damt Decentralized Administration Macedonia – Thrace

2nd MANAGEMENT PLAN REVISION

for the River Basin District of

Thrace (EL12)

SUMMARY

European Union
Cohesion Fund

Co-Funded by Greece and the European Union

NSRF 2014-2020
development - work - solidarity

HELLENIC REPUBLIC
DECENTRALIZED ADMINISTRATION
OF MACEDONIA – THRACE

PROJECT: 2nd Revision of the River Basin Management Plans of three (3) River Basin Districts (RBDs): Central Macedonia (EL10), Eastern Macedonia (EL11) and Thrace (EL12), in accordance with the requirements of Directive 2000/60/EC. Section 1: "2nd Revision of the River Basin Management Plan (RBMP) of the River Basin District of Thrace (EL12)".

ADVANCED ENVIRONMENTAL STUDIES Consulting Engineers S.A.

2nd Revision of the River Basin Management Plan (RBMP) of the River Basin District of Thrace (EL12)

Summary

Final Version

Government Gazette (Official Journal) approving the 2nd Revision of the RBMP of the River Basin District of Thrace (EL12): Government Gazette, Series A, No. 81 / 12.06.2024

1 INTRODUCTION – 2nd REVISION OF THE RIVER BASIN MANAGEMENT PLAN

1.1 INTRODUCTION

Since the early 2000s, the European Union has established a new policy for water resources management. The main instrument for promoting this policy is the Water Framework Directive 2000/60/EC.

The harmonization of Greek legislation with the Water Framework Directive 2000/60/EC was achieved through Law 3199/2003 (Government Gazette 280/A/2003) and Presidential Decree 51/2007 (Government Gazette 54/A/2007). Through these provisions, the basic concepts of the Directive concerning water resources are incorporated into national legislation, while at the same time a new administrative structure is established and the responsibilities of the individual authorities are defined, both at national and at regional level.

A priority and necessary step for the implementation of the Directive in Greece was the preparation of the River Basin Management Plans (RBMPs) for the 14 River Basin Districts (RBDs) of the country, as defined by Decision No. 706/2010 of the National Water Committee (Government Gazette 1383/B/2010 and Government Gazette 1572/B/2010 – correction of Annex II), as in force following the approval of the respective Management Plans.

According to Article 7 of Law 3199/2003, as replaced by Article 32 of Law 5037/2023, each Decentralized Administration prepares a Management Plan for the River Basin District under its jurisdiction, in accordance with the guidelines of the National Water Strategy. For a River Basin District (RBD) for which two or more Decentralized Administrations share responsibility, the River Basin Management Plan (RBMP) is prepared jointly, unless otherwise specified in the decision of paragraph 3 of Article 5 of Law 3199/2003. Following a request by the Secretary of the Decentralized Administration, the Management Plan may be prepared or amended by the General Directorate of Waters of the Ministry of Environment and Energy. In this case, during the preparation, final processing or revision of the Management Plan, the General Directorate of Waters cooperates with the competent Directorate of Waters of the respective Decentralized Administration.

Based on relevant requests by the Secretaries General of the Decentralized Administrations, the former Special Secretariat for Water (SSW) of the Ministry of Environment and Energy undertook the preparation of the Management Plans for the 14 River Basin Districts of the country during the 1st and 2nd Management Cycles. For the current 3rd Management Cycle, the General Directorate of Waters (former SSW) of the Ministry of Environment and Energy undertook the preparation of the Management Plans for nine (9) River Basin Districts. The Management Plans for the remaining five (5) River Basin Districts are being prepared by the Decentralized Administration of Macedonia – Thrace (for the RBDs of Central Macedonia, Eastern Macedonia and Thrace) and by the Decentralized Administration of Epirus – Western Macedonia (for the RBDs of Epirus and Western Macedonia).

The RBMP includes all elements, information and assessments necessary for the protection and management of waters, in accordance with the guidelines and methodology defined by the General Directorate of Waters. The content of the RBMPs is determined by Presidential Decree 51/2007 (Government Gazette 54/A/2007).

The River Basin Management Plans of the country's River Basin Districts are revised and updated every six years. The first approved Management Plans concerned the 1st Management Cycle (2009–2015) and remained in force until their revision. The Management Plans prepared under the 1st Revision of the River Basin Management Plans of the 14 River Basin Districts of the country, in accordance with the requirements of Directive 2000/60/EC, concerned the 2nd Management Cycle (2016–2021) and remained in force until their revision. The Management Plans prepared under the 2nd Revision of the River Basin Management Plans of the

14 River Basin Districts of the country, in accordance with the requirements of Directive 2000/60/EC, concern the 3rd Management Cycle (2022–2027) and remain in force until their next revision.

The present edition concerns the 2nd Revision of the River Basin Management Plan of the River Basin District of Thrace.

1.2 PREPARATION OF THE 2ND REVISION OF THE RIVER BASIN MANAGEMENT PLAN

Directive 2000/60/EC places the protection of the aquatic environment and ecological objectives at the core of an approach based on integrated water management at the River Basin scale. For this purpose, appropriate implementation planning is required, involving the design and coordination of individual actions, so that the final outcome is the achievement of "good status" (or "good ecological potential") of Water Bodies.

The implementation of the Directive includes the following main components:

1. Assessment of the existing status and preliminary gap analysis
2. Organization of environmental objectives
3. Preparation of Monitoring Programs
4. Gap analysis
5. Preparation of the Programme of Measures
6. Preparation of the national River Basin Management Plan
7. Implementation of the Programme of Measures
8. Evaluation of the Programme of Measures
9. Public consultation and active participation of stakeholders

With regard to the implementation of the individual requirements of Directive 2000/60/EC, the following actions, among others, have been completed:

- The individual River Basins and River Basin Districts (River Basin areas) have been identified and recorded by Decision No. 706/16-07-2010 (Government Gazette 1383/B/2010 & Government Gazette 1572/B/2010) of the National Water Committee, entitled "on the designation of the River Basins of the country and the appointment of the competent Regions for their management and protection", as in force following the approval of the first River Basin Management Plans of the 14 River Basin Districts of the country.
- The first River Basin Management Plans for all fourteen (14) River Basin Districts of the country for the period 2009–2015, as well as the 1st Revision of the River Basin Management Plans for all River Basin Districts for the period 2015–2021, have been prepared, approved and submitted to the European Union. The approved Management Plans include all analytical information required by Article 13 and Annex VII of Directive 2000/60/EC.
- The Interim Progress Reports entitled "Implementation of the Programmes of Measures of the River Basin Management Plans" have been prepared by the General Directorate of Waters and submitted to the European Union.
- The National Water Monitoring Network for the status of the country's waters has been established and is in operation, comprising more than 2,600 monitoring sites for the qualitative and quantitative status of surface and groundwater.

- The National Register of Water Abstraction Points (NRWAP) has been established and is in operation, in which the abstractable quantities of water from licensed abstraction points for various uses in the 14 River Basin Districts of the country are recorded.
- Annual reports on the qualitative and quantitative status of surface waters (rivers, lakes, transitional and coastal waters) and groundwater for each River Basin District of the country are prepared, based on data from the operation of the National Monitoring Network.

In accordance with the requirements of Directive 2000/60/EC, River Basin Management Plans are revised and updated every six years. The Management Plans prepared within the framework of the 2nd Revision of the River Basin Management Plans, for each of the country's River Basin Districts (see Map 1-1), concern the period 2021–2027 and constitute the 3rd RBMPs. Within the framework of the 2nd Revision of the approved River Basin Management Plans of the country's River Basin Districts, the following actions are carried out:

- Updating the identification and characterization of surface (river, lake, transitional and coastal) and groundwater bodies.

- Review and update of typological reference conditions and of the assessment/classification of the status/potential of surface waters (ecological and chemical), including heavily modified and artificial water bodies, and of groundwater bodies (quantitative and chemical), based on new data available from the operation of the National Water Monitoring Network.

- Reassessment of surface water bodies exhibiting significant hydromorphological alterations, in order to determine those that qualify as heavily modified water bodies (HMWBs) and artificial water bodies (AWBs).

- Updating the inventory of significant pressures as included in the approved Management Plans, as well as their impacts.

- Updating the Register of Protected Areas, based on new information arising from the implementation of relevant EU Directives.

- Updating information on planned projects/activities related to the exploitation of water resources.

- Review of environmental objectives for all surface and groundwater bodies, including heavily modified and artificial water bodies.

- Assessment of progress towards the achievement of the environmental objectives of the Directive, as defined in the second River Basin Management Plans.

- Revision of the Programmes of basic and supplementary Measures for the protection and restoration of water resources of each River Basin District, as included in the approved/first Management Plans, in accordance with Article 11 and Annex VI of Directive 2000/60/EC (Article 12 and Annex VIII of Presidential Decree 51/2007).

- Updating of the economic analysis of water uses (including cost recovery), in line with the expected new directions of the European Commission.

- Recording of transboundary cooperation to date and promotion of the implementation of joint or compatible Management Plans in transboundary river basins, in accordance with the guidelines of the General Directorate of Waters.

- Preparation of the Strategic Environmental Assessment (SEA) for the identification, description and evaluation of environmental impacts arising from the implementation of the above-mentioned Programmes of Measures and Management Plans.

- Public information and promotion of active public participation, as well as publication and public consultation of the Draft Management Plans six months prior to their completion, in accordance with Article 14 of Directive 2000/60/EC and Article 15 of Presidential Decree 51/2007.

- Fulfilment of the country's obligations regarding reporting and submission of relevant information to the European Union concerning the Management Plans, including through the WISE (Water Information System for Europe) electronic system, in accordance with the specifications set by the European Environment Agency.

- Updating of data and results from the implementation of the project "Development of water resources management systems and tools in 13 River Basin Districts of the country", completed by the Ministry of Development in December 2008, with regard to the part concerning the River Basin District of Thrace (EL12).

- Training of the contracting authority's staff in the subjects of the deliverables.

The impacts of implementing the River Basin Management Plan in the River Basin District of Thrace can only be positive, at a time when the country's water resources, as well as those of the District, are facing increasing pressures. Its implementation will provide the foundations for supporting a stable water management policy, leading to the effective protection and the rational use of our valuable water resources.

Map 1-1 Water Districts of Greece

The River Basin Management Plan (RBMP) constitutes both the main planning instrument and the central reporting mechanism of the country to the European Union. Within the RBMP, the realistic measures to be implemented in order to achieve the environmental objectives and the objectives of the Water Framework Directive in general are defined, while any deviations are duly justified.

The Management Plan is based on the Methodological Texts as well as the elements of the Documentation Texts. A list of the Methodological Texts and the Documentation Texts is listed in the following tables.

Table 1-1 List of Methodological Texts supporting RBMP

S/N	TITLE OF ANALYTICAL METHODOLOGY TEXT
1	UPDATED METHODOLOGY FOR THE ANALYSIS OF ANTHROPOGENIC PRESSURES AND THEIR EFFECTS ON SURFACE AND SUBTERRANEAN WATER SYSTEMS
2	DETERMINATION METHODOLOGY AND EVALUATION CRITERIA FOR HYDROMORPHOLOGICAL CHANGES
3	METHODOLOGY AND SPECIFICATIONS FOR THE DETERMINATION OF HEAVILY MODIFIED AND ARTIFICIAL WATER SYSTEMS
4	UPDATED METHODOLOGY, SPECIFICATIONS AND CRITERIA FOR DETERMINING THE «EXCEPTIONS » FROM THE ACHIEVEMENT OF THE ENVIRONMENTAL OBJECTIVES OF THE DIRECTIVE
5	UPDATED METHODOLOGY FOR CLASSIFICATION OF THE ECOLOGICAL, CHEMICAL AND OVERALL STATE OF SURFACE WATER SYSTEMS

Table 1-2 List of Detailed Documentation Texts supporting RBMP

S/N	TITLE OF DETAILED DOCUMENTATION TEXT
1	ANALYSIS OF ANTHROPOGENIC PRESSURES AND THEIR EFFECTS ON SURFACE AND UNDERGROUND WATER SYSTEMS
2	CHARACTERIZATION, TYPOLOGY, TYPO-CHARACTERISTIC REFERENCE CONDITIONS AND ASSESSMENT/CLASSIFICATION OF THE STATUS OF ALL THE CATEGORIES OF SURFACE WATER BODIES
3	CHARACTERIZATION AND EVALUATION/CLASSIFICATION OF THE STATE OF GROUNDWATER SYSTEMS
4	FINAL DETERMINATION OF HEAVILY MODIFIED AND ARTIFICIAL WATER SYSTEMS
5	UPDATE OF THE REGISTER OF PROTECTED AREAS
6	DEFINITION OF THE ENVIRONMENTAL GOALS, INCLUDING ‘‘EXCEPTIONS’’ FROM THE ACHIEVEMENT OF THE OBJECTIVES
7	ECONOMIC ANALYSIS OF WATER USES
8	PROGRAMMES OF KEY AND COMPLEMENTARY MEASURES, INCLUDING ANALYSIS OF THEIR COSTS IN RELATION TO THEIR EFFICIENCY
9	REPORT ON THE EVALUATION OF THE RESULTS OF THE CONSULTATION

1.3 CONSULTATION PROCEDURE

Informing the public at all stages of its implementation is a requirement of Directive 2000/60/EC (Article 14), while active participation should be encouraged. All important issues should be discussed with stakeholders, relevant authorities and the general public through appropriate consultation actions and participatory processes. Member States shall, for each river basin, publish and make available to the public for the formulation of observations:

- schedule and work plan for the elaboration of the Plan
- mid-term review of the important water management issues which were identified in the Water Department
- copy of the preliminary river basin management plan.

According to the article 7 of the Law 3199/2003, as it was replaced by the article 32 of the Law 5037/2023, Water Directorate of the Decentralized Administration, during the process of drawing up, revising or

modification of the RBMP, arranged for its posting in a public consultation, which lasted a period of six (6) months.

The consultation process on the 2nd Revision of the River Basin Management Plan of the River Basin District of Thrace lasted six months, in accordance with the provisions of Directive 2000/60/EC:

- **Phase A:** In March 2019, the scope of the planned activities for the preparation of the 2nd Revision of the RBMP, as well as the detailed timetable for their implementation, were posted on the website of the Ministry of Environment and Energy (www.ypeka.gr) for public information.

- **Phase B:** In September 2019, information on the significant water management issues in each River Basin was posted on the website of the Ministry of Environment and Energy. This information included, in summary, the results of the National Water Monitoring Network for the status of waters in the River Basin District, the main pressures, and the identification and registration of the competent authorities and stakeholders participating in the consultation process.

- **Phase C:** In May 2023, the Draft of the 2nd Revision of the River Basin Management Plan of the River Basin District was posted on the dedicated website of the General Directorate of Waters (http://wfdver.ypeka.gr), along with a relevant questionnaire. This phase also included the publication of the Strategic Environmental Assessment.

For the purposes of the public consultation on the 2nd Revision of the River Basin Management Plans of the country, a dedicated website (http://wfdver.ypeka.gr) operated by the General Directorate of Waters of the Ministry of Environment and Energy was used. Through this website, stakeholders and the public were given the opportunity to submit comments (via email and online posting) as well as to complete the consultation questionnaire. The website also allows the posting of public comments on the published material. In addition, it provides access to all information from the 1st and 2nd River Basin Management Plans, including relevant geospatial data concerning water bodies and their status, as well as other related information on water resources management, such as the National Register of Surface and Groundwater Abstraction Points, the National Database of Wastewater Treatment Plants, etc.

In addition to the above, during the consultation period, comments and contributions to the preparation of the 2nd Revision of the River Basin Management Plans could also be submitted by email, fax or post, with the aim of expressing differing views and providing relevant information.

More specifically, in order to encourage the active participation of stakeholders and the public during the process of the 2nd Revision of the RBMP of Thrace, one (1) open workshop was held in Alexandroupolis on 17 October 2023. The workshop took place at the Prefecture building (Armonia Hall), with the option of both in-person and online participation, and aimed at providing comprehensive information to stakeholders and the wider public on the Draft Plan, as well as at collecting relevant views and comments. The workshop was also open to the public through live streaming on Facebook and YouTube.

There was also the possibility to submit comments directly on the public consultation website of the General Directorate of Waters. During the workshop, issues related to the preparation of the Draft of the 2nd Revision of the RBMP of the River Basin District were discussed with participants, while statements and interventions by interested stakeholders and citizens were recorded and taken into account in the final formulation of the 2nd Revision of the RBMP.

In summary the changes /supplements /additions included in the 2nd Revision of the RBMP as a result of the consultation concern the following:

- Updating of data which are presented in the Management Plan based on data made available and/or highlights brought to the attention during the consultation.
- Reform of the final programme of measures which comprises:
  - the reformulation of specific measures concerning the concretization/specialization of constraints but also actions defined therein.
  - the correction of the bodies implementing the measures
  - the differentiation in the description of certain measures in order to include actions which are already being planned by implementing sectors and/or available financial tools.

2 DIFFERENCES IN RELATION TO THE 1ST REVISION OF A RIVER BASIN MANAGEMENT PLAN

The following table summarizes the differences found in each individual object of the Revised RBMP in relation to the 2nd RBMP.

Table 2-1 Modifications in terms of the 2nd Revision of the River Basin Management Plan Compared to the 1st one

Subject of the Revised River Basin Management Plan (RBMP) / Activity	Changes Compared to 2nd RBMP (1st Revision)	Summary of Results
Competent Authorities	The relevant changes introduced by the Law 5037/2023 were taken into account.	The Minister of Environment and Energy is defined as the National Water Committee from March 28th, 2023 (law 5037/2003 (Presidential Decree 78/A/2023), with the exception of specific provisions. The General Directorate of Water of the Ministry of Environment and Energy submits an Annual Report on the status of the aquatic environment and the implementation of water protection and management legislation. This report is published on the official website of the Ministry of Environment and Energy and forwarded to the Natural Environment and Climate Change Agency (NECCA) for being included in the annual environmental status report under Article 27 of Law 4685/2020 (A' 92). The Water Council of the Decentralized Administration is established for each Water Division that extends within the administrative boundaries of one or more Decentralized Administrations and serves as a forum for social dialogue and consultation on water protection and management issues. It provides opinions to the Secretaries of the Decentralized Administrations, upon request, on water protection and management issues. The results are summarized in Chapter 3.4 of the present document.
Designation of Surface Water Systems (SWS) – Typology	During the present Revision, minor changes are introduced regarding the typology of surface water bodies. In addition, reservoirs are now designated as Lake Heavily Modified Water Bodies, and their typology and assessment are carried out using the data and tools intended for lakes, since lakes are the category of natural surface waters to which they most closely resemble. Based on the above, the number of water bodies is re-examined.	In the River Basin District of Thrace, minor differences arise: – with regard to the number of water bodies compared to the 2nd RBMP. These differences relate to the filling of the Iasio Reservoir and the creation of a lake-type Heavily Modified Water Body. – with regard to the typology of lake water bodies compared to the 2nd RBMP (change in the typology of Lake Gratini from LM 5/7 to LM 8). In the present Revision, the lake water bodies of the River Basin District of Thrace were delineated with greater accuracy and, as a result, minor changes occurred in the lengths of the adjacent river water bodies. The results are presented in summary form in Chapter 4.1 of the present document and in detail in the Analytical Supporting Documentation entitled "Characterization, typology, typological reference conditions and assessment/classification of the status of all categories of surface water bodies."
Designation of Groundwater Systems (GWS)	During the present Revision, no changes are introduced with regard to the delineation of groundwater bodies.	The GWS are summarized in Chapter 5.2 of the present document and are detailed in the Analytical Documentation Text titled "Characterization and Assessment/Classification of the Status of Groundwater Systems."

Subject of the Revised River Basin Management Plan (RBMP) / Activity	Changes Compared to 2nd RBMP (1st Revision)	Summary of Results
Heavily Modified Water Bodies (HMWBs) and Artificial Water Bodies (AWBs)	The HMWBs defined in the 2nd RBMP are re-examined using the established methodology and monitoring data and the ones from the Monitoring Network.	A more detailed application of the Initial and Final Identification Methodology for HMWBs and AWBs did not change the number of HMWBs were determined in the 1st RBMP. The results are summarized in Chapter 5.3 of the present document and are detailed in the Analytical Documentation Text titled "Final Identification of Heavily Modified and Artificial Water Systems."
Protected Areas	The Register of Protected Areas established in the 2nd RBMP, was re-evaluated in order to incorporate: New areas of the Natura 2000 network. Results of the application of the Bathing Water Directive (2006/7/EC). Other directives for water protection with stricter targets, such as those set by the Directives on Drinking Water (80/778/EEC, as amended by Directive 98/83/EC), the Shellfish Waters Directive (2006/113/EC), the Freshwater Fish Directive (2006/44/EC), the Nitrates Directive (91/676/EEC), and the Urban Wastewater Treatment Directive (91/271/EEC). New data emerged from the approval of the 2nd River Basin Management Plan (RBMP) and the relevant EU Guidance Documents.	Surface and groundwater bodies associated with protected areas are identified. Three (3) new areas were added to the Natura Network and were incorporated into the Register of Protected Areas. In the areas designated for the protection of water-dependent species of economic importance, the coastal water body EL1210C0009N (Evros Coasts) was added, as a Live Bivalve Mollusc Harvesting Area has been identified within this area. In addition, changes were made to the inland surface water bodies of the relevant category of Protected Areas, taking into account licensed facilities currently in operation. The results are presented in summary form in Chapter 5.4 of the present document and in detail in the Analytical Supporting Documentation entitled “Update of the Register of Protected Areas.”
Pressures and Impacts	Pressure and impact assessment is updated using the new common methodology and new data from the approval of 2nd RBMP.	In the River Basin District of Thrace, the methodological approaches followed in the 1st RBMP are to a large extent similar to those applied in the present Revision. The differences that arise mainly stem from the availability of more recent data, which provide a more comprehensive picture of cultivated areas, the establishment of new activities, and an improved recording of activities within the District. The pressures and loads resulting from the identified pressures are linked to the Water Bodies in order to optimize the linkage of measures to these pressures. As regards pressures on the hydromorphological characteristics of the Water Bodies, these are assessed more comprehensively and utilized to preliminarily identify the Heavily Modified Water Bodies of the River Basin District. The results are presented in summary form in Chapter 4 of the present document and in detail in the Analytical Supporting Documentation entitled “Analysis of anthropogenic pressures and their impacts on surface and groundwater bodies.”

Subject of the Revised River Basin Management Plan (RBMP) / Activity	Changes Compared to 2nd RBMP (1st Revision)	Summary of Results
Classification of Surface Water Systems (SWS) Status	The methodology for classifying the status of SWS was updated, using data from the National Monitoring Network (2018-2022).	The methodology for the analysis of anthropogenic pressures and their impacts on surface and groundwater bodies, as updated within the framework of the 2nd Revision, was applied. The classification of the status of surface water bodies was based on data from the National Water Monitoring Network for the period 2018–2022. For water bodies for which no monitoring data were available, their status classification was carried out through grouping based on their typology and the pressures they are subject to, in accordance with the updated methodology. The results are presented in summary form in Chapter 5.1 of the present document and in detail in the Analytical Supporting Documentation entitled “Characterization, typology, typological reference conditions and assessment/classification of the status of all categories of surface water bodies.”
Classification of Groundwater Systems (GWS) Status	The methodology for classifying the status of GWS remains unchanged concerning the 2nd RBMP, but it incorporates updated monitoring data.	The revision includes a mapping of the status of Groundwater Systems (GWS) based on the most recent monitoring data. The results are summarized in Chapter 5.2 of the present document and are detailed in the Analytical Documentation Text titled "Characterization and Assessment/Classification of the Status of Groundwater Systems."
Monitoring Network for Water Status	The 2nd Revision includes the results of the National Water Monitoring Network for the water status of the country for the period 2018–2022, covering almost the entire range of biological quality elements, physicochemical and chemical quality elements, as well as the hydromorphological quality elements of surface water systems (SWS). Additionally, it includes measurements of both the qualitative and quantitative status of Groundwater Systems (GWS) for the period 2018–2020.	The data utilized for the monitoring program are summarized in Chapter 6.3 of the present document and are detailed in the Documentation Texts titled: "Characterization, Typology, Typo-Characteristic Reference Conditions, and Assessment/Classification of the Status of All Categories of Surface Water Systems" for the network of surface water systems (SWS) and "Characterization and Assessment/Classification of the Status of Groundwater Systems" for the network of groundwater systems (GWS) accordingly.
Economic Analysis of Water Use	The economic analysis of water use follows the general rules for the costing and pricing of water services and the guidelines of the General Directorate of Water (GDW), taking into account the relevant amendments introduced by the Law 5037/2023.	The results are summarized in Chapter 6 of the present document and are detailed in the Analytical Documentation Text titled: "Economic Analysis of Water Uses and Determination of the Existing Cost Recovery Level for Water Services (Water Supply, Irrigation, and Sewerage).

Subject of the Revised River Basin Management Plan (RBMP) / Activity	Changes Compared to 2nd RBMP (1st Revision)	Summary of Results
Environmental Objectives – Exemptions	During the Revision, the determination of environmental objectives and exemptions is carried out based on the new methodological approaches developed in accordance with the EU guidelines.	The results are summarized in Chapter 7 of the present document and are detailed in the Analytical Documentation Text titled: "Determination of Environmental Objectives, Including 'Exemptions' from Achieving the Goals, and a List of Planned and New Projects/Activities/Modifications."
Program of Measures	The Program of Measures , as defined in this Revision of the River Basin Management Plan (RBMP), includes the following new approaches compared to the 2nd RBMP: ▪ Specialization/Redefinition of Measures from the 2nd RBMP that are continued in the current management plan. ▪ Development of New Measures to address the pressures on water bodies and achieve the specified environmental goals. ▪ Linkage of Measures to Significant Pressures that have been identified in the Water Division (WD).	The new Program of Measures is summarized in Chapter 8 of the present document and is detailed in the Analytical Documentation Text titled: "Programs of Basic and Supplementary Measures for the Protection and Restoration of Water Systems, Including Cost Analysis in Relation to Their Efficiency and Special Forms for Monitoring the Implementation of Measures."

