



DIRECTORATE-GENERAL FOR WATER



# 2nd UPDATE OF RIVER BASIN MANAGEMENT PLANS

River Basin District of Western Sterea Ellada (EL04)

## Summary



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HELLENIC REPUBLIC  
MINISTRY OF ENVIRONMENT & ENERGY  
GENERAL DIRECTORATE OF WATER

**PROJECT: "2<sup>nd</sup> UPDATE OF RIVER BASIN MANAGEMENT PLANS FOR THE 14 RIVER BASIN DISTRICTS OF THE COUNTRY" SUB-PROJECTS 1-5. PART 2: "2<sup>nd</sup> UPDATE OF RIVER BASIN MANAGEMENT PLAN OF THE RIVER BASIN DISTRICT OF WESTERN STEREA ELLADA AND THESSALIA".**

J/V FOR THE SECOND AMENDMENT OF THE WESTERN STEREA & THESSALIA RIVER BASIN MANAGEMENT PLANS

**2<sup>nd</sup> Update of the River Basin Management Plan**

**Basin District of Western Sterea Ellada (EL04)**

**Summary**

Final Edition

**Government Gazette of the Approval of the 2nd Update of the River Basin Management Plan of the River Basin District of Western Sterea Ellada (EL04): GG A' 84 /12.06.2024**



## 2<sup>nd</sup> UPDATE OF THE RIVER BASIN MANAGEMENT PLAN OF THE RIVER BASIN DISTRICT OF WESTERN STEREA ELLADA (EL04)

### Summary of the final Revised Management Plan in English

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## ABBREVIATIONS

AR	At Risk
AWB	Artificial Water Body/bodies
BTM	Basic Type of Measure
CWB	Coastal Water Body/Bodies
D.A.	Decentralized Administration
Directive	Water Framework Directive (2000/60/EC)
EC	European Community
EEC	European Economic Community
EQR	Ecological Quality Ratio
EQS	Environmental Quality Standards
EU	European Union
GD	Guidance Document
GDNEW	General Directorate of natural Environment and Water
GIG	Geographical Intercalibration Group (
GOLR	General Organization of Land Reclamation
GWB	Groundwater Body/bodies
GWD	General Directorate of Water
HMWB	Heavily Modified Water Body/ bodies
JMD	Joint Ministerial Decree
KTM	Key Type Measure
LOLR	Local Organization of Land Reclamation
LWB	Lake Water Body/Bodies
MAC	Maximum Acceptable Concentrations
MD	Ministerial Decree
MED-GIG	Geographical Group for the Mediterranean Ecoregion Calibration
MoE	Ministry of Environment & Energy
MEWSS	Municipal Enterprise for Water Supply and Sewerage
NR	Not at Risk
NWMN	National Water Monitoring Network
PAR	Probably At Risk
PD	Presidential Decree

PNR	Probably Not at Risk
RB	River Basin
RBD	River Basin District
RBMP	River Basin Management Plan
RWB	River Water Body/Bodies
SAC	Special Areas of Censervation
SCI	Site of Community Importance
SPA	Special Protection Area
SWB	Surface Water Body/bodies
TWB	Transitional Water Body/Bodies
WB	Water body/bodies
WFD	Water Framework Directive
WG ECOSTAT	Working Group on the Ecological Status
WISE	Water Information System of Europe



## 1 INTRODUCTION - 2<sup>nd</sup> UPDATE OF THE RIVER BASIN MANAGEMENT PLAN

### 1.1 Introduction

The River Basin Management Plans of the country's river basins are reviewed and updated every six years. By Decision No. 908/2014 (Government Gazette 2562B / 25-09-2014) of the National Water Committee, the 1<sup>st</sup> RBMP of the examined River Basin District (1<sup>st</sup> management Plan 2009-2015) was approved and by Decision No. 901/29.12.2017 (Government Gazette B 4681/29.12.2017) of the National Water Committee, the 1<sup>st</sup> Update of the RBMP of RBD Western Sterea Ellada (2<sup>nd</sup> management Plan 2016-2021) was approved.

The 2<sup>nd</sup> Update of the River Basin Management Plan of the River Basin District of Western Sterea Ellada has significant changes and improvements since the 1<sup>st</sup> Update:

- It is based on the use of data for the period 2016-2021 of the National Water Monitoring Network (NWMN), as well as the annual water status assessment reports that are developed within the framework of its operation.
- The 2<sup>nd</sup> Update is being prepared at the same time as the Flood Risk Management Plans in accordance with the Directive 2007/60/EC and synergy of actions and a program of measures has been achieved.
- The 2<sup>nd</sup> Update is being prepared at the same time as the Special Environmental Assessments (SEAs) for the network of Natura 2000 sites within the boundaries of the Basin District of interest and synergy of actions and a program of measures has been achieved for those studies that are under public consultation.
- The 2<sup>nd</sup> Update takes into account the programs of measures to achieve good environmental status of the country's marine waters in accordance with the Directive 2008/56/EC and synergy between actions and a program of measures has been achieved.
- The 2<sup>nd</sup> Update took into account the National Strategy for Adaptation to Climate Change and incorporated into the program of measures sub-actions of the National Strategy for Adaptation to Climate Change.
- It takes into account the results of actions and activities that have been implemented to date in the context of increasing knowledge about the status of waters and the pressures on them, as well as the actions implemented to fill the gaps identified in the 1<sup>st</sup> Update of the RBMP.
- The results of the assessment of natural water balances (hydrological resources) using the latest data up to 2020 and the use of models (updating water resources management systems and tools).
- The results of the implementation of the measure "Establishment of a Registry of pollution sources (emissions, discharges and spills)" of the 1<sup>st</sup> Update of the RBMP.
- The results of the implementation of the measure "Special measures for achieving Good Ecological Potential in HMWB" of the 1<sup>st</sup> Update of the RBMP.
- It supports the active participation of the public through the possibility of live streaming of the consultation days of the RBMPs.
- It takes into account the new requirements resulting from the guidance documents for the implementation of Directive 2000/60/EC adopted by the EU.
- It takes into account the results of the Evaluation Report of the 1<sup>st</sup> Update of the RBMPs by the competent services of the European Commission which was implemented as part of the European Parliament's briefing on the implementation of the Directive and is available on the EU's website, as

well as any EU recommendations for the preparation of the 2nd Update of the RBMPs, such as the warning letter "EU PILOT 9895 (2021): Deficiencies identified in the evaluation of the second RBMPs".

[http://ec.europa.eu/environment/water/water-framework/facts\\_figures/guidance\\_docs\\_en.htm](http://ec.europa.eu/environment/water/water-framework/facts_figures/guidance_docs_en.htm).

It takes into account the new and/or updated analytical methodologies for critical aspects of the implementation of Directive 2000/60 EC, as presented below (Chapter 2.1) and are available on the relevant website of the Special Secretariat for Water <http://wfdver.ypeka.gr/>.

The 2nd Update was prepared simultaneously for all 14 River Basin Districts of the country and homogeneity has been achieved in the individual methodologies and in the proposed programs of measures (basic and supplementary).

## 1.2 Consultation process

The consultation process on the 2nd Update of the River Basin Management Plan of the River Basin District of Western Sterea Ellada started in March 2019 and was completed in November 2023 and included the following:

-In March 2019, the scope of the planned work of the 2nd Update of the RBMP was posted on the website of the Ministry of Environment (<http://wfdver.ypeka.gr/el/consultation-gr/>), as well as the detailed timetable for the consultation of the public.

-In September 2019, information on the significant water resources management issues in each RBD was posted on the website of the Ministry of Environment and Natural Resources, including a summary of the results of the National Water Network for monitoring the water status of the country's water resources for the River Basin District, the main pressures, the identification and listing of the competent authorities and stakeholders involved in the consultation process.

-In May 2023, the Draft 2<sup>nd</sup> Update of the River Basin Management Plan of the River Basin District of Western Sterea Ellada, as well as a questionnaire, was posted on the website of the Ministry of Environment and Natural Resources. This phase also included the publication of the Strategic Environmental Impact Assessment.

## 2 DIFFERENTIATIONS IN COMPARISON TO THE APPROVED 1<sup>st</sup> UPDATE OF THE RIVER BASIN MANAGEMENT PLAN

### 2.1 Analytical Methodologies for the Implementation of the Key Elements of Directive 2000/60/EC

New and/or updated analytical methodologies for critical aspects of the implementation of Directive 2000/60/EC have been developed for the needs of the 2nd Update of the RBMP of Western Sterea Ellada, as listed below:

- Establishment of a national methodology for the determination of the ecological flow of river water bodies, in accordance with the implementation of the relevant measure of the 1<sup>st</sup> Update of the RBMPs.
- Establishment of a "Registry of Pollution Sources" in accordance with the implementation of the relevant measure of the 1<sup>st</sup> Update of the RBMPs .
- Establishment of a "National Library" of measures to address and mitigate the impacts of hydromorphological alterations in Heavily Modified Water Bodies (HMWB) and identification of measures to achieve Good Ecological Potential (GEP) in accordance with the implementation of the relevant measure of the 1<sup>st</sup> Update of the RBMPs.
- Updating the analytical methodology for the analysis of anthropogenic pressures and their impacts on surface and groundwater systems.
- Updating the analytical methodology for the identification of the "exemptions" of paragraphs 4 to 6 of Article 4 of Directive 2000/60/EC (4.4 - 4.6), by reviewing the specifications for the implementation of the exemptions of Article 4.5.
- Update of the analytical methodology "Identification of the "exceptions" of paragraph 4.7 of Article 4 of Directive 2000/60/EC.
- Update of the methodology for the "Assessment of the status of all categories of Surface Water Bodies"

All the detailed methodologies used in the preparation of the 2nd Update of the RBMP for all the River Basin Districts of the country are available on the website of the Directorate General of Water <http://wfdver.ypeka.gr/>.

## 2.2 Progress in implementing the measures

During the 1<sup>st</sup> Update, thirty-six (36) Basic Measures (Group II) were adopted in the River Basin District of Western Sterea Ellada, fall into nine categories. In addition to the Basic Measures, thirty (30) Supplementary Measures have been adopted in the River Basin District of Western Sterea Ellada, fall into nine categories.

The progress in implementing the Key and Supplementary Measures of the Program of Measures of the 1<sup>st</sup> Update of the RBMP is presented in the table below.

**Table 2.2-1: Summary of progress in the implementation of the Key and Supplementary Measures of the Program of Measures of the approved 1<sup>st</sup> Update of the RBMP**

CATEGORY OF MEASURE	NUMBER OF MEASURES IMPLEMENTED OR TO BE IMPLEMENTED
Administrative Measures	2 of 4
Control of water abstractions	3 of 6
Emission controls	1 of 3
Restoration and rehabilitation of wetland areas	1 of 2
Research, development and demonstration projects	1 of 7
<b>TOTAL - SUPPLEMENTARY MEASURES</b>	<b>8 of 30</b>
Measures to implement the principle of cost recovery for water services (Article 9)	3 of 4
Measures to protect waters intended for human consumption (Article 7)	4 of 4
Measures to promote the efficient and sustainable use of water so as not to compromise the achievement of the objectives of the Directive (Article 4)	7 of 8
Measures to address negative impacts on the status of surface water bodies in particular from hydromorphological alterations	2 of 6
Measures on diffuse sources of discharges	2 of 3
Measures on point sources of discharges	4 of 5
Measures for priority substances and other substances	1 of 2
Measures to control surface and groundwater abstraction and surface water storage	2 of 2
<b>TOTAL - BASIC MEASURES</b>	<b>25 of 36</b>
<b>TOTAL FOR THE RIVER BASIN DISTRICT OF WESTERN STEREA ELLADA</b>	<b>33</b>

## 2.3 Main differentiations in comparison to the 1<sup>st</sup> Update of the RBMP

The table below summarises the most important differences identified in the 2<sup>nd</sup> Update of the RBMP of the River Basin District of Western Sterea Ellada compared to the approved 1<sup>st</sup> Update of the RBMP.

**Table 2.3-1: Main differentiations between the 2<sup>nd</sup> Update and the 1<sup>st</sup> Update of the RBMP**

CONTENT OF THE 2 <sup>nd</sup> UPDATE OF RBMP/ACTIVITY	DIFFERENTIATION IN RELATION TO THE 1 <sup>st</sup> UPDATE OF RBMP
<b>COMPETENT AUTHORITIES</b>	Differentiations in the competent authorities arising from Law no. 5037/2023. The relevant data are summarised in Chapter 3.2 of this report.
<b>DELINEATION OF SURFACE WATER BODIES - TYPOLOGY</b>	There are changes to the following WB: 1. The RWB of Agrilias P. was split into two new WB Agrilias P.1 (EL0415R000101001H) and Agrilias P.2 (EL0415R000100096N). 2. The WB Limni Saltini has been designated from lake WB to transitional WB with code EL0415T0005N The results are summarised in Chapter 4.1 herein.
<b>DESIGNATION OF GROUNDWATER SYSTEMS</b>	No changes have been implemented in the delineation of the Groundwater Bodies in comparison to the 1 <sup>st</sup> Update of the RBMP. The results are summarised in Chapter 4.2 herein.
<b>HEAVILY MODIFIED WATER BODIES (HMWB) AND ARTIFICIAL WATER BODIES (AWB)</b>	The Heavily Modified WB that were defined in the 1 <sup>st</sup> RBMP are reviewed on the basis of A) the methodology established by the GWD and B) the data of the National Monitoring Network The results and differentiations are summarised in Chapters 4.1 and 4.3 herein.
<b>PROTECTED AREAS</b>	The Natura 2000 sites have been updated as follows:  1) One new SAC area has been added (GR2530007 - KORINTHIAKOS KOLPOS)  The relevant results are summarised in Chapter 4.4 herein.
<b>PRESSURES AND IMPACTS</b>	The assessment of pressures and impacts is based on the updated common methodology developed in the framework of the "2 <sup>nd</sup> Update of the River Basin Management Plan of the 14 River Basin District S of the country" and on the latest data available, which are related to a more complete picture of the cultivated areas, the establishment of new activities and the better mapping of activities in the RBD.  A Registry of pollution sources was established which supported the analysis of the assessment and evaluation of pressures. Detection of relevant priority substances has taken place on a larger scale due to improved methods of analysis. The results are summarised in Chapter 5 of this report.

CONTENT OF THE 2 <sup>nd</sup> UPDATE OF RBMP/ACTIVITY	DIFFERENTIATION IN RELATION TO THE 1 <sup>st</sup> UPDATE OF RBMP
<b>CLASSIFICATION OF THE STATUS OF SURFACE WATER BODIES</b>	<p>The basic methodological approach for classifying the status of surface and groundwater bodies has not changed since the 1<sup>st</sup> Update.</p> <p>An exception to this is the Heavily Modified Water Bodies for which the “Prague” approach is applied as described in the document regarding the application of the measure “Special measures for achieving Good Ecological Potential in HMWB” of the 1<sup>st</sup> Update of the RBMP.</p> <p>Regarding the overall picture of the results of the classification of the WB’ status, there is a slight deterioration in terms of ecological status, with more water bodies in moderate status compared to the 1<sup>st</sup> Update. Parameters estimated to contribute to this deterioration are:</p> <ul style="list-style-type: none"> <li>✓ The increase on the number of Biological Quality Data that are systematically monitored.</li> <li>✓ The update of the list of Priority Substances based on Directive 2013/39 (Government Gazette B’ 69 / 22-1-2016), led to the increase in the number of PS monitored through the NWMN.</li> <li>✓ Inability to implement properly the monitoring program of the National Network due to covid or other problems, resulted in the collection of less data, mainly on parameters affecting the ecological status.</li> <li>✓ An increase in the number of SWB whose ecological and chemical status is classified by grouping or expert judgement has resulted in reduced reliability of the classification result.</li> </ul> <p>The results are summarised in Chapter 6.1 of this report</p>
<b>CLASSIFICATION OF THE STATUS OF GROUNDWATER BODIES</b>	<p>The methodology for classifying the status of the GWB is not different from the 1<sup>st</sup> Update of the RBMP with specific improvements, additions in relation to MAC due to natural background and the identification of trends.</p> <p>The classification of the status of GWB is based on the latest data from the monitoring network.</p> <p>The results are summarised in Chapter 6.2 herein.</p>
<b>ECONOMIC ANALYSIS OF WATER USE</b>	<p>For the economic analysis of water uses, the general rules in force are applied for pricing of water services.</p> <p>The results are summarised in Chapter 7 of this report.</p>
<b>ENVIRONMENTAL OBJECTIVES - EXEMPTIONS</b>	<p>In the 2<sup>nd</sup> Update the environmental objectives and exemptions set is based on the new methodological approaches developed in accordance with the EU guidelines.</p> <p>The results are summarised in Chapter 8 of this report</p>
<b>PROGRAM OF MEASURES</b>	<p>The methodological approach for the preparation of the program of measures has not changed. During it’s preparation, recommendations and comments of the staff of the competent Water Directorates were taken into account, as well as the evaluation of the implementation of the measures of the 1<sup>st</sup> Update of the RBMP and the problems encountered during the implementation.</p>

