality.

Figure 4. Classification of coastal bathing water quality for 2018



Number of monitoring points	Category	Quality	%Percentage
1549	1	Excellent	98,91%
17	2	Good	1,09%
0	3	Sufficient	0,0%
0	4	Poor	0,0%

Figure 5. Classification of inland bathing water quality for 2018³



Number of monitoring points	Category	Quality	%Percentage
1	1	Excellent	50.00%
1	2	Good	50.00 %
0	3	Sufficient	0,0%
0	4	Poor	0,0%

Figure 6. Bathing Waters Monitoring Points and quality classification in Greece during 2018 bathing season



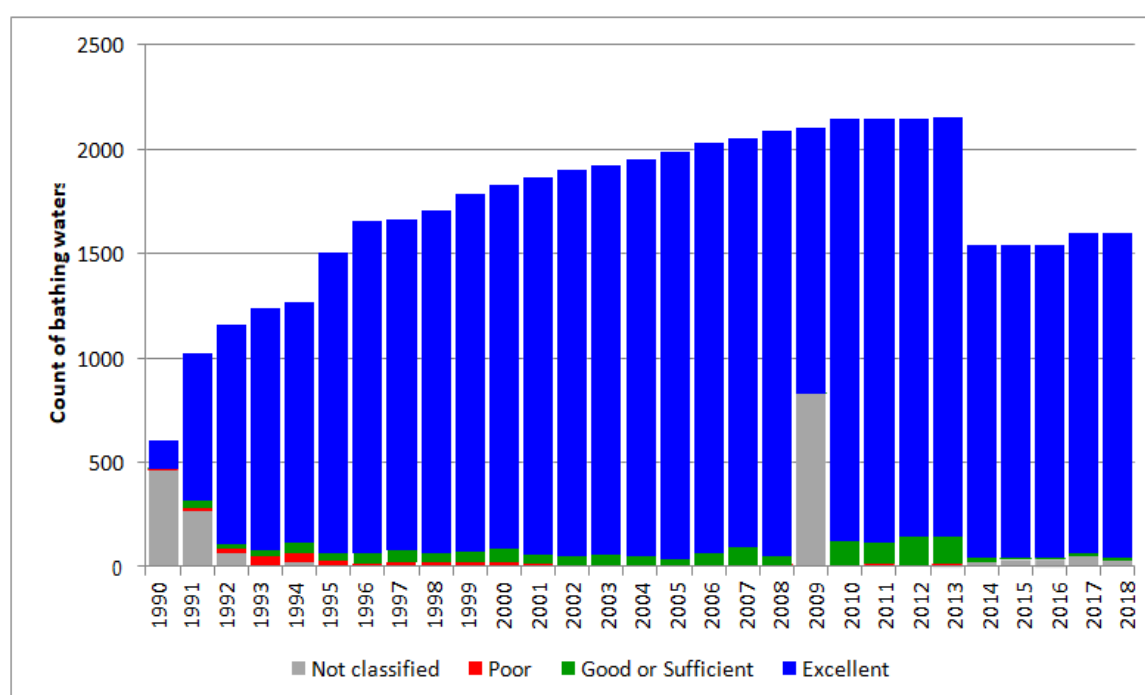
4. Compliance trends of bathing water quality over time

The following figures illustrate the percentage of compliance with the mandatory values and meeting guide values of Directive 76/160/EEC over time for coastal and inland bathing waters as well as the water bathing quality classification according to Directive 2006/7/EC from 1990 to 2018.

According to the Monitoring Programme of Bathing Water Quality, since 1992 the percentage of compliance mandatory values and meeting guide values of Directive 76/160/EEC exceeded 90%. As far as it was concerned the mandatory values, since 1996 it was over 98% and since 2001 it was over 99%. Since 2002, the non-compliance percentage fell to 0.5%. Also, all bathing waters, which since 2010 are evaluated according to Directive 2006/7/EC, are in compliance with the provisions of Directive 2006/7/EC for at least sufficient bathing waters quality.