3 DESCRIPTION OF THE WATER DIVISION – COMPETENT AUTHORITIES

3.1 RIVER BASINS

«River basin» is defined as the territorial area from which the entire runoff (rainfall and/or snowfall) of an area is collected, through its hydrographic network (consecutive streams, streams, rivers, and possibly lakes) and drains into the sea through the estuary (or delta) river.

By decision 706/16-7-2010 (Government Gazette Issues 1383/B/2010 & 1572/B/2010), of the National Water Commission «on defining the River Basins of the country and designating the competent Regions for their management and protection» and the approval decisions of the National Water Commission of the 1st RBMP, forty-six (46) River Basins were determined, which fall under fourteen (14) River Basin Areas (corresponding to the term Water divisions of the article 3 of the Presidential Decree 51/2007).

The River Basin District of Thrace (EL12) consists of five (5) river basins: Nestos (EL1207), Xanthi Streams – Xirorema (EL1208), Komotini Streams – Loutrou Evrou (EL1209), Evros (EL1210), and Thasos – Samothrace (EL1242). The physical characteristics of the basins are presented in the table below. The geographical extent of the River Basin District of Thrace (and of the individual river basins) is shown in the following map (Map 3-1).

Table 3-1 River Basins of the River Basin District of Thrace (EL12)

RBD/RB Code	River Basin Name	Area (km^2)	Elevation (m)		
			Mean	Maximum	Minimum
EL1207	Nestos	2.975,5	606	2.200	0
EL1208	Xanthi Streams – Xirorema	1.662,6	363	1.822	0
EL1209	Komotini Streams – Loutrou Evrou	1.958,3	289	1.459	0
EL1210	Evros	4.080,8	175	1.202	0
EL1242	Thasos – Samothrace	562,8	347	1.600	0
EL12	TOTAL RBD 12	11.240*			

* It refers to the terrestrial area of the River Basin District. Coastal water bodies are not included, the area of which amounts to 731 km^2

Map 3-1 Boundaries of the River Basin District of Thrace (EL12) and River Basins

3.2 PHYSICAL CHARACTERISTICS

The River Basin District of Thrace covers an area of 11,243 km², of which 564 km² belong to the islands of Thasos and Samothrace. The District is bounded to the north by the Greece–Bulgaria border and the watershed of the Nestos–Ochyro basins, to the east by the Greece– Türkiye border up to the Gulf of Ainos, and to the west by the watersheds of the Nestos–Ochyro, Nestos–Strymon, Nestos–Nea Karvali stream basins, as well as the watershed of the coastal streams of Chrysoupoli up to the Gulf of Kavala.

The main rivers of the River Basin District of Thrace are the Nestos and Evros rivers. These rivers are also transboundary rivers, whose waters Greece shares with Bulgaria (Nestos and Evros) and Türkiye (Evros). Important tributaries of the Evros, and significant at the District level, are the Ardas and Erythropotamos rivers, which are also transboundary rivers. Secondary rivers of the District include the Lissos or Filiouris River, the Kosynthos River (Xanthi Stream), and the Kompsatos River (often referred to as Xiroptamos due to its designation as such on Hellenic Military Geographical Service maps—in reality, Xiroptamos is the main tributary of the Kompsatos passing through Thermes).

Only one natural lake is found in the River Basin District of Thrace, Lake Ismarida (or Mitrikou). All other lakes in the District are reservoirs, five in total. The most important reservoirs are those of Thisavros and Platanovrysi on the Nestos River, which supply hydroelectric projects operated by the Public Power Corporation (PPC). The remaining reservoirs are used for cooling the Komotini Thermal Power Station and irrigation (Gratini), water supply (Aisyme), and irrigation (Nea Adrianis).

The River Basin District of Thrace also includes significant transitional waters (lagoons, river deltas, etc.), some of which are of supra-local importance and are protected by international conventions. The most important are the Evros Delta and Lake/Lagoon Vistonida.

Finally, the coastal waters of River Basin District 12 extend from west to east at approximately the same latitude, following the horizontal development of the District's coastline. Naturally, an exception is made for the coastal waters of the islands of Thasos and Samothrace. It is recalled that, according to the Directive, coastal waters are defined as those extending up to one nautical mile from the coast. Both the surface and groundwater bodies of the River Basin District of Thrace (EL12) are presented in the following Chapter 5 (Delineation of Water Bodies).

The geological background of the River Basin District of Thrace (EL12) consists of the geotectonic units of the Rhodope Massif and the Perirodopic Zone. On these geotectonic units, Tertiary and Quaternary sediments have been deposited, while intense magmatic activity also occurred during the Tertiary period.

In the insular part of the District and in a narrow coastal zone, a Mediterranean climate prevails; in the interior and lowland areas, a Central European climate dominates, while mountainous areas are characterized by a mountain climate. The mean annual precipitation is estimated at 778 mm, and the mean annual temperature at 13.4°C.

The following table presents, for each River Basin, the mean annual precipitation and mean temperature for the period 1980–2021

Table 3-2 Mean annual precipitation and temperature for the period 1980–2021 per River Basin of the River Basin District of Thrace (EL12)

RB Code	River Basin Name	Precipitation (mm)	Temperature (°C)
EL1207	Nestos	679,0	11,8
EL1208	Xanthi Streams – Xirorema	887,3	13,4
EL1209	Komotini Streams – Loutrou Evrou	665,6	14,0
EL1210	Evros	733,2	13,4
EL1242	Thasos – Samothrace	730,7	14,2

In the River Basin District of Thrace (EL12), a comparison of annual precipitation between the periods 1980–2000 and 2001–2021 showed that the long-term percentage change between the two periods ranges from −11.1% to +38.3%. Differences in mean annual values per station are significant in some cases and relatively small in others. Overall, the changes are predominantly increasing in the later period (2001–2021) compared to the earlier one (1980–2000), although exceptions to this general trend are observed. The average of all stations for the two periods amounts to 635.7 mm and 734.1 mm, respectively, corresponding to an increase of 15.5% during the second twenty-year period. This increase is expected, as the first period includes the particularly dry years 1989–1994, during which very low precipitation levels were recorded across the entire country.

Based on the area of the mainland part of the District (10,679 km²) and the mean annual precipitation (778 mm), the annual volume of rainfall is estimated at 8,262 hm³. The total volume of surface runoff (Evros, Nestos, Filiouris and Xirorema basins) is approximately 10,200 hm³, and after subtracting inflows from neighboring countries, the surface runoff originating from the Greek parts of the basins amounts to approximately 2,700 hm³. For the insular part of the District, a potential of around 100 hm³ is estimated.

3.3 ANTHROPOGENIC CHARACTERISTICS

The River Basin District of Thrace (EL12) lies geographically within the jurisdiction of the Decentralized Administration of Macedonia – Thrace, which coincides with the boundaries of the Region of Eastern Macedonia and Thrace. The Region of Eastern Macedonia and Thrace (REMTH) comprises the Regional Units of Drama, Kavala, Xanthi, Rodopi, Evros and Thasos. The capital of REMTH is Komotini. The Regional Units of REMTH with areas located within the River Basin District include:

- the Regional Unit of Kavala (36.2% of the area of the Regional Unit),
- the Regional Unit of Drama (47.3% of the area of the Regional Unit),
- the Regional Unit of Thasos (100% of the area of the Regional Unit),
- the Regional Unit of Xanthi (100% of the area of the Regional Unit),
- the Regional Unit of Rodopi (100% of the area of the Regional Unit), and
- the Regional Unit of Evros (100% of the area of the Regional Unit).

Within the River Basin District are located the administrative seats of the following Regional Units:

- Thasos (Thasos),
- Xanthi (Xanthi),
- Rodopi (Komotini), and
- Evros (Alexandroupolis).

The Municipalities established in all Regional Units of River Basin District 12, by Region, are presented in the following table.

Table 3-3 Municipalities of the River Basin District of Thrace (EL12)

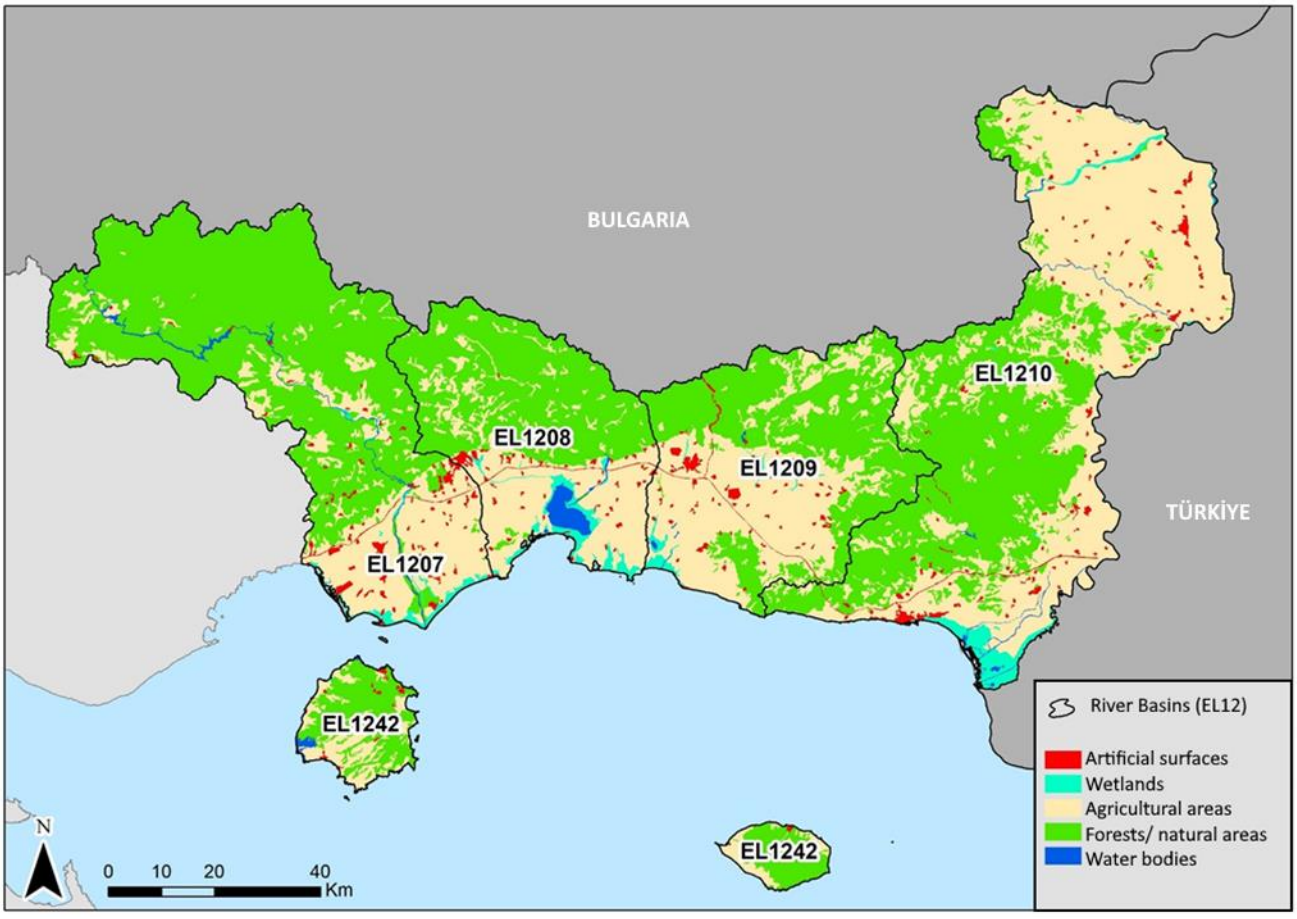
No	Municipality	Regional Unit	Municipality Area (Km^2)	Percentage within RBD (%)
1	Drama	Drama	839,85	43,79
2	Kato Nevrokopi	Drama	872,39	59,41
3	Paranesti	Drama	1.028,40	21,19
4	Alexandroupolis	Evros	1214,78	100,00%
5	Didymoteicho	Evros	565,73	100,00%
6	Orestiada	Evros	957,30	100,00%
7	Samothrace	Evros	180,51	100,00%
8	Soufli	Evros	1327,14	100,00%
9	Thasos	Thasos	383,75	100,00%
10	Kavala	Kavala	351,80	2,01%
11	Nestos	Kavala	681,74	90,96%
12	Abdera	Xanthi	352,25	100,00%
13	Myki	Xanthi	632,07	100,00%
14	Xanthi	Xanthi	501,56	100,00%
15	Topeiros	Xanthi	309,72	100,00%
16	Arriana	Rodopi	773,55	100,00%
17	Iasmos	Rodopi	487,75	100,00%
18	Komotini	Rodopi	646,07	100,00%
19	Maroneia–Sapes	Rodopi	643,59	100,00%

Within the boundaries of the River Basin District of Thrace there are 636 settlements with a total permanent population of 445,788 inhabitants (2021 Census). Given that the population in 2011 was 480,025 inhabitants, a notable decrease in the permanent population is observed, amounting to 7.7%. All municipalities of the District show a population decline, with the sole exception of the Municipality of Xanthi, which recorded a slight

increase (1.6%). A particularly large decrease is observed in the Municipalities of Kato Nevrokopi and Paranesti, amounting to 47.7% and 36.8% respectively. A significant decrease of approximately 20% is also observed in the Municipalities of Didymoteicho, Maroneia–Sapes, Orestiada, Soufli and Topeiros, while in the remaining municipalities the decrease is below 10%.

The majority of settlements (75%) have a population of fewer than 500 inhabitants and account for 20% of the population of the District. Settlements with up to 2,000 inhabitants account for 50% of the total population of the District, while 34% of the total population is concentrated in the three regional capitals of the District's Regional Units (Xanthi, Komotini and Alexandroupolis).

According to land cover/land use census data from the European CORINE Land Cover Programme for the year 2018 (CLC2018), the largest part of both the individual river basins and the River Basin District as a whole is covered by forests and semi-natural areas, while a significant portion is covered by agricultural areas. Of the remaining land uses, artificial surfaces occupy a small area, whereas wetlands and water bodies correspond to a very small share (see following map).



Map 3-2 Land Use in the River Basin District of Thrace (CORINE Land Cover 2018)

The main water use in the River Basin District is irrigation, as is the case in most regions of Greece. Demand for hydropower generation is also significant. Compared to these uses, demand for the remaining uses—water supply, industry and livestock farming—is much lower.

The total mean annual demand from anthropogenic uses amounts to 1,303 hm³. The largest water demand in the River Basin District originates from irrigation, which amounts to 660.34 hm³ (50.7%). With regard to

consumptive uses, irrigation accounts for 91.5% of total demand. Hydropower generation in the Nestos basin uses 582 hm³ (44.6%) and constitutes a non-consumptive use of water.

For the remaining uses, demand amounts to 43.0 hm³ for water supply (3.3%), 15.5 hm³ for industry (1.2%), and 2.4 hm³ for livestock farming (0.2%).

According to available data, the existing demand in the River Basin District is, on a mean annual basis, largely met by the available water resources. It should be noted, however, that water availability in the River Basin District of Thrace depends to a very large extent on inflows from transboundary waters. Overall, the River Basin District of Thrace appears to be water-surplus, meeting demand from both surface and groundwater resources.

3.4 COMPETENT AUTHORITIES

The competent authorities for the protection and management of waters are designated by Law 3199/2003 (Government Gazette 280/A/2003) on the Protection and Management of Waters, as amended and in force, which harmonizes national legislation with the provisions of Directive 2000/60/EC. More specifically, the competent authorities are:

- Ministry of Environment and Energy.

Table 3-4 Identity of National Competent Authority

Official Name	General Directorate of Water
Acronym	GDW
Legal Status	A unified administrative sector of the Ministry of Environment and Energy
Legal Provisions Establishing and Defining Responsibilities	N.3199/2003 (government Gazette Issue 280/A/2003) on the Protection and Management of Water, as amended and currently in force, especially as modified by the law 4117/2013 (government Gazette Issue 29/A/2013), l.4315/2014 (government Gazette Issue 269/A/2014) and l.5037/2023 (government Gazette Issue 78/A/2023). N.4622/2019 (government Gazette Issue 133/A/2019) on the Strategic State: Organization, operation, and transparency of the government, government bodies, and central public administration. Presidential Decree 84/2019 (government Gazette Issue 123/A/2019) Establishment and abolition of General Secretariats, Special Secretariats, and Unified Administrative Sectors of Ministries. PD 132/2017 (government Gazette Issue 160/A/2017) "Organization of the Ministry of Environment and Energy", as currently in force.
Contact Information	
Postal Address	Leof. Mesogeion 119
Postal Code	11526
City	Athens
Country	Greece
Website	www.ypen.gov.gr, http://wfdver.ypeka.gr
Points of Contact	Τηλ. 2131513812 e-mail: d.vakalis@prv.ypeka.gr info.egy@prv.ypeka.gr

Furthermore, the following Ministries are involved at the National Level in matters of implementation of Directive 2000/60/EC: Ministry of Foreign Affairs, Ministry of Rural Development and Food, Ministry of Infrastructure and Transport, Ministry of Finance, Ministry of Development and Investment, Ministry of Health, Ministry of Shipping and Insular Policy, Ministry of Interior.

At the regional level, the competent authorities are:

- The Decentralized Water Management Council
- The Water Directorates of the Decentralized Administration, through which the responsibilities of the Decentralized Administration for the protection and management of water are exercised.

Πίνακας 3-1 Ταυτότητα Περιφερειακής Αρμόδιας Αρχής

Official Name	DECENTRALIZED ADMINISTRATION OF MACEDONIA – THRACE DIRECTORATE OF WATERS OF EASTERN MACEDONIA – THRACE
Acronym	DWEMT
Legal Status	An organizational unit of the Decentralized Administration of Macedonia – Thrace. It falls under the General Directorate of Spatial Planning and Environmental Policy.
Legal Provisions Establishing and Defining Responsibilities	Law 3199/2003 (government Gazette Issue 280/A/2003) on the Protection and Management of Water, as amended and currently in force, particularly as amended by: l.4117/2013 (government Gazette Issue 29/A/2013), l.4315/2014 (government Gazette Issue 269/A/2014) and l.5037/2023 (government Gazette Issue 78/A/2023). N. 3852/2010 (government Gazette Issue 87/A/2010) (Kallikratis Program), as amended and currently in force. PD 143/2010 (government Gazette Issue 236/A/2010)): Organizational Structure of the Decentralized Administration of the Aegean. Decision 706/2010 (government Gazette Issue 1383/B/2010 and 1572/B/2010) on the determination of the River Basins of Greece and the designation of the competent authorities, as amended by Law 3852/2010 and subsequent approvals of the River Basin Management Plans (RBMPs) of the 14 WD of Greece.
Contact Information	
Postal Address	58 Tenedou Street
Postal Code	65110
City	Kavala
Country	Greece
Website	http://www.damt.gov.gr
Points of Contact	Tel.: +30 2313 309811 email: dy-amt@damt.gov.gr

In addition, at the regional level, Local Government Authorities of the first and second degree are involved in matters related to the implementation of Directive 2000/60/EC.

According to the "New Architecture of Local Government and Decentralized Administration – Kallikratis Programme", Law 3852/2010 (Government Gazette 87/A/2010), as amended by Law 4555/2018 "Kleisthenes Programme" (Government Gazette 133/A/2018), the responsibilities provided for by Law 3199/2003 (Government Gazette 280/A/2003) on the protection and management of water resources are allocated between the State Administration and the elected Regions.

The State Administration is entrusted with responsibility for setting the strategy for protection and management, while the elected Regions are mainly responsible for implementing the strategic planning. More specifically, the competence for defining measures for the protection of waters is exercised by the Decentralized Administration, whereas the monitoring of compliance with these measures, as well as the control of groundwater and surface irrigation water management, the supervision of works for groundwater abstraction and water resources development projects, and the control of point and diffuse pollutant emissions into waters, are exercised by the Regions and the Municipalities.

The following figure schematically illustrates the competent authorities at national, regional and local level.

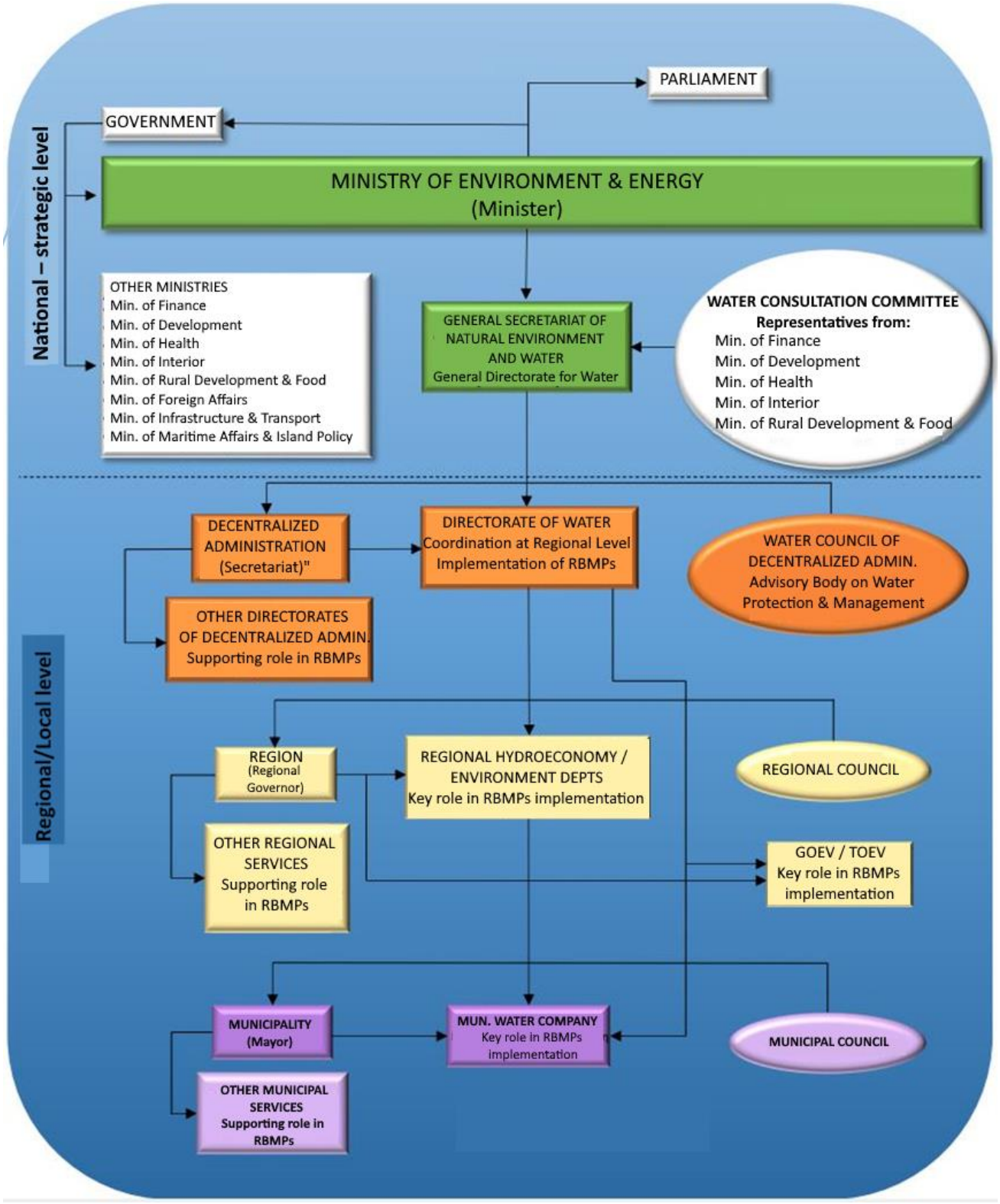


Figure 3-1 Competent authorities at national, regional and local level

4 PRESSURES AND IMPACTS

4.1 POINT SOURCES OF POLLUTION

The following section presents, in summary, the data and results of the analysis of anthropogenic pressures carried out for the purposes of the 2nd Revision of the River Basin Management Plans, in accordance with the updated Methodological Document supporting the RBMP entitled "Updated methodology for the analysis of anthropogenic pressures and their impacts on surface and groundwater bodies". Full details are provided in the Analytical Supporting Documentation entitled "Analysis of Anthropogenic Pressures and their Impacts on Surface and Groundwater Bodies".

This section includes all point sources of pollution that generate conventional pollutants (BOD, N, P). The list of categories of such pressures includes: Wastewater Treatment Plants (WWTPs), large hotel units, industrial facilities, livestock units, aquaculture – fish farming facilities, and leakages from uncontrolled and sanitary landfills.

From the above individual pollution sources, the final annual quantities of pollutant loads of BOD, N and P generated in the study area are derived.

In the Nestos River Basin (EL1207), the total annual loads resulting from the sum of individual point pressures amount to 1,093 t/year of BOD, 421 t/year of N and 79 t/year of P.

Table 4-1 Total annual BOD, N and P loads produced by point sources of pollution in the Nestos RB (EL1207)

Point sources of pollution	BOD (tn/year)	N (tn/year)	P (tn/year)
WTP	148,98	238,82	51,12
LARGE HOTEL UNITS	0,00	0,00	0,00
INDUSTRIAL UNITS	8,73	0,66	0,09
LIVESTOCK UNITS	166,72	54,46	14,47
AQUACULTURE	412,90	83,01	13,95
SANITARY LANDFILLS	356,00	44,00	0,00
TOTAL RIVER BASIN	**1.093,33**	**420,95**	**79,33**

In the Xanthi Streams – Xirorema River Basin (EL1208), the total annual loads resulting from the sum of individual point pressures amount to 484 t/year of BOD, 86 t/year of N and 14 t/year of P.