**CONTENT OF THE 2<sup>nd</sup> UPDATE OF RBMP/ACTIVITY**

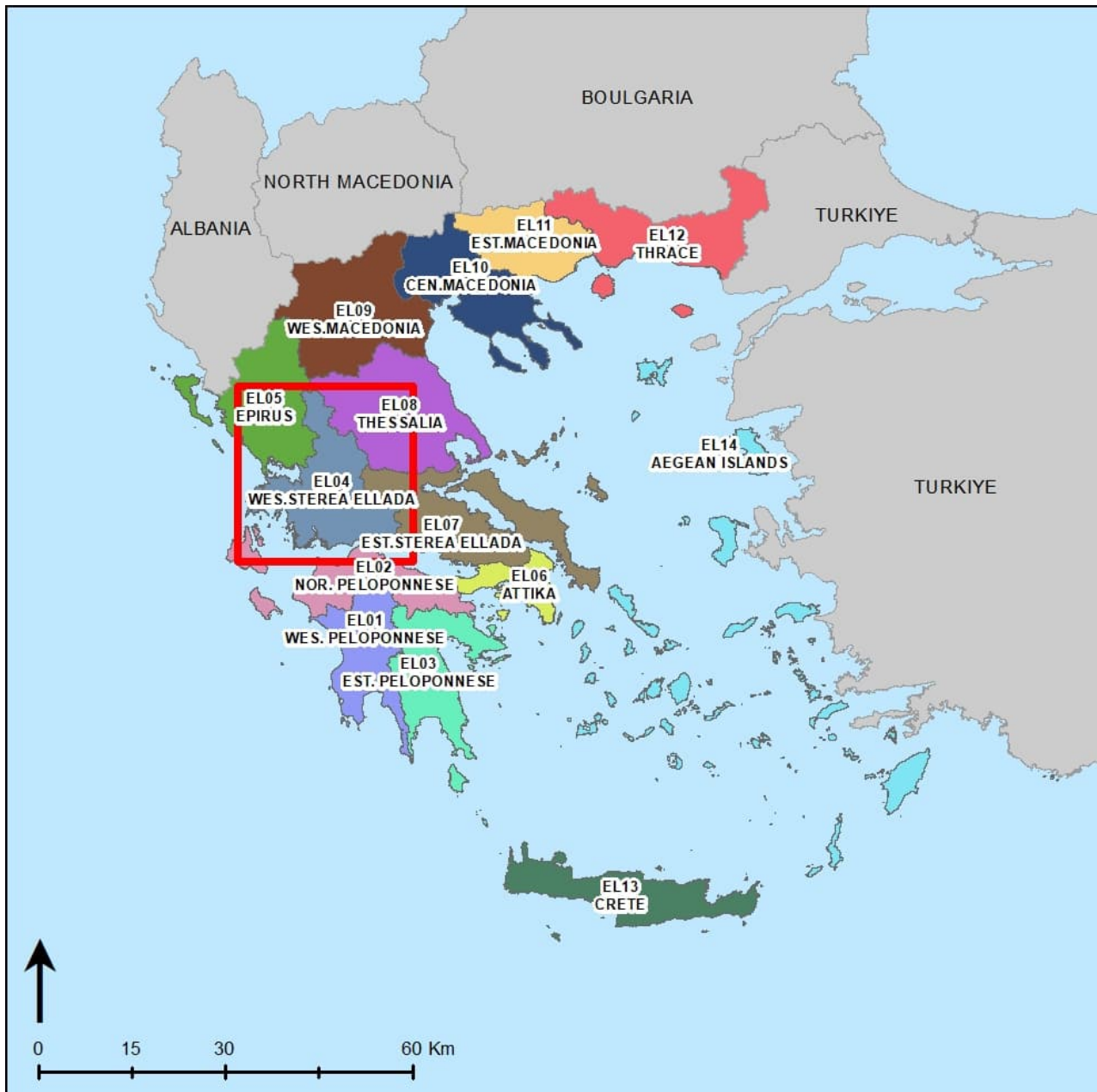
**DIFFERENTIATION IN RELATION TO THE 1<sup>st</sup> UPDATE OF RBMP**

The new program of basic and supplementary measures is summarised in Chapter 9 of this document.

### **3 DESCRIPTION OF THE RIVER BASIN DISTRICT - COMPETENT AUTHORITIES**

#### **3.1 River basins**

The River Basin District of Western Sterea Ellada (EL04) is one of the fourteen river basin districts into which the Greek territory was divided by Law 1739/1987 (Government Gazette 201/A/20-11-1987). The total area of the department is 9973,20 km<sup>2</sup>.

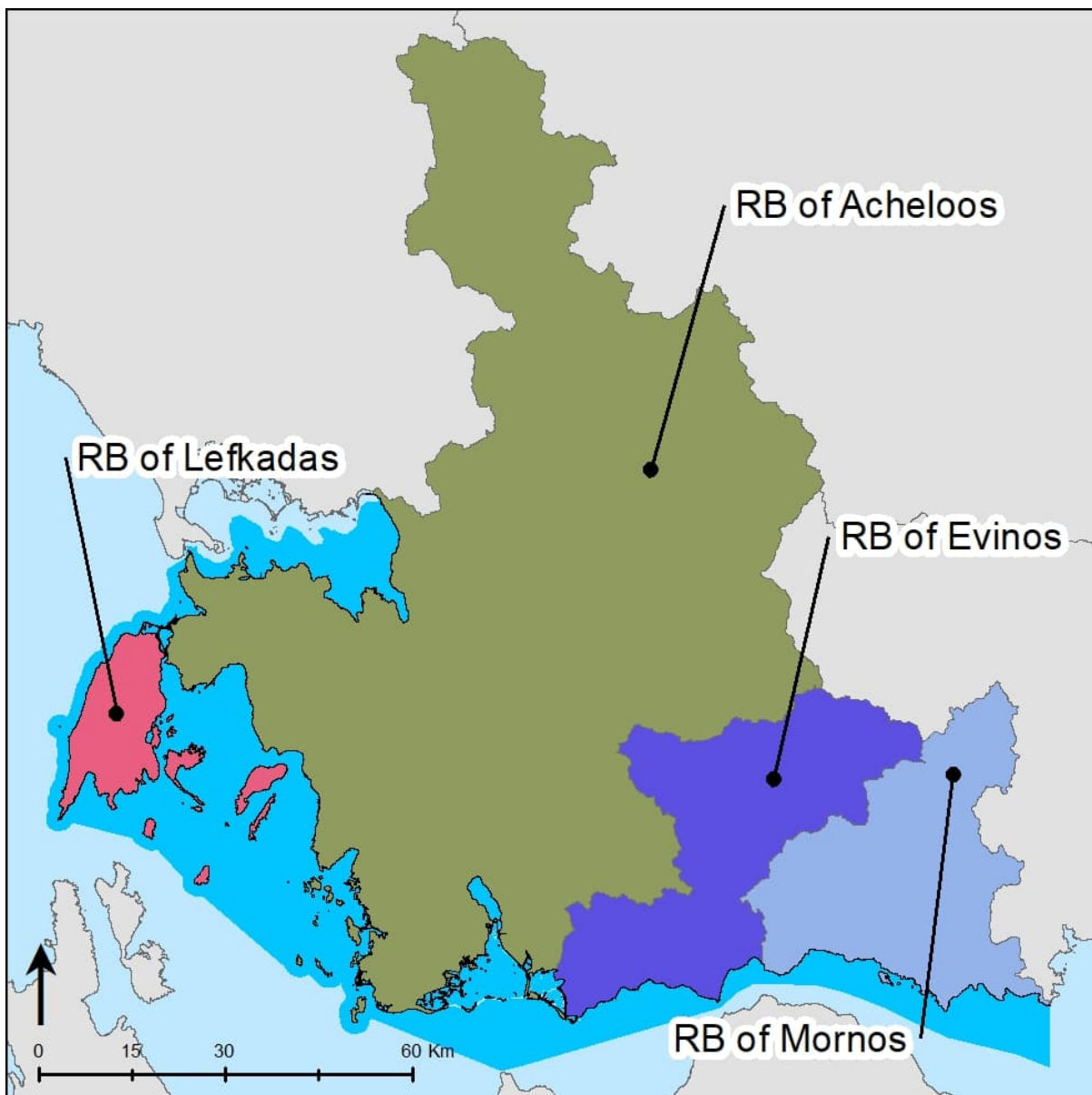


Map 3.1-1: Location of the River Basin District of Western Sterea Ellada (EL04)

The River Basins (RB) that make up this River Basin District of Western Sterea Ellada (EL04) according to the Decision No. 706/2010 (Government Gazette 1383/B/2-9-10) of the National Water Committee, are presented in the Table and Map below.

**Table 3.1-1: River basins in the RBD of Western Sterea Ellada (EL04)**

River Basin District	Basin code	Name of River basin (RB)	Area (km <sup>2</sup> )
Western Sterea Ellada (EL04)	EL0415	Acheloos	7526,22
	EL0420	Evinos	1343,53
	EL0421	Mornos	1258,95
	EL0444	Lefkadas	362,89



**Map 3.1-2: River basins in the RBD of Western Sterea Ellada (EL04)**

The Western Sterea Ellada (EL04) includes three main basins: the Acheloos, the Evinos and the Mornos. Apart from the three main basins, a significant part of the department is occupied by the basins of the Acheloos tributaries (Tavropos, Trikeriotis, Agrafiotis and Inachos) and other smaller streams (e.g. Xeropotamos, Arapis, etc.). It should be noted, however, that the sub-basin of the river Tavropos (Megdova), upstream of the Plastiras dam, with an area of 161 km<sup>2</sup>, although hydrologically it belongs to the Acheloos RB, from a management point of view it belongs to that of the Pinios (River Basin District of Thessalia EL08), as practically all its water resources are diverted to the Thessalia side. Similarly, all the water resources of the Mornos sub-basin, upstream of the Mornos dam, and part of the water resources of the Evinos sub-basin, upstream of the Agios Dimitrios dam, are diverted to the River Basin District of Attica (EL06) for the water supply of Athens.

## 3.2 Competent Authorities

According to Law 3199/2003 (Government Gazette A'280) on Water Protection and Management, it harmonizes national law with the provisions of Directive 2000/60/EC and defines the competent authorities for water protection and management. The competent authorities are:

- The **National Water Committee**
- The **General Water Directorate**

**Table 3.2-1: Identity of National Competent Authority**

<b>Official Name</b>	<b>Directorate-General for Water</b>
<b>Acronym</b>	GDW
<b>Legal Status</b>	Administrative sector of the Ministry of Environment and Energy
<b>Contact details</b>	
<b>Postal address</b>	Mesogeion 119
<b>PO Box. Code</b>	11526
<b>City</b>	Athens
<b>Country</b>	Greece
<b>Website</b>	<a href="https://ypen.gov.gr">https://ypen.gov.gr</a> , <a href="http://wfdver.ypeka.gr">http://wfdver.ypeka.gr</a>
<b>Contact points</b>	Tel: 2131513812 e-mail: <a href="mailto:d.vakalis@prv.ypeka.gr">d.vakalis@prv.ypeka.gr</a>

At regional level the competent authorities are:

- The **Decentralised Administration Water Council**
- The **Water Directorates of the Decentralized Administration,**

**Table 3.2-2: Identity of Regional Competent Authorities**

<b>Official Name</b>	<b>Decentralized Administration of Peloponnese, Western Greece and Ionian Islands Water Directorate of Western Sterea Ellada</b>
<b>Acronym</b>	W.D.W.E.
<b>Legal Status</b>	Organizational Unit of the Decentralized Administration of Peloponnese, Western Greece and Ionian Islands. Under the General Directorate for Spatial Planning and Environmental Policy
<b>Contact details</b>	
<b>Postal address</b>	Athinon 105
<b>PO Box. Code</b>	26504
<b>City</b>	Rio Patras
<b>Country</b>	Greece

<b>Official Name</b>	<b>Decentralized Administration of Peloponnese, Western Greece and Ionian Islands Water Directorate of Western Sterea Ellada</b>
Website	<a href="http://www.apd-depin.gov.gr">http://www.apd-depin.gov.gr</a>
Contact points	Tηλ: 2610 335669, 2610 338735, 2610 910996, 2610 910986 e-mail: <a href="mailto:ydat@apd-depin.gov.gr">ydat@apd-depin.gov.gr</a>

<b>Official Name</b>	<b>Decentralized Administration of Peloponnese, Western Greece and Ionian Islands Water Directorate of Ionion</b>
Acronym	W.D.I.
Legal Status	Organizational Unit of the Decentralized Administration of Peloponnese, Western Greece and Ionian Islands. Under the General Directorate for Spatial Planning and Environmental Policy
<u>Contact details</u>	
Postal address	Alikes Potamou
PO Box. Code	49 100
City	Corfu (Kerkyras)
Country	Greece
Website	<a href="http://www.apd-depin.gov.gr">http://www.apd-depin.gov.gr</a>
Contact points	Tel: 2661 361639 e-mail: <a href="mailto:lagadas@1745.syzefxis.gov.gr">lagadas@1745.syzefxis.gov.gr</a>

<b>Official Name</b>	<b>Decentralized Administration of Thessaly and Central Greece Water Directorate of Thessaly</b>
Acronym	W.D.T.
Legal Status	Organizational Unit of the Decentralized Administration of Thessaly and Central Greece. Under the General Directorate for Spatial Planning and Environmental Policy
<u>Contact details</u>	
Postal address	Farsalon 148
PO Box. Code	41335
City	Larissa
Country	Greece
Website	<a href="http://www.thessaly.gov.gr">www.thessaly.gov.gr</a> , <a href="http://www.apdthest.gov.gr">http://www.apdthest.gov.gr</a>

Official Name	<b>Decentralized Administration of Thessaly and Central Greece Water Directorate of Thessaly</b>
Contact points	Τηλ.: 2410 613720, 2410 617174 (εσωτ.122), e-mail: <a href="mailto:dydatonthes@apdthest.gov.gr">dydatonthes@apdthest.gov.gr</a>

Official Name	<b>Decentralized Administration of Thessaly and Central Greece Water Directorate of Central Greece</b>
Acronym	W.D.C.G.
Legal Status	Organizational Unit of the Decentralized Administration of Thessaly and Central Greece. Under the General Directorate for Spatial Planning and Environmental Policy
<u>Contact details</u>	
Postal address	Theodoratou & Veliou
PO Box. Code	35133
City	Lamia
Country	Greece
Website	<a href="http://www.thessaly.gov.gr">www.thessaly.gov.gr</a> , <a href="http://www.apdthest.gov.gr">http://www.apdthest.gov.gr</a>
Contact points	Τηλ.: 22310 46337, e-mail: <a href="mailto:dydatonster@apdthest.gov.gr">dydatonster@apdthest.gov.gr</a>

Official Name	<b>Decentralized Administration of Attiki Water Directorate of Attiki</b>
Acronym	W.D.A.
Legal Status	Organizational Unit of the Decentralized Administration of Attiki. Under the General Directorate for Spatial Planning and Environmental Policy
<u>Contact details</u>	
Postal address	Leoforos Messogion 239 & Paritsi, Neo Psychiko
PO Box. Code	15451
City	Athens
Country	Greece
Website	<a href="http://www.apdattikis.gov.gr">http://www.apdattikis.gov.gr</a>
Contact points	Τηλ.: 210 3725703

According to the "New Architecture of Local Government and Decentralized Administration - Kallikratis Program" Law 3852/2010 (Government Gazette A 87), the responsibilities provided by Law 3199/2003 (Government Gazette A 280), as amended by Law 5037/2023 (Government Gazette A 58), on the protection and management of water resources are shared between the State Administration (central government) and the elected Regions. The State Administration has the responsibility for designing the protection and management strategy and the elected regions mainly involved with the implementation of the strategic planning.

The table below gives a summary of the nature of the role played by each competent authority by thematic area in the context of water management and protection.

**Table 3.2-3: Role of competent authorities for water management and protection**

Competent Authority	Main Roles													
	Pressure and impact analysis	Economic analysis	Surface water monitoring	Groundwater monitoring	Assessment of surface water status	Groundwater status assessment	Preparation of the PRSP	Training MT	Implementation of measures	Public participation	Enforcement of regulations	Coordination of implementation	Submission of data to the European Commission	
General Directorate of Water of the Ministry of Environment & Energy	M	M	M	M	M	M	M	M	M	M	M	M	M	
Water Directorate of Decentralized Administration	S	S	S	S	S	S	S	S	M	S	M	M	-	
Ministry of Rural Development and Food	-	-	-	-	-	-	-	-	M	-	S	-	-	
Ministry of Infrastructure and Transport	-	-	-	-	-	-	-	-	M	-	S	-	-	
Ministry of Development	-	-	-	-	-	-	-	-	S	-	M	-	-	
Ministry of National Economy and Finance	-	-	-	-	-	-	-	-	S	-	M	-	-	
Ministry of Health	-	-	-	-	-	-	-	-	M	-	S	-	-	
Ministry of Maritime Affairs and Island Policy	-	-	-	-	-	-	-	-	-	-	M	-	-	
Ministry of Interior	-	-	-	-	-	-	-	-	S	-	M	-	-	
Municipalities of the RS	-	-	-	-	-	-	-	-	M	-	S	-	-	
Regions of the RBD	-	-	-	-	-	-	-	-	M	-	S	-	-	
M	Main Role													
S	Supplementary Role													
-	No role													

## Responsibilities

According to the Commission's Decision No. 706/16.07.2010 Decision (Government Gazette B'1383/02.09.2010), of the former National Water Commission, and in particular its Annex II, as corrected by Government Gazette B'1572/28.09.2010 and is in force, the competent authorities, per River Basin in each River Basin District of the country were defined. Thus, for the RBs of the RBD of Western Sterea Ellada and in accordance with the provisions of Law 3852/2010, the competent authority for the RB of Acheloos are designated the D.A. of Peloponnese, Western Greece and Ionian Islands and the D.A. of Thessaly and Central Greece. For the RB of Evinos are designated the D.A. of Peloponnese, Western Greece and Ionian Islands and the D.A. of Attiki, due to its water supply from the Evinos reservoir. For the RB of Mornos are designated the D.A. of Thessaly and Central Greece and the D.A. of Attiki, due to its water supply from the Mornos reservoir. Finally for the RB of Lefkadas are designated the D.A. of Peloponnese, Western Greece and Ionian Islands.

The following table presents an updated extract of Annex II of the above Decision of the National Water Commission, in accordance with Law 3852/2010.

**Table 3.2-4: River basins and competent decentralised administration**

RB code	Name of RB	Regions geographically located within the boundaries of river basins	Competent Decentralized Administration (according to Government Gazette B' 1383, 1572/2010 and N.3852/2010)	Comments
EL0415	Acheloos	Western Greece, Thessaly, Sterea Ellada, Epirus, Ionian Islands	Peloponnese, Western Greece and Ionian Islands / Thessaly and Central Greece	-
EL0420	Evinos	Western Greece, Sterea Ellada	Peloponnese, Western Greece and Ionian Islands / Attiki	Responsibility due to the Athens water supply system
EL0421	Mornos	Sterea Ellada, Western Greece	Thessaly and Central Greece / Attiki	Responsibility due to the Athens water supply system
EL0444	Lefkadas	Ionian Islands , Western Greece	Peloponnese, Western Greece and Ionian Islands	-

## 4 DELINEATION OF WATER BODIES

### 4.1 Surface water systems - typology

In the framework of the 2<sup>nd</sup> Update of the River Basin Management Plan of the RBD of Western Sterea Ellada (EL04), a total of **121 surface water bodies** were identified (of which 15 HMWB are identified). The distribution of the WB in the RBD and per RB is presented in the following Table.