Since the implementation of the monitoring programme in 1990, there was no area with bathing water prohibition due to insufficient water quality.

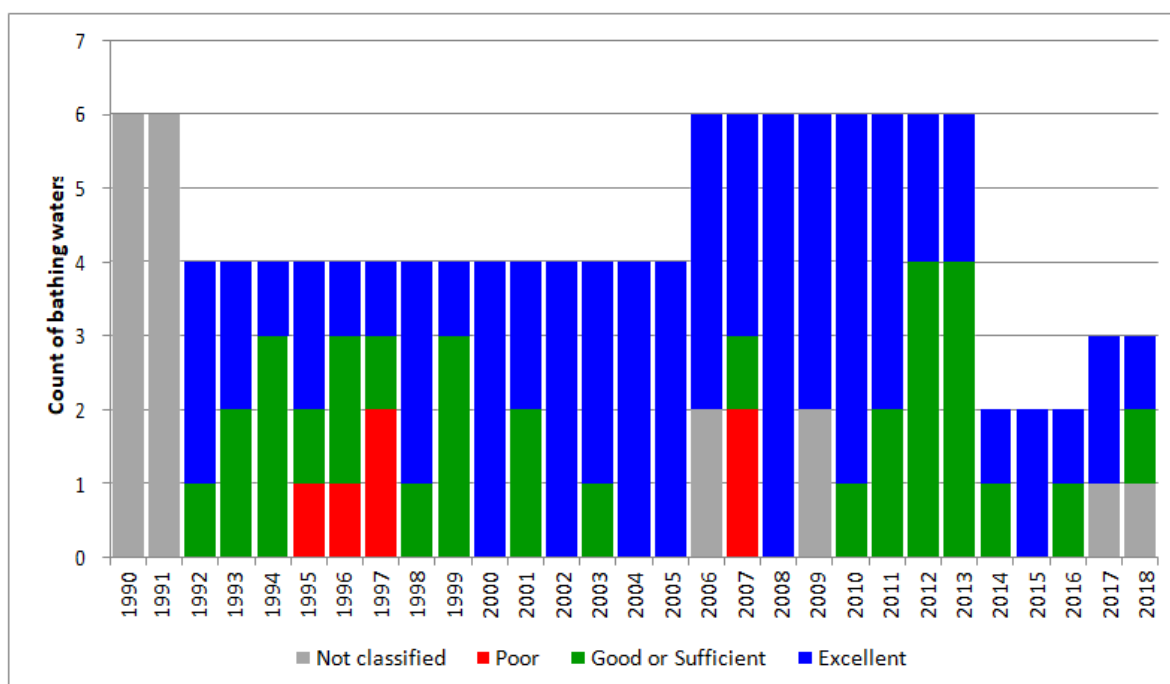
Figure 7. Percentage of Coastal Bathing Waters complying with Bathing Water Directive (BWD), 1990 – 2018



In 2010, 100% of the monitoring inland bathing waters (6 points) were in compliance with the mandatory values of Directive 76/160 / EEC (the same as in 2009), while 83.3% (5 out of 6 points) with meeting guide values, showing a decrease of 16.7% compared to 2009. Also, since 2010 all bathing waters, which are evaluated according to Directive 2006/7/EC, are in compliance with the provisions of Directive 2006/7/ EC for at least sufficient quality bathing waters. It should be noted that the sharp fluctuations in quality are due to the small number of monitoring points.

Since the implementation of the monitoring programme in 1990, there was no area with bathing water prohibition due to insufficient quality.

Figure 8. Percentage of Inland Bathing Waters complying with Bathing Water Directive (BWD), 1990 – 2018



5. Blue Flag Programme

Based on the data obtained from the Monitoring Programme of Bathing Water Quality, Greece successfully participates every year in the International Programme "Blue Flag". Countries from almost all continents are participating in this programme, with the number of countries continuously increases. Blue Flag label is the most well-known environmental symbol worldwide.