Table 4-2 Total annual BOD, N and P loads produced by point sources of pollution in the Xanthi Streams – Xirorema RB (EL1208)

Point sources of pollution	BOD (tn/year)	N (tn/year)	P (tn/year)
WTP	1,84	2,45	0,36
LARGE HOTEL UNITS	0,00	0,00	0,00
INDUSTRIAL UNITS	5,39	1,87	0,67
LIVESTOCK UNITS	115,55	36,47	13,03
AQUACULTURE	5,77	1,16	0,20
SANITARY LANDFILLS	356,00	44,00	0,00
TOTAL RIVER BASIN	**484,55**	**85,95**	**14,26**

In the Komotini Streams – Loutrou Evrou River Basin (EL1209), the total annual loads resulting from the sum of individual point pressures amount to 260 t/year of BOD, 118 t/year of N and 27 t/year of P..

Table 4-3 Total annual BOD, N and P loads produced by point sources of pollution in the Komotini Streams – Loutrou Evrou RB (EL1209)

Point sources of pollution	BOD (tn/year)	N (tn/year)	P (tn/year)
WTP	27,29	11,97	1,11
LARGE HOTEL UNITS	0,03	0,01	0,00
INDUSTRIAL UNITS	149,76	76,65	18,25
LIVESTOCK UNITS	72,72	27,66	7,49
AQUACULTURE	9,81	1,97	0,33
SANITARY LANDFILLS	0,00	0,00	0,00
TOTAL RIVER BASIN	**259,61**	**118,27**	**27,19**

In the Evros River Basin (EL1210), the total annual loads resulting from the sum of individual point pressures amount to 205 t/year of BOD, 196 t/year of N and 27 t/year of P.

Table 4-4 Total annual BOD, N and P loads produced by point sources of pollution in the Evros RB (EL1210)

Point sources of pollution	BOD (tn/year)	N (tn/year)	P (tn/year)
WTP	122,70	165,69	19,06
LARGE HOTEL UNITS	0,00	0,00	0,00
INDUSTRIAL UNITS	12,23	5,95	0,79
LIVESTOCK UNITS	69,61	24,53	6,80
AQUACULTURE	0,00	0,00	0,00
SANITARY LANDFILLS	0,00	0,00	0,00
TOTAL RIVER BASIN	**204,54**	**196,17**	**26,65**

In the Thasos – Samothrace River Basin (EL1242), the total annual loads resulting from the sum of individual point pressures amount to 17 t/year of BOD, 14 t/year of N and 4 t/year of P

Table 4-5 Total annual BOD, N and P loads produced by point sources of pollution in the Thasos – Samothrace RB (EL1242)

Point sources of pollution	BOD (tn/year)	N (tn/year)	P (tn/year)
WTP	9,55	6,21	0,94
LARGE HOTEL UNITS	0,55	0,30	0,06
INDUSTRIAL UNITS	0,04	0,03	0,01
LIVESTOCK UNITS	6,43	7,80	2,97
AQUACULTURE	0,00	0,00	0,00
SANITARY LANDFILLS	0,00	0,00	0,00
TOTAL RIVER BASIN	**16,57**	**14,34**	**3,97**

From the above individual pollution sources and the quantities per River Basin, the final annual quantities of pollutant loads of BOD, N and P generated in the study area are derived.

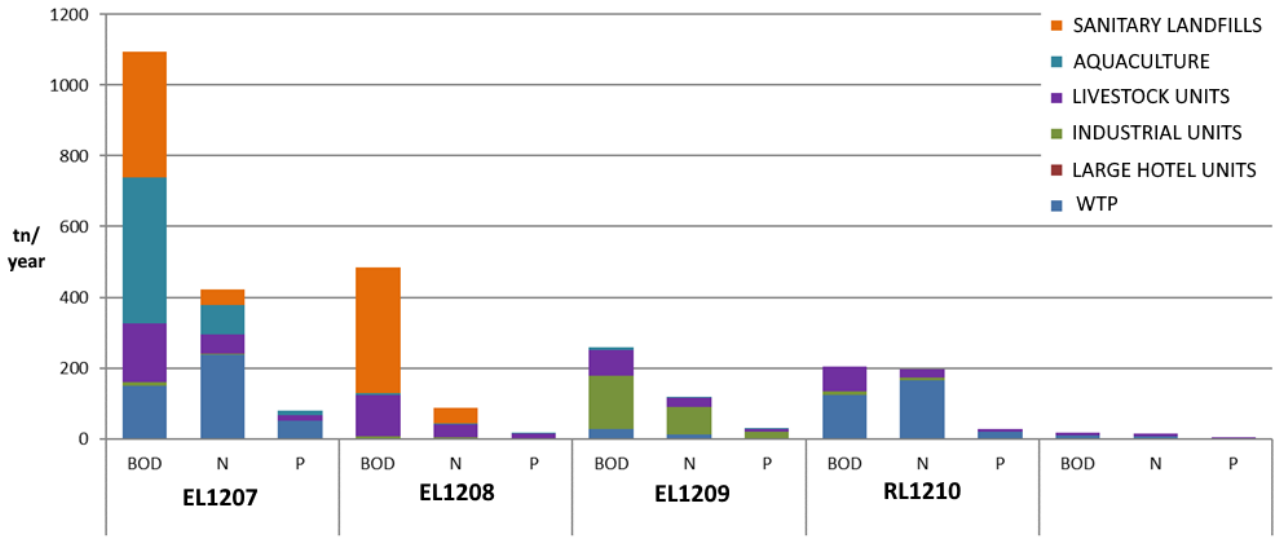


Figure 4-1 Total annual loads of BOD, N and P generated in the individual River Basins of the River Basin District of Thrace (EL12) from point pollution sources

4.2 DIFFUSE SOURCES OF POLLUTION

This section includes all diffuse sources of pollution that generate conventional pollutants (BOD, N, P). The list of categories of such pressures includes:

- Agricultural activities.
- Urban wastewater not discharged to wastewater treatment plants.
- Livestock farming
- Pollution of waters from other sources.

From the above individual pollution sources, the final annual quantities of pollutant loads of BOD, N and P generated in the study area are derived (see Figure 4-2).

In the Nestos River Basin (EL1207), the total annual loads resulting from the sum of individual diffuse pressures amount to 123 t/year of BOD, 770 t/year of N and 70 t/year of P.

Table 4-6 Total annual BOD, N and P loads produced by diffuse sources in the Nestos RB (EL1207)

Land Use	BOD (tn/year)	N (tn/year)	P (tn/year)
AGRICULTURE	0,00	132,60	38,78
MUNICIPAL WASTEWATER	51,77	14,79	3,08
LIVESTOCK	71,73	31,47	6,89
OTHER SOURCES	0,00	590,38	21,59
TOTAL RIVER BASIN	**123,50**	**769,24**	**70,34**

In the Xanthi Streams – Xirorema River Basin (EL1208), the total annual loads resulting from the sum of individual diffuse pressures amount to 110 t/year of BOD, 648 t/year of N and 76 t/year of P.

Table 4-7 Total annual BOD, N and P loads produced by diffuse sources in the Xanthi Streams – Xirorema RB (EL1208)

Land Use	BOD (tn/year)	N (tn/year)	P (tn/year)
AGRICULTURE	0,00	388,02	58,16
MUNICIPAL WASTEWATER	87,44	24,98	5,20
LIVESTOCK	23,34	13,81	3,84
OTHER SOURCES	0,00	221,31	8,94
TOTAL RIVER BASIN	**110,78**	**648,12**	**76,13**

In the Komotini Streams – Loutrou Evrou River Basin (EL1209), the total annual loads resulting from the sum of individual **diffuse** pressures amount to 141 t/year of BOD, 588 t/year of N and 81 t/year of P.

Table 4-8 Total annual BOD, N and P loads produced by diffuse sources in the Komotini Streams – Loutrou Evrou RB (EL1209)

Land Use	BOD (tn/year)	N (tn/year)	P (tn/year)
AGRICULTURE	0,00	344,13	60,35
MUNICIPAL WASTEWATER	80,74	23,07	4,81
LIVESTOCK	60,34	31,26	7,93
OTHER SOURCES	0,00	190,33	7,88
TOTAL RIVER BASIN	**141,08**	**588,79**	**80,97**

In the Evros River Basin (EL1210), the total annual loads resulting from the sum of individual **diffuse** pressures amount to 163 t/year of BOD, 1,060 t/year of N and 154 t/year of P.

Table 4-9 Total annual BOD, N and P loads produced by diffuse sources in the Evros RB (EL1210)

Land Use	BOD (tn/year)	N (tn/year)	P (tn/year)
AGRICULTURE	0,00	626,14	126,02
MUNICIPAL WASTEWATER	93,54	26,73	5,57
LIVESTOCK	70,36	30,79	6,72
OTHER SOURCES	0,00	378,13	16,07
TOTAL RIVER BASIN	**163,90**	**1.061,80**	**154,37**

In the Thasos – Samothrace River Basin (EL1242), the total annual loads resulting from the sum of individual **diffuse** pressures amount to 51 t/year of BOD, 81 t/year of N and 17 t/year of P.

Table 4-10 Total annual BOD, N and P loads produced by diffuse sources in the Thasos – Samothrace RB (EL1242)

Land Use	BOD (tn/year)	N (tn/year)	P (tn/year)
AGRICULTURE	0,00	29,71	9,84
MUNICIPAL WASTEWATER	40,36	11,53	2,40
LIVESTOCK	10,95	9,52	3,16
OTHER SOURCES	0,00	29,76	1,12
TOTAL RIVER BASIN	**51,31**	**80,52**	**16,52**

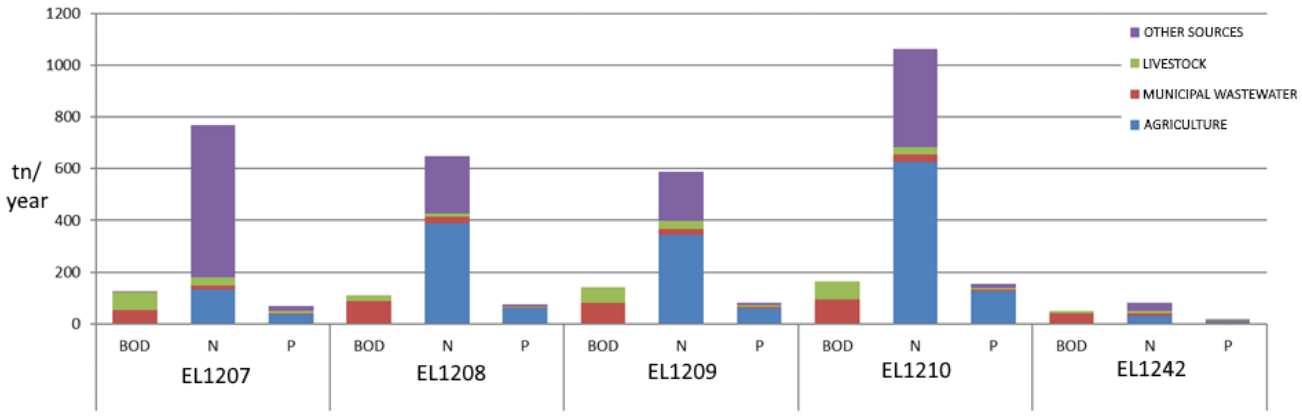


Figure 4-2 Total annual loads of BOD, N and P generated in the individual River Basins of the River Basin District of Thrace (EL12) from diffuse pollution sources

4.3 HYDROMORPHOLOGICAL PRESSURES

Based on the Guidelines Text entitled "Methodology for determining and evaluating criteria for hydromorphological alterations", technical projects that cause hydromorphological alterations or regulation of water flow were searched.

Technical projects that are either constructed or under construction and are expected to start operating by 2027 were taken into account. These projects may be reservoirs (hydroelectric or abstraction), river management projects, or other projects that regulate the flow of water between water systems (e.g. floodgates).

The projects in question, depending on the intensity of the hydromorphological alteration they cause, may initially characterize the corresponding water system as Heavily Modified. The detailed identification of Heavily Modified Water Bodies (HMWBs) is presented in the Analytical Documentation titled "Final Determination of Artificial and Heavily Modified Water Bodies (AWBs-HMWBs)".

With regard to river water bodies, the hydromorphological alterations identified relate to channel modifications, dams, weirs, abstractions and technical works. It is noted that the project “Regulation of the Kimmeria Torrent from the OSE Bridge to the Kosynthos River” is currently under implementation. The regulation of the torrent concerns the river water body EL1208R0000000057N and is carried out using an open cross-section, with banks lined with gabions and a bed of riprap stabilized with gabion sills. Following the completion of the project and in the next revision of the RBMP, the characterization of this water body should be re-examined.

All in-river reservoirs, regardless of dam size, are considered by definition as Heavily Modified Water Bodies (HMWBs). For water bodies of this category, hydromorphological alterations and modifications are not assessed on the basis of the relevant assessment criteria, as both the criteria themselves and the grading of their parameters have been derived from the consideration and statistical analysis of similar constructions in Greece. Consequently, their assessment on the basis of these criteria will always lead to an initial designation as HMWBs. The only lake water body in the River Basin District for which hydromorphological alterations were assessed is Lake Ismarida (EL1209L000006N). Approximately 17% of the lake’s catchment area has been diverted, resulting in the runoff of branches of the hydrographic network no longer discharging into the lake but downstream into the channel connecting the lake with the sea. Approximately 67% of the lake’s perimeter has been modified by embankments (total perimeter of about 8.2 km, of which approximately 5.5 km are embanked). Approximately

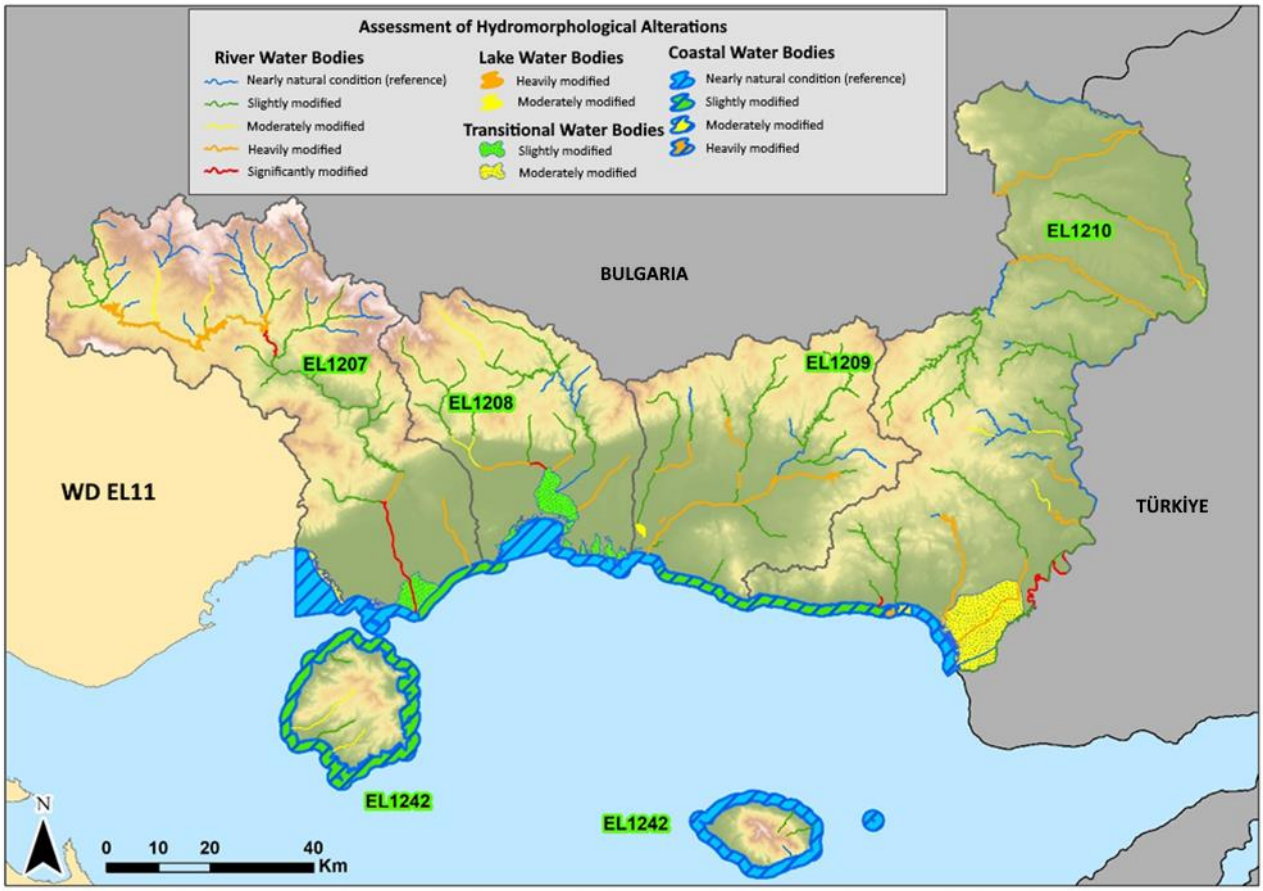
10% of the lake's perimeter is affected by intensive land uses (irrigated crops), corresponding to about 900 m of the total 8.2 km perimeter, within a distance of 50 m from the lake. Taking into account the above hydromorphological alterations, Lake Ismarida is classified as a moderately modified lake water body (assessment class 3).

As regards transitional water bodies, the hydromorphological alterations identified relate to interventions on the water bodies and their banks, constructions acting as barriers to fish migration, etc.

With regard to coastal water bodies, the hydromorphological alterations identified relate to interventions on the water bodies and their coastline by perpendicular and longitudinal port works, as well as to aquaculture installations.

Subsequently, statistical information is presented regarding the assessment of hydromorphological alterations of river water bodies at the river basin level.

Finally, a map is presented showing the assessment of hydromorphological alterations of the surface water bodies of the River Basin District.



Map 4-1 Assessment of hydromorphological alterations of the River Basin District

4.4 WATER ABSTRACTIONS

This section includes data on total annual water withdrawals for all activities and uses. The detailed calculations of water needs and withdrawals have been conducted in the Analytical Documentation Text "Analysis of

anthropogenic pressures and their impacts on surface and groundwater systems". The list of categories of activities and uses examined includes:

- Water supply.
- Irrigation.
- Livestock water
- Industrial water

From the above individual categories, the aggregated data for water abstractions carried out in the River Basin District are derived.

Table 4-11 Water abstractions in the River Basin District of Thrace

Water abstractions (10^6 m^3/year)					
River Basin	Water supply	Irrigation	Livestock	Industry	Total per R.Basin
EL1207	8,75	165,40	1,00	5,35	180,50
EL1208	11,18	184,89	0,58	1,12	197,76
EL1209	7,15	72,76	1,01	8,05	88,98
EL1210	12,69	229,58	0,51	1,15	243,93
EL1242	3,28	8,25	0,22	0,02	11,77
Total per use	**43,04**	**660,88***	**3,31****	**15,70**	**722,93**

** This quantity does not include an additional 0.03 × 10^6 m^3/year abstracted from non-delineated water bodies of the River Basin District.*
*** This quantity does not include an additional 0.06 × 10^6 m^3/year abstracted from the groundwater bodies of River Basin District EL11.*

In the tables that follow, detailed data on water abstractions per River Basin are presented for each surface water body. These abstractions largely concern the irrigation of agricultural land, mainly through collective irrigation networks. The complete recording of abstractions is currently underway through the development of the National Register of Water Abstraction Points (NRWAP) and the implementation of basic measures provided for in the present RBMP.

Nestos River Basin (EL1207)

Table 4-12 Annual water abstractions from surface water bodies of the Nestos River Basin (EL1207)

No.	Water Body Code	Water Body	WB Type	Annual Abstractable Quantity (10^6 m^3/year)	Purpose of Abstraction
1	EL1207R0002000004H	Nestos	R	107,11	Irrigation
2	EL1207R0002000006N	Nestos	R	0,26	Irrigation

Xanthi Streams – Xirorema River Basin (EL1208)

Table 4-13 Annual water abstractions from surface water bodies of the Xanthi Streams – Xirorema River Basin (EL1208)

No.	Water Body Code	Water Body	WB Type	Annual Abstractable Quantity (10^6 m^3/year)	Purpose of Abstraction
1	EL1208R0000010068N	Kompsatos	RW	0,75	Irrigation
2	EL1208R0000130079N	Kompsatos	RW	0,01	Industry

Komotini Streams – Loutrou Evrou River Basin (EL1209)

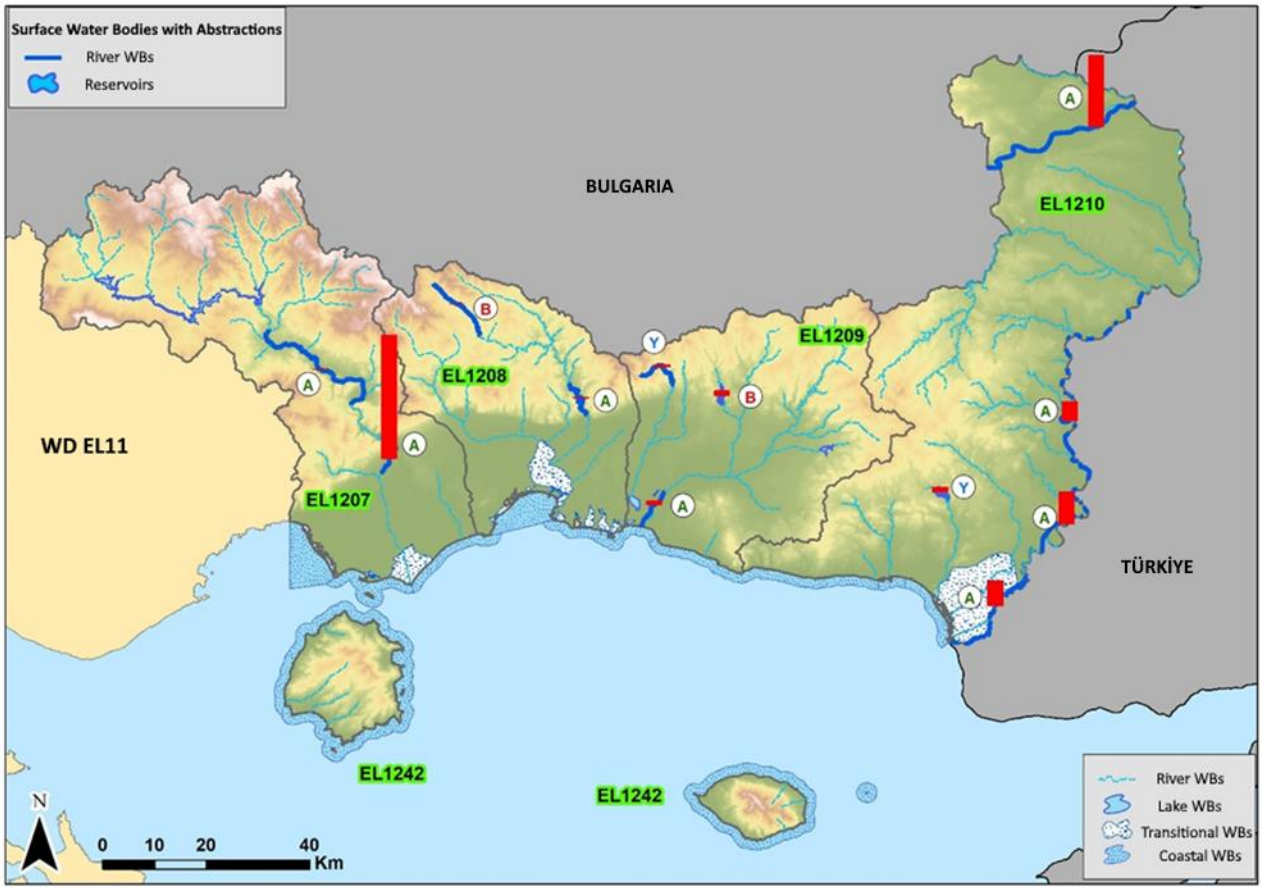
Table 4-14 Annual water abstractions from surface water bodies of the Komotini Streams – Loutrou Evrou River Basin (EL1209)

No.	Water Body Code	Water Body	WB Type	Annual Abstractable Quantity (10^6 m^3/year)	Purpose of Abstraction
1	EL1209R0000030090N	Chionorema	RW	2,92	Water supply
2	EL1209R0002030094H	Lissos	RW	3,81	Irrigation [1]
3	EL1209RL002040003H	Lake Gratini	LW	4,9[2]	Industry & Irrigation

Λεκάνη Απορροής Έβρου (EL1210)

Table 4-15 Annual water abstractions from surface water bodies of the Evros River Basin (EL1210)

No	Water Body Code	Water Body	WB Type	Annual Abstractable Quantity (10^6 m^3/year)	Purpose of Abstraction
1	EL1210R0B131600174H	Ardas	RW	61,54	Irrigation
2	EL1210R0T020000136N	Evros	RW	27,82	Irrigation
3	EL1210R0T020000138N	Evros	RW	16,90	Irrigation
4	EL1210R0T020100133N	Evros	RW	21,47	Irrigation
5	EL1210RL009010004H	Lake Aisyme	LW	5,52	Water supply



Map 4-2 Water abstractions from surface water bodies in the River Basin District of Thrace (EL12)

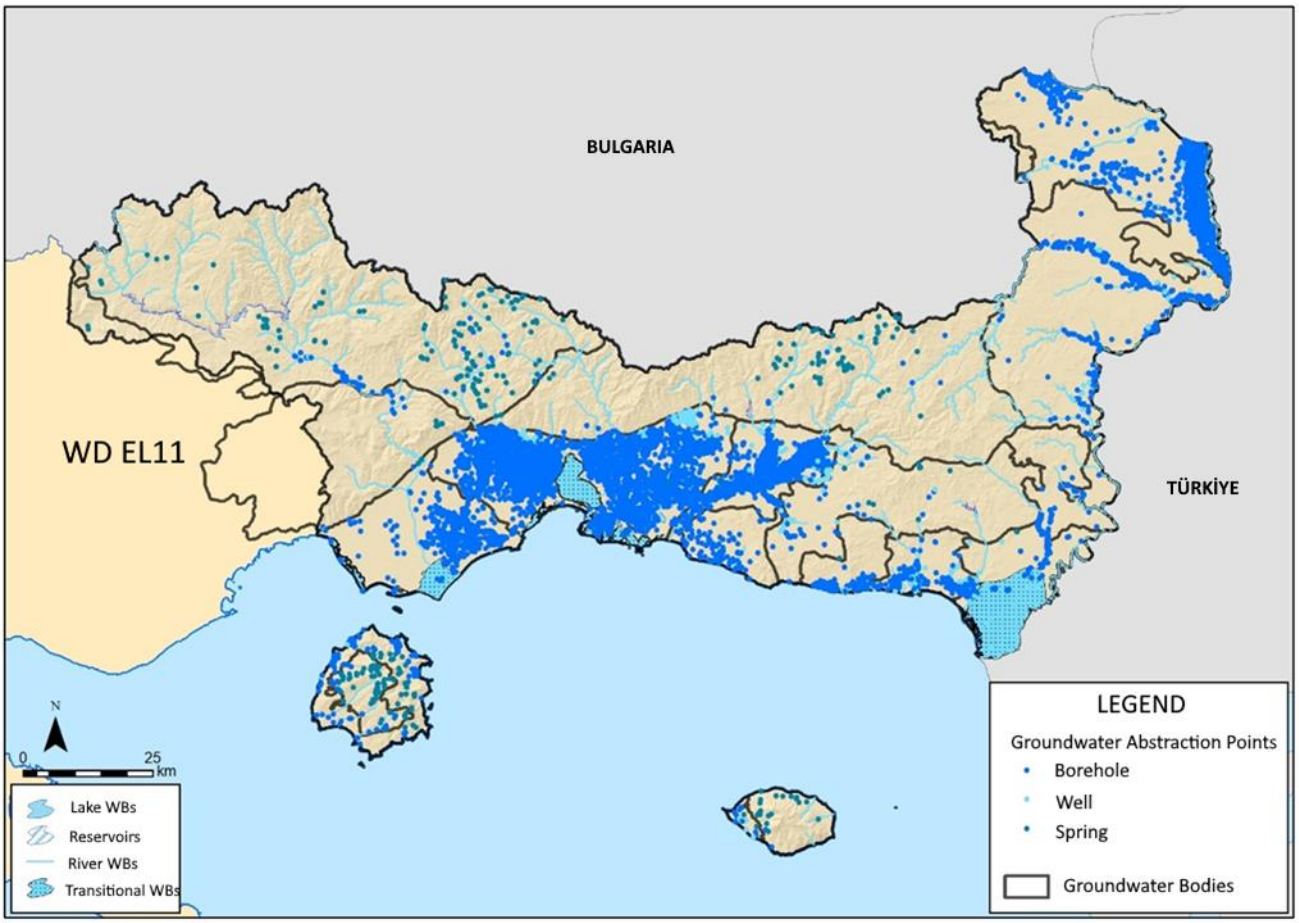
[1] Diversions for the filling of the Sidirochori and Nea Adrianis reservoirs are included

[2] According to flow meter measurements of the Komotini Power Plant, an average of approximately 0.9×10^6 m^3 is allocated for the irrigation of cultivated land in the Lambros plain area, and more specifically the agricultural areas of Lambros, Omiriko and Gratini, with a total area of approximately 2,500 stremmas

In the River Basin District of Thrace, no over-abstraction phenomena are observed in the groundwater bodies. The tables that follow present detailed data on abstractions per groundwater body for each River Basin of the District.