**Table 4.1-1: Number of Surface Water Bodies in the RBD of Western Sterea Ellada (EL04) per RB (2<sup>nd</sup> Update of the RBMP)**

TYPE OF WB	RB				RBD TOTAL
	Achelooos (EL0415)	Evinos (EL0420)	Mornos (EL0421)	Lefkadas (EL0444)	
River WB	69	16	10	1	96
Reservoirs	4	1	1	-	6
Lake WB	5	-	-	-	5
Transitional WB	4	-	-	1	5
Coastal WB	4	-	1	4	9
<b>Total WB</b>	<b>86</b>	<b>17</b>	<b>12</b>	<b>6</b>	<b>121</b>

It is noted in relation to the 1<sup>st</sup> Update of the RBMP, the following changes have been identified:

- The number of river water bodies increased by 1, due to the split of AGRILIAS P. into two new WB AGRILIAS P.1 (EL0415R000101001H) and AGRILIAS P.2 (EL0415R000100096N).
- The number of lake water bodies decreased by 1 with a simultaneous increase in the number of transitional water bodies by 1, due to the change in the designation of LIMNI SALTINI from a lake water body to a transitional water body
- The number of river WB designated as HMWB decreased by 2 and a total of 8 river water bodies are designated as Heavily Modified. More specifically, a total of 5 water bodies after reviewing were designated as Natural from Heavily Modified (1<sup>st</sup> Update): ACHELOOS P.1, ACHELOOS P.2, ACHELOOS P.3, ACHELOOS P.4 and EVINOS P.3, , while 3 new water bodies were designated as Heavily Modified: AGRILIAS P.1, TAVROPOS P.2 and TAFROS VALTI.
- After reviewing, the lake water body LIMNI LYSIMACHIA was designated as Natural from Heavily Modified (1<sup>st</sup> Update), so there is no lake water body designated as Heavily Modified.

All surface water bodies are presented in the following tables.

**Table 4.1-2: List and characteristics of river WB, according to European Decision 2018/229/EU and MED GIG, water bodies per RB of the RBD of Western Sterea Ellada (EL04)**

No	Name of WB	WB code	Category <sup>(1)</sup>	Length (km)	Immediate catchment area (km <sup>2</sup> )	Upstream catchment area (km <sup>2</sup> )	Average Annual Flow (hm <sup>3</sup> )	Type of WB
<b>ACHELOOS RB (EL0415)</b>								
1	PLATANIAS R.	EL0415R000000008N	NAT	8,6	30,78	30,78	21,29	R-M1
2	AGRILIAS R. 1*	EL0415R000101001H	HMWB	4,71	36,94	36,94	17,96	R-M5
3	ACHELOOS P. 2*	EL0415R000200003N	NAT	17,19	75,79	5.607,95	4271,86	R-M3
4	ACHELOOS P. 3*	EL0415R000200004N	NAT	7,74	52,89	5.532,16	4256,87	R-M3
5	ACHELOOS P. 4*	EL0415R000200009N	NAT	11,96	52,55	4.755,99	3930	R-M3
6	ACHELOOS P. 5	EL0415R000200011H	HMWB	9,91	112,54	4.691,67	3884,7	R-M3
7	ACHELOOS P. 6	EL0415R000200039N	NAT	22,47	120,35	1.520,99	1782,39	R-M3
8	ACHELOOS P. 7	EL0415R000200044N	NAT	10,59	65,99	1.238,62	1568,03	R-M3
9	ACHELOOS P. 8	EL0415R000200049N	NAT	16,99	93,09	942,56	1477,18	R-M2
10	ACHELOOS P. 9	EL0415R000200052N	NAT	18,03	98,08	796,92	1036,83	R-M2
11	ACHELOOS P. 10	EL0415R000200054N	NAT	19,44	65,26	640,19	788,61	R-M2
12	ACHELOOS P. 11	EL0415R000200058N	NAT	7,26	63,62	308,32	352,42	R-M2
13	ACHELOOS P. 12	EL0415R000200059N	NAT	29,26	163,28	244,69	145,17	R-M2
14	ACHELOOS P. 13	EL0415R000200060N	NAT	9,55	24,33	81,5	101,12	R-M1
15	ACHELOOS P. 14	EL0415R000200062N	NAT	2,38	36,73	36,73	29,55	R-M1
16	ACHELOOS P. 1*	EL0415R000201002N	NAT	20,59	114,42	5.719,11	4307,6	R-M3
17	DIMIKOS P.	EL0415R000202005H	HMWB	11,11	59,91	723,27	329,01	R-M2
18	ENOTIKI TAFROS	EL0415R000202007H	HMWB	2,76	4,32	406,14	182,41	R-M2
19	ERMITSAS R.	EL0415R000202106N	NAT	24,14	93,69	93,69	60,52	R-M5
20	TAFROS YPERCHEILISIS OZEROU	EL0415R000204010H	HMWB	3,06	11,75	11,76	21,41	R-M4
21	ZERVAS R.	EL0415R000206012N	NAT	16,32	146,61	146,62	81,46	R-M2
22	INACHOS P. 1	EL0415R000208013N	NAT	10,61	100,22	295,33	198,83	R-M2
23	INACHOS P. 2	EL0415R000208014N	NAT	24,54	195,1	195,1	272,84	R-M2
24	KRIKELIOTIS R. 1	EL0415R000210015N	NAT	22,2	144,27	558,94	442,53	R-M2
25	KRIKELIOTIS R. 2	EL0415R000210019N	NAT	5,13	22,35	163,35	128,79	R-M2
26	KRIKELIOTIS R. 3	EL0415R000210020N	NAT	13,28	140,99	140,99	110,86	R-M2
27	KORIKISTIANO R.	EL0415R000210116N	NAT	6,12	60,14	60,14	46,31	R-M1
28	KARPENISIOTIS R. 1	EL0415R000210217N	NAT	15,46	106,85	191,18	132,4	R-M2
29	KARPENISIOTIS R. 2	EL0415R000210218N	NAT	9,27	84,32	84,32	55,71	R-M1
30	TAVROPOS P. 1	EL0415R000212021N	NAT	39,8	191,63	864,53	582,79	R-M2
31	TAVROPOS P. 2*	EL0415R000212029H	HMWB	12,2	57,24	331,47	228,08	R-M2
32	GAVRENITIS	EL0415R000212122N	NAT	5,14	50,13	50,13	38,15	R-M1
33	AGIOTRIADITIKO R.	EL0415R000212223N	NAT	7,7	74,89	74,89	51,91	R-M1

No	Name of WB	WB code	Category <sup>(1)</sup>	Length (km)	Immediate catchment area (km <sup>2</sup> )	Upstream catchment area (km <sup>2</sup> )	Average Annual Flow (hm <sup>3</sup> )	Type of WB
34	TAVROPOS P. - PARAPOTAMOS MEGA R. 1	EL0415R000212324N	NAT	7,7	54,8	105,95	105,97	R-M2
35	TAVROPOS P. - PARAPOTAMOS MEGA R. 2	EL0415R000212325N	NAT	3,11	51,15	51,14	36,14	R-M1
36	KAROULAS R.	EL0415R000212426N	NAT	4,14	33,94	33,94	28,08	R-M1
37	SARANTAPOROU R. 1	EL0415R000212527N	NAT	5,64	37,68	76,51	83,75	R-M1
38	SARANTAPOROU R. 2	EL0415R000212528N	NAT	5,06	38,84	38,84	29,92	R-M1
39	ASPROS R.	EL0415R000212630N	NAT	6,43	31,37	31,38	26,09	R-M1
40	KARITSIOTIS R.	EL0415R000212731N	NAT	7,95	49,45	49,45	57,06	R-M1
41	MEGALO P.	EL0415R000212832N	NAT	5,94	24,36	24,43	28,13	R-M1
42	FRANGISTANOREMMA	EL0415R000214033N	NAT	7,66	42,15	42,15	56,07	R-M1
43	AGRAFIOTIS P. 1	EL0415R000216034N	NAT	15,98	93,27	263,47	269,28	R-M2
44	AGRAFIOTIS P. 2	EL0415R000216035N	NAT	13,86	119,78	170,19	226,36	R-M2
45	AGRAFIOTIS P. 3	EL0415R000216036N	NAT	3,49	50,4	50,4	49,7	R-M1
46	GRANITSIOTIS R.	EL0415R000218037N	NAT	10,88	72,52	72,52	49,15	R-M1
47	LEPIANITIS R.	EL0415R000220038N	NAT	5,12	31,82	31,82	24,79	R-M1
48	PRASIAS R.	EL0415R000222040N	NAT	7,62	58,1	58,1	56,83	R-M1
49	ACHELOOS P. - PARAPOTAMOS PLATANIAS R. 1	EL0415R000224041N	NAT	4,8	10,84	42,17	46,57	R-M1
50	ACHELOOS P. - PARAPOTAMOS PLATANIAS R. 2	EL0415R000224042N	NAT	3,78	31,32	31,32	38,69	R-M1
51	VATANIADA R.	EL0415R000226043N	NAT	5,25	61,74	61,74	48,37	R-M1
52	KOUMPOURGIANITIKO R. 1	EL0415R000228045N	NAT	9,61	24,63	230,06	259,6	R-M2
53	KOUMPOURGIANITIKO R. 2	EL0415R000228048N	NAT	8,28	106,7	106,73	128,24	R-M2
54	KOUMPOURGIANITIKO R. - PARAPOTAMOS PLATANIAS R. 1	EL0415R000228146N	NAT	3,2	8,75	98,69	110,29	R-M1
55	KOUMPOURGIANITIKO R. - PARAPOTAMOS PLATANIAS R. 2	EL0415R000228147N	NAT	3,65	90,16	89,94	204,71	R-M1
56	ARENTAS R. 1	EL0415R000230050N	NAT	3,14	3,87	52,55	80,06	R-M1
57	ARENTAS R. 2	EL0415R000230051N	NAT	8,15	48,67	48,68	71,91	R-M1
58	GKOURA R.	EL0415R000232053N	NAT	5,25	58,64	58,65	113,4	R-M1
59	VATHYRREVMATOS R.	EL0415R000234055N	NAT	5,67	80,19	80,12	103,71	R-M1
60	KAMNAITIKO R.	EL0415R000236056N	NAT	24,4	138,71	138,76	279,32	R-M2
61	MOUSARITIKO R.	EL0415R000238057N	NAT	7,57	47,73	47,73	78,92	R-M1

No	Name of WB	WB code	Category <sup>(1)</sup>	Length (km)	Immediate catchment area (km <sup>2</sup> )	Upstream catchment area (km <sup>2</sup> )	Average Annual Flow (hm <sup>3</sup> )	Type of WB
62	LEPENITSIS R.	EL0415R000240061N	NAT	4,67	20,43	20,43	21,78	R-M1
63	TAFROS VALTI*	EL0415R000301063H	HMWB	6,18	170,79	170,44	42,08	R-M4
64	XIROPOTAMOS R.	EL0415R000501064N	NAT	4,67	121,83	121,83	40,86	R-M5
65	MYTIKA R.	EL0415R000701065N	NAT	11,17	30,3	30,31	20,54	R-M1
66	VOUTOUMIAS R.	EL0415R000901066N	NAT	8,81	49	48,99	25,43	R-M5
67	NISSIS R.	EL0415R001101067N	NAT	14,09	101,47	101,48	62,98	R-M4
68	AMFILOCHIAS R.	EL0415R001301068N	NAT	9,93	81,14	81,09	50,5	R-M5
69	AGRILIAS R. 2**	EL0415R000100096N	NAT	4,58	21,09	21,09	10,25	R-M5
<b>EVINOS RB (EL0420)</b>								
70	EVINOS P. 2	EL0420R000200070N	NAT	36,76	248,58	1.077,38	799,9	R-M3
71	EVINOS P. 3*	EL0420R000200073N	NAT	26,47	89,15	640,56	504,12	R-M2
72	EVINOS P. 4	EL0420R000200078N	NAT	8,51	21,61	270,36	207,9	R-M2
73	EVINOS P. 5	EL0420R000200081N	NAT	12,57	145,45	181,29	33,34	R-M2
74	EVINOS P. 1	EL0420R000201069N	NAT	9,58	85,66	1.159,32	821,26	R-M3
75	PORIRIS R.	EL0420R000202071N	NAT	6,4	46,64	46,64	35,29	R-M1
76	KOTSALOS R.	EL0420R000204072N	NAT	20,71	141,6	141,61	112,07	R-M2
77	CHALIKIOTIKO R.	EL0420R000206074N	NAT	19	96,45	96,46	76,18	R-M4
78	GIDRMANDITIS R.	EL0420R000208075N	NAT	6,5	68,28	68,29	56,9	R-M4
79	DIPLATANOU R.	EL0420R000210076N	NAT	6,52	34,98	34,98	61,23	R-M1
80	KLINOVITIS R.	EL0420R000212077N	NAT	3,11	21,33	21,33	18,43	R-M1
81	EVINOS P. - PARAPOTAMOS KERASORREMA 1	EL0420R000214079N	NAT	4,76	26,55	67,45	68,34	R-M1
82	EVINOS P. - PARAPOTAMOS KERASORREMA 2	EL0420R000214080N	NAT	5,56	40,89	40,9	30,77	R-M1
83	KALOGERIKO R.	EL0420R000216082N	NAT	5,81	35,84	35,84	28,14	R-M1
84	LONGIES R.	EL0420R000301093N	NAT	5,57	34,7	34,64	14,88	R-M1
85	KATO VASILIKIS R.	EL0420R000501094N	NAT	3,99	49,51	49,49	23,79	R-M1
<b>MORNOS RB (EL0421)</b>								
86	ERATEINIS R.	EL0421R000101083N	NAT	8,72	73,7	73,67	27,06	R-M5
87	MORNOS P. 2	EL0421R000200085H	HMWB	14,2	83,01	752,61	313,09	R-M2
88	MORNOS P. 3	EL0421R000200091N	NAT	20,71	204,83	230,38	168,95	R-M2
89	MORNOS P. 1	EL0421R000201084N	NAT	24,8	222,06	974,37	411,13	R-M2
90	LIMNITSIANO R.	EL0421R000202086N	NAT	5,78	58,46	58,46	58,3	R-M1
91	MORNOS P. - PARAPOTAMOS KERASORREMA	EL0421R000204087N	NAT	3,95	27,03	27,04	12,85	R-M1
92	KOKKINOS R.	EL0421R000206088N	NAT	9,65	85,16	85,17	81,73	R-M1

No	Name of WB	WB code	Category <sup>(1)</sup>	Length (km)	Immediate catchment area (km <sup>2</sup> )	Upstream catchment area (km <sup>2</sup> )	Average Annual Flow (hm <sup>3</sup> )	Type of WB
93	GRANITSORREMA	EL0421R000208089N	NAT	4,92	23,59	23,6	9,39	R-M1
94	BELESITSA R.	EL0421R000210090N	NAT	6,71	80,09	80,11	21,93	R-M1
95	P. MORNOS - PARAPOTAMOS MEGA R.	EL0421R000212092N	NAT	4,3	25,54	25,54	12,5	R-M1
<b>LEFKADAS RB (EL0444)</b>								
96	KAROUCHAS P.	EL0444R000101095N	NAT	2,97	53,43	53,17	29,84	R-M4

<sup>(1)</sup>NAT: Natural Water Body, HMWB: Heavily Modified Water Body, AWB: Artificial Water Body  
\* Differences in the coding of river water bodies compared to the 1st Update of the RBMP, due to the change of the assessment of water bodies from Natural to HMWB and vice versa  
\*\*Addition of a new WB

Table 4.1-3: Lake water bodies with new typology per RB of the RBD of Western Sterea Ellada (EL04)

No	Name of WB	WB code	Category <sup>(1)</sup>	Area (km <sup>2</sup> )	Perimeter (km)	Immediate catchment area (km <sup>2</sup> )	Upstream catchment area (km <sup>2</sup> )	Average Annual Flow (hm <sup>3</sup> )	Type of WB
<b>ACHELOOS RB (EL0415)</b>									
1	LIMNI TRICHONIDA	EL0415L000000004N	NAT	96,52	53,50	371,03	401,80	181,02	GR-DNL
2	LIMNI LYSIMACHIA*	EL0415L000000005N	NAT	13,05	22,90	163,52	261,30	353,16	GR-SNL
3	LIMNI OZEROS	EL0415L000000006N	NAT	9,39	13,54	45,44	57,10	15,55	GR-SNL
4	LIMNI AMVRAKIA	EL0415L000000008N	NAT	14,53	34,34	121,15	121,15	49,73	GR-DNL
5	LIMNI VOULKARIA	EL0415L000000009N	NAT	9,13	22,10	74,40	74,40	25,79	GR-VSNL

<sup>(1)</sup> NAT: Natural Water Body, HMWB: Heavily Modified Water Body, AWB: Artificial Water Body  
\* Differences in the coding of river water bodies compared to the 1st Update of the RBMP, due to the change of the assessment of water bodies from Natural to HMWB and vice versa

Table 4.1-4: Reservoir WB with new typology per RB of the RBD of Western Sterea Ellada (EL04)

No	Name of WB	WB code	Category <sup>(1)</sup>	Area (km <sup>2</sup> )	Perimeter (km)	Immediate catchment area (km <sup>2</sup> )	Upstream catchment area (km <sup>2</sup> )	Average Annual Flow (hm <sup>3</sup> )	Type of WB
<b>ACHELOOS RB (EL0415)</b>									
1	TECHNITI LIMNI KREMASTON	EL0415RL00200002H	HMWB	80,60	248,90	456,43	3.568,30	3.177,92	L-M8