A Blue Flag in order to be obtained, bathing water quality must be classified as excellent and also comply with strict criteria related to environmental education and information, environmental management, safety, lifeguards, first aid, services and installations.

Greece has a leading role, winning one of the first awards. In 2017, Greece had 486 "Blue Flag" award beaches, ranking 2nd in the world among 47 countries. In 2018, it had 519 "Blue Flag" award beaches, remaining in 2nd place among 47 countries.

Year	Beaches with Blue Flags
2015	395
2016	430
2017	486
2018	519

Flood Risk Management

Source: General Directorate of Water, Ministry of Environment

1. Summary

Directive 2007/60/EC, as incorporated into national law by JMD 31822/1542/E103/2010 (Official Government Gazette 1108 B'/2010), as amended and in force by JMD 177772/924 (Official Government Gazette B'2140/22.06.2017), establishes a single Community legislative and political framework for Risk Assessment and Management related to Floods, which complements the Water Framework Directive (Directive 2000/60/EC) on flood risk management and includes measures for prevention, protection, preparedness, recovery. The aim of both Directives or otherwise defined as Geographical Management Unit is the Water District. The Competent Authorities of implementation Directive 2007/60/EC are the same as those of Directive 2000/60/EC.

According to EU guidelines, the implementation of both Directives requires a similar approach to various issues, such as cross-border cooperation between Member States, management per river basin and the active participation of all relevant bodies and public in the water management activities. The provisions of the Flood Measures Programme must be in line with the Programmes of Measures under Directive 2000/60/EC, they must not conflict with the environmental objectives of the Directive 2000/60/EC which is the achievement of the good condition of all water systems. In addition, flood risk management is required to take into account climate change.

Directive 2007/60/EC considers different types of floods, such as river floods, floods of areas due to insufficient drainage after heavy rains and floods from the sea in coastal areas, etc.

The implementation of Directive 2007/60/EC in Member States is implemented in three stages: a) Preliminary Flood Risks Assessment, b) Flood Hazard Maps and Flood Risk Maps for all areas where there is a significant risk of flood, c) Flood Risk Management Plans.

Flood Risk Management Plans are the basis of the maps for the Flood Risk Management and Assessment at the level of the River Basin District.

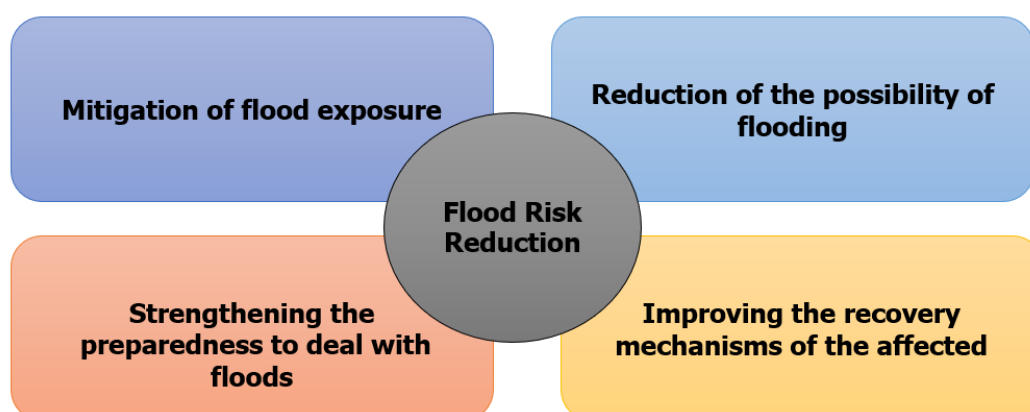
2. Objectives of Flood Risk Management

Directive 2007/60/EC neither specifies the objectives of Flood Risk Management Plans nor gives a specific timetable for their achievement. Hence, objectives regarding the management of flood risks should be determined by the Member States themselves as well as the measures that should be included in Flood Risk Management Plans. It is possible to set high goals that exceed the 6-year horizon of the Flood Risk Management Plan, but it is at the discretion of the competent authorities to set less demanding goals, depending on their potential with a time horizon of 6 years.