Table 4-16 Annual recharge and abstractions from groundwater bodies in the River Basin District of Thrace (EL12)

GWB Code	GWB Name	Mean Annual Recharge (10^6m^3)	Mean Annual Abstractions (10^6m^3)	Water Supply (10^6m^3)	Irrigation (10^6m^3)	Livestock (10^6m^3)	Industry (10^6m^3)	Quantitative Status
Nestos River Basin (EL1207)								
EL1200060	Nestos Delta System	67,28	50,56		49,47	0,43	0,66	Good
EL1200070	Mountain Basin System	249,77	14,69	6,42	3,45	0,13	4,69	Good
EL120B090	Rivers – Stavroupoli System	241,24	7,87	2,33	5,11	0,44	0,00	Good
Xanthi Streams – Xirorema Basin (EL1208)								
EL1200050	Xanthi – Komotini System	222,23	197,01	11,18	184,14	0,58	1,11	Good
Komotini Streams – Loutrou Evrou Basin (EL1209)								
EL1200040	Filiouris System	56,98	50,68	1,65	44,92	0,12	4,00	Good
EL1200110	Maroneia System	21,72	14,81	0,25	14,53	0,04	0,00	Good
EL1200120	Rodopi System	61,10	7,48	1,18	6,03	0,22	0,05	Good
EL120B100	Drosinio System	131,89	4,36	1,16	2,57	0,64	0,00	Good
Evros River Basin (EL1210)								
EL1200030	Makri System	14,38	1,41	0,11	1,27	0,03	0,00	Good
EL1200130	Alexandroupolis System	18,24	8,27	0,13	7,57	0,04	0,53	Good
EL1200140	Evros System	26,33	17,88	0,94	16,78	0,16	0,00	Good
EL120T020	Riparian Evros Area – Evros Delta System	15,53	6,13	0,07	6,01	0,04	0,00	Good
EL12BT010	Orestiada System	91,45	46,34	3,61	42,07	0,07	0,58	Good
EL12BT150	Soufli – Didymoteicho System	86,62	29,91	2,30	27,41	0,16	0,04	Good
Thasos – Samothrace Basin (EL1242)								
EL1200080	Thasos System	53,12	7,75	1,67	5,98	0,07	0,02	Good
EL1200160	Thasos – Prinos System	15,24	2,37	1,19	1,15	0,03	0,00	Good
EL1200170	Samothrace System	12,31	0,93	0,31	0,53	0,09	0,00	Good
EL1200180	Samothrace – Xiroptamos System	2,36	0,72	0,10	0,60	0,02	0,00	Good



Map 4-3 Groundwater Bodies of the River Basin District of Thrace (EL12) and Abstraction Points

As shown by the data in the table above, the vast majority of abstractions concern irrigation, which accounts for 92.5% of total abstractions, followed by water supply, which reaches 6%. Abstractions related to livestock farming represent a small share of total abstractions, at approximately 0.3%, while industry accounts for only 2.2% of total abstractions.

4.5 OTHER PRESSURES

Other pressures include:

- Runoff from extractive activities (mines, quarries)
- Desalination units
- Ports - Marinas - Navigation
- Artificial recharge of groundwater
- Changes in groundwater levels and quantity due to underground exploitation or the construction of large underground projects

Discharges from extractive activities (mines, quarries).

With regard to extractive mining activity, there is currently no active mine or quarry in the River Basin District of Thrace (EL12). In the past, mining activity took place at the Agios Filippos Mine, located northeast of the settlement of Kirki in the Municipality of Alexandroupolis, which constitutes a significantly contaminated site

within the Evros River Basin (EL1210). The Agios Filippos mixed sulphide mine included an ore processing plant. The installation and construction of the mine took place during the period of the German occupation; it was abandoned after the end of World War II. It resumed operation during the periods 1974–1980 and 1990–1997 by a private operator and has since been abandoned.

The most significant extractive activity is carried out in the Nestos River Basin (46 quarry units covering an area of 325 ha). This is followed by the river basins EL1242, EL1210 and EL1209. In addition, eight (8) underground marble quarry operations have been environmentally licensed in the River Basin District of Thrace. Based on the environmental permits of the above operations, no need for lowering the groundwater table was identified for the underground exploitation of the deposits, which is carried out using the room-and-pillar method. Waste materials from underground exploitation are temporarily deposited in the quarry yard, while in areas where the deposit has been fully exhausted, the backfilling process begins. Furthermore, waste materials from the exhaustion of surface benches are also used in the backfilling of the underground workings.

Desalination plants.

No desalination plants are present in the River Basin District of Thrace (EL12).

Ports – Marinas – Navigation.

The most important ports in the River Basin District of Thrace (EL12) are the ports of Alexandroupolis, Lagos, Thasos and Samothrace. In addition to the above, nine (9) ports and eleven (11) fishing shelters are located within the District.

Artificial recharge of groundwater.

No artificial recharge applications are currently implemented in groundwater bodies within the River Basin District of Thrace (EL12). However, experimental artificial recharge applications have been carried out:

- In an old channel of the Kosynthos torrent in the western part of the Xanthi–Komotini groundwater body, aiming at its qualitative and quantitative improvement. Specifically, the pilot application was implemented in the Vafeika–Koutso area (west of Lake Vistonida) using the infiltration basin method (Ministry of Agriculture, 1998).

- In a decommissioned secondary channel of the Nestos River in the eastern part of the Nestos Delta groundwater body, aiming to enhance groundwater resources in remote areas of the Delta and to prevent the expansion of saline intrusion, particularly in the eastern part of the groundwater body. Specifically, the pilot application was carried out in the Dekarcho–Magana area using the infiltration basin method (Ministry of Agriculture, 1998).

Changes in groundwater level and quantity due to underground exploitation or the construction of large underground works.

In the River Basin District of Thrace (EL12), there are no cases of underground exploitations requiring lowering of the groundwater table and, consequently, no corresponding pressures are identified.

4.6 ASSESSMENT OF IMPACTS

The main outcome of the pressure assessment process is the classification of Water Systems into categories based on the likelihood of achieving the environmental goals of the Directive 2000/60/EC, in accordance with the provisions of Annex II of it. The goal is to optimize the design of monitoring programs (Article 8 of the Water Framework Directive - WFD) and the program of measures (Article 11 of the WFD).

During the assessment of impacts and the classification of WS based on the likelihood of achieving the environmental goals of the Directive, the following are jointly evaluated for each water system:

- The intensity of pressure from pollution sources and water abstraction: high (H), medium (M), low (L).
- The available data and the results of the monitoring program.
- The assessment of the study's researcher, when no data is available.

The Water Systems were classified according to the likelihood of achieving the environmental goals of the Directive 2000/60/EC or not, based on the above criteria, and the summary results are presented below.

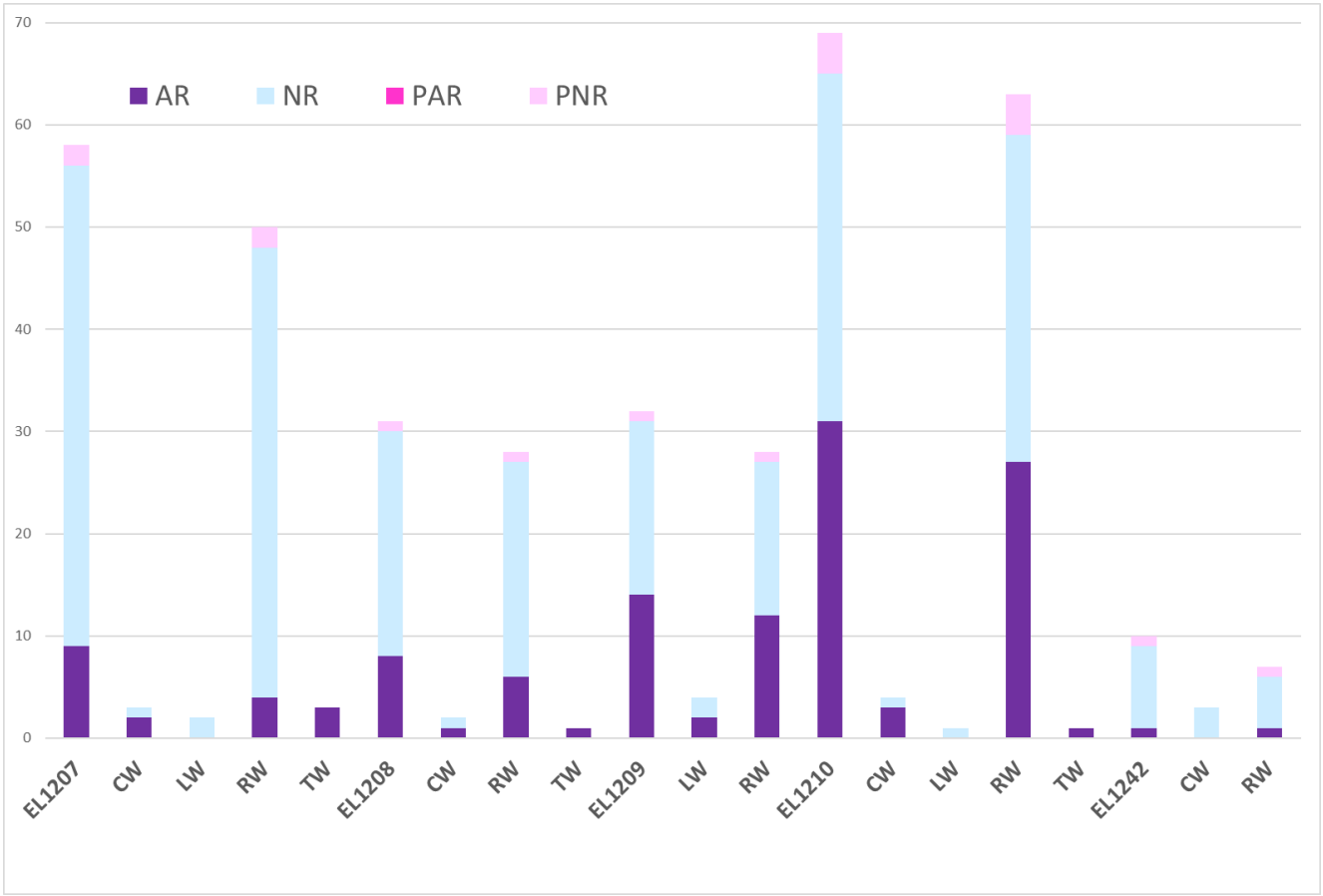


Figure 4-3 Risk Assessment of Failing to Achieve the Environmental goals of Surface Water Bodies in the River Basin District of Thrace (EL12)

* With regard to the assessment of the risk of failure to achieve the objectives, the following categories are distinguished: at risk (AR), probably at risk (PAR), probably not at risk (PNR), and not at risk (NR).

5 1:57 μμDETERMINATION AND STATUS OF WATER SYSTEMS IN THE WATER DIVISION

5.1 SURFACE WATER SYSTEMS

Within the framework of the 2nd Revision of the River Basin Management Plan of the River Basin District of Thrace (EL12), a redefinition of water bodies was carried out, where deemed necessary, due to the more accurate delineation of lake water bodies as well as the filling of the Iasio Dam, which led to the creation of a new lake-type Heavily Modified Water Body. As a result, a total of two hundred (200) surface water bodies were identified, the distribution of which within the River Basin District and per River Basin is presented in the following table.

Table 5-1 Categories of Surface Water Systems (SWS) by River Basin in the River Basin District of Thrace (EL12)

CATEGORIES OF WATER SYSTEMS	RBs of RBD EL12					ΣΥΝΟΛΟ ΥΔ
	EL1207	EL1208	EL1209	EL1210	EL1242	
River WS	50	28	28	63	7	176
Lake WS	2	0	4	1	0	7
Transitional WS	3	1	0	1	0	5
Coastal Water Systems	3	2	0	4	3	12
Total Surface WS	**58**	**31**	**32**	**69**	**10**	**200**

In the tables that follow, summary results of the status of the Surface Water Bodies are presented.

Table 5-2 Results of the assessment of the status of river water bodies per River Basin in the River Basin District of Thrace (EL12)

Status/Potential	Nestos RB (EL1207)				Xanthi Streams – Xirorema RB (EL1208)				Komotini Streams – Loutrou Evrou RB (EL1209)			
	No.	% No.	Length (km)	% Length	No.	% No.	Length (km)	% Length	No.	% No.	Length (km)	% Length
Ecological Status / Ecological Potential												
High	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Good	46	92,0%	398,35	92,7%	22	78,6%	207,45	82,1%	16	57,1%	182,80	62,6%
Moderate	2	4,0%	16,40	3,8%	4	14,3%	27,53	10,9%	8	28,6%	75,30	25,8%
Poor	1	2,0%	4,49	1,0%	1	3,6%	3,09	1,2%	4	14,3%	34,06	11,7%
Bad	1	2,0%	10,70	2,5%	1	3,6%	14,74	5,8%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Chemical Status												
Good	50	100,0%	429,95	100,0%	23	82,1%	212,37	84,0%	26	92,9%	270,33	92,5%
Below Good	0	0,0%	0,00	0,0%	5	17,9%	40,44	16,0%	2	7,1%	21,84	7,5%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%

Status/Potential	Evros RB (EL1210)				Thasos–Samothrace RB (EL1242)				Total RBD EL12			
	No.	% No.	Length (km)	% Length	No.	% No.	Length (km)	% Length	No.	% No.	Length (km)	% Length
Ecological Status / Ecological Potential												
High	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Good	36	57,1%	346,56	50,0%	6	85,7%	45,76	84,4%	126	71,6%	1.180,92	68,6%
Moderate	20	31,7%	225,63	32,6%	1	14,3%	8,49	15,6%	35	19,9%	353,36	20,5%
Poor	3	4,8%	48,31	7,0%	0	0,0%	0,00	0,0%	9	5,1%	89,95	5,2%
Bad	4	6,3%	72,38	10,4%	0	0,0%	0,00	0,0%	6	3,4%	97,82	5,7%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Chemical Status												
Good	61	96,8%	667,68	96,4%	7	100,0%	54,25	100,0%	167	94,9%	1.634,58	94,9%
Below Good	2	3,2%	25,20	3,6%	0	0,0%	0,00	0,0%	9	5,1%	87,48	5,1%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%

Table 5-3 Results of the assessment of the status of Lake Heavily Modified Water Bodies per River Basin in the River Basin District of Thrace (EL12)

Status/Potential	Nestos RB (EL1207)				Xanthi Streams – Xirorema RB (EL1208)				Komotini Streams – Loutrou Evrou RB (EL1209)			
	No.	% No.	Area (km²)	% Area	No.	% No.	Area (km²)	% Area	No.	% No.	Area (km²)	% Area
Ecological Potential												
Good and above	2	100,0%	18,44	100,0%	0	0,0%	0,00	0,0%	2	66,7%	2,26	90,8%
Moderate	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Poor	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	1	33,3%	0,23	9,2%
Bad	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Chemical Status												
Good	2	2,0%	18,44	100,0%	0	0,0%	0,00	0,0%	3	100,0%	2,49	100,0%
Below Good	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%

Status/Potential	Evros RB (EL1210)				Thasos–Samothrace RB (EL1242)				Total RBD EL12			
	No.	% No.	Area (km²)	% Area	No.	% No.	Area (km²)	% Area	No.	% No.	Area (km²)	% Area
Ecological Potential												
Good and above	1	100,0%	1,07	100,0%	0	0,0%	0,00	0,0%	5	83,3%	21,77	99,0%
Moderate	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Poor	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	1	16,7%	0,23	1,0%
Bad	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Chemical Status												
Good	1	100,0%	1,07	100,0%	0	0,0%	0,00	0,0%	6	100,0%	22,00	100,0%
Below Good	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%

Table 5-4 Results of the assessment of the status of Natural Lakes per River Basin in the River Basin District of Thrace (EL12)

Status	Nestos RB (EL1207)			Xanthi Streams – Xirorema RB (EL1208)			Komotini Streams – Loutrou Evrou RB (EL1209)					
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Ecological Status												
High	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Moderate	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Poor	0	0,0%	0	0,0%	0	0,0%	0	0,0%	1	100,0%	3,32	100,0%
Bad	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Chemical Status												
Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	100,0%
Below Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	1	100,0%	3,32	100,0%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%

Status	Evros RB (EL1210)			Thasos–Samothrace RB (EL1242)			Total RBD EL12					
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Ecological Status												
High	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Moderate	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Poor	0	0,0%	0	0,0%	0	0,0%	0	0,0%	1	100,0%	3,32	100,0%
Bad	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Chemical Status												
Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	100,0%
Below Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	1	100,0%	3,32	100,0%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%

Table 5-5 Results of the assessment of the status of transitional water bodies per River Basin in the River Basin District of Thrace (EL12)

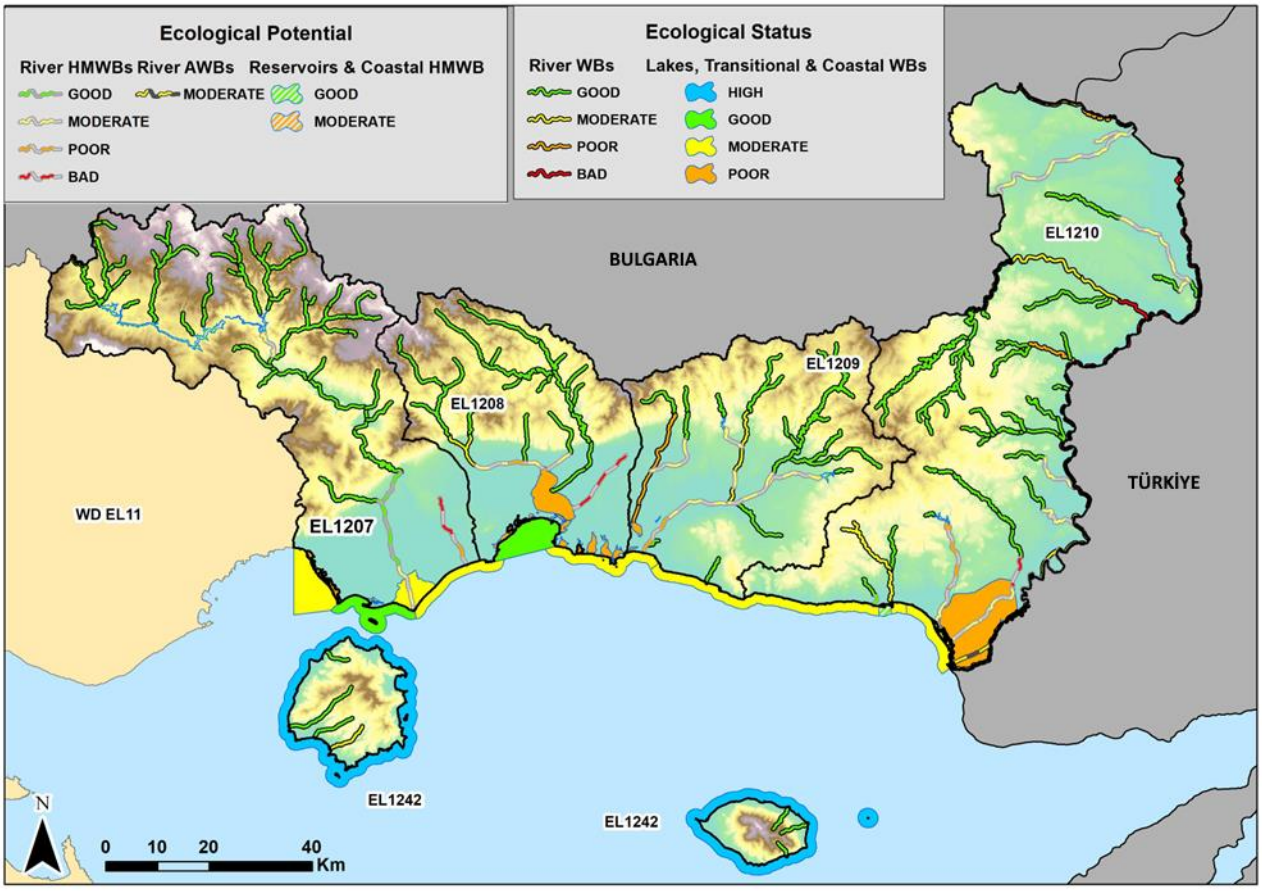
Status	Nestos RB (EL1207)			Xanthi Streams – Xirorema RB (EL1208)			Komotini Streams – Loutrou Evrou RB (EL1209)					
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Ecological Status												
High	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Good	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Moderate	2	66,7%	34,48	81,5%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Poor	1	33,3%	7,84	18,5%	1	100,0%	72,17	100,0%	0	0,0%	0,00	0,0%
Bad	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Chemical Status												
Good	2	66,7%	34,48	81,5%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Below Good	1	33,3%	7,84	18,5%	1	100,0%	72,17	100,0%	0	0,0%	0	0,0%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%

Status	Evros RB (EL1210)			Thasos–Samothrace RB (EL1242)			Total RBD EL12					
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Ecological Status												
High	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%	0	0,0%	0,00	0,0%
Good	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%	0	0,0%	0,00	0,0%
Moderate	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%	2	40,0%	34,48	12,5%
Poor	1	100,0%	160,37	100,0%	0	0,0%	0	0,0%	3	60,0%	240,37	87,5%
Bad	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%	0	0,0%	0,00	0,0%
Chemical Status												
Good	1	100,0%	160,37	100,0%	0	0,0%	0	0,0%	3	60,0%	194,85	70,9%
Below Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	2	40,0%	80,00	29,1%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0,00	0,0%