No	Name of WB	WB code	Category <sup>(1)</sup>	Area (km <sup>2</sup> )	Perimeter (km)	Immediate catchment area (km <sup>2</sup> )	Upstream catchment area (km <sup>2</sup> )	Average Annual Flow (hm <sup>3</sup> )	Type of WB
2	TECHNITI LIMNI KASTRAKIOU	EL0415RL00200003H	HMWB	27,50	131,25	247,19	4.110,60	3.547,08	L-M8
3	TECHNITI LIMNI STRATOU	EL0415RL00200004H	HMWB	7,40	20,62	79,15	4.336,30	3.671,24	GR-SR
4	TECHNITI LIMNI TAVROPOU	EL0415RL00212001H	HMWB	25,20	85,31	92,46	166,30	147,20	L-M5/7 W
<b>EVINOS RB (EL0420)</b>									
5	TECHNITI LIMNI EVINOY	EL0420RL00200005H	HMWB	2,89	18,2	59,99	351,20	292,92	L-M8
<b>MORNOS RB (EL0421)</b>									
6	TECHNITI LIMNI MORNOY	EL0421RL00200006H	HMWB	14,8	60,36	164,84	583,70	483,16	L-M8
<sup>(1)</sup> NAT: <i>Natural Water Body</i> , HMWB: <i>Heavily Modified Water Body</i> , AWB: <i>Artificial Water Body</i>									

**Table 4.1-5: List and characteristics of transitional water bodies per RB of the RBD of Western Sterea Ellada (EL04)**

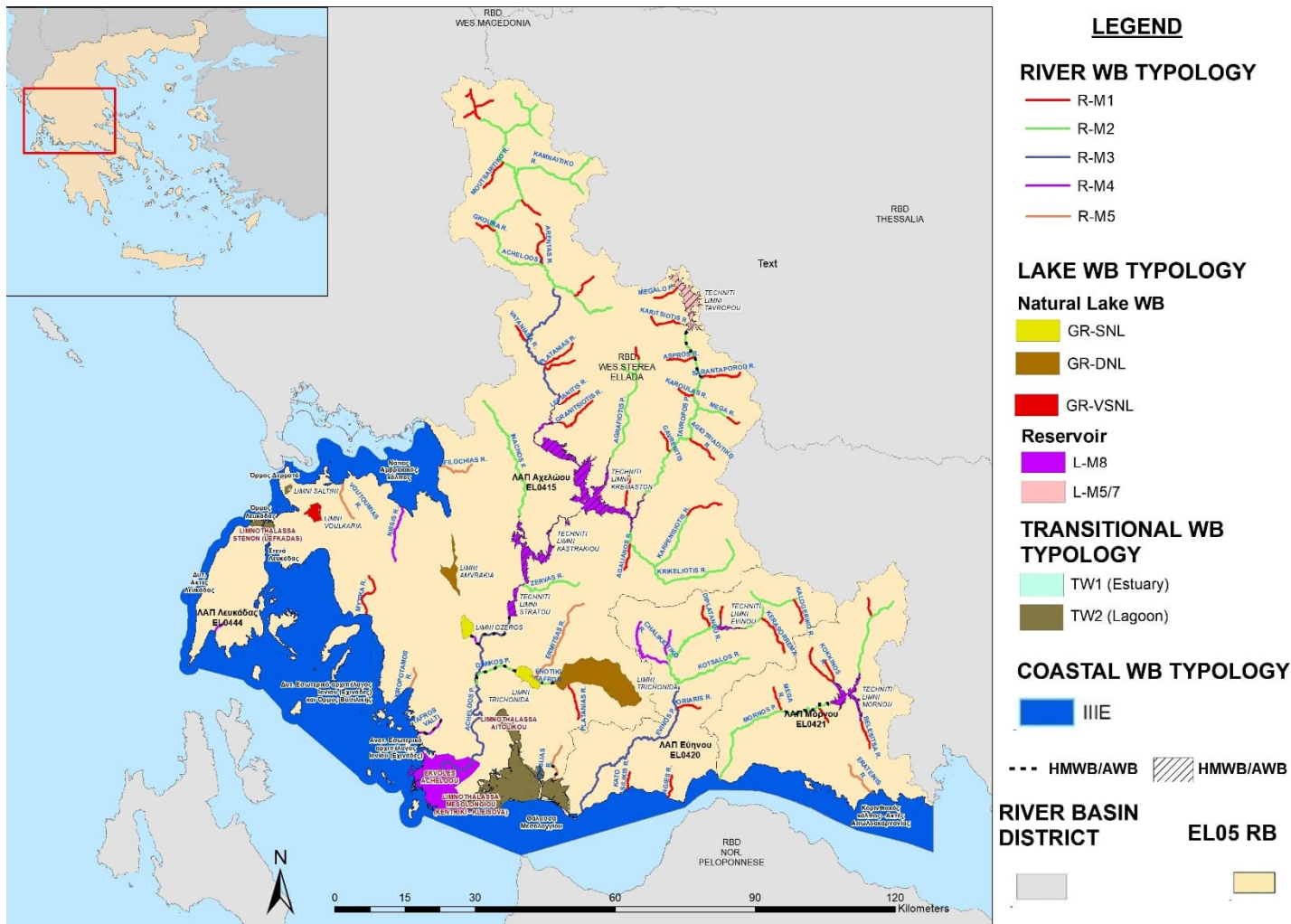
No	Name of WB	WB code	Category <sup>(1)</sup>	Area (km <sup>2</sup> )	Perimeter (km)	Type of WB
<b>ACHELOOS RB (EL0415)</b>						
1	LIMNOTHALASSA AITOLIKOU	EL0415T0001N	NAT	17,20	21,78	TW-2 (Oligo-mesohaline choked)
2	LIMNOTHALASSA MESOLONGIOU (KENTRIKI - KLEISOVA)	EL0415T0002N	NAT	135,18	270,35	TW-2 (CL-Poly-euhaline choked and restricted)
3	EKVOLES ACHELOOU**	EL0415T0003N	NAT	107,91	144,23	TW-1 (Estuaries)
4	LIMNI SALTINI*	EL0415T0005N	NAT	1,99	8,85	TW-2 (Oligo-mesohaline choked) ***
<b>LEFKADAS RB (EL0444)</b>						
5	LIMNOTHALASSA STENON (LEFKADAS)	EL0444T0004N	NAT	8,62	31,15	TW-2 (Other)

<sup>(1)</sup> NAT: Natural Water Body, HMWB: Heavily Modified Water Body, AWB: Artificial Water  
\* Addition of a new WB  
\*\*In the framework of the 2nd Update of the of the RBMP, the need to re-delineate the boundaries of the transitional water body "EKVOLES ACHELOOU (EL0415T0003N) emerged, while it is expected that the GDW, while it is expected that the GDW will implement a relevant action for all the transitional water bodies of the country

**Table 4.1-6: List and characteristics of coastal water bodies per RB of the RBD of Western Sterea Ellada (EL04)**

No	Name of WB	WB code	Category <sup>(1)</sup>	Area (km <sup>2</sup> )	Perimeter (km)	Type of WB
<b>ACHELOOS RB (EL0415)</b>						
1	THALASSA MESOLONGIOU	EL0415C0002N	NAT	361,45	171,16	IIIE
2	ANAT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES)	EL0415C0003N	NAT	228,61	318,29	IIIE
3	ORMOS DERMATA	EL0415C0008N	NAT	23,35	36,81	IIIE
4	NOTIOS AMVRAKIKOS KOLPOS	EL0415C0009N	NAT	271,54	188,72	IIIE
<b>MORNOS RB (EL0421)</b>						
5	KORINTHIAKOS KOLPOS - AKTES AITOLOAKARNANIAS	EL0421C0001N	NAT	326,11	184,86	IIIE
<b>LEFKADAS RB (EL0444)</b>						
6	DYT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES) KAI ORMOS VASILIKIS	EL0444C0004N	NAT	875,89	423,80	IIIE
7	DYT. AKTES LEFKADAS	EL0444C0005N	NAT	82,35	99,33	IIIE
8	ORMOS LEFKADAS	EL0444C0006N	NAT	18,98	38,35	IIIE
9	STENA LEFKADAS	EL0444C0007H	HMWB	1,99	23,36	IIIE

<sup>(1)</sup> NAT: Natural Water Body, HMWB: Heavily Modified Water Body, AWB: Artificial Water



Map 4.1-1: Map of surface WB of the RBD of Western Sterea Ellada (EL04)

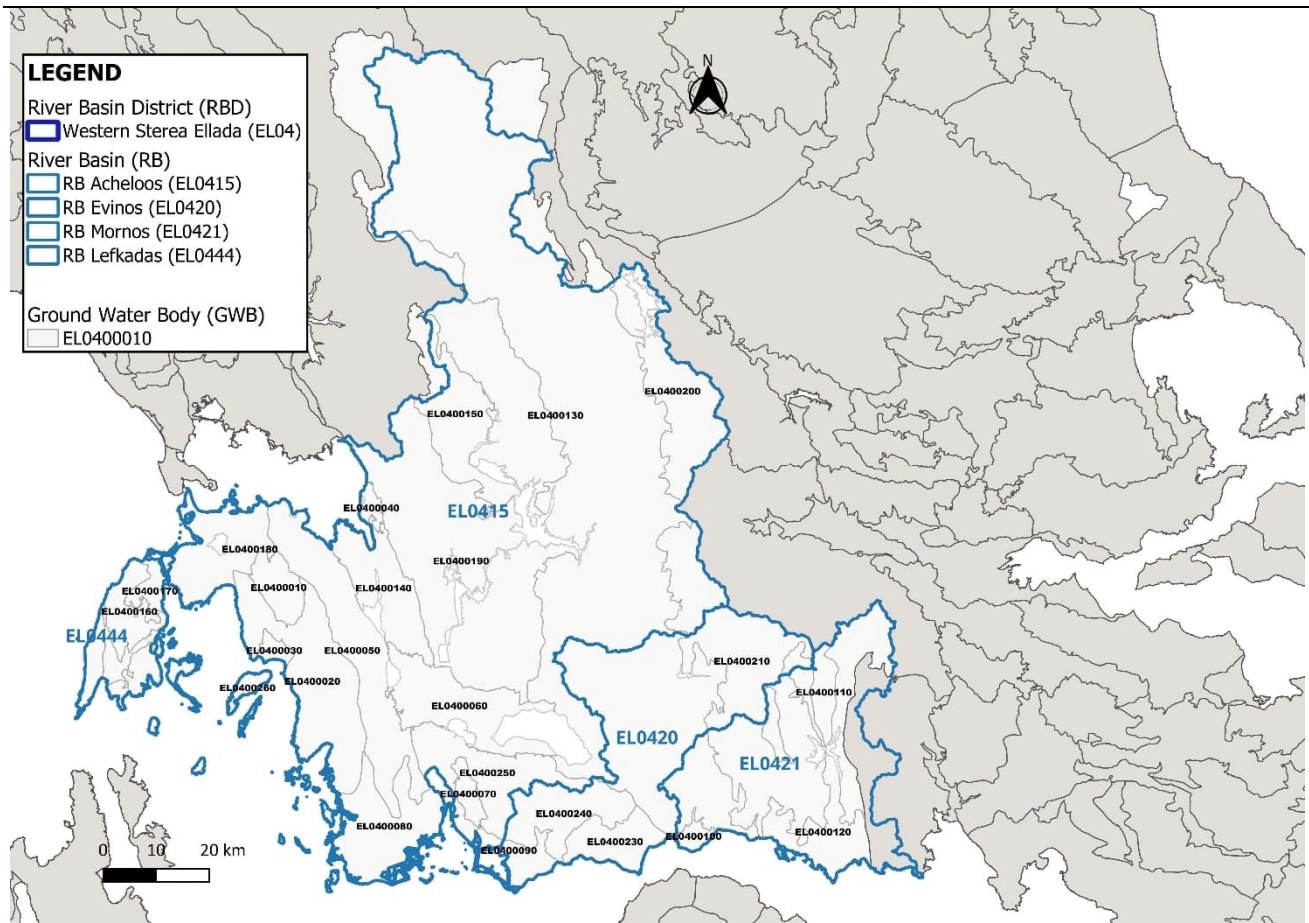
## 4.2 Groundwater bodies

In the framework of the 2<sup>nd</sup> Update of the RBMP of the River Basin District of Western Sterea Ellada (EL04), no modifications were necessary to the delineated GWB in relation to the 1<sup>st</sup> Update. More specifically, within the framework of the 2<sup>nd</sup> Update, a total of twenty-six (26) Groundwater Bodies were delineated.

The table and the map below present the GWB of the River Basin District of Western Sterea Ellada (EL04) during the 2<sup>nd</sup> Update of the RBMP.

**Table 4.2-1: Groundwater bodies in the RBD of Western Sterea Ellada (EL04)**

No	Name of the GWB	GWB code	Area (x10 <sup>6</sup> m <sup>2</sup> )
<b>ACHELOOS RB (EL0415)</b>			
1	SYSTIMA MONASTIRAKIOU	EL0400010	90,46
2	SYSTIMA AKARNANIKON OREON	EL0400020	436,81
3	SYSTIMA KANDILAS	EL0400030	24,95
4	SYSTIMA ANOIXIATIKOU - LOUTROU AMFILOCHIAS	EL0400040	24,76
5	SYSTIMA KATOUNAS-LESINIOU	EL0400050	435,61
6	SYSTIMA AGRINIOU	EL0400060	275,60
7	SYSTIMA ARAKYNTHOU	EL0400070	41,90
8	SYSTIMA DELTA ACHELOOU-OINIADON	EL0400080	286,44
9	SYSTIMA OLONOU-PINDOU	EL0400130	3.920,67
10	SYSTIMA AMFILOCHIAS	EL0400140	226,51
11	SYSTIMA VALTOY EMPESOU	EL0400150	294,36
12	SYSTIMA VONITSAS - VOYLKARIA	EL0400180	239,40
13	SYSTIMA YDROFORION LEKANIS ACHELOOU	EL0400190	1.496,52
14	SYSTIMA YDROFORION ANATOLIKOY TMIMATOS LEKANIS ACHELOOU	EL0400200	485,23
15	SYSTIMA YDROFORION KATO ROY ACHELOOU	EL0400250	246,53
<b>EVINOS RB (EL0420)</b>			
16	SYSTIMA MESOLONGIOU-EVINOY	EL0400090	97,31
17	SYSTIMA YDROFORION ANO ROY LEKANIS EVINOY	EL0400210	287,01
18	SYSTIMA YDROFORION ANTIRRIOY	EL0400230	134,97
19	SYSTIMA YDROFORION KATO ROY LEKANIS EVINOY	EL0400240	204,64
<b>MORNOS RB (EL0421)</b>			
20	SYSTIMA MORNIOY	EL0400100	28,46
21	SYSTIMA VARDOUSION	EL0400110	64,59
22	SYSTIMA YDROFORION ERATEINIS - TOLOFONA	EL0400120	256,31
23	SYSTIMA YDROFORION LEKANIS ANO ROY MORNIOY	EL0400220	559,67
<b>LEFKADAS RB (EL0444)</b>			
24	SYSTIMA LEFKADAS	EL0400160	208,43
25	SYSTIMA VASILIKIS - NYDRIIOY – LEFKADAS	EL0400170	96,14
26	SYSTIMA MEGANISIOY - KASTOY - KALAMOY	EL0400260	50,47



Map 4.2-1: Location and boundaries of groundwater bodies in Western Sterea Ellada (EL04)

### 4.3 Heavily Modified Water Bodies (HMWB) and Artificial Water Bodies (AWB)

In the River Basin District of Western Sterea Ellada (EL04) 15 heavily modified water bodies were identified out of a total of 121 water bodies.