Taking into account the provisions of Directive 2007/60/EC and the Directive Texts, in the 1st implementation cycle of Directive 2007/60/EC the following General Objectives were defined at national level:

- Mitigation of flood exposure
- Reduction of the possibility of flooding
- Strengthening the preparedness to deal with floods
- Improving the recovery mechanisms of the affected areas

Figure 1: General Objectives of Flood Risk Management



The above General Objectives of the 1st cycle of implementation of Directive 2007/60/EC, as incorporated in Flood Risk Management Plans in each Water District correspond to the four action axes of Flood Risk Management (Prevention, Protection, Preparedness, Recovery) in order to establish a common understanding and policy on issues related to impacts of flood risk.

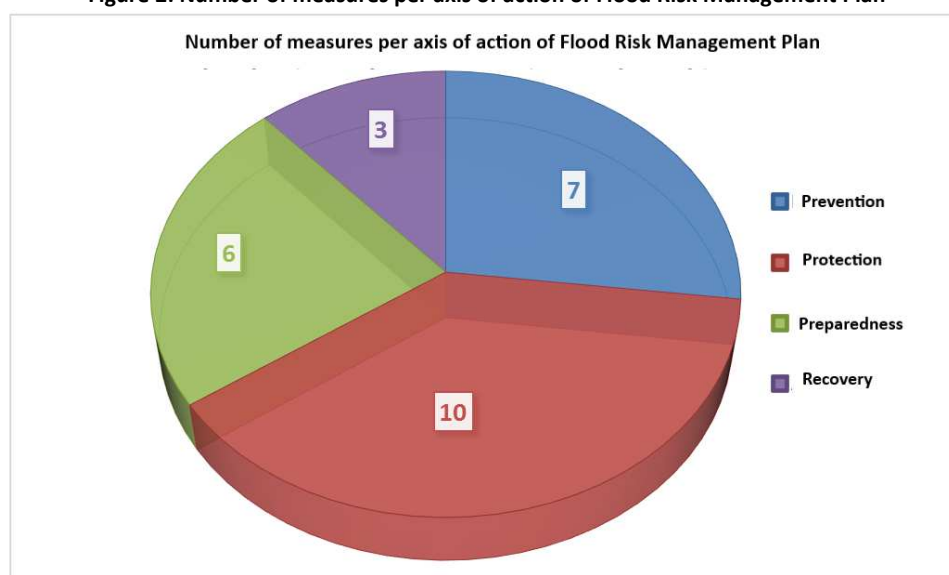
3. Measures Programme

The Measures Programme for Achieving the General Objectives of Flood Risk Management that have been put in place at the national level and is common to all fourteen (14) Water Districts, has been developed for each Water District. It concerns all aspects of flood risk management (Prevention, Protection, Preparedness, Recovery).

The Measures Programme was finalized based on the results of the consultation that carried out with all stakeholders and by any appropriate means (Seminars, working meetings, correspondence, etc.) and includes in the 1st implementation cycle of Directive 2007/60/EC 26 Measures which are divided per axis of action in:

- 7 Prevention Measures to achieve the goal "Mitigation of Flood Exposure "
- 10 Protection Measures to achieve the goal "Reduction of the possibility of flooding"
- 6 Preparedness Measures to achieve the goal "Strengthening the preparedness to deal with floods"
- 3 Recovery Measures to achieve the goal "Improving the recovery mechanisms of the affected areas".