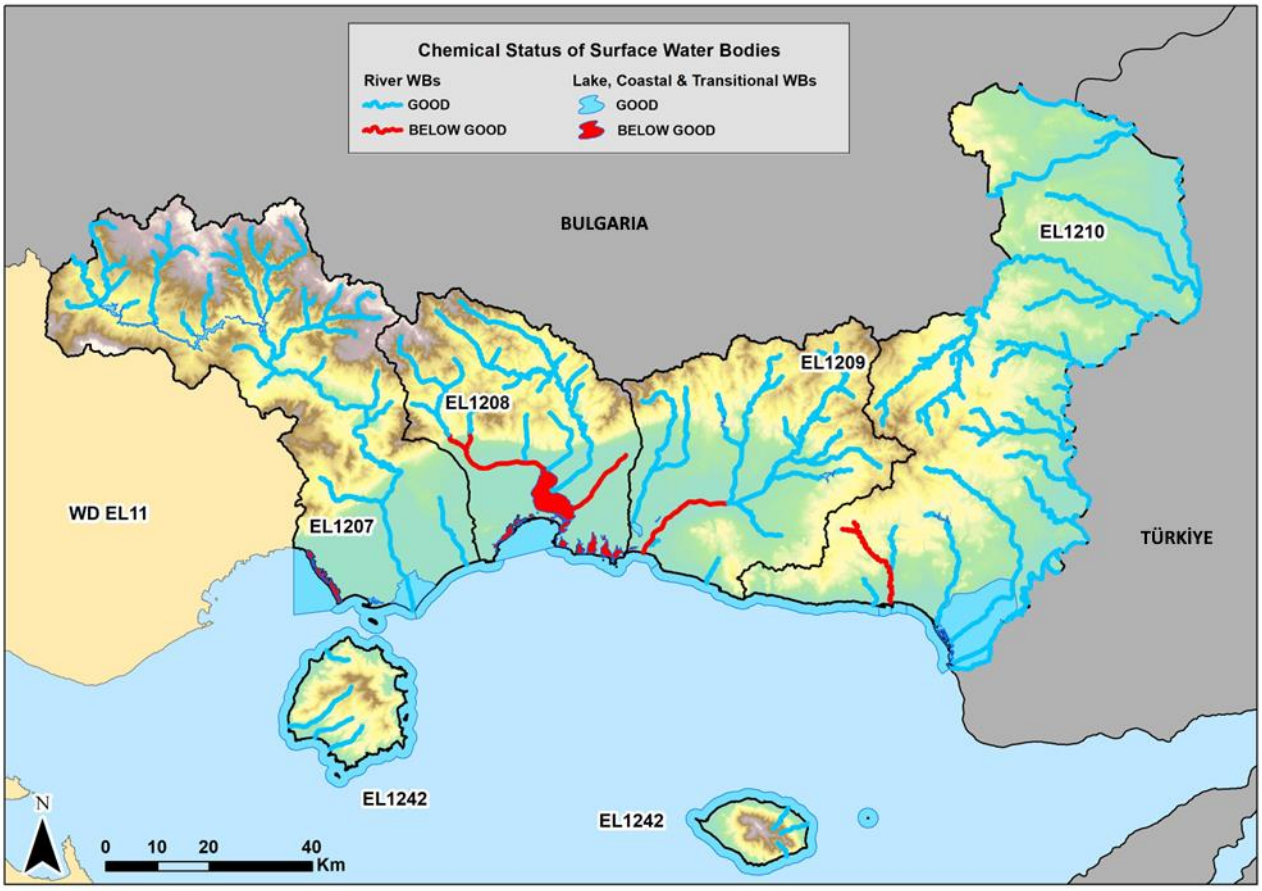
Table 5-6 Αποτελέσματα αξιολόγησης της κατάστασης των παράκτιων ΥΣ ανά ΛΑΠ στο ΥΔ Θράκης (EL12)

Status/Potential	Nestos RB (EL1207)			Xanthi Streams – Xirorema RB (EL1208)			Komotini Streams – Loutrou Evrou RB (EL1209)					
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Ecological Status / Ecological Potential												
High	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Good	1	33,3%	49,25	31,3%	1	50,0%	62,95	56,4%	0	0,0%	0,00	0,0%
Moderate	2	66,7%	107,92	68,7%	1	50,0%	48,61	43,6%	0	0,0%	0,00	0,0%
Poor	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Bad	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%
Chemical Status												
Good	3	100,0%	157,17	100,0%	2	100,0%	111,56	100,0%	0	0,0%	0	0,0%
Below Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%

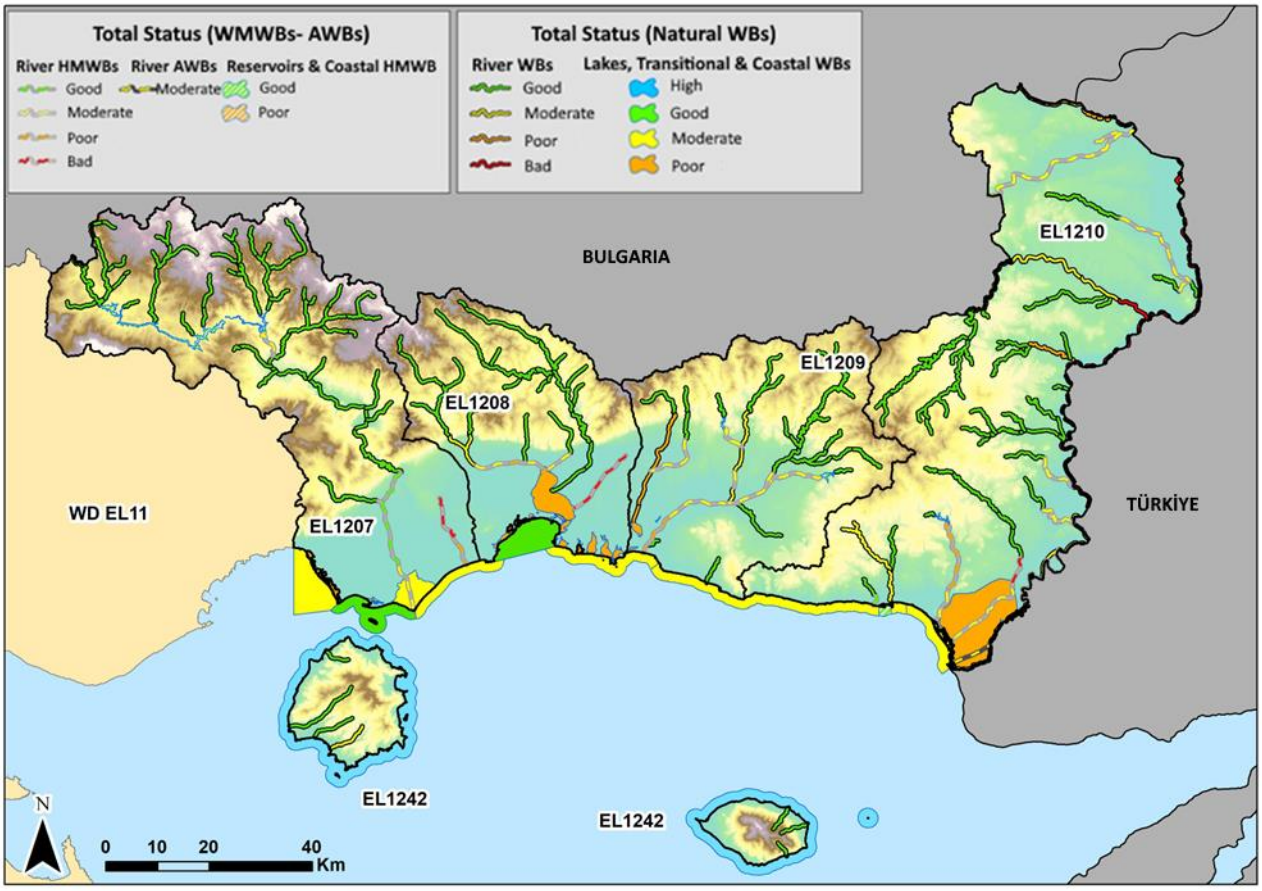
Status/Potential	Evros RB (EL1210)			Thasos–Samothrace RB (EL1242)			Total RBD EL12					
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Ecological Status / Ecological Potential												
High	0	0,0%	0,00	0,0%	3	100,0%	327,04	100,0%	3	25,0%	327,0435	44,7%
Good	1	25,0%	4,69	3,5%	0	0,0%	0,00	0,0%	3	25,0%	116,8855	16,0%
Moderate	3	75,0%	130,93	96,5%	0	0,0%	0,00	0,0%	6	50,0%	287,461	39,3%
Poor	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%
Bad	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%
Unknown	0	0,0%	0,00	0,0%	0	0,0%	0,00	0,0%	0	0,0%	0	0,0%
Chemical Status												
Good	4	100,0%	135,61	100,0%	3	100,0%	327,04	100,0%	12	100,0%	731,39	100,0%
Below Good	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%
Unknown	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%



Map 5-1 Ecological Status / Potential of Surface Water Bodies – Thrace RBD (EL12)



Map 5-2 Chemical Status of Surface Water Bodies – Thrace RBD (EL12)



Map 5-3 Total Status of Surface Water Bodies – Thrace RBD (EL12)

5.2 GROUNDWATER SYSTEMS

Within the framework of the 1st Revision of the River Basin Management Plan (RBMP) of the Thrace Water District (EL12), the identification and delineation of the Groundwater Bodies (GWBs) were carried out based on the following criteria:

- The **hydrogeological characteristics** of the geological formations composing each groundwater body and the development of groundwater aquifers. A distinction was made between **karstic, porous, fractured and mixed GWBs**, and small individual aquifers were unified.
- The **capacity of the groundwater aquifers**, derived from available data on recharge, discharge and exploitation of groundwater resources.
- The **water uses** served by the exploitation of each GWB.
- The **interdependence of GWBs with surface waters and terrestrial ecosystems**.
- The presence, within each GWB, of **areas with degraded qualitative or quantitative status**, due to over-abstraction, salinization or other causes, as well as **areas at risk** of degradation, and areas with differentiated water quality due to **natural background conditions**.

Based on the above criteria, eighteen (18) Groundwater Bodies (GWBs) were identified. The number and delineation of these GWBs remained unchanged in the present 2nd Revision.

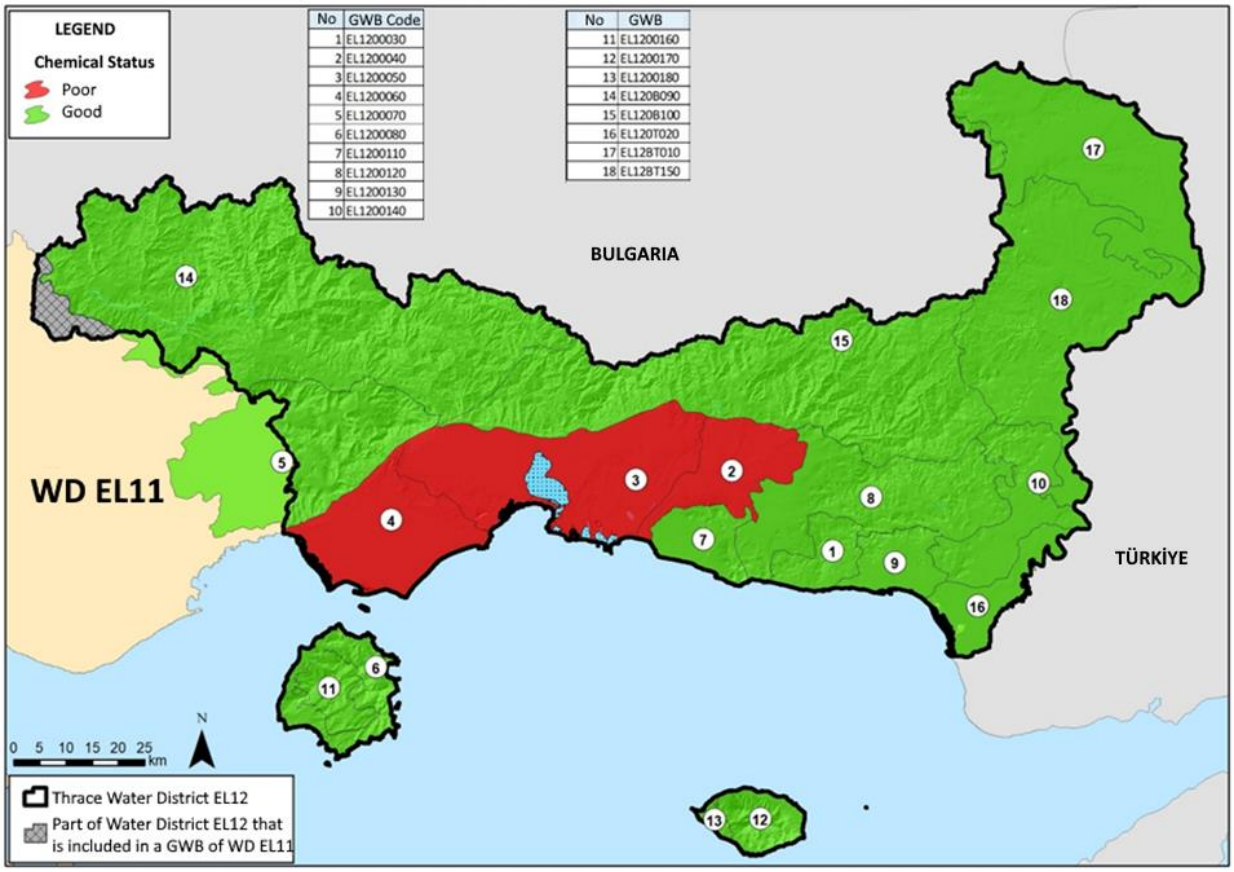
In the table that follows, summary results of the status of the Groundwater Bodies are presented.

Table 5-7 Results of the assessment of the status of the Groundwater Bodies by River Basin (RBD) in the Thrace Water District (EL12)

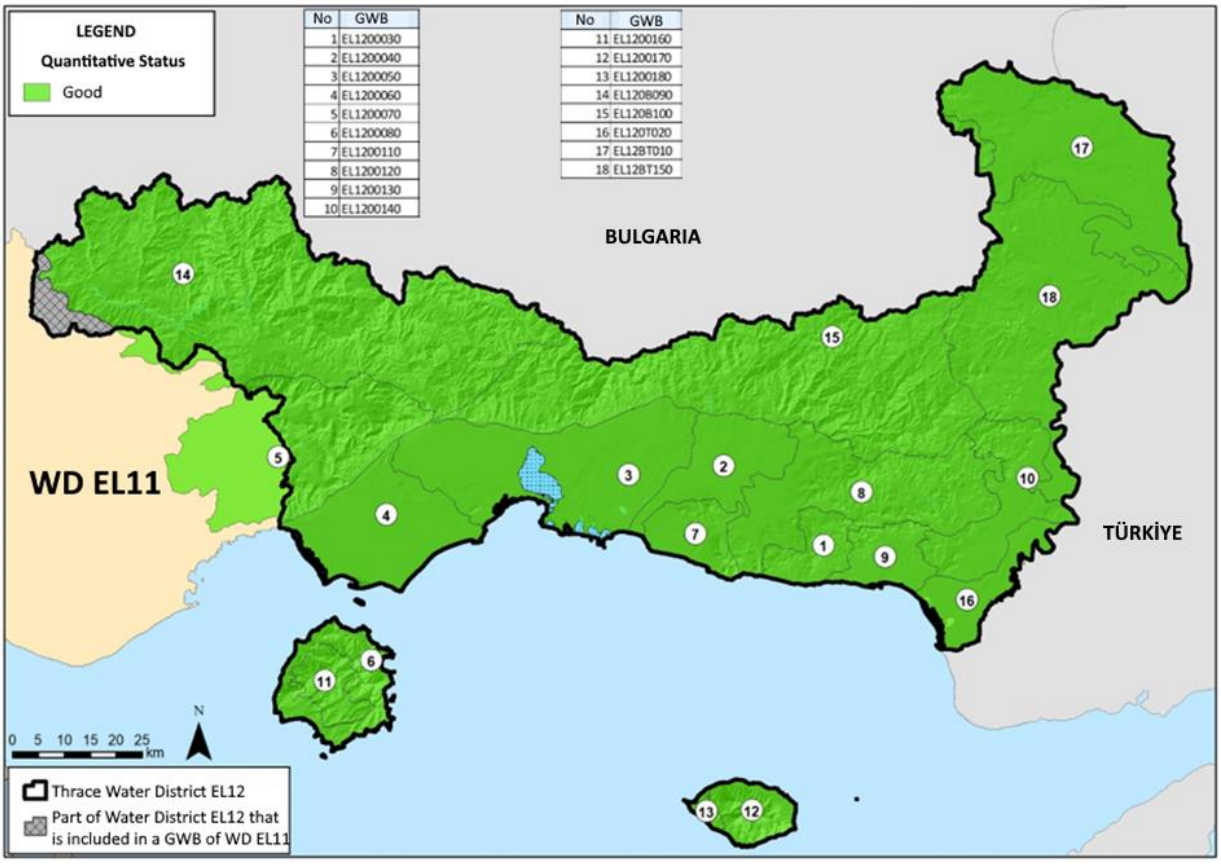
Status	Nestos RB (EL1207)				Xanthi Streams – Xirorema RB (EL1208)				Komotini Streams – Loutrou Evrou RB (EL1209)			
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Chemical Status												
Good	2	66,7%	3.375,3	85,9%	0	0%	0	0%	3	75,0%	2.751,4	89,2%
Poor	1	33,3%	555,1	14,1%	1	100%	902,5	100%	1	25,0%	332,2	10,8%
Unknown	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Quantitative Status												
Good	3	100%	3.930,4	100%	1	100%	902,5	100%	4	100%	3.083,6	100%
Poor	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

ΚΑΤΑΣΤΑΣΗ	Evros RB (EL1210)				Thasos–Samothrace RB (EL1242)				Total RBD EL12			
	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)	No.	% No.	Area (km²)
Chemical Status												
Good	6	100%	3.097,3	100%	4	100%	563,8	100%	15	83,3%	9.787,8	84,5%
Poor	0	0%	0	0%	0	0%	0	0%	3	16,7%	1.789,8	15,5%
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Quantitative Status												
Good	6	100%	3.097,3	100%	4	100%	563,8	100%	18	100%	11.577,6	100%
Poor	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

The classification of the Groundwater Bodies (GWBs) of the Thrace Water District (EL12) is presented in the following maps.



Map 5-4 Chemical Status of Groundwater Bodies in the Thrace River Basin District (EL12)



Map 5-5 Quantitative Status of Groundwater Bodies in the Thrace River Basin District (EL12)

5.3 HEAVILY MODIFIED WATER BODIES (HMWB) AND ARTIFICIAL WATER BODIES (AWB)

Human activity to date has altered the original characteristics of certain water systems. These changes, regardless of the reasons for which they were made or the extent of their impact on the water systems, make them special in a sense. Therefore, these systems are evaluated differently under Directive 2000/60/EC compared to other water bodies and are referred to as Heavily Modified Water Bodies (HMWB).

Similarly, in some cases, human-initiated projects create water systems in locations where none previously existed. These systems are known as Artificial Water Bodies (AWB).

Following the application of the methodology for the identification of Heavily Modified Water Bodies (HMWBs) and Artificial Water Bodies (AWBs), a total of 41 HMWBs (34 river water bodies, 6 reservoirs, and 1 coastal water body) and 1 AWB (river water body) were identified in the Thrace Water District (EL12), out of a total of 200 Surface Water Bodies (see the following tables and map).

Table 5-8 River HMWBs in the Thrace Water District (EL12), by River Basin (RB)

HMWB Code	Name	Type	Length (km)	Catch/nt Area (km²)	Designated Use
Nestos RB (EL1207)					
EL1207R0002000002H	Nestos River	R-M1	15,05	15,44	Irrigation, flood protection
EL1207R0002000004H	Nestos River	R-M1	6,41	13,87	Irrigation, flood protection
EL1207R0002010001H	Nestos River	R-M1	9,42	18,52	Irrigation, flood protection
EL1207R0002150021H	Nestos River	R-M1	6,99	13,42	Downstream of dam
EL1207R0005010050H	Laspias Stream	R-M1	4,49	21,97	Irrigation, flood protection
EL1207R0005010051H	Laspias Stream	R-M2	10,70	207,20	Irrigation, flood protection
Xanthi Streams – Xirorema RB (EL1208)					
EL1208R0000010063H	Ammorema Stream	R-M1	4,92	2,17	Irrigation, flood protection
EL1208R0000010080H	Aspropotamos Stream	R-M1	14,74	113,24	Irrigation, flood protection
EL1208R0000010052H	Kosynthos River	R-M1	3,6	15,92	Irrigation, flood protection
EL1208R0000030055H	Kosynthos River	R-M1	3,09	21,55	Irrigation, flood protection
EL1208R0000030056H	Kosynthos River	R-M1	6,99	74,62	Irrigation, flood protection
Komotini Streams – Loutrou Evrou RB (EL1209)					
EL1209R0002040199H	Amygdalorema Stream	R-M1	6,14	22,39	Downstream of dam
EL1209R0000020086H	Karydorema Stream	R-M1	11,65	61,29	Irrigation, flood protection
EL1209R00020800104H	Xirorema Stream	R-M1	12,51	26.6	Downstream of dam
EL1209R0002040097H	Sidiorema Stream	R-M1	3,01	6,40	Irrigation, flood protection
EL1209R00020000102H	Lissos River	R-M2	11,34	113.75	Irrigation, flood protection
EL1209R0002030094H	Lissos River	R-M1	8,56	10.19	Irrigation, flood protection
EL1209R0002030095H	Lissos River	R-M2	13,28	110.91	Irrigation, flood protection
Evros RB (EL1210)					
EL1210R00030100114H	Arapis Stream	R-M1	2,22	1,32	Urbanisation, flood protection
EL1210R00131601175H	Ardas River	R-M1	5,20	88,49	Irrigation, flood protection
EL1210R0B131600174H	Ardas River	R-M2	37,21	273,95	Downstream of dam
EL1210R0T020100134H	Evros River	R-L2	0,96	1,38	Flood protection
EL1210R0T020100135H	Evros River	R-L2	10,64	9,46	Flood protection
EL1210R0T020100137H	Evros River	R-L2	4,95	8,25	Flood protection
EL1210R00020400141H	Mavrorema Stream	R-M1	9,69	65,35	Irrigation, flood protection
EL1210R00020200139H	Provatonas Stream	R-M1	10,02	21,67	Irrigation, flood protection
EL1210R00020100124H	Western Branch	R-M1	6,44	7,71	Irrigation, flood protection
EL1210R00020100125H	Western Branch	R-M1	11,66	34,40	Irrigation, flood protection
EL1210R00020100126H	Ardaniou Stream	R-M1	6,03	32,87	Irrigation, flood protection
EL1210R00021400172H	Dasos Stream	R-M1	8,51	30,29	Irrigation, flood protection

HMWB Code	Name	Type	Length (km)	Catch/nt Area (km²)	Designated Use
EL1210R00090100121H	Loutrou Stream	R-M1	7,26	16,23	Downstream of dam
EL1210R00090100122H	Loutrou Stream	R-M2	16,99	103,25	Downstream of dam
EL1210R00021401169H	Manna Stream	R-M1	2,90	2,74	Irrigation, flood protection
EL1210R00021400171H	Berdemeno Stream	R-M1	11,80	78,76	Irrigation, flood protection

Table 5-9 River AWBs in the Thrace Water District (EL12), by River Basin (RB)

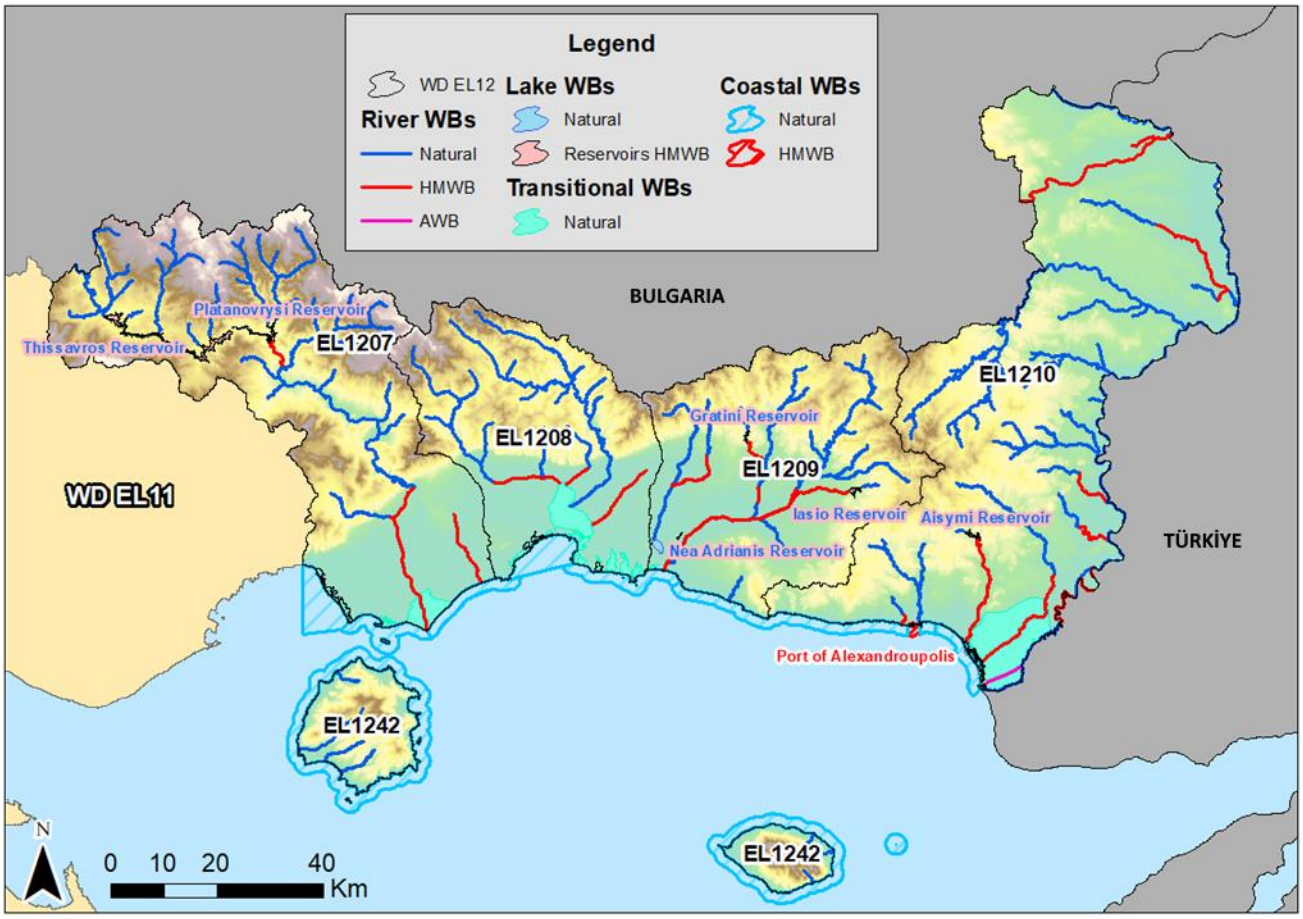
HMWB Code	Name	Type	Length (km)	Catch/nt Area (km²)	Designated Use
Evros RB (EL1210)					
EL1210R00020300132A	Evros River	R-L2	7,93	35,88	Irrigation, flood protection

Table 5-10 Lake WBs - Reservoirs in the Thrace Water District (EL12), by River Basin (RB)

HMWB Code	Name	Type	Area (km²)	Designated Use
Nestos RB (EL1207)				
EL1207RLB02000001H	Thissavros Reservoir	L-M5/7	15,27	Hydropower generation
EL1207RL002150002H	Platanovrysi Reservoir	L-M5/7	3,17	Hydropower generation
Komotini Streams – Loutrou Evrou RB (EL1209)				
EL1209RL002040003H	Gratini Reservoir	L-M8	0,78	Industrial use (thermal power plant cooling), irrigation
EL1209RL000010005H	Nea Adrianis Reservoir	GR-SR	0,23	Irrigation
EL1209RL000208007H	Iasio Reservoir	L-M5/7	1,48	Irrigation
Evros RB (EL1210)				
EL1210RL009010004H	Aisymi Reservoir	L-M5/7	1,07	Drinking water supply

Table 5-11 Coastal HMWBs in the Thrace Water District (EL12), by River Basin (RB)

HMWB Code	Name	Type	Area (km²)	Designated Use
Evros RB (EL1210)				
EL1210C0007H	Port of Alexandroupolis	IIIE	4,68	Port



Map 5-6 HMWBs and AWBs in the Thrace River Basin District (EL12)

5.4 PROTECTED AREAS

The Register of Protected Areas includes, according to Annex V of Presidential Decree 51/2007, all the following types of areas:

a) Areas designated for the abstraction of water for human consumption, in accordance with Article 7 of Presidential Decree 51/2007 (Article 7 of Directive 2000/60/EC),
b) Areas designated for the protection of economically significant aquatic species,
c) Water bodies classified as recreational waters, including areas designated as bathing waters,
d) Areas sensitive to the presence of nutrients, including areas designated as vulnerable zones and areas classified as sensitive,
e) Areas designated for the protection of habitats or species, where the conservation or improvement of water status is important for their protection, including relevant regions which fall under the NATURA 2000 program.