**Table 4.3-1: Overview of the number and coverage of heavily modified and artificial water bodies in the River Basin District of Western Sterea Ellada (EL04)**

	Heavily Modified Water Systems	
	Number of Water Bodies	Coverage (%)
Rivers Water Bodies (length along rivers - streams)	8	6,4
Reservoirs	6	100,0
Coastal Water Bodies	1	0,1

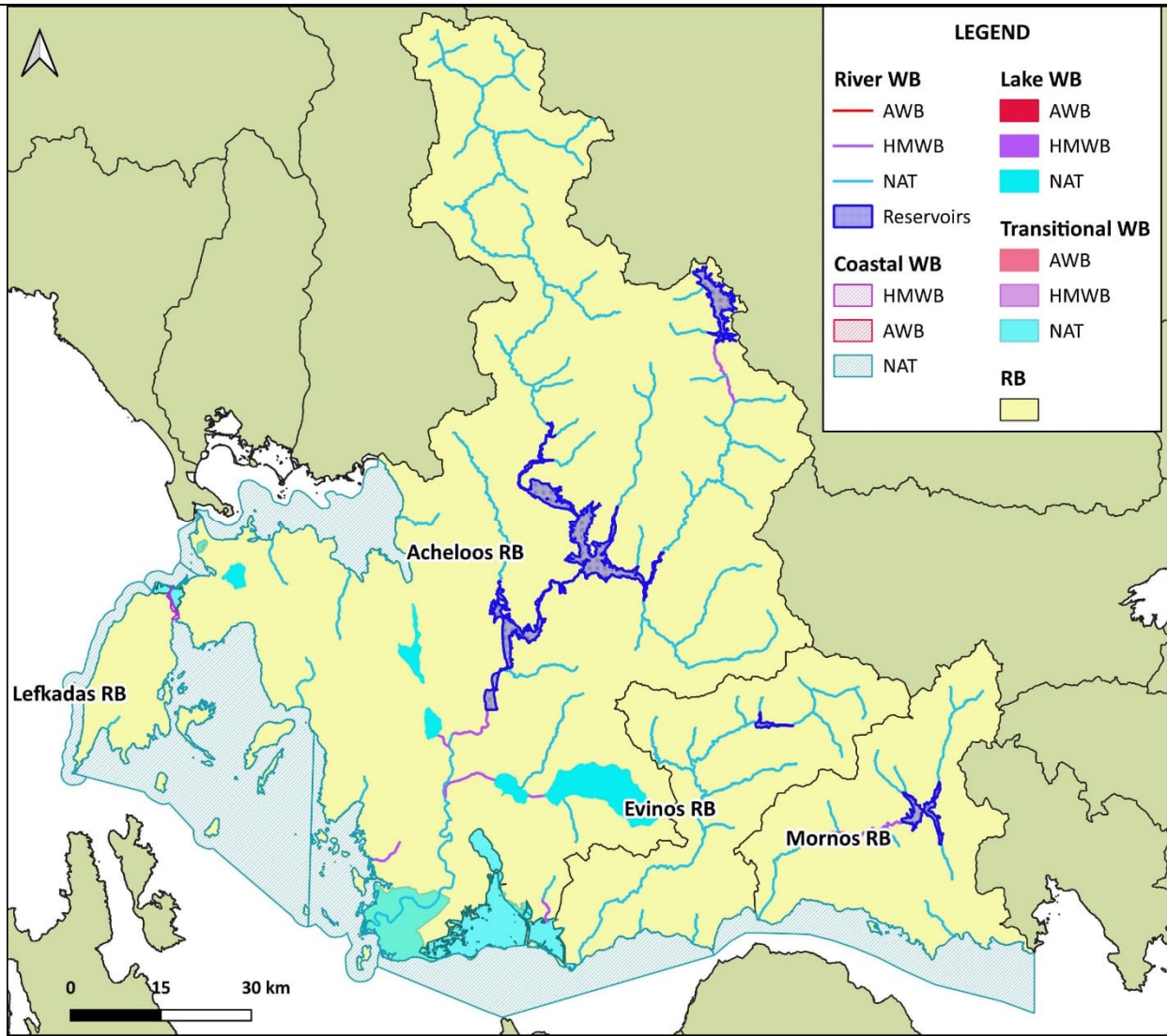
*\* In the framework of the 2nd Update of the of the RBMP, the need to re-delineate the boundaries of the transitional water body EKVOLES ACHELOOU (EL0415T0003N) emerged, while it is expected that the GDW will implement a relevant action for all the transitional water bodies of the country. In the 2<sup>nd</sup> Update of the RBMP, the above transitional water bodies were not assessed for hydromorphological alteration and were not considered for designation as HMWB.*

The table and map below present the surface water bodies that have been designated as heavily modified in the River Basin District of Western Sterea Ellada (EL04). The table present their main characteristics, as well as the 'determined water use' (activity) of Article 4(3)(a) of the WFD to which each water body is designated.

**Table 4.3-2: Designated heavily modified water bodies per RB in the River Basin District of Western Sterea Ellada (EL04).**

NAME	CODE	TYPE OF WB	SURFACE AREA - LENGTH	"DETERMINED WATER USE" IN ACCORDANCE WITH ARTICLE 4(3)(a) of the WFD
<b>ACHELOOS RB (EL0415)</b>				
TECHNITI LIMNI TAVROPOU	EL0415RL00212001H	RL	23.56 km <sup>2</sup>	Water storage: irrigation, hydropower generation, water supply
TECHNITI LIMNI KREMASTON	EL0415RL00200002H	RL	71.70 km <sup>2</sup>	Water storage: Hydropower generation, irrigation, flood protection
TECHNITI LIMNI KASTRAKIOU	EL0415RL00200003H	RL	26.92 km <sup>2</sup>	Water storage: Hydropower generation, irrigation, water supply, flood protection
TECHNITI LIMNI STRATOU	EL0415RL00200004H	RL	7.82 km <sup>2</sup>	Water storage: Hydropower generation, irrigation, flood protection
ACHELOOS P.5	EL0415R000200011H	R-M3	9.91 km	Regulation of water
TAVROPOS P.2	EL0415R000212029N	R-M2	12.2 km	Regulation of water
ENOTIKI TAFROS	EL0415R000202007H	R-M2	2.76 km	Water regulation, flood protection
DIMIKOS P.	EL0415R000202005H	R	11.11 km	Water regulation, flood protection

NAME	CODE	TYPE OF WB	SURFACE AREA - LENGTH	"DETERMINED WATER USE" IN ACCORDANCE WITH ARTICLE 4(3)(a) of the WFD
TAFROS YPERCHEILISIS OZEROU	EL0415R000204010H	R	2.91 km	Water regulation, flood protection
TAFROS VALTI	EL0415R000301063H	R	6.18 km	Water regulation, flood protection
AGRILIAS R. 1	EL0415R000101001H	R	4.71 km	Water regulation, flood protection
<b>EVINOS RB (EL0420)</b>				
TECHNITI LIMNI EVINOY	EL0420RL002000100H	RL	2.89 km <sup>2</sup>	Water storage: Water supply, irrigation
<b>MORNOS RB (EL0421)</b>				
TECHNITI LIMNI MORNOY	EL0421RL002000101H	RL	14.80 km <sup>2</sup>	Water storage: Water supply, irrigation
MORNOS P. 2	EL0421R000200085H	R	14.20 km	
<b>LEFKADAS RB (EL0444)</b>				
STENA LEFKADAS	EL0444C0007H	C	1.63 km <sup>2</sup>	Navigation including port facilities



Map 4.3-1: Overview of heavily modified water bodies in the River Basin District of Western Sterea Ellada (EL04)

#### 4.4 Protected Areas

In accordance with Article 6 of Directive 2000/60/EC, Member States shall ensure the establishment of a Registry of all areas lying within each river basin district which have been designated as requiring special protection under specific provisions of EU legislation for the protection of their surface water and groundwater or the conservation of habitats and species directly depending on water.

This registry is called the Registry of Protected Areas (RPAs) and according to Annex V of Presidential Decree 51/2007, it includes all the following types of areas:

- **Areas designated for the abstraction of water intended for human consumption**, in accordance with Article 7 of PD 51/2007 (Article 7 of Directive 2000/60/EC). There has been no change compared to the 1<sup>st</sup> Update:

The table below shows the groundwater bodies used for abstracting water intended for human consumption.

**Table 4.4-1: Groundwater Bodies included in the registry of protected areas of the River Basin District of Western Sterea Ellada (EL04)**

No	Name of the GWB	GWB code	Registry of protected areas Article A7 code	Type of aquifer
<b>ACHELOOS RB (EL0415)</b>				
1	SYSTIMA MONASTIRAKIOU	EL0400010	EL0400010A7	Karstic
2	SYSTIMA ARAKYNTHOU	EL0400070	EL0400070A7	Karstic
3	SYSTIMA VALTOY EMPESOU	EL0400150	EL0400150A7	Karstic
<b>MORNOS RB (EL0421)</b>				
4	SYSTIMA VARDOUSION	EL0400110	EL0400110A7	Karstic

The table below shows the surface water bodies used for abstracting water intended for human consumption.

It should be noted that the river water systems "EVINOS P. 1" and "EVINOS P. 2" are not used for water supply but are included in the registry of protected areas due to their correlation with the corresponding groundwater water body, as water is taken from boreholes in this section of the river Evinos for the water supply of the Municipality of Ieris Polis Messologiou.

**Table 4.4-2: Surface Water Bodies included in the registry of protected areas of the River Basin District of Western Sterea Ellada (EL04)**

Name of surface water body	Surface water body code
<b>River Water Bodies</b>	
EVINOS P. 1	EL0420R000201069N
EVINOS P. 2	EL0420R000200070N
<i>River water bodies draining into the artificial lake Mornos</i>	
BELESITSA R.	EL0421R000210090N
GRANITSORREMA	EL0421R000208089N
KOKKINOS R.	EL0421R000206088N
MORNOS P. 3	EL0421R000200091N
P. MORNOS - PARAPOTAMOS MEGA R.	EL0421R000212092N
<i>River water bodies draining into the artificial lake Evinos</i>	
KLINOVITIS R.	EL0420R000212077N

Name of surface water body	Surface water body code
KALOGERIKO R.	EL0420R000216082N
EVINOS P. - PARAPOTAMOS KERASORREMA 2	EL0420R000214080N
EVINOS P. - PARAPOTAMOS KERASORREMA 1	EL0420R000214079N
EVINOS P. 5	EL0420R000200081N
EVINOS P. 4	EL0420R000200078N
Lake Water Bodies	
LIMNI TRICHONIDA	EL0415L000000004N
TECHNITI LIMNI KASTRAKIOU	EL0415RL00200003H
TECHNITI LIMNI TAVROPOU	EL0415RL00212001H
TECHNITI LIMNI MORNOU	EL0421RL00200006H
TECHNITI LIMNI EVINOY	EL0420RL00200005H

- Water bodies designated as **recreational waters**, including areas designated as **bathing waters**:

In the River Basin District of Western Sterea Ellada (EL04) 68 areas have been designated and are included in the Registry of Bathing Water Areas of Greece, according to the list of bathing waters areas, which was posted on the EU website ([https://cdr.eionet.europa.eu/gr/eu/bwd/bwd\\_788/envzhda6w/](https://cdr.eionet.europa.eu/gr/eu/bwd/bwd_788/envzhda6w/)) in May 2023. Compared to the 1<sup>st</sup> Update, no changes have been recorded.

Furthermore, as far as recreational waters are concerned, there are regulated recreational activities in the RBD of Western Sterea Ellada (EL04). The most important of these activities are considered to be rafting and kayaking on the rivers of the region, canyoning and lake-based nautical activities. A total of 11 protected inland water recreation areas have been designated. Compared to the 1<sup>st</sup> Update, there has been no differentiation.

- Areas sensitive to the presence of nutrients**, including areas designated as **vulnerable zones** (Nitrates Directive), and areas designated as **sensitive** (Urban Wastewater Treatment Directive):

#### Vulnerable zones

Regarding the zones vulnerable to nitrate pollution of agricultural origin in the Western Central Greece (EL04), a small part of the designated area "Pediada Artas Prevezas" (EL0514NI02), approximately 13 km<sup>2</sup> and part of the designated area 'Pinios - Thessaliko Pedio' (EL0816NI01), approximately 25,58 km<sup>2</sup>, fall within the RBD, but both areas do not include any water body belonging to the Water Region of Western Sterea Greece. Compared to the 1<sup>st</sup> Update, there has been no differentiation.

#### Sensitive Areas

Regarding the sensitive areas in the River Basin District of Western Sterea Ellada (EL04), on the basis of the M.D. 19661/1982/1999 (Government Gazette 1811B'/29.09.1999), as amended by the Ministry of Environment and Natural Resources J.M.D. 136843/22 (Government Gazette 7215 B/31-12-22), the sensitive areas presented in the table below have been defined, together with the water bodies that fall within them. Compared to the 1<sup>st</sup> Update, there has been no differentiation.

**Table 4.4-3: Designated sites sensitive to the presence of nutrients in the River Basin District of Western Sterea Ellada (EL04)**

No	Sensitive Area	WB code	Name of WB
1	STEENO LEFKADA (Marine Area)	EL0444C0007H	STENA LEFKADAS
2	LIMNOTHALASSA AITOLIKOU- MESOLONGIOU	EL0415T0002N	LIMNOTHALASSA MESOLONGIOU (KENTRIKI - KLEISOVA)
3	AMVRAKIKOS KOLPOS	EL0415C0009N	NOTIOS AMVRAKIKOS KOLPOS
4	DELTA POTAMOU ACHELOOU	EL0415T0003N	EKVOLES ACHELOOU
5	TECHNITI LIMNI MORNOU	EL0421RL00200006H	TECHNITI LIMNI MORNOU
6	POTAMOS ACHELOOS	EL0415R000200054N	ACHELOOS P. 10
		EL0415R000200052N	ACHELOOS P. 9
		EL0415R000200039N	ACHELOOS P. 6
		EL0415R000200058N	ACHELOOS P. 11
		EL0415R000200044N	ACHELOOS P. 7
		EL0415R000200049N	ACHELOOS P. 8
		EL0415R000240061N	LEPENITSIS R.
		EL0415R000200059N	ACHELOOS P. 12
		EL0415R000200062N	ACHELOOS P. 14
		EL0415R000200060N	ACHELOOS P. 13
		EL0415R000200004N	ACHELOOS P. 3
		EL0415R000201002N	ACHELOOS P. 1
		EL0415R000200011H	ACHELOOS P. 5
		EL0415R000200009N	ACHELOOS P. 4
		EL0415R000200003N	ACHELOOS P. 2
7	POTAMOS KARPENISIOTIS	EL0415R000210217N	KARPENISIOTIS R. 1
		EL0415R000210218N	KARPENISIOTIS R. 2
8	REMATA POU EISREOUN STIN TECHNITI LIMNI MORNOU	EL0421R000206088N	KOKKINOS R.
		EL0421R000208089N	GRANITSORREMA
		EL0421R000212092N	P. MORNOIS - PARAPOTAMOS MEGA R.
		EL0421R000200091N	MORNOS P. 3
		EL0421R000210090N	BELESITSA R.

- Areas designated for the **protection of habitats or species** where the conservation or improvement of water status is important for their protection, including relevant NATURA 2000 sites.

The selection and designation of protected natural areas is adapted to the national circumstances of each Member State. Due to the diversity of conditions within the European Union, Member States can apply the guidelines of the Guidance Documents in a flexible way since the characteristics as well as the problems faced by each RB vary from region to region. These areas are presented below:

In total, 36 Natura 2000 sites are found in the River Basin District of Western Sterea Ellada (EL04), of which 21 have been designated as SAC, 13 have been designated as SPA, while 2 sites have been designated as both SAC and SPA. The following table presents the Natura sites located on the boundaries of the River Basin District of Western Sterea Ellada. In relation to the 1<sup>st</sup> Update, the area GR2530007, which belongs to the Mornos RB has been added.

**Table 4.4-4: Natura 2000 network sites in the River Basin District of Western Sterea Ellada (EL04)**

No	Code Natura	Name of area	Category
1	GR1410001	PERIOCHI LIMNIS TAVROPOU	SAC
2	GR1410002	AGRAFA	SAC
3	GR1440001	ASPROPOTAMOS	SAC
4	GR1440002	KERKETIO OROS (KOZIAKAS)	SAC
5	GR1440006	KORYFES OROUS KOZIAKA	SPA
6	GR2110001	AMVRAKIKOS KOLPOS, DELTA LOUROU KAI ARACHTHOU (PETRA, MYTIKAS, EVRYTERI PERIOCHI)	SAC
7	GR2110002	ORI ATHAMANON (NERAIDA)	SAC
8	GR2110004	AMVRAKIKOS KOLPOS, LIMNOTHALASSA KATAFOURKO KAI KORAKONISIA	SPA
9	GR2110006	KOILADA ACHELOOU KAI ORI VALTOU	SPA
10	GR2130007	OROS LAKMOS (PERISTERI)	SAC & SPA
11	GR2130013	EVRYTERI PERIOCHI ATHAMANIKON OREON	SPA
12	GR2220003	ESOTERIKO ARCHIPELAGOS IONIOU (MEGANISI, ARKOUDI, ATOKOS, VROMONAS)	SAC
13	GR2240001	LIMNOTHALASSES STENON LEFKADAS (PALIONIS – AVLIMON) KAI ALYKES LEFKADAS	SAC & SPA
14	GR2240002	PERIOCHI CHORTATON (LEFKADA)*	SAC
15	GR2310001	DELTA ACHELOOU, LIMNOTHALASSA MESOLONGIOU - AITOLIKOU, EKVOLES EVINOY, NISOI ECHINADES, NISOS PETALAS	SAC
16	GR2310004	OROS PANAITOLIKO*	SAC
17	GR2310005	OROS VARASOVA*	SAC
18	GR2310006	LIMNES VOULKARIA KAI SALTINI	SAC
19	GR2310007	LIMNI AMVRAKIA	SAC
20	GR2310008	LIMNI OZEROS	SAC
21	GR2310009	LIMNES TRICHONIDA KAI LYSIMACHEIA	SAC
22	GR2310010	OROS ARAKYNTHOS KAI STENA KLEISOURAS	SAC
23	GR2310011	OROS TSEREKAS (AKARNANIKA)*	SPA
24	GR2310013	LIMNI LYSIMACHEIA	SPA
25	GR2310014	LIMNI VOULKARIA	SPA
26	GR2310015	DELTA ACHELOOU, LIMNOTHALASSA MESOLONGIOU - AITOLIKOU KAI EKVOLES EVINOY, NISOI ECHINADES, NISOS PETALAS, DYTIKOS ARAKYNTHOS KAI STENA KLEISOURAS	SPA
27	GR2310016	LIMNI AMVRAKIA	SPA
28	GR2430001	OROS TYMFRISTOS (VELOUCHI)*	SAC
29	GR2430002	ORI AGRAFA	SPA
30	GR2450001	ORI VARDOUSIA	SAC
31	GR2450002	OROS GKIONA*	SAC
32	GR2450004	PARALIAKI ZONI APO NAFFAKTO EOS ITEA - PERIOCHI PIGON CHILIADOU	SAC

No	Code Natura	Name of area	Category
33	GR2450007	KORYFES OROUS GKIONA, CHARADRA REKA, LAZOREMA KAI VATHIA LAKKA*	SPA
34	GR2450008	OROS VARDOUSIA	SPA
35	GR2450009	EVRYTERI PERIOCHI GALAXEIDIOU*	SPA
36	GR2530007	KORINTHIAKOS KOLPOS**	SAC

\* These areas do not include within their boundaries a surface water body of the River Basin District of Western Sterea Ellada

\*\* New additions compared to the 1<sup>st</sup> Update

The table below presents areas protected by national legislation, in particular National Parks, Ecodevelopment Areas and nature conservation areas located within the boundaries of the River Basin District of Western Sterea Ellada (EL04). Compared to the 1st Update, there has been no differentiation.

**Table 4.4-5: Other areas of natural environment protection in the River Basin District of Western Sterea Ellada (EL04)**

No	Name of area
1	ETHNIKO PARKO YGROTOPON AMVRAKIKOU
2	ETHNIKO PARKO LIMNOTHALASSON MESSOLONGIOU-AITOLIKOU, KARO ROU KAI EKVOLON POTAMON ACHELOOU KAI EVINOU KAI NISON ECHINADON
3	ETHNIKO PARKO TZOUMERKON - PERISTERIOU KAI CHARADRAS ARACHTHOU

The following Ramsar sites are also included in the RBD of Western Sterea Ellada (EL04). Compared to the 1st Update, there has been no differentiation.