Figure 2: Number of measures per axis of action of Flood Risk Management Plan

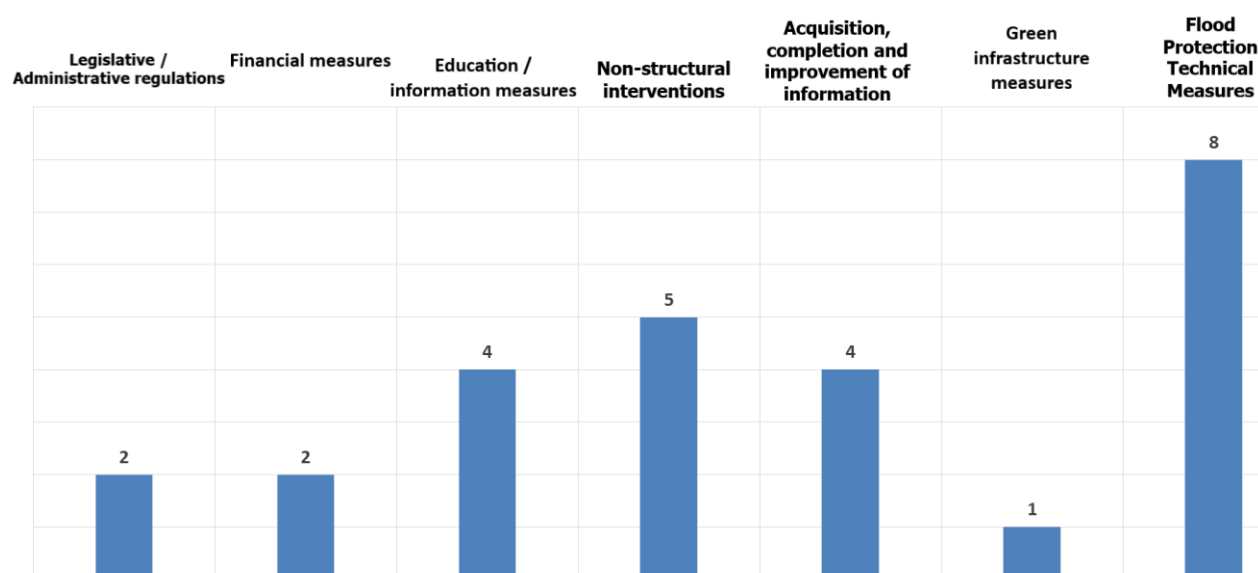


In order to determine the measures, in addition to the results of the Flood Hazard Maps and Flood Risk Maps in each Water District that were taken into account, also the following were taken into account: a) the costs and benefits of the measures, b) the environmental objectives of Directive 2000/60 / EC c) the existing practices for flood protection, d) soil and water management, e) spatial planning as well as the existing responsibilities of the stakeholders.

The additional measures are divided into different types according to their content:

- Legislative / Administrative regulations: They concern decisions of administrative regulations
- Financial measures: They concern measures and interventions to better identify flood damage as well as financial tools to manage flood impacts
- Education / information measures: They concern education, information and awareness actions
- Non-structural interventions: They concern regulatory provisions (e.g. control of land use, zoning) and non-structural projects (such as early warning systems)
- Acquisition, completion and improvement of information: They concern the creation/ completion of databases, completion of field data, mainly topographic depictions of infrastructures and elements of water geometry.
- Green infrastructure measures: They concern measures and interventions for the protection of environmentally sensitive areas.
- Flood Protection Technical Measures: They concern flood protection construction projects and assessments for their implementation.

Figure 3: Number of measures per type of measure as defined in the Flood Risk Management Plans in Greece Water Districts



For each measure, the following were determined:

- The Competent Authority responsible for the implementation, the application and the coordination of the proposed measure at national, regional, local level and other stakeholders.
- The implementation area of the measure and the geographical impact of the measure.
- The prioritization of the measure (short-term measures implemented until 2021 and medium-term measures implemented by 2027).
- The implementation cost of the measure.
- The correlation with the objectives and the measures of the relevant River Basin Management Plan of Directive 2000/60/EC.
- The correlation of the measure with the climate change.
-

4. Implementation Stages of Directive 2007/60 / EC

Greece has completed all the stages of the 1st six-year implementation cycle of Directive 2007/60/EC.

The first stage of the implementation of the Directive concerns the Preliminary Flood Risk Assessment Report, which provides the determination of the Potential High Flood Risk. The entire Preliminary Flood Risk Assessment Report with the relevant geospatial data for the 14 Water Districts of the country has been compiled and is available on the webpage of the [Ministry of Environment and Energy](#), on the specially designed [website of the Ministry for floods](#) and on the basis of [European Environment Information and Observation Network](#) (EIONET) of the European Commission.