Areas Designated for Abstraction of Water Intended for Human Consumption. Within the Register of Protected Areas (RPA), the following are included:

- Two (2) Groundwater Bodies (GWBs):
  - System EL1200070
  - System EL1200080
- Two (2) Surface Water Bodies (SWBs):

- Aisymi Reservoir (EL1210RL009010004H), which is used for the drinking water supply of the Municipality of Alexandroupolis.
- Chionorema Stream (western tributary of the Vosvozis River – EL1209R0000030090N), which is used for the drinking water supply of the Municipality of Komotini.

Water Bodies Designated as Bathing Waters. According to the Greek Bathing Water Identity Register, within the Thrace Water District (EL12), 40 bathing water areas were designated in 2023, all of which are located in coastal water bodies.

With regard to recreational waters, there are no officially designated recreational activities in the Thrace Water District (EL12); therefore, no recreational waters are identified.

Areas Sensitive to Nutrient Pollution. According to Joint Ministerial Decision (JMD) **190126/2013** (Government Gazette 983/B/2013), the following constitute **Nitrate Vulnerable Zones** within the Thrace Water District:

- Surface and groundwater of the **southern section of the Evros River**, and
- Surface and groundwater of the **Vistonida Lake plain** (areas east and west of Lake Vistonida).

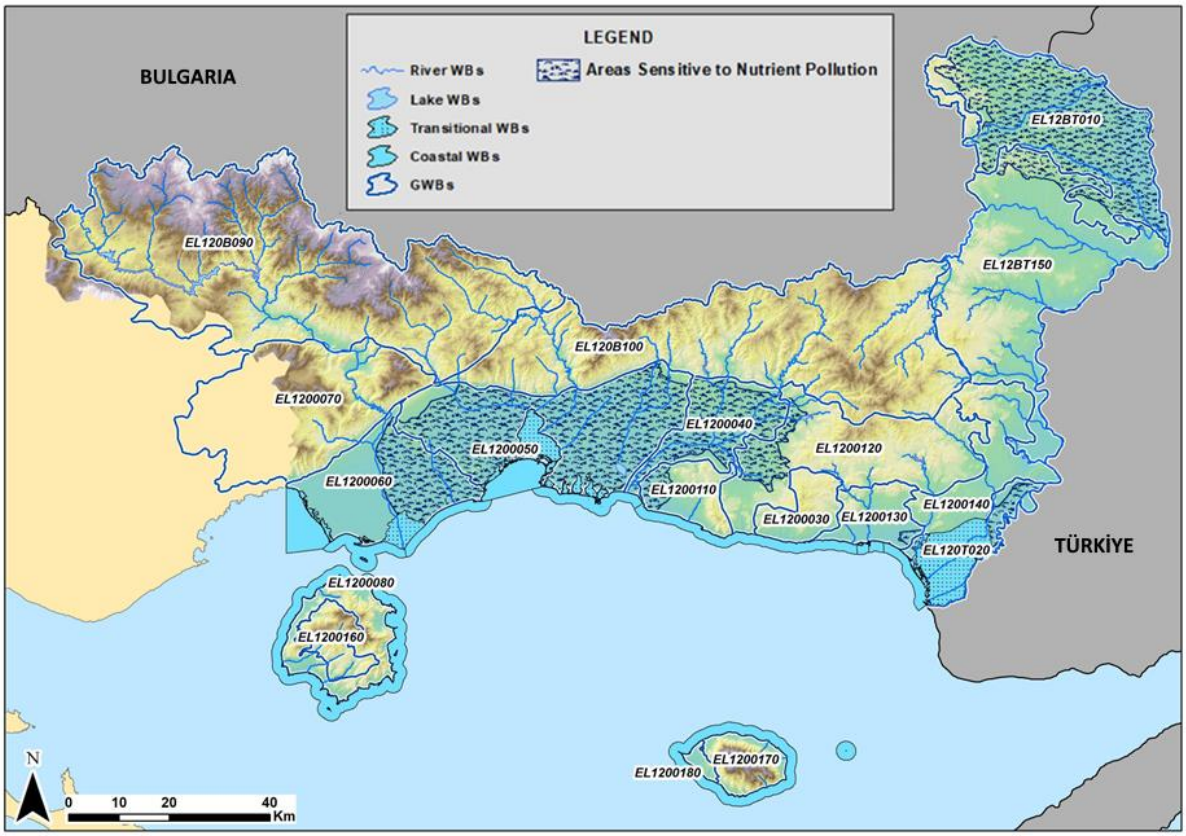
Furthermore, pursuant to JMD **147070/21.11.2014** (Government Gazette 3224/B/2014), which amended Article 2 of JMD 19652/1906/1999 as in force, additional **vulnerable zones** were designated in the Thrace Water District (EL12), namely:

- Surface and groundwater of the **northern section of the Evros River**, specifically the **Orestiada area**.

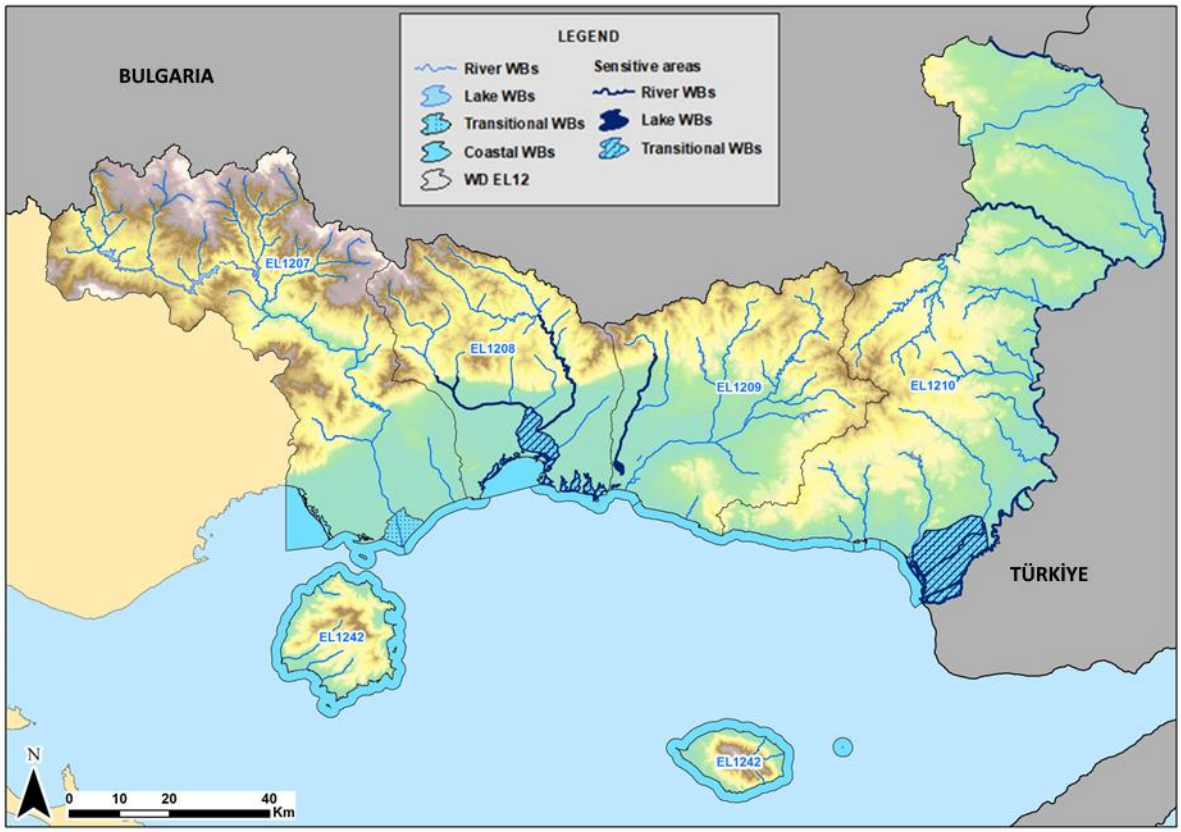
In addition, under Ministerial Decision **19661/1982/1999** (Government Gazette 1811/B/1999), the following have been designated as **sensitive areas** in the Thrace Water District (EL12):

- Evros Delta (Evros River estuary),
- Lake Vistonida (Rodopi Lagoons – Porto Lagos),
- Lake Mitrikou (Lake Ismarida),
- Western Tributary (tributary of the Vosvozis River),
- Evros River,
- Erythropotamos River (tributary of the Evros River),
- Kompsatos River, and
- Kosynthos River.

Within the framework of the **2nd Revision**, no need arose to designate any **additional nitrate-vulnerable zones**.



Map 5-7 Areas Sensitive to Nutrient Pollution in the Thrace River Basin District (EL12)



Map 5-8 Sensitive Areas in the Thrace River Basin District (EL12)

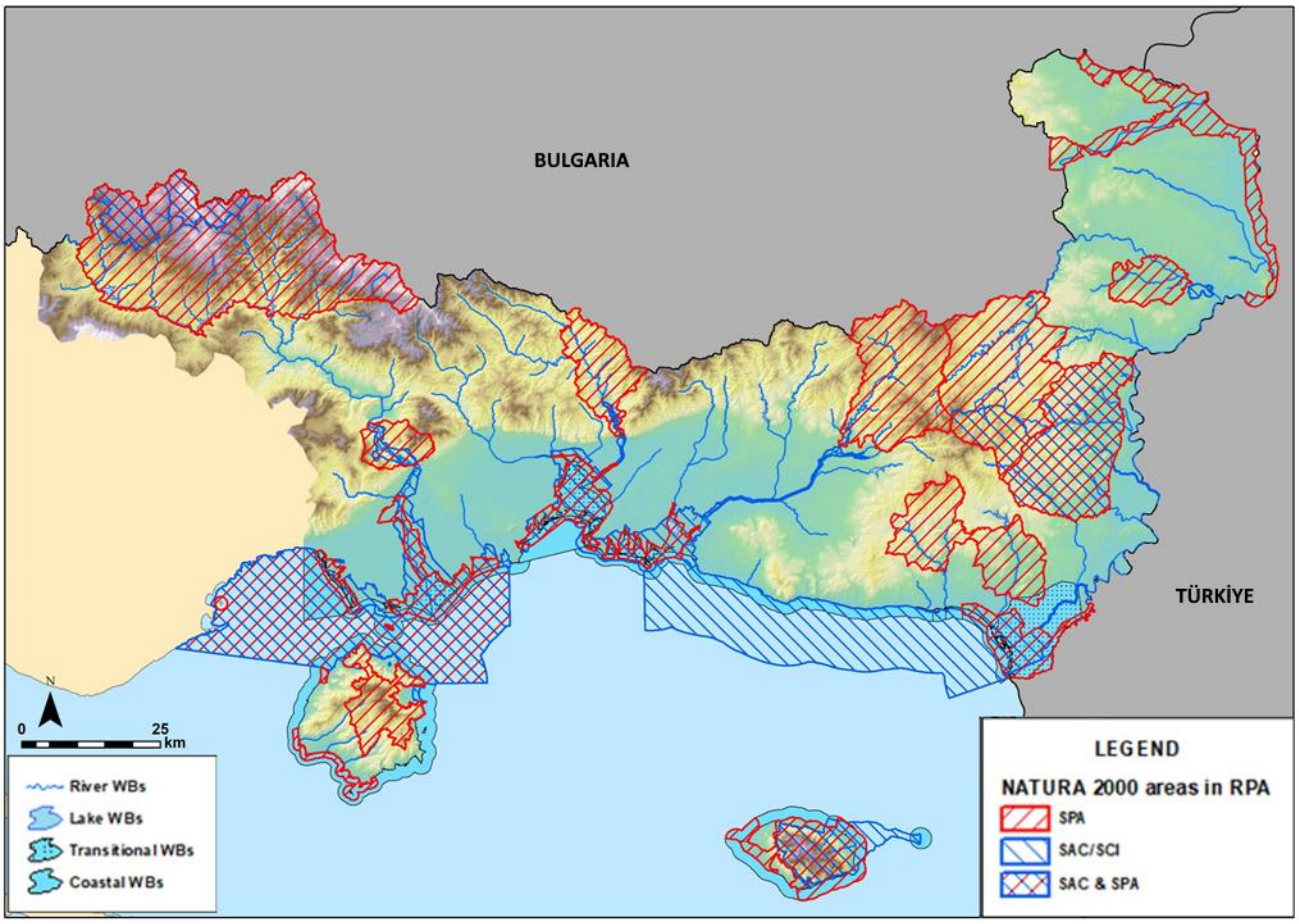
Areas Designated for the Protection of Habitats or Species. The **Register of Protected Areas (RPA)** includes natural areas that are subject to a protection regime (at **European and/or national level**) and that are directly or indirectly related to the presence of water, as well as wetlands of particular importance for **biodiversity**.

More specifically, the Register includes:

- **Four (4) National Parks**,
- **Twenty-nine (29) Natura 2000 sites**, and
- **Eight (8) Small Island Wetlands**, all located on the **island of Samothrace**.

The protection status of the Small Island Wetlands is defined by the **Presidential Decree on the protection of small island wetlands of Greece** (Government Gazette **229/ΑΑΠ/2012**).

The **Natura 2000 sites** included in the **Register of Protected Areas** of the **2nd Revision** are presented in the **following map**.



Map 5-9 NATURA 2000 areas in RPA in the Thrace River Basin District (EL12)

Aquatic Species of Economic Importance. In the revised **Register of Protected Areas (RPA)**, eight (8) **coastal Water Bodies** are designated as protected areas under **Directive 2006/113/EC**, associated either with Aquaculture Areas (PAUs) as defined in Joint Ministerial Decision 31722/4.11.2011 or with Production and Harvesting Zones for Live Bivalve Molluscs:

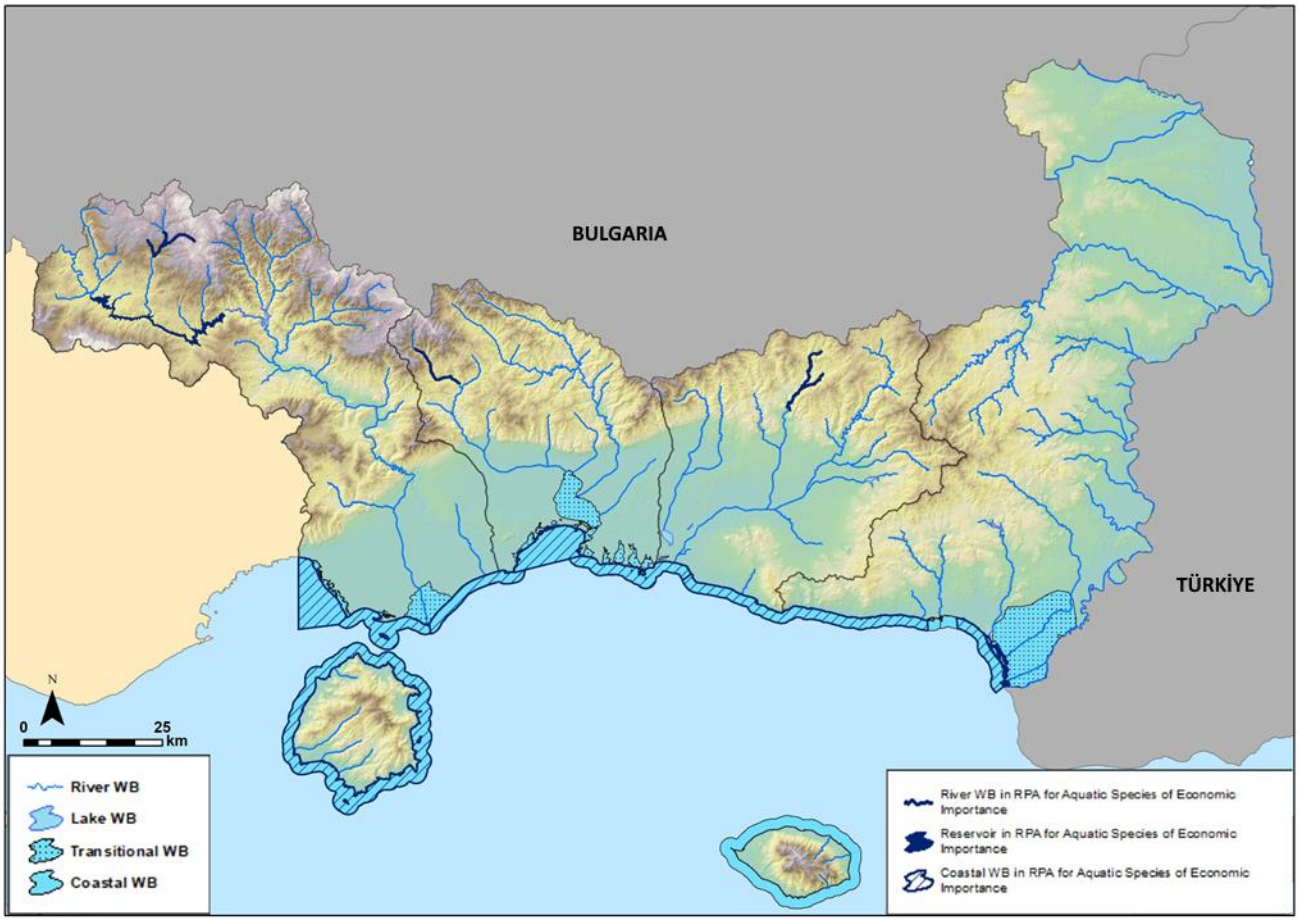
- EL1207C0001N – Eastern Kavala Gulf
- EL1207C0002N – Northern Coasts of the Thasos Channel
- EL1207C0003N – Avdira Beach
- EL1208C0004N – Vistonikos Gulf
- EL1208C0005N – Western Coasts of the Thracian Sea
- EL1210C0006N – Eastern Coasts of the Thracian Sea
- EL1242C0012N – Coasts of Thasos
- EL1210C0009N – Evros Coasts

With regard to **freshwaters**, as protected areas under **Directive 2006/44/EC**, the revised RPA includes three (3) **river Water Bodies**:

- Loutrou Stream (EL1207R0002240037N)
- Sidirorrema Stream (EL1209R00020400101N)
- Kosynthos River (EL1208R0000090060N)

as well as the **Thissavros Reservoir** (EL1207RLB02000001H).

The above-mentioned areas are presented in the following map.



Map 5-10 Areas Designated for the Protection of Aquatic Species of Economic Importance in the Thrace Water District (EL12)

6 ECONOMIC ANALYSIS OF WATER USES

The economic analysis of water uses is conducted in accordance with the current legislation and the specific guidelines of the General Directorate of Water.

6.1 FINANCIAL COST

The total authorized water supply consumption of the water utility service was estimated at **30.45 million m³**, of which **29.68 million m³** correspond to domestic water supply use, **555 thousand m³** to industrial use, and **221.18 thousand m³** to other uses. The total financial cost of water supply/sewerage services in the Thrace Water District (EL12) for the year 2020 was estimated at **€41,293,134**, with a unit cost of **€1.36/m³**. Total revenues from water supply use were estimated at **€31,527,786**, with a unit revenue of **€1.04/m³**. Cost recovery for water supply/sewerage services at the River Basin District level is estimated at **76.35%**.

In the Thrace Water District (EL12), water services for agricultural use are currently provided by **19 TOEVs (Local Land Reclamation Organizations)** and **one GOEV (General Land Reclamation Organization)**, as well as irrigation projects and municipalities.

Total water abstractions for irrigation in 2020 at the River Basin (RB) level for public providers amount to:

- 165.4 million m³ in the Nestos RB (EL1207),
- 184.9 million m³ in the Xanthi Streams – Xirorema RB (EL1208),
- 72.8 million m³ in the Komotini Streams – Loutrou Evrou RB (EL1209),
- 229.6 million m³ per year in the Evros RB (EL1210), and
- 8.25 million m³ in the Thassos – Samothraki RB (EL1242), fully covered by private irrigation.

The percentage of abstractions from groundwater and surface water is presented in Section 5.5. Irrigation needs of final users in the Water District, supplied by public bodies, are estimated at **288.13 million m³ (abstractions)**, while actual consumption amounts to **201.7 million m³** (approximately **30% losses**).

In the case of private abstractions (estimated at approximately **372.75 million m³**), the financial cost is not calculated, as this cost is borne directly by the private users operating their own abstractions. In these cases, full financial cost recovery is assumed. However, water use from private abstractions may generate environmental and/or resource costs, which, where applicable, are estimated and allocated per River Basin.

The total financial cost consists of capital cost, operational cost, administrative cost, and other costs. No data were available for capital costs, and therefore these could not be estimated or included in the final cost. Total operational costs for all entities amounted to **€4,597,078**, administrative costs (estimated at 2% of operational costs) amounted to **€91,941**, and other costs were **€2,728,848**. Based on these figures, the total financial cost of providing water for agricultural use in the Thrace Water District (EL12) amounts to **€7,417,863**, with an average unit cost of **€0.037/m³**, corresponding to a consumption of **201.69 million m³**.

Within Water District EL12, the following are located:

- 6 Industrial Areas (BIPE): Kavala (DEYA Nestos), Xanthi (DEYA Xanthi), Komotini, Alexandroupoli, Sapes, and Orestiada. DEYA Kavala also operates its own boreholes and supplements supply from DEYA Nestos. The industrial areas of Sapes and Orestiada are supplied by their respective municipalities.
- The Komotini Thermal Power Plant (TPP).

- The company NEA KARVALI FERTILIZERS S.A., which, although located in Water District EL11, abstracts significant quantities of water from the Agios Ioannis springs.
- Individual industries supplied by DEYAs and municipalities.
- Other individual industries with private boreholes/abstractions.

The planning, development, operation, and management of industrial areas (BIPE – VEPE – BIOPA) and Business Parks (EP) is mainly undertaken by **ETVA VIPE S.A.** In general, water supply systems in industrial areas are managed by ETVA VIPE S.A., except for the industrial areas of Orestiada, Sapes, and Xanthi, which have been transferred to the respective Municipal Water Supply and Sewerage Companies (DEYAs).

Total water abstractions for industrial use amount to **15.69 million m³**, distributed per River Basin as follows:

- 5.35 million m³ in the Nestos RB (EL1207),
- 1.18 thousand m³ in the Xanthi Streams – Xirorema RB (EL1208),
- 8.05 million m³ in the Komotini Streams – Loutrou Evrou RB (EL1209),
- 1.15 million m³ per year in the Evros RB (EL1210), and
- 23.5 thousand m³ per year in the Thassos – Samothraki RB (EL1242).

Of the total abstractions, **555 thousand m³** are supplied through public providers, **11.13 million m³** come from private boreholes, **4.00 million m³** are private surface abstractions by the Komotini TPP from the Gratini Reservoir (RB EL1209), and **5.2 thousand m³** are private surface abstractions by individual industries from the Kompsatos River (RB EL1208).

Total financial revenue from water supply for industrial use in Water District EL12 was estimated at **€909,924**, with a unit revenue of **€1.64/m³**. However, providers do not clearly distinguish expenditures related exclusively to industrial/commercial use. Due to the lack of cost data per River Basin, it was not possible to separately determine the financial cost and cost recovery rate for industrial use in the Water District.

6.2 ENVIRONMENTAL COST AND RESOURCE COST

The total environmental cost amounts to €4,322,000, and the corresponding annual cost at the Water District level amounts to €1,080,500 thousand. Where required, cost allocation is based on the authorized water consumption of the Water District across all uses, both per River Basin (RB) and in total. The annual unit environmental cost at the Water District level is estimated at €0.0018/m³.

The allocation of the environmental cost per use across the River Basins of Water District EL12 is presented in the following table.