**Table 4.4-6: Ramsar sites in the River Basin District of Western Sterea Ellada (EL04)**

No	Name of area
1	AMVRAKIKOS KOLPOS
2	LIMNOTHALASSON MESSOLONGIOU-AITOLIKOU

Finally, 9 small island wetlands are included in the RBD of Western Sterea Ellada (EL04), as presented in the table below. Compared to the 1st Update, there has been no differentiation.

**Table 4.4-7: Small island wetlands in the River Basin District of Western Sterea Ellada (EL04)**

No	Name	Code	Island	Type	Location
1	ELOS KOILADAS KOMILIOU	Y224LEF007	Lefkada	Marsh	Inland
2	EKVOLI RYAKA KAKO LANGADI	Y224LEF008	Lefkada	Exposure	Coastal
3	EKVOLI REMATOS CHEIMARROU -VASILIKI-	Y224LEF010	Lefkada	Exposure	Coastal
4	LIMNI MARANTOCHORIOU	Y224LEF011	Lefkada	Lake	Inland
5	ELOS AKONI	Y224MGN001	Meganissi	Marsh	Coastal
6	ELOS ELIA	Y224MGN002	Meganissi	Marsh	Coastal

No	Name	Code	Island	Type	Location
7	ELOS GRILIA	Y224MGN003	Meganissi	Marsh	Coastal
8	ELOS TRIZONION	Y245TRI001	Trisonia	Marsh	Inland
9	LIMNOTHALASSA AGIOU IOANNI	Y245AIO001	Saint John	Lagoon	Coastal

- Areas designated for the **protection of aquatic species of economic importance**:

Taking into account the size and type of existing aquaculture facilities, the list of Protected Areas of Aquatic Species of Economic Importance in the RBD of Western Sterea Ellada (EL04) was established. Compared to the 1<sup>st</sup> Update, there has been no differentiation. The table below shows these areas and the water bodies to which they belong to.

**Table 4.4-8: Designated protected areas of aquatic species of economic importance in the River Basin District of Western Sterea Ellada and their respective WB**

No	Area of economic importance for aquatic species	Description of the Area	Corresponding WB code	Name of the corresponding WB
1	Megalopotami	Stream of about 5.9km long, running from west to east, ending into Limni Tavropos (River Basin of Acheloos)	EL0415R000212832N	MEGALOP.
2	Rema Karitsiotis	A 7.9km long stream running from west to east that flows into Lake Tavropou (River Basin of Acheloos)	EL0415R000212731N	KARITSIOTIS R.
3	Ekvoles Achelouou	The entire area of the Acheloos Delta (River Basin of Acheloos)	EL0415T0003N	EKVOLES ACHELOOU
4	Limni Trichonida	LIMNI TRICHONIDA	EL0415L000000004N	LIMNI TRICHONIDA
5	Limnothalassa Mesolongiou (Kentriki, Kleisova)	The total area of the Messolonghi lagoon (extensive aquaculture) (Acheloos and Evinos river basins)	EL0415T0002N	LIMNOTHALASSA MESOLONGIOU (KENTRIKI - KLEISOVA) (CENTRAL, CLISSOVA)
6	Korinthiakos kolpos - Aktes Aitolokarnanias	The northern coast of the Corinthian Gulf in the prefecture of Aitolokarnania	EL0421C0001N	KORINTHIAKOS KOLPOS - AKTES AITOLOKARNANIAS
7	Anat. Esoteriko archipelagos Ioniou (Echinades)	The eastern inland archipelago of the Ionian Sea - Echinades Islands area (coast of Central Greece)	EL0415C0003N	ANAT. ESOTERIKO ARCHELAGOS IONIOU (ECHINADES)
8	Dyt. Esoteriko archipelagos Ioniou (Echinades) kai Ormos Vasilikis	The western inland archipelago of the Ionian Sea - area of the Echinades Islands and Vasiliki Bay (coast of Central Greece)	EL0444C0004N	WEST. INNER IONIAN ARCHELAGO (ECHINADES) AND BASILICA BAY
9	Notios Amvrakikos kolpos	The southern part of the Amvrakikos Gulf	EL0415C0009N	NOTIOS AMVRAKIKOS KOLPOS

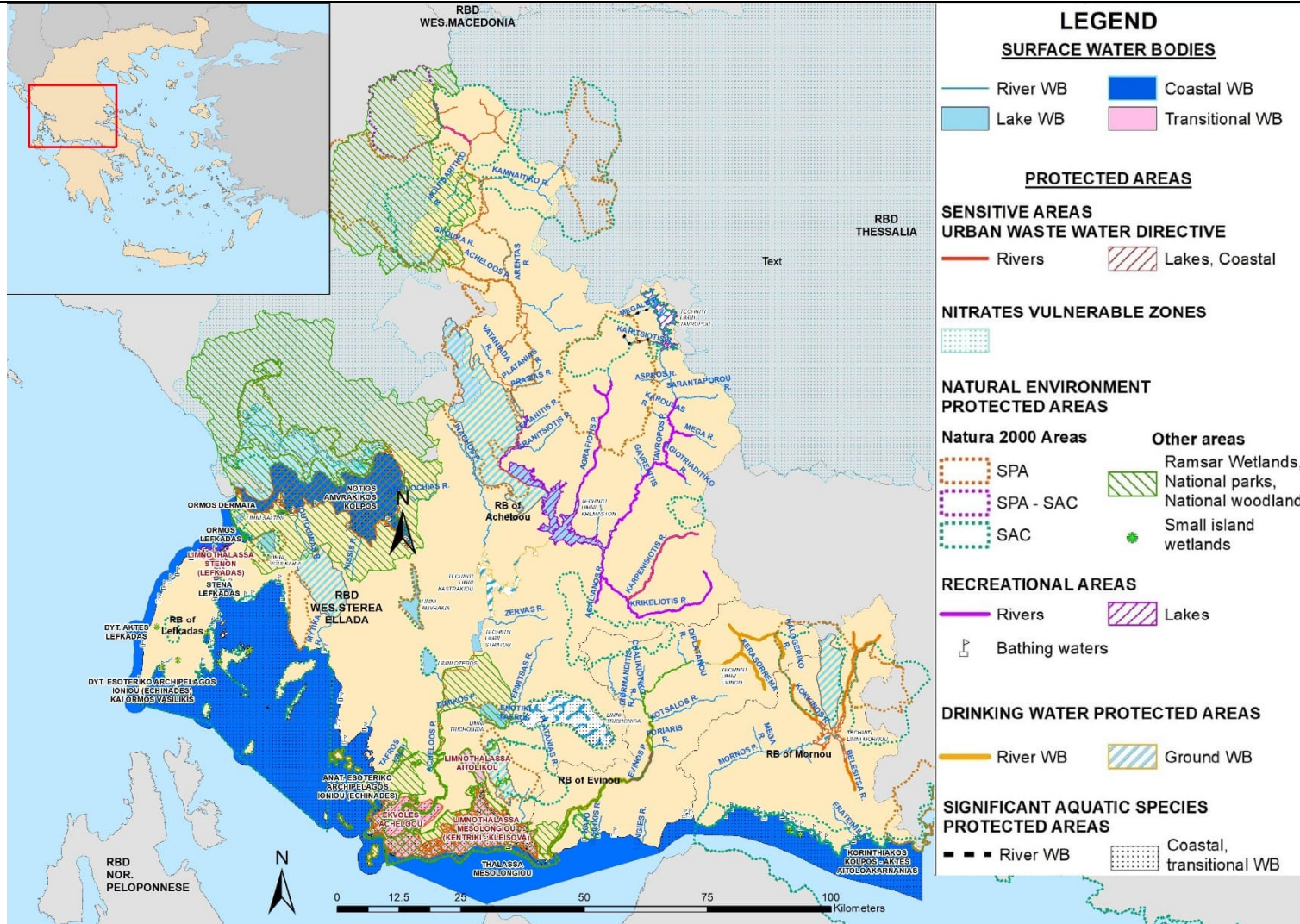
Limni Trichonida is a special case as it was included in the list of protected areas of aquatic species of economic importance, not because of the existence of aquaculture facilities but because of its importance for the fishing of Atherina. In particular, in the PD 99/2003 "Fishing in inland waters" (Government Gazette A' 94/22.04.2003), in Article 1, paragraph 2, rules and conditions for fishing for Atherina in LIMNI TRICHONIDA are defined.

In addition, 2 Presidential Decrees have been issued on Organised Aquaculture Development Areas. The first is the PD (Government Gazette D' 220/2021) "Characterization and delineation of the Area of Organized Development of Aquaculture in marine areas of the Regional Units of Ithaca and Aitolokarnania and environmental approval of this plan", for the marine areas of the Island of Okias and the Coast of Lofos Koutsilari in the south-western area of the EKVOLES ACHELOOU, of the Regional Unit of Aitolokarnania, with a total marine area of 2.040,80 ha. The second is the PD "Characterization and delineation of the Area of Organized Development of Aquaculture in marine areas of the west coast of Aitolokarnania and the Echinadon Islands complex and environmental approval of this plan", marine areas of the west coast of Aitolokarnania and the

Echinadon Islands complex of the Regions of Western Greece and Ionian Islands, respectively, with a total marine area of 15.263,67 ha.

The protected areas for aquatic species of economic importance are related to Directive 2006/44/EC on the "quality of fresh waters needing protection or improvement in order to support fish life" and Directive 2006/113/EC on the "water quality required for shellfish".

The map below shows graphically all the protected areas of the River Basin District of Western Sterea Greece (EL04), as mentioned above.



Map 4.4-1: Protected areas in the River Basin District of Western Sterea Ellada (EL04)

## 5 PRESSURES AND IMPACTS

Anthropogenic pressures on water bodies are defined as all human activities that affect or may affect the water bodies of the area in which they are developed. These pressures are identified as significant if they are a cause for the water bodies to be at risk of not achieving the environmental objectives in accordance to the methodology described in EU Guidance Document No 03.

The following are the results of the anthropogenic pressures analysis carried out for the purposes of the 2<sup>nd</sup> Update of the RBMP.

### 5.1 Point sources of pollution

This section includes all point sources of pollution that produce conventional pollutants (BOD<sub>5</sub>, N, P) and have been considered in the Document: 'Analysis of anthropogenic pressures and their effects on surface and groundwater bodies, as 'pressures'. The list of categories of such pressures includes:

- Wastewater Treatment Plants (WWTP)
- Discharges of sewerage networks to a natural recipient
- Large hotel units
- Industrial sites
- Livestock farms
- Fisheries - Aquaculture
- Runoff from landfills and landfill sites

The total annual amounts of pollutant loads of BOD<sub>5</sub>, N and P, potentially discharged to surface and groundwater bodies in the study area are presented per RB and point pressure category in the following Figure.

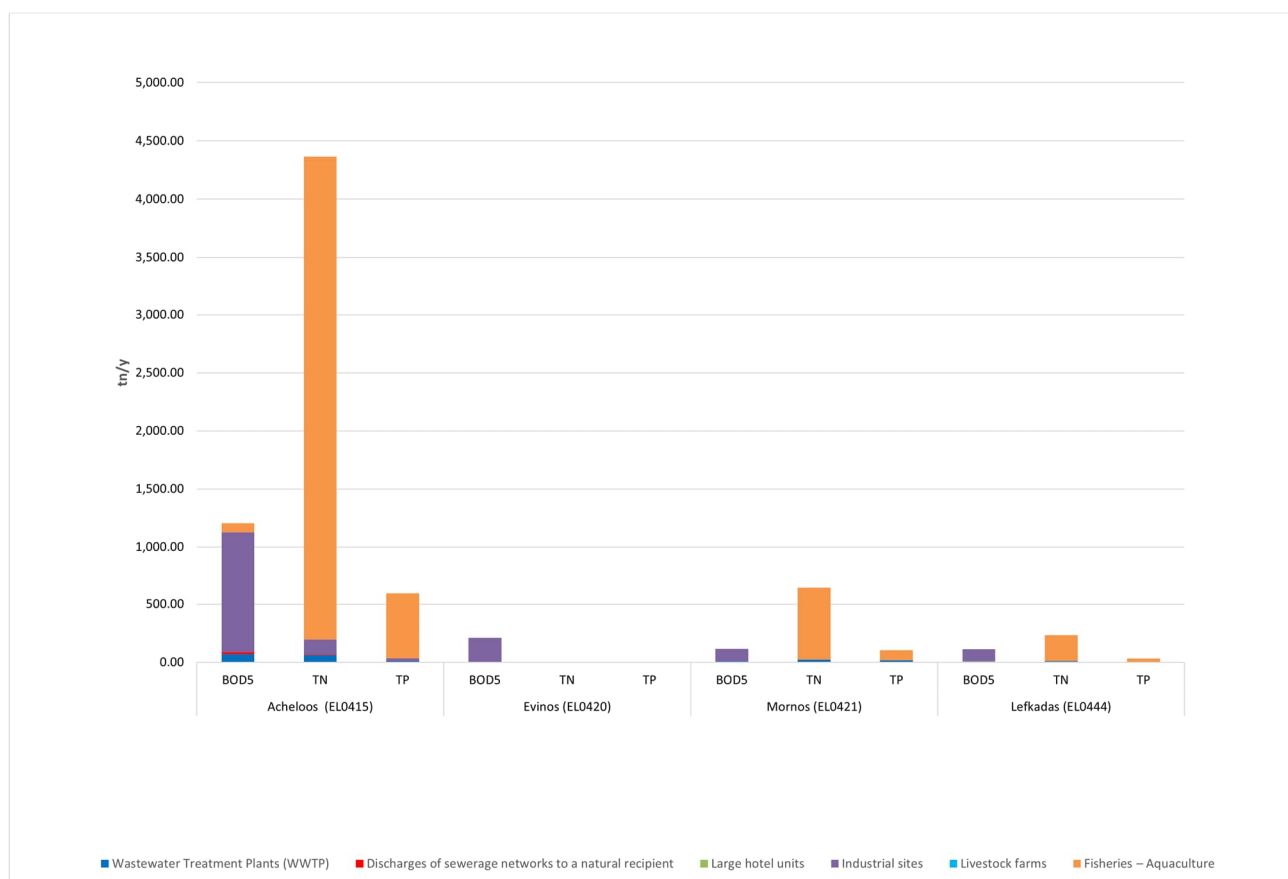


Figure 5.1-1: Total annual loads of BOD<sub>5</sub>, N and P produced in river basins (EL0415), (EL0420), (EL0421) and (EL0444), from point sources of pollution

The tables below present the total annual loads estimated to affect surface systems, resulting from the sum of the individual point pressures, per RB for the River Basin District of Western Sterea Ellada (EL04).

Table 5.1-1: Total annual loads of BOD<sub>5</sub>, N and P produced by point sources of pollution in the RB of Acheloos (EL0415)

POINT SOURCES OF POLLUTION	Annual BOD <sub>5</sub> (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
Wastewater Treatment Plants (WWTP)	70,63	61,69	13,12
Discharges of sewerage networks to a natural recipient (not connected to WWTP)	17,27	5,15	1,10
Industrial sites	1.039,26	129,99	19,76
Aquaculture - Fish farms	77,32	4.166,69	567,73
<b>TOTAL</b>	<b>1.204,48</b>	<b>4.363,52</b>	<b>601,71</b>

Table 5.1-2: Total annual loads of BOD<sub>5</sub>, N and P produced by point sources of pollution in the RB of Evinos (EL0420)

POINT SOURCES OF POLLUTION	Annual BOD <sub>5</sub> (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
Wastewater Treatment Plants (WWTP)	2,77	4,40	0,92
Industrial sites	207,02	0,00	0,00
<b>TOTAL</b>	<b>209,79</b>	<b>4,40</b>	<b>0,92</b>

Table 5.1-3: Total annual loads of BOD<sub>5</sub>, N and P produced by point sources of pollution in the RB of Mornos (EL0421)

POINT SOURCES OF POLLUTION	Annual BOD <sub>5</sub> (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
Wastewater Treatment Plants (WWTP)	8,43	22,11	17,88
Large hotel units	0,20	0,08	0,07
Industrial sites	106,85	0,54	0,28
Aquaculture - Fish farms	0,00	628,30	85,53
<b>TOTAL</b>	<b>115,48</b>	<b>651,04</b>	<b>103,76</b>

Table 5.1-4: Total annual loads of BOD<sub>5</sub>, N and P produced by point sources of pollution in the RB of Lefkadas (EL0444)

POINT SOURCES OF POLLUTION	Annual BOD <sub>5</sub> (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
Wastewater Treatment Plants (WWTP)	7,58	8,52	2,19
Large hotel units	0,28	0,11	0,09
Industrial sites	105,06	2,85	0,70
Aquaculture - Fish farms	0,00	221,70	30,18
<b>TOTAL</b>	<b>112,91</b>	<b>233,17</b>	<b>33,16</b>

## 5.2 Diffuse sources of pollution

All diffuse sources of pollution associated with conventional pollutants (BOD<sub>5</sub>, N, P) are included. The list of categories of these pressures includes:

- Agricultural activities
- Wastewater that does not end up in a WWTP
- Livestock farming (pastoral)
- Contamination of water from other sources

The total annual quantities of pollutant loads of BOD<sub>5</sub>, N and P generated by diffuse sources of pollution in the study area, are presented per RB and diffuse pressure category in the following Figure.