Furthermore, a Flood Events database is provided, designed to meet the provision of implementation of Directive 2007/60/EC.

Regarding the second stage of the Directive, the Flood Hazard Maps and Flood Risk Maps have been prepared and the check and posting of the required texts and maps have been completed on the specially designed [website of the Ministry for floods](#) and on the basis of [EIONET](#) of the European Commission.

Regarding the third stage of the Directive, the Flood Risk Management Plans, after the completion of their consultation as well as the relevant Strategic Environmental Impact Assessment (SEIA), were approved by the National Water Committee and published in the Official Government Gazette:

Water District	Government Gazette
West Peloponnese (EL01)	ΦΕΚ 2640 Β'/05.07.2018
Northern Peloponnese (EL02)	ΦΕΚ 2691 Β'/06.07.2018
Eastern Peloponnese (EL03)	ΦΕΚ 2692 Β'/06.07.2018
Western Central Greece (EL04)	ΦΕΚ 2686 Β'/06.07.2018
Epirus (EL05)	ΦΕΚ 2684 Β'/06.07.2018
Attica (EL06)	ΦΕΚ 2693 Β'/06.07.2018
Eastern Central Greece (EL07)	ΦΕΚ 2682 Β'/06.07.2018
Thessaly (EL08)	ΦΕΚ 2685 Β'/06.07.2018
Western Macedonia (EL09)	ΦΕΚ 2689 Β'/06.07.2018
Central Macedonia (EL10)	ΦΕΚ 2638 Β'/05.07.2018
Eastern Macedonia (EL11)	ΦΕΚ 2690 Β'/06.07.2018
Thrace (EL12)	ΦΕΚ 2688 Β'/06.07.2018
Crete (EL13)	ΦΕΚ 2687 Β'/06.07.2018
Aegean Islands (EL14)	ΦΕΚ 2683 Β'/06.07.2018

In addition, a separate Flood Risk Management Plan has been prepared for the Greek section of the Evros River Basin (Official Government Gazette 2639 B'/05.07.2018).

The Flood Risk Management Plans are posted on the [website of the Ministry of the Environment and Energy for floods](#), in which the geospatial Flood Hazard Management data are also available. The European Commission has been informed of the content of the Flood Risk Management Plans of all the country's Water Districts through [EIONET](#).

As the Flood Risk Management Plans have been approved, the country has for the first time a validated National Flood Risk Management Plan tailored to the needs and specific characteristics of each River Basin District and concerns all aspects of flood risk management, (prevention, protection, preparedness, recovery), according to European standards.

List of imposed fines

1. Biological Wastewater Treatments in Mesogeia, Attica

On October 10th, 2015 the Court of Justice of EU (CJEU) rendered judgment with which a lump sum fine of € 10 million has been imposed (and a decreasing penalty payment € 3.64 million per semester according to the increase of the percentage of the served equivalent population in relation to the date of the sentence). They have been charged to date:

- 1st semester instalment (15.4.16): € 3.64 million,
- 2nd semester instalment (15.10.16): € 3.64 million,
- 3rd semester instalment (15.4.17): € 3.64 million,
- 4th semester instalment (15.10.17): € 3.468 million,
- 5th semester instalment (15.4.18): € 3.462 million,
- 6th semester instalment (15.10.18): € 3.462 million,
- 7th semester instalment (15.4.19): € 3.462 million,
- 8th semester instalment (15.10.19): € 3.462 million.

Total to date: € 38.236 million.

To date, 5% progress has been made as the construction of the necessary wastewater treatment plants are required.