Πίνακας 6-1 Κατανομή περιβαλλοντικού Κόστους ανά χρήση ύδατος στις ΛΑΠ του ΥΔ EL12, 2024-2027

	Water Supply	Irrigation	Livestock	Industry	Total
Nestos River Basin (EL1207)					
Total cost for all years of measure implementation (€)	17.172 €	360.606 €	350 €	1.872 €	380.000 €
Annual cost per use (€) – 4 years	4.293 €	90.151 €	87 €	468 €	**95.000 €**
Share of use (%) in total annual cost	4,52%	94,90%	0,09%	0,49%	100,00%
Annual unit cost (€/m³)	**0,0012**	**0,0007**	**0,0001**	**0,0001**	**0,0007**
Xanthi Streams – Xirorema River Basin (EL1208)					
Total cost for all years of measure implementation (€)	33.575 €	1.043.689 €	149 €	2.588 €	1.080.000 €
Annual cost per use (€) – 4 years	8.394 €	260.922 €	37 €	647 €	**270.000 €**
Share of use (%) in total annual cost	3,11%	96,64%	0,01%	0,24%	100,00%

	Water Supply	Irrigation	Livestock	Industry	Total
Annual unit cost (€/m³)	0,0011	0,0014	0,0001	0,0006	0,0014
Komotini – Loutrou Evrou River Basin (EL1209)					
Total cost for all years of measure implementation (€)	61.982 €	926.058 €	1.521 €	2.440 €	992.000 €
Annual cost per use (€) – 4 years	15.495 €	231.515 €	380 €	610 €	**248.000 €**
Share of use (%) in total annual cost	6,25%	93,35%	0,15%	0,25%	100,00%
Annual unit cost (€/m³)	0,0022	0,0033	0,0004	0,0002	0,0030
Evros River Basin (EL1210)					
Total cost for all years of measure implementation (€)	25.685 €	1.893.876 €	135 €	304 €	1.920.000 €
Annual cost per use (€) – 4 years	6.421 €	473.469 €	34 €	76 €	**480.000 €**
Share of use (%) in total annual cost	1,34%	98,64%	0,01%	0,02%	100,00%
Annual unit cost (€/m³)	0,0006	0,0027	0,0001	0,0001	0,0025
Thassos – Samothraki River Basin (EL1242)					
Total cost for all years of measure implementation (€)	0 €	0 €	0 €	0 €	0 €
Annual cost per use (€) – 4 years	0 €	0 €	0 €	0 €	**0 €**
Share of use (%) in total annual cost	0,00%	0,00%	0,00%	0,00%	0,00%
Annual unit cost (€/m³)	0,0000	0,0000	0,0000	0,0000	0,0000

According to the Programme of Supplementary Measures and the assessment of water uses within the framework of the 2nd Revision, no Resource Cost was identified for the Thrace Water District (EL12).

For Water District EL12, up to and including the year of use 2021, no relevant decisions have been issued by the Decentralized Administration, and therefore recovery of the environmental and resource cost is estimated at 0%.

7 ENVIRONMENTAL GOALS – EXEMPTIONS

Article 4 of Directive 2000/60/EC predicts the determination of environmental goals for surface and groundwater bodies, as well as the protected areas, which should be set for each Water Body. For heavily modified and artificial water bodies (HMWBs / AWBs), which are defined based on specific criteria, the Directive sets special objectives. However, the Directive itself acknowledges inherent limitations that lead to deviation from this goal, ranging from small-scale temporary exemptions to long-term derogations from the objective of "good status." These are outlined in paragraphs 4 to 7 of Article 4 of the Directive:

The timeframe for achieving the environmental goals of the 3rd River Basin Management Plan (RBMP), according to the Directive 2000/60/EC, is set for the year 2027, which corresponds to the completion of the third management cycle. However, the Directive itself acknowledges inherent weaknesses that may hinder the achievement of this goal. These weaknesses range from small-scale temporary exemptions to long-term deviations from the goal of achieving "good status and are set out in paragraphs 4 to 7 of Article 4 of the Directive:

- Extension of the deadline: extension of the deadline to achieve good status no later than 2027, or whenever natural conditions permit after the specific year (paragraph 4.4).
- Setting of less strict environmental goals under certain conditions, for instance if it is proven that the water bodies are so significantly affected by human activities that achieving the environmental goals is infeasible or disproportionately costly (paragraph 4.5).
- Temporary deterioration in status may result from natural causes or force majeure, or exceptional circumstances that could not reasonably have been foreseen, provided all the conditions set out in Article 4 are met (paragraph 4.6).

- New modifications of the physical characteristics of a surface water body or changes in the level of groundwater resulting from a new sustainable human activity, including a change from high to good status (paragraph 4.7).

The "Updated Methodology, Specifications, and Criteria for Identifying 'Exemptions' from Achieving the Environmental Goals of the Directive" was applied in order to define the exemptions from achieving the environmental goals of the Directive within the framework of the 2nd RBMP Revision,. The following tables summarize the goals for the status of surface and groundwater bodies. The goals which are set for water bodies take into account the assessment of the status of the water bodies in the specidic WD, the effectiveness of the proposed Programme of Measures and the possibility provided by the Directive to allow deviations under specific conditions.

Table 7-1 Status and Potential Objectives for Surface Water Bodies by 2027

Objective	Number of Surface Water Bodies
No deterioration of good and high ecological status/potential	137
No deterioration of good chemical status	189
Achievement of good ecological status/potential – Article 4.4	2
Ecological Status – Application of Article 4.5	61
Chemical Status – Application of Article 4.5	11
Application of Article 4.6	0
Application of Article 4.7	0

Table 7-2 Status Objectives for Groundwater Bodies after 2027

Objective	Number of Groundwater Bodies
No deterioration of good quantitative status	18
No deterioration of good chemical status	15
Achievement of good quantitative status	0
Achievement of good chemical status	3
Application of Article 4.4	3
Application of Article 4.5	0
Application of Article 4.6	0
Application of Article 4.7	0

The Surface Water Bodies (SWBs) and Groundwater Bodies (GWBs) falling under the exemptions of Article 4.4 of the Directive are listed below.

Table 7-3 Surface Water Bodies (SWBs) subject to Article 4.4 exemptions of the Directive (Deadline Extension) – Ecological Status/Potential

No.	WB Code	WB Name	Ecological Status/Potential (2nd RBMP Revision)	Target Ecological Status/Potential
River WBs				
1	EL1210R00131601175H	Ardas River	Moderate Ecological Potential	Good Ecological Potential
2	EL1210R0B131600174H	Ardas River	Moderate Ecological Potential	Good Ecological Potential

Table 7-4 Groundwater Bodies (GWBs) subject to Article 4.4 exemptions of the Directive (Deadline Extension) – Chemical Status

No.	WB Code	WB Name	Chemical Status (2nd RBMP Revision)	Target Chem. Status (when natural conditions allow)
1	EL1200060	Nestos Delta System	Poor	Good
2	EL1200050	Xanthi – Komotini System	Poor	Good
3	EL1200040	Filiouri System	Poor	Good

In the present revision of the River Basin Management Plan (RBMP), less stringent objectives are set for certain surface water bodies, as achievement of the Directive's environmental objectives by 2027 is not feasible for technical reasons.

Table 7-5 Surface Water Bodies (SWBs) subject to Article 4.5 exemptions (Less Stringent Objectives) – Ecological Status / Potential

No	RB	WB Code	Water Body Name	Ecological Status / Potential (2nd RBMP Revision)	Target Ecological Status / Potential	Article 4.5 Subcategory
River Water Bodies						
1	EL1207	EL1207R0002010001H	Nestos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
2	EL1207	EL1207R0002150021H	Nestos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
3	EL1207	EL1207R0005010050H	Laspias River	Poor Ecological Potential	Non-deterioration	Technical feasibility
4	EL1207	EL1207R0005010051H	Laspias River	Bad Ecological Potential	Non-deterioration	Technical feasibility
5	EL1208	EL1208R0000000057N	Kosynthos River	Moderate Ecological Status	Non-deterioration	Technical feasibility
6	EL1208	EL1208R0000010052H	Kosynthos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
7	EL1208	EL1208R0000010063H	Ammorrema River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
8	EL1208	EL1208R0000010080H	Aspropotamos River	Bad Ecological Potential	Non-deterioration	Technical feasibility
9	EL1208	EL1208R0000030055H	Kosynthos River	Poor Ecological Potential	Non-deterioration	Technical feasibility
10	EL1208	EL1208R0000030056H	Kosynthos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
11	EL1209	EL1209R0000010084N	Vosvozis River	Poor Ecological Status	Non-deterioration	Technical feasibility
12	EL1209	EL1209R0000010085N	Vosvozis River	Poor Ecological Status	Non-deterioration	Technical feasibility
13	EL1209	EL1209R0000030089N	Chionorema River	Poor Ecological Status	Non-deterioration	Technical feasibility
14	EL1209	EL1209R0002030094H	Lissos River	Poor Ecological Potential	Non-deterioration	Technical feasibility
15	EL1209	EL1209R0002040096N	Sidirorrema River	Moderate Ecological Status	Non-deterioration	Technical feasibility
16	EL1209	EL1209R0002040098N	Sidirorrema River	Moderate Ecological Status	Non-deterioration	Technical feasibility
17	EL1209	EL1209R0000020086H	Karydorrema River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
18	EL1209	EL1209R00020000102H	Lissos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
19	EL1209	EL1209R0002030095H	Lissos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
20	EL1209	EL1209R0002040097H	Sidirorrema River	Moderate Ecological Potential	Non-deterioration	Technical feasibility

No	RB	WB Code	Water Body Name	Ecological Status / Potential (2nd RBMP Revision)	Target Ecological Status / Potential	Article 4.5 Subcategory
21	EL1209	EL1209R0002040199H	Amygdalorrema River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
22	EL1209	EL1209R00020800104H	Xirorema River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
23	EL1210	EL1210R00020100126H	Ardanios River	Bad Ecological Potential	Non-deterioration	Technical feasibility
24	EL1210	EL1210R00020300132A	Evros River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
25	EL1210	EL1210R00021000154N	Potistikon River	Poor Ecological Status	Non-deterioration	Technical feasibility
26	EL1210	EL1210R00050100117N	Eirini River	Moderate Ecological Status	Non-deterioration	Technical feasibility & Natural conditions
27	EL1210	EL1210R00050300119N	Eirini River	Moderate Ecological Status	Non-deterioration	Technical feasibility & Natural conditions
28	EL1210	EL1210R00090100122H	Loutrou River	Poor Ecological Potential	Non-deterioration	Technical feasibility
29	EL1210	EL1210R00111200157N	Erythropotamos River	Bad Ecological Status	Non-deterioration	Technical feasibility
30	EL1210	EL1210R00111200158N	Erythropotamos River	Moderate Ecological Status	Non-deterioration	Technical feasibility
31	EL1210	EL1210R00111200161N	Erythropotamos River	Moderate Ecological Status	Non-deterioration	Technical feasibility
32	EL1210	EL1210R0B151900176N	Evros River	Poor Ecological Status	Non-deterioration	Technical feasibility
33	EL1210	EL1210R0T020000136N	Evros River	Moderate Ecological Status	Non-deterioration	Technical feasibility
34	EL1210	EL1210R0T020000138N	Evros River	Bad Ecological Status	Non-deterioration	Technical feasibility
35	EL1210	EL1210R0T020000167N	Evros River	Bad Ecological Status	Non-deterioration	Technical feasibility
36	EL1210	EL1210R0T020100133N	Evros River	Moderate Ecological Status	Non-deterioration	Technical feasibility
37	EL1210	EL1210R0T020100134H	Evros River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
38	EL1210	EL1210R0T020100135H	Evros River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
39	EL1210	EL1210R0T020100137H	Evros River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
40	EL1210	EL1210R00020100124H	Western Branch	Moderate Ecological Potential	Non-deterioration	Technical feasibility
41	EL1210	EL1210R00020100125H	Western Branch	Moderate Ecological Potential	Non-deterioration	Technical feasibility
42	EL1210	EL1210R00020200139H	Provatonas River	Moderate Ecological Potential	Non-deterioration	Technical feasibility

No	RB	WB Code	Water Body Name	Ecological Status / Potential (2nd RBMP Revision)	Target Ecological Status / Potential	Article 4.5 Subcategory
43	EL1210	EL1210R00020400141H	Mavrorema River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
44	EL1210	EL1210R00021400171H	Berdemenos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
45	EL1210	EL1210R00021400172H	Dasos River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
46	EL1210	EL1210R00021401169H	Manna River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
47	EL1210	EL1210R00090100121H	Loutrou River	Moderate Ecological Potential	Non-deterioration	Technical feasibility
48	EL1242	EL1242R00080100184N	Dipotamos River	Moderate Ecological Status	Non-deterioration	Technical feasibility
Lake Water Bodies / Reservoirs						
1	EL1209	EL1209L000006N	Lake Ismarida	Poor Ecological Status	Non-deterioration	Technical feasibility & Natural conditions
2	EL1209	EL1209RL000010005H	New Adriani Reservoir	Poor Ecological Status	Non-deterioration	Technical feasibility
Transitional Water Bodies						
1	EL1207	EL1207T0001N	Keramoti Wider Area Lagoon	Poor Ecological Status	Non-deterioration	Technical feasibility
2	EL1207	EL1207T0002N	Keramoti Lagoon	Poor Ecological Status	Non-deterioration	Technical feasibility
3	EL1207	EL1207T0003N	Nestos River Estuaries	Poor Ecological Status	Non-deterioration	Technical feasibility
4	EL1208	EL1208T0004N	Rodopi Lagoon – Porto Lagos	Poor Ecological Status	Non-deterioration	Technical feasibility
5	EL1210	EL1210T0005N	Evros River Estuaries	Poor Ecological Status	Non-deterioration	Technical feasibility
Coastal Water Bodies						
1	EL1207	EL1207C0001N	Eastern Kavala Gulf	Moderate Ecological Status	Non-deterioration	Technical feasibility
2	EL1207	EL1207C0003N	Avdira Beach	Moderate Ecological Status	Non-deterioration	Technical feasibility
3	EL1208	EL1208C0005N	Western Coasts of the Thracian Sea	Moderate Ecological Status	Non-deterioration	Technical feasibility
4	EL1210	EL1210C0006N	Eastern Coasts of the Thracian Sea	Moderate Ecological Status	Non-deterioration	Technical feasibility
5	EL1210	EL1210C0008N	Alexandroupolis Coasts	Moderate Ecological Status	Non-deterioration	Technical feasibility
6	EL1210	EL1210C0009N	Evros Coasts	Moderate Ecological Status	Non-deterioration	Technical feasibility

Table 7-6 Surface Water Bodies included under Article 4.5 exemptions (Less Stringent Objectives) – Chemical Status:

No	WB Code	Water Body Name	Chemical Status (2nd RBMP Revision)	Target Chemical Status	Article 4.5 Subcategory
River Water Bodies					
1	EL1208R0000000057N	Kosynthos River	Below Good	Non-deterioration	Technical Feasibility
2	EL1208R0000010052H	Kosynthos River	Below Good	Non-deterioration	Technical Feasibility
3	EL1208R0000010080H	Aspropotamos River	Below Good	Non-deterioration	Technical Feasibility
4	EL1208R0000030055H	Kosynthos River	Below Good	Non-deterioration	Technical Feasibility
8	EL1208R0000030056H	Kosynthos River	Below Good	Non-deterioration	Technical Feasibility
6	EL1209R0002030094H	Lissos River	Below Good	Non-deterioration	Technical Feasibility
7	EL1209R0002030095H	Lissos River	Below Good	Non-deterioration	Technical Feasibility
8	EL1210R00050100117N	Eirini River	Below Good	Non-deterioration	Technical Feasibility & Natural Conditions
9	EL1210R00050300119N	Eirini River	Below Good	Non-deterioration	Technical Feasibility & Natural Conditions
Transitional Water Bodies					
1	EL1207T0001N	Keramoti Wider Area Lagoon	Below Good	Non-deterioration	Technical Feasibility & Natural Conditions
2	EL1208T0004N	Rodopi Lagoons – Porto Lagos	Below Good	Non-deterioration	Technical Feasibility & Natural Conditions

Within the framework of the current 2nd Revision of the River Basin Management Plan (RBMP) of the Thrace Water District (EL12), no exemptions have been set for Water Bodies due to new or planned water resource development projects (Article 4.7 of Directive 2000/60/EC).

8 PROGRAM OF MEASURES

8.1 PROGRESS OF THE IMPLEMENTATION OF THE PROGRAM OF MEASURES FROM THE 1ST RBMP REVISION

The **2nd River Basin Management Plan (RBMP)** of the Thrace Water District (EL12) was approved by the National Water Committee in 2017 by Decision No. 900/21.12.2017 (Government Gazette 4680/B/2017). Following the approval of the Management Plan, the implementation of the Programme of Measures defined therein became mandatory.

The Programme of Measures of the 2nd RBMP included actions and projects (measures), with the implementation period estimated as follows:

- Short-term measures, which can be implemented immediately.
- Medium-term measures, which require preparatory work prior to implementation, estimated to take up to 2 years.
- Long-term measures, for which the preparation and/or construction time exceeds 2 years.

The Programme of Measures of the 2nd River Basin Management Plan of the Thrace Water District included:

- Basic Measures required for the implementation of EU legislation for the protection of water and the achievement of the goals of Article 4. These include:
  - Measures primarily concerning actions implemented within the WD for the enforcement of existing directives related to water, excluding Directive 2000/60/EC, as referenced in Article 10 and Part A of Annex VI of Directive 2000/60/EC.
  - Measures falling into the categories mentioned in paragraphs (b) to (l) of Article 11 of Directive 2000/60/EC.
- Supplementary Measures included in the categories mentioned in Part B of Annex VI of Directive 2000/60/EC

Specifically, for the Thrace Water District, 34 Basic Measures were defined. The following tables provide summary information regarding the type of actions included in these measures, as well as data on the number of measures per category under Directive 2000/60/EC and the progress of their implementation.

Table 8-1 Summary of the Implementation Progress of the Basic Measures of the Programme of Measures of the 2nd RBMP

Category of Measures	Total Number of Measures	Measures Completed	Measures Ongoing / Under Construction	Measures Not Yet Started
Measures to address adverse impacts on the status of surface water bodies, particularly from hydromorphological alterations	4	2		2
Measures for the implementation of the cost recovery principle for Water Services (Article 9)	4	3		1
Measures for the protection of waters intended for human consumption (Article 7)	4		4	
Measures to promote efficient and sustainable water use so as not to compromise the achievement of the Directive's objectives (Article 4)	8		6	2
Measures addressing diffuse sources of pollution	3		2	1
Measures for priority substances and other substances	2	1		1
Measures for point and diffuse sources of discharges	1		1	
Measures for point sources of discharges	4		1	3
Measures for the control and licensing of artificial recharge of groundwater bodies	2		1	1
Measures for the control of surface and groundwater abstraction and surface water impoundment	2		1	1
Total	**34**	**6**	**16**	**12**

In addition to the above Basic Measures, the Programme of Measures of the 2nd RBMP included 25 Supplementary Measures, covering 10 categories of measures under Directive 2000/60/EC. The number of measures per category and their implementation progress are presented below.

Table 8-2 Summary of the Implementation Progress of the Supplementary Measures of the Programme of Measures of the 2nd RBMP

Category of Measures	Total Number of Measures	Measures Completed	Measures Ongoing / Under Construction	Measures Not Yet Started
Restoration and rehabilitation of wetlands	7			7
Administrative measure	1			1
Educational measures	3		1	2
Emission control measures	2		1	1
Abstraction control	1			1
Restoration works	1			1
Structural works	1			1
Research, development and demonstration projects	6		1	5
Research, development and demonstration projects (best practices)	1			1
Artificial recharge of groundwater bodies	2			2
Total	**25**	**0**	**3**	**22**

Detailed information on the implementation progress of the Programme of Measures of the 2nd RBMP is provided in the Analytical Documentation Report entitled: "Programmes of Basic and Supplementary Measures including the analysis of their cost in relation to their effectiveness."

8.2 PROGRAM OF BASIC AND SUPPLEMENTARY MEASURES IN THE 2ND RBMP REVISION

The Program of Measures includes the "Basic" measures which are defined in the Article 11.3 of the Directive 2000/60/EC and, where necessary, "Supplementary" ones. Supplementary measures are expected to be implemented if the application of the basic ones is insufficient to achieve the goals. The following chapters provide key details about these measures, as derived from the provisions of the Directive and the WFD Reporting Guidance 2022 document.

The Basic Measures represent the minimum requirements that must be met to achieve the Environmental goals of the Article 4 of the Directive. Most of these measures involve preventive actions to protect Water Systems. Basic Measures are mandatory and are applied "horizontally" across all Water Bodies (WBs) of the Water Division.

Basic Measures are divided into two subgroups:

The first Group of basic measures concerns the ones **that are required for the implementation of EU water protection legislation,** as specified in Article 11(3) of the Directive. These include measures mandated under the legislation referred to in Article 10 and Part A of Annex VI of the Directive. These measures are required in accordance with the following directives and the relevant national legislation):

- Bathing Water Directive
- Birds Directive
- Drinking Water Directive
- Seveso Directive (which concerns major accidents)
- Environmental Impact Assessment Directive
- Sewage Sludge Directive
- Urban Wastewater Treatment Directive
- Plant Protection Products Directive
- Nitrates Directive (protection from nitrate pollution)
- Ecosystems Directive
- Integrated Pollution Prevention and Control Directive

The second group of basic measures concerns the ones **arising from the obligation to implement Directive 2000/60/EC.** Both the basic measures and the supplementary ones are presented in the tables that follow.

Table 8-3 Table of Basic Measures (Group II)

"The first entity is the Implementing Body. The rest are supporting entities for the implementation of the measure."

Measure Name / Code	Category of Measure	Correlation with Measures from the 1st Revision / Implementation Progress	Implementing Bodies
M12B0204 Training and education of all involved entities (Decentralized Administrations, Regions, and water service providers) on general rules for water service costing and pricing	Measures for implementing the cost recovery principle for Water Services (Article 9)	Has not started yet. Continues on the 2nd Revision	Ministry of Environment and Energy (General Directorate of Water)
M12B0301 Preparation/Updating of General Water Supply Plans (Masterplan)	Measures to promote efficient and sustainable water use to ensure compliance with Directive objectives (Article 4)	In progress / under construction / being implemented Continues on the 2nd Revision	Water service providers (Municipal Water and Sewerage Companies, Municipalities, etc.), Decentralized Administration (Water Directorates)
M12B0302 Strengthening, restoration, modernization of water supply networks, and leak control	Measures to promote efficient and sustainable water use to ensure compliance with Directive objectives (Article 4)	In progress / under construction / being implemented Continues on the 2nd Revision	Water service providers, Regions, Decentralized Administration (Water Directorates)
M12B0303 Increasing water use efficiency in irrigation infrastructure	Measures to promote efficient and sustainable water use to ensure compliance with Directive objectives (Article 4)	In progress / under construction / being implemented. Continuation of the current measure in line with the CAP Strategic Plan 2023–2027	Special Management Authority of the Strategic Plan for the Common Agricultural Policy (CAP), Special Management Authority of Regional Programs, Ministry of Rural Development and Food, Managing Authorities for Rural Development and Regional Programs, Regions
M12B0304 Investments in water-saving measures in agricultural holdings	Measures to promote efficient and sustainable water use to ensure compliance with Directive objectives (Article 4)	In progress / under construction / being implemented. Continuation of the current measure in line	Private entities, Ministry of Rural Development and Food, Regions

Measure Name / Code	Category of Measure	Correlation with Measures from the 1st Revision / Implementation Progress	Implementing Bodies
		with the CAP Strategic Plan 2023–2027	
M12B0305 Determination of maximum irrigation requirements for private water abstractions	Measures to promote efficient and sustainable water use to ensure compliance with Directive objectives (Article 4)	Modification of Measure	Decentralized Administration (Water Directorates), Regional Departments of Agricultural Economy
M12B0401 Protection of water abstraction points/fields intended for human consumption from groundwater systems	Measures for the protection of water intended for human consumption (Article 7)	Modification of Measure	Water service providers (Municipal Water and Sewerage Companies, Municipalities, etc.), Decentralized Administration (Water Directorates for the coordination of the implementation of the measure,), Environmental and Spatial Planning Directorates
M12B0402 Protection of Groundwater Bodies (GWBs) included in the Register of Protected Areas for human consumption and establishment of a regulatory protection framework	Measures for the protection of water intended for human consumption (Article 7)	Ongoing / under construction / being implemented – Continuation of an existing Measure	Decentralized Administration (Water Directorate), competent environmental authority
M12B0403 Protection of water abstraction infrastructure intended for human consumption from surface water systems	Measures for the protection of water intended for human consumption (Article 7)	In progress / under construction / being implemented Continues on the 2nd Revision	Water service providers (Municipal Water and Sewerage Companies, Municipalities, etc.), Decentralized Administration (Water Directorates)
M12B0501 Restrictions, terms, and conditions for the construction of groundwater abstraction projects for new uses, as well as for expanding existing water use licenses in: a) Areas of groundwater bodies (GWBs) with poor quantitative status	Control measures for surface and groundwater abstraction and surface water storage	Modification of Measure	Decentralized Administration (Water Directorates)

Measure Name / Code	Category of Measure	Correlation with Measures from the 1st Revision / Implementation Progress	Implementing Bodies
b) Protection zone II of water abstraction works ehich are serving water supply networks operated by water service providers, c) Zones of collective irrigation networks d) Coastal zone GWBs with salinization issues, whether extensive or localized, regardless of origin			
M12B0601 Investigation/Definition of the conditions for implementing artificial recharge of groundwater systems as a mean of quantitative reinforcement and qualitative protection, prioritizing systems in poor status and addressing saline intrusion	Measures for the control and licensing of artificial recharge of groundwater systems	In progress / under construction / being implemented Continues on the 2nd Revision	Regions, Municipalities, Decentralized Administration (Water Directorates)
M12B0702 Establishment of guidelines and development of tools for the effective control of wastewater and industrial effluent discharges	Measures for point sources of discharges	Has not started yet. Continuation of the current measure	Ministry of Environment and Energy (General Directorate of Water), Regions
M12B0704 Licensing conditions for new/expansion of existing aquaculture units	Measures for point sources of discharges	In progress / under construction / being implemented Continues on the 2nd Revision	Ministry of Environment and Energy, Decentralized Administration, Regions
M12B0705 Establishment of protection rules for sinkholes	Measures for point and diffuse sources of discharges	In progress / under construction / being implemented Continues on the 2nd Revision	Decentralized Administration (Water Directorates)
M12B0801 Organic farming	Measures for diffuse sources of discharges	In progress / under construction / being implemented. Continuation of the current measure in line with the CAP Strategic Plan 2023–2027	Ministry of Rural Development and Food (Directorate of Organic Production and Geographical Indications)
M12B0803	Measures for diffuse sources of discharges	In progress / under construction / being	Ministry of Rural Development and Food, OPEKEPE