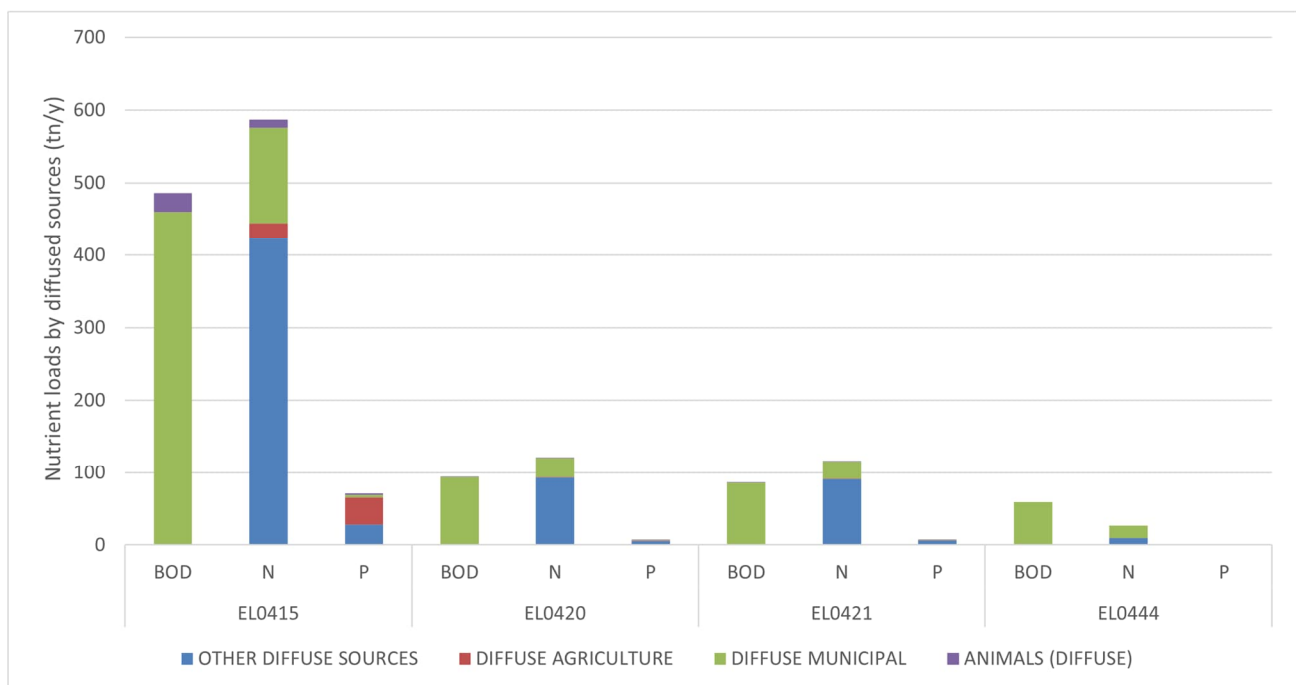


Figure 5.2-1: Total annual surface loads of BOD<sub>5</sub>, N and P in river basins (EL0415), (EL0420), (EL0421) and (EL0444) from diffuse sources of pollution

The tables below present the total annual loads potentially discharged to surface water bodies resulting from individual diffuse pressures, per RB for the River Basin District of Western Sterea Ellada (EL 04).

Table 5.2-1: Total annual loads of BOD<sub>5</sub>, N and P potentially discharged from diffuse sources of pollution in the surface water bodies of the RB of Acheloos (EL0415)

LAND USE	Annual BOD <sub>5</sub> (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
URBAN	460,18	131,48	3,54
AGRICULTURE	0,00	21,59	37,62

LIVESTOCK	25,73	10,71	2,21
OTHER SOURCES	0,00	423,15	27,84
<b>TOTAL</b>	<b>485,91</b>	<b>586,93</b>	<b>71,20</b>

Table 5.2-2: Total annual loads of BOD<sub>5</sub>, N and P potentially discharged from diffuse sources of pollution in the surface water bodies of the RB of Evinos (EL0420)

LAND USE	Annual BOD (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
URBAN	93,87	26,82	0,67
AGRICULTURE	0,00	0,46	0,63
LIVESTOCK	0,22	0,19	0,06
OTHER SOURCES	0,00	93,33	5,77
<b>TOTAL</b>	<b>94,09</b>	<b>120,80</b>	<b>7,13</b>

Table 5.2-3: Total annual loads of BOD<sub>5</sub>, N and P potentially discharged from diffuse sources of pollution in the surface water bodies of the RB of Mornos (EL0421)

LAND USE	Annual BOD (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
URBAN	85,74	24,50	0,63
AGRICULTURE	0,00	0,13	0,20
LIVESTOCK	0,07	0,06	0,02
OTHER SOURCES	0,00	91,39	6,01
<b>TOTAL</b>	<b>85,81</b>	<b>116,08</b>	<b>6,86</b>

Table 5.2-4: Total annual loads of BOD<sub>5</sub>, N and P potentially discharged from diffuse sources of pollution into the surface water bodies of the RB of Lefkadas (EL0444)

LAND USE	Annual BOD (tonnes/year)	Annual N (tonnes/year)	Annual P (tonnes/year)
URBAN	59,46	16,99	0,53
AGRICULTURE	0,00	0,02	0,02
LIVESTOCK	0,00	0,00	0,00
OTHER SOURCES	0,00	9,61	0,62
<b>TOTAL</b>	<b>59,46</b>	<b>26,62</b>	<b>1,17</b>

### 5.3 Hydromorphological pressures

Hydromorphological pressures caused by engineering works or other anthropogenic interventions on surface water bodies are classified as Negligible, Low, Moderate, Intense, and Significant, depending on the magnitude of the pressure they are subjected to. It is noted that WB with Intense and Significant hydromorphological alteration were further considered for designation as a Heavily Modified WB.

The assessment of hydromorphological alterations in surface water bodies in the River Basin District of Western Sterea Ellada (EL04) is presented in the following tables per RB. It should be clarified that the hydromorphological interventions in artificial water bodies essentially are related to interventions resulting from the objectives these bodies serve and are not included in these tables.

Also, it should be noted that in the framework of the 2<sup>nd</sup> Update of the of the RBMP, the need to re-delineate the boundaries of the transitional water body "EKVOLES ACHELOOU" (EL0415T0003N) emerged, while it is expected that the GDW will implement a relevant action for all the transitional water bodies of the country. In the 2<sup>nd</sup> Update of the RBMP, the above transitional water body was not assessed for hydromorphological alteration and were not considered for designation as HMWB.

**Table 5.3-1: Assessment of hydromorphological pressures/alterations of the river, lake and transitional water bodies in the RB of Acheloos of the RBD of Western Sterea Ellada (EL04)**

WB code	Name of WB	Length (km) or area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
EL0415L000000004N	LIMNI TRICHONIDA	96,52	Water Water abstraction, intensive uses	Low
EL0415L000000005N	LIMNI LYSIMACHIA	13,04	Water abstraction, intensive uses	Low
EL0415L000000006N	LIMNI OZEROS	9,39	Water abstraction, intensive uses	Moderate
EL0415L000000008N	LIMNI AMVRAKIA	14,53	Intensive uses	Low
EL0415L000000009N	LIMNI VOULKARIA	9,13	Water abstraction, intensive uses	Moderate
EL0415R000000008N	PLATANIAS R.	8,59	Channel straightening, Transversal structure	Moderate
EL0415R000101001H	AGRILIAS R. 1	4,71	Channel straightening, Transversal structure	Intense
EL0415R000100096N	AGRILIAS R. 2	4,58	No intervention	Negligible
EL0415R000200003N	ACHELOOS P. 2	17,19	Water abstraction from Stratos dam, Channel	Moderate

WB code	Name of WB	Length (km) or area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
			straightening, Transversal structure	
EL0415R000200004N	ACHELOOS P. 3	7,74	Water abstraction from Stratos dam	Low
EL0415R000200009N	ACHELOOS P. 4	11,96	Water abstraction from Stratos dam, Channel straightening, Transversal structure	Moderate
EL0415R000200011H	ACHELOOS P. 5	9,91	Downstream of. Stratos dam, Diversion of flow, Channel straightening	Significant
EL0415R000200039N	ACHELOOS P. 6	22,47	Channel straightening, Transversal structure	Low
EL0415R000200044N	ACHELOOS P. 7	10,59	Transversal structure	Low
EL0415R000200049N	ACHELOOS P. 8	16,99	Channel straightening-Transversal structure	Low
EL0415R000200052N	ACHELOOS P. 9	18,26	Channel straightening-Transversal structure	Low
EL0415R000200054N	ACHELOOS P. 10	19,35	Channel straightening-Transversal structure	Low
EL0415R000200058N	ACHELOOS P. 11	7,26	Channel straightening-Transversal structure	Low
EL0415R000200059N	ACHELOOS P. 12	29,26	Channel straightening-	Low

WB code	Name of WB	Length (km) or area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
			Transversal structure	
EL0415R000200060N	ACHELOOS P. 13	9,55	Transversal structure	Low
EL0415R000200062N	ACHELOOS P. 14	2,37	Transversal structure	Moderate
EL0415R000201002N	ACHELOOS P. 1	20,59	Water abstraction from Stratos dam, Channel straightening	Intense
EL0415R000202005H	DIMIKOS P.	11,11	Channel straightening-Transversal structure	Intense
EL0415R000202007H	ENOTIKI TAFROS	2,75	Channel straightening-Transversal structure	Intense
EL0415R000202106N	ERMITSAS R.	24,14	Channel straightening-Transversal structure	Moderate
EL0415R000204010H	TAFROS YPERCHEILISIS OZEROU	3,05	Water abstraction, Channel straightening-Transversal structure	Intense
EL0415R000206012N	ZERVAS R.	16,32	Transversal structure	Low
EL0415R000208013N	INACHOS P. 1	10,61	Channel straightening-Transversal structure	Moderate
EL0415R000208014N	INACHOS P. 2	25,54	Channel straightening-Transversal structure	Low
EL0415R000210015N	KRIKELIOTIS R. 1	22,20	Transversal structure	Low
EL0415R000210019N	KRIKELIOTIS R. 2	5,12	Transversal structure	Low

WB code	Name of WB	Length (km) or area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
EL0415R000210020N	KRIKELIOTIS R. 3	13,28	Transversal structure	Low
EL0415R000210116N	KORIKISTIANO R.	6,12	Transversal structure	Low
EL0415R000210217N	KARPENISIOTIS R. 1	15,46	Transversal structure	Low
EL0415R000210218N	KARPENISIOTIS R. 2	9,27	Channel straightening- Transversal structure	Low
EL0415R000212021N	TAVROPOS P. 1	39,80	Water abstraction from Tavropos dam, Transversal structure	Low
EL0415R000212029H	TAVROPOS P. 2	12,20	Downstream οφ. Tavropos dam	Intense
EL0415R000212122N	GAVRENITIS	5,13	Transversal structure	Low
EL0415R000212223N	AGIOTRIADITIKO R.	7,70	Transversal structure	Low
EL0415R000212324N	TAVROPOS P. - PARAPOTAMOS MEGA R. 1	7,69	Transversal structure	Low
EL0415R000212325N	TAVROPOS P. - PARAPOTAMOS MEGA 2	3,10	Transversal structure	Low
EL0415R000212426N	KAROULAS R.	4,14	No intervention	Negligible
EL0415R000212527N	SARANTAPOROU R. 1	5,64	Transversal structure	Low
EL0415R000212528N	SARANTAPOROU R. 2	5,06	Transversal structure	Low
EL0415R000212630N	ASPROS R.	6,43	Transversal structure	Low
EL0415R000212731N	KARITSIOTIS R.	7,95	Transversal structure	Low
EL0415R000212832N	MEGALO P.	5,94	Transversal structure	Low
EL0415R000214033N	FRANGISTANOREMMA	7,66	Transversal structure	Low
EL0415R000216034N	AGRAFIOTIS P. 1	15,98	Transversal structure	Low
EL0415R000216035N	AGRAFIOTIS P. 2	13,86	Transversal structure	Low

WB code	Name of WB	Length (km) or area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
EL0415R000216036N	AGRAFIOTIS P. 3	3,49	Transversal structure	Low
EL0415R000218037N	GRANITSIOTIS R.	10,88	Transversal structure	Low
EL0415R000220038N	LEPIANITIS R.	5,11	No intervention	Negligible
EL0415R000222040N	PRASIAS R.	7,62	Transversal structure	Low
EL0415R000224041N	ACHELOOS P. - PARAPOTAMOS PLATANIAS R. 1	4,80	Channel straightening- Transversal structure	Low
EL0415R000224042N	ACHELOOS P. - PARAPOTAMOS PLATANIAS R. 2	3,77	Transversal structure	Low
EL0415R000226043N	VATANIADA R.	5,24	Transversal structure	Moderate
EL0415R000228045N	KOUMPOURGIANITIKO R. 1	9,60	Transversal structure	Low
EL0415R000228048N	KOUMPOURGIANITIKO R. 2	8,28	Transversal structure	Low
EL0415R000228146N	KOUMPOURGIANITIKO R. - PARAPOTAMOS PLATANIAS R. 1	3,20	Transversal structure	Low
EL0415R000228147N	KOUMPOURGIANITIKO R. - PARAPOTAMOS PLATANIAS R. 2	3,65	Transversal structure	Low
EL0415R000230050N	ARENTAS R. 1	3,14	No intervention	Negligible
EL0415R000230051N	ARENTAS R. 2	8,15	Transversal structure	Low
EL0415R000232053N	GKOURA R.	5,25	Transversal structure	Low
EL0415R000234055N	VATHYRREVMATOS R.	5,67	Transversal structure	Low
EL0415R000236056N	KAMNAITIKO R.	24,39	Transversal structure	Low
EL0415R000238057N	MOUSARITIKO R.	7,57	Transversal structure	Low
EL0415R000240061N	LEPENITSIS R.	4,67	Transversal structure	Low
EL0415R000301063H	TAFROS VALTI	6,18	Water abstraction, Channel	Intense

WB code	Name of WB	Length (km) or area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
			straightening- Transversal structure	
EL0415R000501064N	XIROPOTAMOS R.	4,70	Channel straightening- Transversal structure	Moderate
EL0415R000701065N	MYTIKA R.	11,17	Channel straightening- Transversal structure	Low
EL0415R000901066N	VOUTOUMIAS R.	8,81	Channel straightening- Transversal structure	Moderate
EL0415R001101067N	NISSIS R.	14,09	Channel straightening- Transversal structure	Low
EL0415R001301068N	AMFILOCHIAS R.	9,92	Channel straightening- Transversal structure	Moderate
EL0415RL00200002H	TECHNITI LIMNI KREMASTON	71,70	Reservoir	Intense
EL0415RL00200003H	TECHNITI LIMNI KASTRAKIOU	26,92	Reservoir	Intense
EL0415RL00200004H	TECHNITI LIMNI STRATOY	7,82	Reservoir	Intense
EL0415RL00212001H	TECHNITI LIMNI TAVROPOY	23,56	Reservoir	Intense
EL0415T0001N	LIMNOTHALASSA AITOLIKOY	21,79	Interventions on the banks	Low
EL0415T0002N	LIMNOTHALASSA MESOLONGIOY (KENTRIKI - KLEISOVA)	270,42	Interventions on the banks	Low
EL0415T0005N	LIMNI SALTINI	1,99	Intensive uses	Low

**Table 5.3-2: Assessment of hydromorphological pressures/alterations of the river, lake and transitional water bodies in the RB of Evinos of the RBD of Western Sterea Ellada (EL04)**

WB code	Name of WB	Length (km) or Area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
EL0420R000200070N	EVINOS P. 2	36,76	Water abstraction from Evinos dam, Channel straightening - cross-sectional works	Moderate
EL0420R000200073N	EVINOS P. 3	26,47	Water abstraction from Evinos dam, Transversal structure	Intense
EL0420R000200078N	EVINOS P. 4	8,50	No intervention	Negligible
EL0420R000200081N	EVINOS P. 5	12,57	No intervention	Negligible
EL0420R000201069N	EVINOS P. 1	9,58	Water abstraction from Evinos dam, Transversal structure	Moderate
EL0420R000202071N	PORIRIS R.	6,40	Channel straightening- Transversal structure	Moderate
EL0420R000204072N	KOTSALOS R.	20,71	Transversal structure	Low
EL0420R000206074N	CHALIKIOTIKO R.	19,00	Transversal structure	Low
EL0420R000208075N	GIDRMANDITIS R.	6,50	Transversal structure	Low
EL0420R000210076N	DIPLATANOU R.	6,51	Transversal structure	Low
EL0420R000212077N	KLINOVITIS R.	3,10	Transversal structure	Low
EL0420R000214079N	EVINOS P. - PARAPOTAMOS KERASORREMA 1	4,76	Transversal structure	Low
EL0420R000214080N	EVINOS P. - PARAPOTAMOS KERASORREMA 2	5,56	No intervention	Negligible
EL0420R000216082N	KALOGERIKO R.	5,81	No intervention	Negligible
EL0420R000301093N	LONGIES R.	5,57	Channel straightening- Transversal structure	Low
EL0420R000501094N	KATO VASILIKIS R.	4,00	Channel straightening- Transversal structure	Moderate
EL0420R0001083N	EVINOS P. 2	2,89	Reservoir	Intense

**Table 5.3-3: Assessment of hydromorphological pressures/alterations of the river, lake and transitional water bodies in the RB of Mornos of the RBD of Western Sterea Ellada (EL04)**

WB code	Name of WB	Length (km) or Area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
EL0421R000200085N	ERATEINIS R.	8,72	Transversal structure	Moderate

WB code	Name of WB	Length (km) or Area (km <sup>2</sup> )	Type of Intervention	Pressure Assessment
EL0421R000200091N	MORNOS P. 2	14,20	Water abstraction from Mornos dam	Intense
EL0421R000201084N	MORNOS P. 3	20,71	Transversal structure	Low
EL0421R000202086N	MORNOS P. 1	24,80	Water abstraction from Mornos dam, Channel straightening- Transversal structure	Moderate
EL0421R000204087N	LIMNITSIANO R.	5,78	No intervention	Negligible
EL0421R000206088N	MORNOS P. - PARAPOTAMOS KERASORREMA	3,95	No intervention	Negligible
EL0421R000208089N	KOKKINOS R.	9,65	Transversal structure	Low
EL0421R000210090N	GRANITSORREMA	4,92	Transversal structure	Low
EL0421R000212092N	BELESITSA R.	6,71	Transversal structure	Low
EL0421R000212092N	P. MORNOS - PARAPOTAMOS MEGA R.	4,30	No intervention	Negligible
EL0421RL00200006H	ERATEINIS R.	14,80	Reservoir	Intense