2. Biological Wastewater Treatments in the Thriasio field

A fine of € 5 million has been imposed on a lump sum and on a gradually decreasing fine of € 3.28 million for every six months of delay by reducing the total amount relating to each of those periods by a corresponding to the proportion of population equivalents of the Thriasio field having full compliance with the judgment of 24 June 2004, Commission of Greece (C-119/02, not published, EU:C:2004:385) at the end of the period in question, compared with the number of population equivalents of this area in respect of which no compliance has been made with the judgment of 24 June 2004, Commission of Greece (C-119/02, not published, EU:C:2004:385), on 22/2/2018.

- 1st semester instalment (22.8.18): € 1.906 million,
- 2nd semester instalment (22.2.19): € 1.727 million, (48% progress)
- 3rd semester instalment (22.8.19): € 1.608 million, (52% progress)

Total to date: € 10.241 million.

Progress has already been made in complying with the judgment by 52% (increase in connections to the sewerage).

Conclusions and assessments of the objectives, and environmental policy directions and measures

In the State of the Environment Report 2018 noted that the quality of surface water in Greece remains good whereas lake and transit water are comparatively worse. Groundwater systems are, in the majority, in good quality and quantity. The quality degradation of groundwater is mainly due to nitrate pollution on the one hand, as a result of intensive cultivation and reckless use of fertilizers and pesticides, on the other hand, on salinization (chlorine ions excess) as a result of overexploitation and over-abstraction of coastal groundwater (through a multitude of illegal drilling). The quality of bathing water was and remains excellent, as well as the quality and availability of drinking water.

The main problem, apart from the two cases of wastewater treatment plants in the Thrasio field and in the Eastern Attica, for which the country has been sentenced to pay fines, is the delayed implementation of obligations under European law, with the longest delay being observed in the Marine Environment Directive.

According to the "Survey on the implementation of environmental policy in Greece - 2019" regarding wastewater treatment plants, 89.6% of the wastewater is connected to collection systems, while only 10.4% is subjected to treatment through individual or other appropriate systems (such as septic tanks, storage units or individual treatment plants e.g. tourist units). However, among the 455 settlements mentioned in Greece, 217 (smalls in the vast majority) do not have a wastewater treatment plant. According to the results of the technical assistance project of the European Commission to Greece for the systematic evaluation and strategic reorganization of the country's investment needs for urban wastewater treatment, in order to ensure that proper collection and treatment of wastewater in other settlements, an investment about € 1,568 million is required.

The main challenges that will remain for the next years:

- the completion of wastewater treatment plants in Eastern Attica,
- the completion of the connection of the residencies at the area of Thrasio field with the already constructed network,
- the completion of the remaining wastewater treatment plants in the settlements of the third priority by 2023,
- to ensure the proper function of many small biological treatment plants that are scattered in small municipalities of the country (problems due to seasonal fluctuation of supply, over-sizing and poor design) through the training and education of existing staff or assigning wastewater treatment plants' operations to specialized companies (public or private) with parallel control over the services provided by an external audit body,
- the utilization of biological treatment sludge
- the promotion of the reuse of treated effluents of biological treatment plants for beneficial purposes after tertiary treatment,

- the reduction of drinking water network losses,
- the implementation of the new JMD for the costing and pricing of water services (laying down sanctions, full operation of the information system of the Directorate-General for Water so a comparative assessment of the providers performance could be done, preparation of the planned annual national assessment report, etc.).
- the drill logging and control,
- dealing with nitrate pollution,
- to ensure the timely approval of subsequent river basin management plans and flood risk management plans in accordance with EU law deadlines,
- the implementation of the European Commission recommendations (such as the better set out of the Good Environmental Status (GES) and the objectives, timetable for achieving the GES for all quality features, geographical range of measures, improving the correlation of measures with pressures, quantitative of pressures but also the measures' effectiveness, improvement of the measures taken to address pressures on marine species and habitats, implementation timetable and financing of the measures, better linkage between measures and monitoring programmes, improvement of available information, etc.) for marine strategy action plans in accordance with Article 13, paragraph 9 of Directive 2008/56 on achieving good environmental status in marine waters by 2020.
- to ensure the timely submission of reports on the various elements under the Framework Directive Marine Strategy.