Measure Name / Code	Category of Measure	Correlation with Measures from the 1st Revision / Implementation Progress	Implementing Bodies
Reduction of diffuse agricultural pollution in vulnerable zones under Directive 91/676/EEC		implemented. Continuation of the current measure in line with the CAP Strategic Plan 2023–2027	
M12B0902 Determination of maximum reservoir water level fluctuations	Measures to address negative impacts on the status of surface water systems, particularly from hydromorphological alterations	Has not started yet. Continuation of the current measure	Implementation Authorities of The National Monitoring Program, Project Owner, Regions, Decentralized Administration (Water Directorates), Protected Areas Management Units, scientific entities
M12B0905 Identification of specific areas for sediment extraction for technical project needs	Measures to address negative impacts on the status of surface water systems, particularly from hydromorphological alterations	Has not started yet. Continuation of the current measure	General Secretariat for Water/Regions/Decentralized Administration (Water Directorates)
M12B0906 Monitoring, recording and restoration of coastal erosion	Measures to address negative impacts on the status of surface water systems, particularly from hydromorphological alterations	Has not started yet. Continuation of the current measure	Ministry of Infrastructure and Transport, Ministry of Maritime Affairs and Insular Policy Region, Decentralized Administration (Water Directorate), Municipalities, Technical Chamber of Greece (TEE)
M12B0907 Measures for the identification and achievement of Good Ecological Potential in Heavily Modified Water Systems	Measures to address negative impacts on the status of surface water systems, particularly from hydromorphological alterations	New measure, continuing the implemented one with the code M12B0904 from the 1st Revision	Defined on a case-by-case basis in the accompanying table of Annex VI in the relevant Documentation Text

Table 8-4 Proposed Mitigation Measures for HMWBs for the Determination and Achievement of GEP

Code	Measure Title	Description	Affected Water Bodies	Implementing Authorities
MKOD01	Cleaning and Maintenance Works in HMWBs – GEP Measures	Routine maintenance and/or cleaning works of riverbeds that have been designated in the RBMP as Heavily Modified Water Bodies (HMWBs) (Group 2: Hydraulic Works, ref. no. 15a, 15b) must be carried out manually (as a priority) or using light machinery. The breeding period of endemic fish fauna, where present, must be avoided. During the environmental permitting of these works, conditions compatible with the National and European Catalogue of GEP (Good Ecological Potential) Mitigation Measures shall be imposed.	River HMWBs of EL12	Ministry of Environment and Energy (YPEN) / Directorate of Environmental Licensing (DIPA), Decentralized Administration (Directorate of Environment & Spatial Planning – DIPECHOS)
MKOD02	Amendment of Environmental Permit of Alexandroupolis Port – GEP Measures	The existing Environmental Terms Approval Decision (AEPO) for the Port of Alexandroupolis (Ref. No. 126021/28.5.2010, Ref. No. 1900/26.09.2017 and Ref. No. YPEN/DIPA/44414/2872-21/10/2019) does not include environmental conditions for the execution of dredging works or for the management of dredged materials. In order to achieve Good Ecological Potential (GEP) of the coastal Water Body "Port of Alexandroupolis", future amendments or renewals of the AEPO for the Port of Alexandroupolis should include, at a minimum, the following conditions, both for routine dredging works (to maintain operational depths) and for any new projects: • Any beneficial uses of dredged material shall be examined, provided that the required suitability is confirmed following the prescribed quality characterization of the dredged sediments. • Time restrictions for the execution of works shall be imposed, e.g. during fish spawning/reproduction or migration periods. • Dredging methods shall be selected so as to retain sediments within the system or avoid increases in suspended sediment levels. • The use of silt curtains shall be required (measures to reduce resuspension of dredged materials). • Measures shall be provided for the management of any overflow of dredged materials.	EL1210C0007H (Port of Alexandroupolis)	Ministry of Environment and Energy (YPEN) / Directorate of Environmental Licensing (DIPA), Alexandroupolis Port Authority

Code	Measure Title	Description	Affected Water Bodies	Implementing Authorities
MKOD03	Annual submission of ecological flow data downstream of reservoirs to the Water Directorate of Eastern Macedonia and Thrace (EMT) – GEP Measures	By 30 March of each year, the operators of the reservoirs within the River Basin District shall submit to the Water Directorate a file containing the daily or monthly ecological flow data of the previous calendar year, for the purpose of monitoring compliance with Good Ecological Potential (GEP). The Measure applies to the reservoirs of Platanovrysi and Thesavros, Nea Adrianí, Gratini, Aisymi, and Iasios.	EL1207RL002150002H EL1207RLB02000001H EL1209RL000010005H EL1209RL002040003H EL1210RL009010004H EL1209RL000208007H	Region of Eastern Macedonia & Thrace; PPC S.A.
MKOD04	Update of Environmental Terms for the operation of Thesavros, Platanovrysi, and Toxotes dams and other water abstraction works from the Nestos River – GEP Measures	Along the Nestos River there is a series of storage and/or water abstraction works, the environmental terms of which require updating in order to take into account the cumulative (synergistic) impacts of these projects on river flow and continuity. The update of the existing Environmental Terms of the storage and/or water abstraction projects on the Nestos River should consider the entire fish fauna of the Nestos, from its entry into the country to its estuary. During the issuance/renewal of the Environmental Terms of these projects, the National and European Mitigation Measures Library, the national indices developed for the assessment of the Biological Quality Elements (BQEs) of the ecological status of Surface Water Bodies, and the monitoring requirements provided for under Directive 2000/60/EC should be taken into account.	SWBs of the Nestos River Basin (RB EL1207)	Ministry of Environment and Energy (YPEN) / Directorate of Environmental Licensing (DIPA), Decentralized Administration of Macedonia–Thrace (Directorate of Environment & Spatial Planning) / Region of Eastern Macedonia & Thrace / Ministry of Rural Development & Food / Public Power Corporation SA
MKOD05	Prohibition of material extraction from riverbeds downstream of dams – GEP Measures	To ensure the required natural conditions of minimum sediment transport, no extraction of materials shall take place downstream of the Platanovrysi, Toxotes, Gratini, Aisymi, Iasio and Lyra dams. Works may exceptionally be permitted where it is demonstrated, through the environmental permitting process, that their implementation is necessary for flood protection purposes (e.g. removal of sediment deposits) or for habitat restoration.	Nestos River Water Bodies downstream of dams (EL1207R0002000002H, EL1207R0002000004H, EL1207R0002000005N, EL1207R0002000006N, EL1207R0002010001H, EL1207R0002150021H), EL1210R00020400141H, EL1209R00020800104H, EL1209R0002040199H, EL1210R00090100122H.	Decentralized Administration; Region of Eastern Macedonia & Thrace
MKOD06	Prohibition of Works in Arkoudorema – GEP Measures	n order to ensure the required natural conditions of minimum sediment transport, as well as flood flows and normal water quantities within the Nestos River ecosystem — and to safeguard the coastal	EL1207R0002140013N, EL1207R0002140014N, EL1207R0002140020N,	Decentralized Administration; Region of Eastern Macedonia & Thrace

Code	Measure Title	Description	Affected Water Bodies	Implementing Authorities
		dynamics in the wider estuarine zone — no form of intervention shall be carried out in Arkoudorema, which flows into the Nestos River downstream of the Thesavros and Platanovrysi hydropower projects, nor in its tributaries, if such intervention would affect its sediment transport. Projects may be permitted only if, during the environmental licensing procedure, it is demonstrated that their implementation and operation will not affect the sediment transport of Arkoudorema.	EL1207R0002140117N, EL1207R0002140118N, EL1207R0002140215N, EL1207R0002140216N, EL1207R0002140319N	
MKOD07	Restoration and Maintenance of Existing Fish Acclimatization Basins – GEP Measures	The measure concerns the restoration and maintenance, by PPC (Public Power Corporation), of the existing fish acclimatization basin located downstream of the Platanovrysi Hydropower Plant, before the confluence with the "Arkoudorema" stream. It also includes the restoration and maintenance of the two (2) acclimatization basins constructed by the Region of Eastern Macedonia and Thrace (REMTH) on the western bank of the main channel of the Nestos River, near Stavroupoli (Xanthi), upstream of the Nestos Gorge.	EL1207R0002150021H	Region of Eastern Macedonia & Thrace; Public Power Corporation SA
MKOD08	Investigation of the Implementation of Fish Exclusion Devices at Reservoir Abstraction Systems – GEP Measures	Investigation of the feasibility and implementation of devices preventing the entry of fish species into reservoir water abstraction systems – GEP Measures.	EL1210R00090100122H EL1210R00090100121H EL1209R00020800104H EL1210RL009010004H EL1209RL000208007H	Region of Eastern Macedonia & Thrace
MKOD09	Capture, Transfer and Release of Fish	In order to restore fish migration upstream and downstream of the Gratini, Aisymi, Iasios and Lyra dams, as well as along the Ardani stream and the Western Branch, fish will be captured, transferred and released, subject to the consent of the competent Protected Areas Management Unit (MDPP) and the Region of Eastern Macedonia and Thrace (REMTH).	EL1209R0002040199H EL1210R00090100122H EL1210R00090100121H EL1209R00020800104H P. (after investigating the presence of fish fauna) EL1210R00020400141H EL1210R00020100124H, EL1210R00020100125H, EL1210R00020100126H EL1210R00020100127N)	Region of Eastern Macedonia & Thrace; OFYPEKA
MKOD10	Technical Study for the Implementation of GEP Measures in River HMWBs – GEP Measures	For all riverine Heavily Modified Water Bodies (HMWBs) of the River Basin District, a study will be prepared with the objective of assessing the feasibility of implementing ecological management and	River HMWBs of EL12	Decentralized Administration (Water Directorate)

Code	Measure Title	Description	Affected Water Bodies	Implementing Authorities
		restoration measures aimed at achieving Good Ecological Potential (GEP), as provided for in the National and European GEP Measures Library, such as: • Maintenance based on ecological needs / ecological optimization • Development of channels / habitat diversity (e.g. increasing roughness through the use of wood/rocks) • Habitat improvement through mitigation of flow conditions (e.g. development of refuge ecosystems for rapidly fluctuating flows, creation of berms for low-flow conditions) • Improvement / development of key habitats (e.g. gravel beds / riffle creation, provision of shelter) • Increase in width/depth and flow diversity (e.g. removal of bank stabilization structures and use of large woody debris structures) • Creation of habitats, e.g. for fish spawning or hatching		
MKOD11	Restoration of Habitats in the Nestos Delta – GEP Measures	Study for the restoration of habitats in the Nestos Delta through the reactivation or restoration of former river channels. In the framework of achieving Good Ecological Potential (GEP) for the HMWB EL1207R0002010001H, as well as improving the ecological status of EL1207T0003N, it is proposed to prepare a Nestos Delta habitat restoration study and to implement its recommendations. As a first phase, the reactivation or restoration of former channels at the mouth of the Nestos River is proposed, including an assessment of the feasibility of implementing the following measures from the National and European GEP Measures Library: • Reconnection of the floodplain and associated habitats (e.g. reconnection of tributaries/small lakes, connection with wetlands, reduction of embankments) • Creation/development of a secondary floodplain • Creation of habitats within the floodplain area (e.g. creation of small lakes, reconnection of sand/gravel deposits) • Creation/construction of side channels (e.g. connection/development of remaining branches)	EL1207R0002010001H EL1207T0003N	Region of Eastern Macedonia & Thrace; OFYPEKA

Code	Measure Title	Description	Affected Water Bodies	Implementing Authorities
		• Creation of a bypass channel (e.g. construction of a near-natural channel, connection with existing floodplain structures) • Creation of habitats, e.g. for fish spawning or hatching It is noted that within the framework of the LIFE-NATURE programme (2002–2006) "LIFE – NESTOS: Management of Habitats and Raptors' Populations in the Nestos Gorge and Delta," four (4) reconnections were studied and constructed on a pilot scale on both sides of the main river channel. However, the extension of these reconnections is considered necessary as a continuation of the programme. The study should further examine additional actions for reconnecting former dried-out channels of the Nestos River deltaic system with the main channel. These actions aim to restore the deltaic system to its former delta morphology, reduce groundwater salinization, modify riparian surface vegetation, and generally improve the riparian environment. **Long-term objective:** Implementation of specific technical measures based on the above study.		

Table 8-5 Table of Supplementary Measures

Code – Measure Name	Measure Category	Relation to 1st Revision/Implementation Progress	Implementation Authorities
M12S0201 Development of a Monitoring System for the Measures Program of RBMP	Administrative measure	Not started. Continuation of the existing measure	Decentralized Administration (Water Directorate)
M12S0208 Notification of the Pollution Sources Register to the competent licensing and inspection authorities	Administrative measure	New Measure	Decentralized Administration (Water Directorate), EIA Directorate / Ministry of Environment and Energy, Directorate of Environment & Spatial Planning (Decentralized Administration), Regional Unit Development Departments (Region)
M12S0502 Implementation of investments in agricultural-livestock farms, aiming at improving environmental performance	Pollutant emission controls	In progress. Continuation of existing measure in alignment with CAP SP 2023–2027	Ministry of Rural Development & Food, Regional Agricultural Departments
M12S0503 Update of Environmental Terms Approval Decisions (AEPO) for Industries associated with Priority Substances (PS) or Specific Pollutants (SP)	Pollutant emission controls	New Measure	Decentralized Administration (Water Directorate)
M12S0504 Restoration of operation of the Xanthi Landfill	Pollutant emission controls	New Measure	Decentralized Administration, DIAMATH (Solid Waste Management Authority of Eastern Macedonia & Thrace)
M12S0505 Restoration of the Agios Philippos Mine	Pollutant emission controls	New Measure	Ministry of Environment and Energy (YPEN), Decentralized Administration, Hellenic Survey of Geology and Mineral Exploration (EAGME)
M12S0701 Redesign of the Existing Drainage Network in the Evros Delta	Restoration and rehabilitation of wetland areas	Not started. Continuation of the existing measure	Region of Eastern Macedonia & Thrace; OFYPEKA

Code – Measure Name	Measure Category	Relation to 1st Revision/Implementation Progress	Implementation Authorities
M12S0702 Preparation of a study and implementation of fisheries management projects for Drana Lagoon	Restoration and rehabilitation of wetland areas	Not started. Continuation of the existing measure	OFYPEKA
M12S0703 Delimitation of shoreline, riparian zone, old shoreline, and bathymetric mapping of lagoons and lakes within the Eastern Macedonia–Thrace National Park	Restoration and rehabilitation of wetland areas	Not started. Continuation of the existing measure	OFYPEKA
M12S0704 Sediment management works and restoration of the water balance of Vistonida Lagoon	Restoration and rehabilitation of wetland areas	Not started. Continuation of the existing measure	OFYPEKA
M12S0705 Sediment management works and restoration of the water balance of other lagoons of the Eastern Macedonia–Thrace National Park and Lake Ismarida	Restoration and rehabilitation of wetland areas	Not started. Continuation of the existing measure	OFYPEKA
M12S0706 Restoration actions for riparian forests of the Eastern Macedonia–Thrace National Park and Evros Delta National Park	Restoration and rehabilitation of wetland areas	Not started. Continuation of the existing measure	OFYPEKA
M12S0707 Immediate protection actions for Lake Ismarida	Restoration and rehabilitation of wetland areas	Not started. Continuation of the existing measure	OFYPEKA
M12S0801 Prohibitions, restrictions, and conditions for the construction of new water abstraction works in the following Groundwater Bodies: EVROS RIVERSIDE AREA – EVROS DELTA (EL120T020), MAKRI (EL1200030), FILIURI (EL1200040), XANTHI – KOMOTINI (EL1200050), NESTOS DELTA (EL1200060), THASSOS (EL1200080), ALEXANDROUPOLIS (EL1200130)	Abstraction controls	Continuation of the existing measure	Decentralized Administration (Water Directorate)
M12S0802 Special regulations for the protection of the status of Groundwater Bodies with good quantitative status that nevertheless face increased quantitative pressures: MAKRI (EL1200030), FILIURI (EL1200040), XANTHI – KOMOTINI (EL1200050), NESTOS DELTA (EL1200060), ALEXANDROUPOLIS (EL1200130), RODOPI Groundwater Body (EL1200120)	Abstraction controls	New Measure	Decentralized Administration (Water Directorate)

Code – Measure Name	Measure Category	Relation to 1st Revision/Implementation Progress	Implementation Authorities
M12S1101 Implementation of the Temenos Small Hydropower Plant	Structural construction works	Not started. Continuation of the existing measure	Public Power Corporation SA
M12S1501 Professional training of farmers for the protection of Water Bodies	Educational measures	Continuation of existing measure in alignment with CAP SP 2023–2027	Ministry of Rural Development & Food, Regional Authorities
M12S1502 Educational actions for promoting the rational management of water resources	Educational measures	Modification of existing measure	Decentralized Administration (Water Directorate), Region of Eastern Macedonia & Thrace
M12S1601 Pilot measures for precision agriculture	Research, development, and demonstration projects	Σε εξέλιξη / υπό κατασκευή / εφαρμόζεται Συνέχεια ισχύοντος Μέτρου σε εναρμόνιση με ΣΣ ΚΓΠ 2023 –2027	Ministry of Rural Development & Food, Region of Eastern Macedonia & Thrace
M12S1602 Advisory services and farm management services	Research, development, and demonstration projects	In progress. Continuation of existing measure in alignment with CAP SP 2023–2027	Ministry of Rural Development & Food, Regional Authorities
M12S1605 Special study to investigate exceedances of the Environmental Quality Standards (EQS) for Mercury	Research, development, and demonstration projects	Modification of existing measure	Decentralized Administration (Water Directorate)
M12S1606 Investigation of appropriate measures to address saltwater wedge intrusion at the estuaries of the Nestos, Lissos and Evros rivers	Research, development, and demonstration projects	Not started. Continuation of the existing measure	Decentralized Administration (Water Directorate),
M12S1607 Investigation of suitable locations for the construction of artificial wetlands at the outlet of drainage networks to Lake Vistonida and for an artificial wetland at Lake Ismarida	Research, development, and demonstration projects	Not started. Continuation of the existing measure	Region of Eastern Macedonia & Thrace Decentralized Administration (Water Directorate),
M12S1608 Preparation of a Special Hydrogeological – Hydrochemical study for the identification of groundwater bodies (GWBs) or parts thereof where chemical elements present high natural background levels (indicatively Cl, As, Al, SO_4), when such parts are connected to water abstraction works.	Research, development, and demonstration projects	Modification of existing measure	Decentralized Administration (Water Directorate), Region of Eastern Macedonia & Thrace / Municipalities / DEYA

9 TRANSBOUNDARY COOPERATION

9.1 TRANSBOUNDARY WATERS – GENERAL FRAMEWORK

In border regions, shared water resources between neighboring states inevitably occur. Forty percent of the world's population lives in areas where environmental systems and natural resources—most notably water resources—are international (275 international river basins), meaning they are shared by two or more countries (FAO, 2002). More than 75% of all countries (145 in total) contain international river basins within their territory. In addition, over 33 countries have almost their entire territory (approximately 95%) covered by international river basins. Globally, around 2 billion people depend on groundwater resources located in more than 300 transboundary aquifers. These figures highlight the significance and the challenges associated with the management of international river basins worldwide.

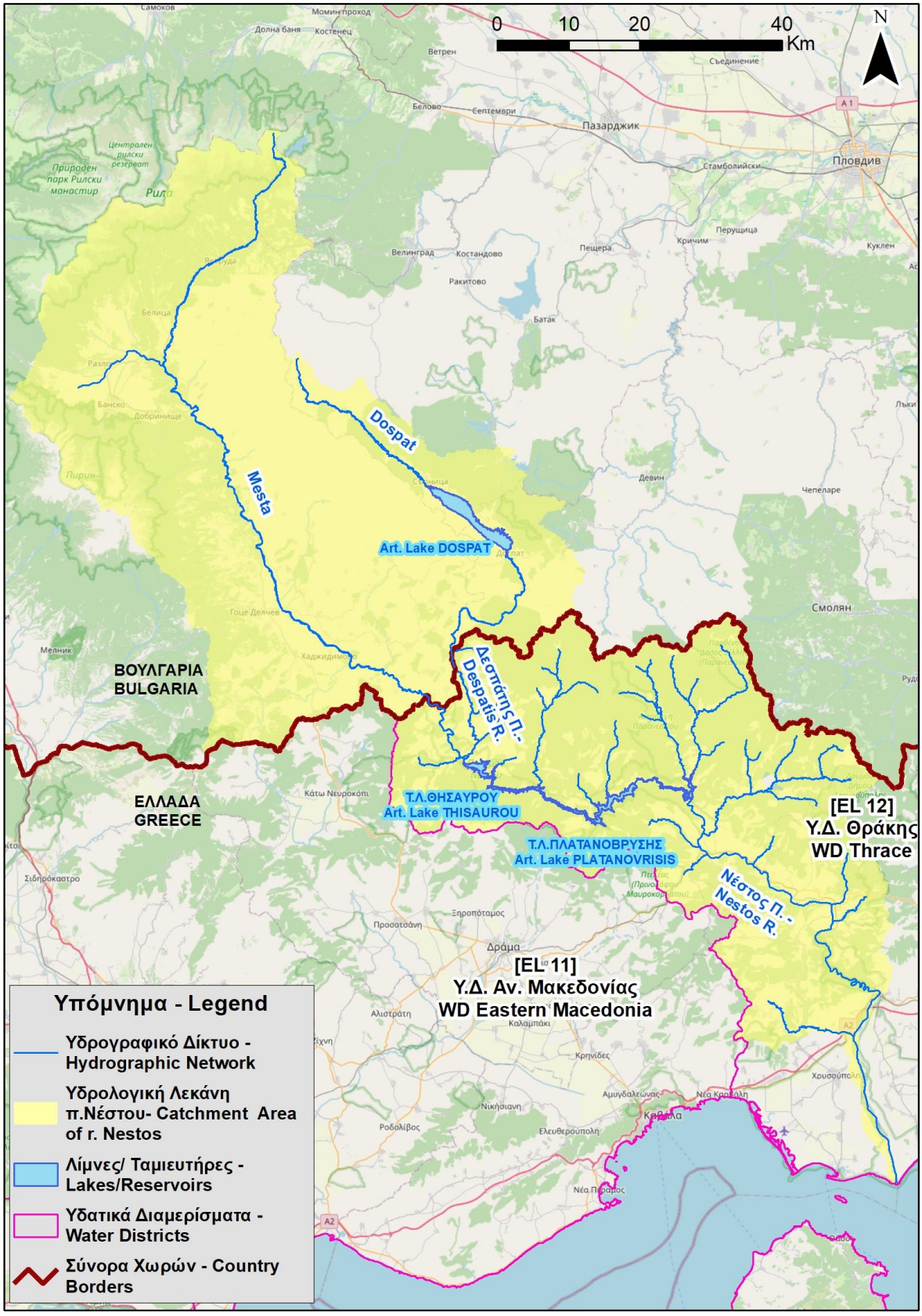
Beyond being an environmental issue, the management of international waters also has political dimensions, which strongly influence how specific issues are addressed. Major challenges in the management of international river basins include differing levels of socio-economic development, possible infrastructure deficiencies, and political, administrative, and legal issues that may undermine the joint and effective management and protection of shared basins. At the same time, these differences can serve as points of convergence and as strong incentives for cooperation at technical, social, economic, and political levels.

International cooperation constitutes an effective means for the protection and sound management of transboundary waters, both in addressing the global ecological crisis and in reducing tensions related to the use of shared environmental goods. Interstate agreements serve as mechanisms that strengthen such cooperation, which is particularly necessary in the case of international river basins.

Greece's overall water balance with neighboring countries classifies it as a water-receiving country to a significant extent in relation to its total water potential.

With regard to the Thrace Water District (EL12), the river basins shared by Greece with its northern and eastern neighboring countries are the Nestos River Basin (shared with Bulgaria) and the Evros River Basin (Evros River, Ardas River, and Erythropotamos with Bulgaria, and the Evros River with Türkiye).

Estimates concerning the balance of transboundary waters vary and originate from different sources; however, total inflows from transboundary rivers into Greece are estimated at 14–16 cubic kilometers (km^3) per year. This volume represents a highly significant share of the country's total water resources. Therefore, cooperation in the management of this water potential is of strategic importance.



Map 9-1 Transboundary Nestos River Basin

Map 9-2 Transboundary Evros River Basin

9.2 COOPERATION FRAMEWORK FOR THE TRANSBOUNDARY RIVER BASINS OF THE WATER DISTRICT

In the field of interstate cooperation for the management of transboundary water resources, the following bilateral agreements between Bulgaria and Greece are in force:

(a) The Greece–Bulgaria Agreement of 1964 on cooperation in the use of the waters of rivers flowing through the territories of the two countries (Legislative Decree 4393/1964, Government Gazette 193 A'). More specifically, it provides for the conveyance of 186,000,000 m³ annually through the Ardas River for the irrigation of agricultural land

(b) The Greece–Bulgaria Agreement on the Nestos River (1995), ratified by Greece through Law 2402/1995 (Government Gazette 98/A/1995), which stipulates that Greece is entitled annually to 29% of the river's runoff, as measured at the border between the two countries..

Beyond the above agreements, cooperation also includes initiatives by academic institutions and collaboration in joint research programmes concerning transboundary river basins.