Table 5.3-4: Assessment of hydromorphological pressures/alterations of the river, lake and transitional water bodies in the RB of Lefkadas of the RBD of Western Sterea Ellada (EL04)

WB code	Name of WB	Length (km) or Extensity (km) <sup>2</sup>	Type of Intervention	Pressure Assessment
EL0444R000101095N	KAROUCHAS P.	2,97	Channel straightening-transversal structure	Moderate
EL0444T0004N	LIMNOTHALASSA STENON (LEFKADAS)	31,17	Interventions on the banks	Moderate

Table 5.3-5: Assessment of hydromorphological pressures/alterations of the coastal water bodies of the RBD of Western Sterea Ellada (EL04)

WB code	Name of WB	Exposure (km) <sup>2</sup>	Type of Intervention	Pressure Assessment
EL0421C0001N	KORINTHIAKOS KOLPOS - AKTES AITOLOAKARNANIAS	326,18	Ports, marinas, fishing shelters, piers, jetties, shore modification, walls, berths, submarine pipeline, fish farms	Low
EL0415C0002N	THALASSA MESOLONGIOU	361,79	Ports, marinas, piers, jetties, walls, piers, embankments, sediment traps, fish farms	Low

WB code	Name of WB	Exposure (km) <sup>2</sup>	Type of Intervention	Pressure Assessment
EL0415C0003N	ANAT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES)	228,43	Ports piers, jetties, walls, berths, embankments, estuary modification, fish farms	Negligible
EL0444C0004N	DYT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES) KAI ORMOS VASILIKIS	875,01	Ports, marinas, fishing shelters, piers, jetties, shore modification, walls, berths, fish farms	Low
EL0444C0005N	DYT. AKTES LEFKADAS	82,24	No interventions	Negligible
EL0444C0006N	ORMOS LEFKADAS	18,96	Piers, jetties, walls, berths	Low
EL0415C0008N	ORMOS DERMATA	23,33	Piers, piers, jetties	Low
EL0415C0009N	NOTIOS AMVRAKIKOS KOLPOS	271,31	Ports, marinas, fishing shelters, piers, jetties, shore modification, walls, berths, fish farms	Low
EL0444C0007H	STENA LEFKADAS	1,98	Marina of Lefkada island, piers, jetties, walls, berths, embankments	Significant

Finally, the above 5-scale for the overall assessment of the intensity of hydromorphological alterations is converted to a 3-scale for the overall assessment of the intensity of pressures for the overall assessment of pressures of all categories per SWB, as follows:

Low (L)	Medium (M)	High (H)
(1) Negligible	(3) Moderate	(4) Intense
(2) Low		(5) Significant

The table below gives an overview of the number and coverage (length for rivers and surface area for the rest of the SWB) of surface water bodies by hydromorphological alteration pressure intensity category, in the whole of the River Basin District of Western Sterea Ellada (EL04).

**Table 5.3-6: Overview of the number and coverage of surface water bodies by hydromorphological alteration pressure intensity category in the River Basin District of Western Sterea Ellada (EL04)**

Pressure intensity	Number of River WB (Rivers-Streams)	Coverage (%)	Number of Reservoirs	Coverage (%)	Number of Lake WB	Coverage (%)
Low	69	71,9	0	0,0	3	87,0
Medium	18	18,8	0	0,0	2	13,0
High	9	9,4	6	100,0	0	0,0

Pressure intensity	Number of Transitional WB (*)	Coverage (%)	Number of Coastal WB	Coverage (%)
Low	3	62,6	8	99,9
Medium	1	6,6	0	0,0
High	1	30,7	1	0,1

*\*The transitional WB EKVOLES ACHELOOU (EL0415T0003N) is not included, for which re-delineation will be implemented.*

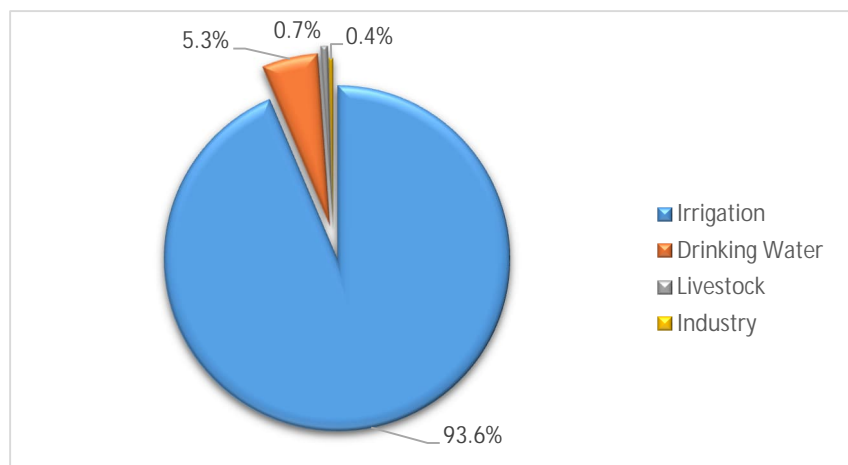
## 5.4 Water abstractions

This section includes data on total annual water abstractions for all activities and uses. The list with the categories of activities and uses considered includes:

- Water supply
- Irrigation
- Livestock
- Industrial water

From each of the above categories, the estimated total water abstraction that is carried out in the River Basin District of Western Sterea Ellada to cover the water needs of the River Basin District, is approximately 535,5 hm<sup>3</sup> per year. Of these, the largest part is intended for irrigation with 93,63%, a significant part for water supply with 5,27%, while the estimated abstractions for livestock and industry are much smaller with 0,67% and 0,43% respectively.

The distribution of the various uses of the abstractions implemented for the needs of the River Basin District of Western Sterea Ellada (EL04) is shown in the figure below.



**Figure 5.4-1: Distribution of annual water abstractions in the River Basin District of Western Sterea Ellada (EL04)**

It is noted that the total estimated water abstractions in EL04 are significantly higher as they also include an annual abstraction of approximately 128.5 hm<sup>3</sup> from the Techniti Limni Tavropou, to cover the irrigation and water supply needs of the River basin District of Thessalia (EL08), but also a total annual abstraction of about 425 hm<sup>3</sup> from the Evinos and Mornos reservoirs, which is mainly intended for the water supply of Athens (EL06), but also to meet the water supply and irrigation needs of Eastern Sterea Ellada (EL07). Finally, an abstraction of 4.9 hm<sup>3</sup> per year from EL05 is intended to cover the water supply needs of EL04 (Lefkada island).

Taking into account the above, the estimated total water abstraction in the River Basin District of Western Sterea Ellada (EL04) amounts to approximately 1089.1 hm<sup>3</sup> per year. Of these, it is estimated that approximately 87% are related to abstractions from surface water bodies and approximately 13% from groundwater bodies.

The total annual water abstractions for all activities and uses, per RB of the River Basin District of Western Sterea Ellada (EL04) are presented below.

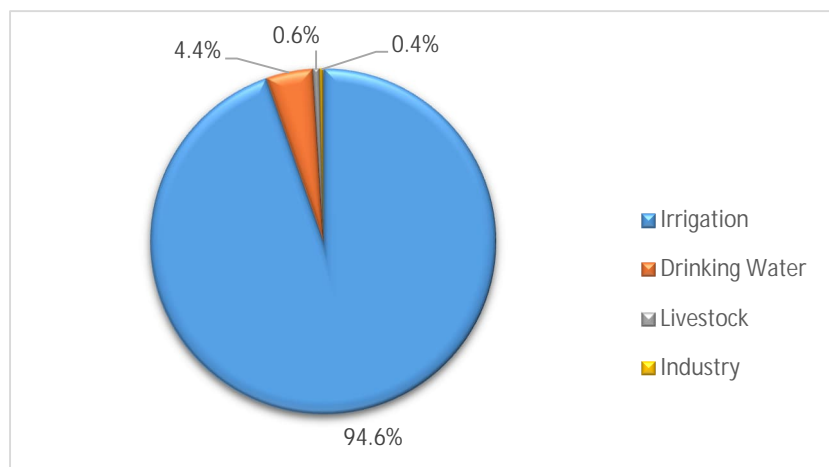
### River Basin of Acheloos (EL0415)

In the Acheloos River Basin the total estimated abstraction is 624,7 hm<sup>3</sup>, of which 496.2 hm<sup>3</sup> are for covering the needs within the RB of Acheloos, while approximately 128.5 hm<sup>3</sup> are abstracted annually from the Techniti Limni Tavropou to meet the irrigation and water supply needs of EL08. In terms of meeting needs within the RB of Acheloos, the largest part is intended for irrigation (469,6 hm<sup>3</sup>), a significant part for water supply (21,7 hm<sup>3</sup>), while the estimated abstraction for livestock (3,1 hm<sup>3</sup>) and industry (1,7 hm<sup>3</sup>) is much lower.

**Table 5.4-1: Total abstractions per use in the Acheloos river basin (EL0415)**

Use	Abstraction to cover the needs of EL04 (hm <sup>3</sup> )	Abstraction to cover the needs outside EL04 (hm <sup>3</sup> )
Abstraction for Irrigation for the areas irrigated in 2020	469,6	105,5 (*)
Abstraction for water supply	21,7	23,0 (*)
Abstraction for Livestock	3,1	-
Abstraction for Industry	1,7	-
<b>Total</b>	<b>496,2</b>	<b>128,5 (*)</b>

(\*) Refers to the abstraction from Techniti Limni Tavropou to EL08.



**Figure 5.4-2: Distribution of annual water abstractions in the RB of Acheloos (EL0415)**

The abstractions to cover overall needs within the Acheloos RB are implemented approximately 75% from SWB and 25% from GWB.

### River Basin of Evinos (EL0420)

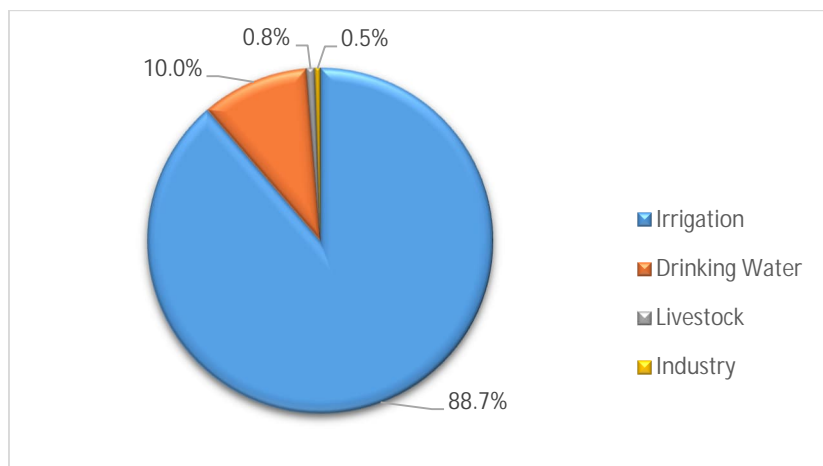
In the Evinos River Basin the total estimated abstraction is 268,0 hm<sup>3</sup>, of which 25,9 hm<sup>3</sup> are for covering the needs within the RB of Evinos, while approximately 242,1 hm<sup>3</sup> are abstracted annually from the Techniti Limni Evinou and Techniti Limni Mornou to meet the water supply needs of EL06, as well as the irrigation and water

supply needs of EL07. In terms of meeting needs within the RB of Evinos, the largest part is for irrigation (23,0 hm<sup>3</sup>), a significant part for water supply (2,6 hm<sup>3</sup>), while the estimated abstractions for livestock (0,2 hm<sup>3</sup>) and industry (0,1 hm<sup>3</sup>) are much lower.

**Table 5.4-2: Total abstractions per use in the Evinos river basin (EL0420)**

Use	Abstraction to cover the needs of EL04 (hm <sup>3</sup> )	Abstraction to cover the needs outside EL04 (hm <sup>3</sup> )
Abstraction for Irrigation for the areas irrigated in 2020	23,0	-
Abstraction for water supply	2,6	242,1 (*)
Abstraction for Livestock	0,2	-
Abstraction for Industry	0,1	-
<b>Total</b>	<b>25,9</b>	<b>242,1</b>

(\*) Refers to the abstraction from Techniti Limni Evinou and Techniti Limni Mornou for the water supply needs of Athens (EL06), but also for the water supply and irrigation needs of EL07.



**Figure 5.4-3: Distribution of annual water abstractions in the Evinos RB (EL0420)**

The abstractions to cover overall needs within the Evinos RB are implemented approximately 56% from SWB and 44% from GWB.

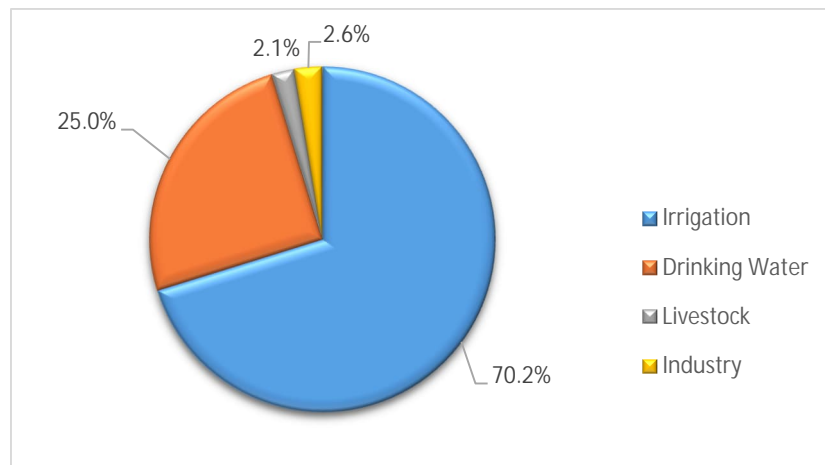
### River Basin of Mornos (EL0421)

In the Mornos River Basin the total estimated abstraction is 195,4 hm<sup>3</sup>, of which 12,5hm<sup>3</sup> are for covering the needs within the RB of Mornos, while approximately 425hm<sup>3</sup> are abstracted annually from the Techniti Limni Mornou (of which 242,1 hm<sup>3</sup> are abstracted from Techniti Limni Evinou) to meet the water supply needs of EL06, as well as the irrigation and water supply needs of EL07. In terms of meeting needs within the RB of Mornos, the largest part is for irrigation (8,8 hm<sup>3</sup>), a fairly significant part (proportionally larger than in the Acheloos and Evinos RBs) for water supply (3,1 hm<sup>3</sup>), while the estimated abstractions for livestock (0,3 hm<sup>3</sup>) and industry (0,3 hm<sup>3</sup>).

**Table 5.4-3: Total abstractions by use in the Mornos river basin (EL0421)**

Use	Abstraction to cover the needs of EL04 (hm <sup>3</sup> )	Abstraction to cover the needs outside EL04 (hm <sup>3</sup> )
Abstraction for Irrigation for the areas irrigated in 2020	8,8	-
Abstraction for water supply	3,1	425,0 (*)
Abstraction for Livestock	0,3	-
Abstraction for Industry	0,3	-
<b>Total</b>	<b>12,5</b>	<b>425,0</b>

(\*) Refers to the abstraction from Techniti Limni Mornou for the water supply needs of Athens (EL06), but also for the water supply and irrigation needs of EL07. It is noted that a quantity of approximately 242,1 hm<sup>3</sup> is transferred to Techniti Limni Mornou from Techniti Limni Evinou.



**Figure 5.4-4: Distribution of annual water abstractions in the RB of Mornou (EL0421)**

The abstractions to cover overall needs within the Mornou RB are implemented approximately 11% from SWB and 89% from GWB.

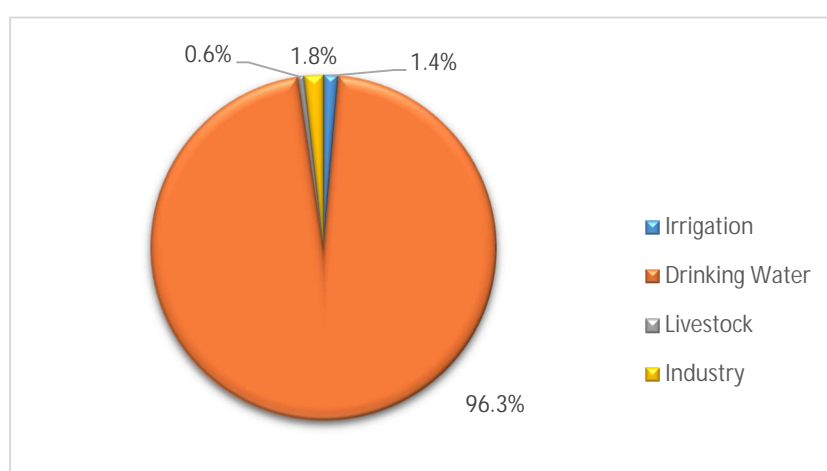
#### River Basin of Lefkadas (EL0444)

In the Lefkadas River Basin the total estimated abstraction is 5,8 hm<sup>3</sup>. Of this, the largest part, in contrast to the other RBs, is intended for water supply (5,6 hm<sup>3</sup>), highlighting the predominantly tourist and urban character of Lefkada. However, the largest part of the water demand of Lefkadas ( $\approx 4.9$  hm<sup>3</sup>) is covered by the Ag. Georgios spring near the Louros river (EL05). Therefore, in the RB of Lefkadas the total estimated abstraction is 0,9 hm<sup>3</sup>, of which the largest part is for water supply (0,7 hm<sup>3</sup>). The estimated abstractions for irrigation (0.1 hm<sup>3</sup>) and industry (0.1 hm<sup>3</sup>) are much lower, while the estimated abstractions for livestock production (0.03 hm<sup>3</sup>) are close to zero.

**Table 5.4-4: Total abstractions by use in the Lefkadas river basin (EL0444)**

Use	Abstraction to cover the needs of EL04 (hm <sup>3</sup> )	Abstraction from another RB to cover the needs of EL04 (hm <sup>3</sup> )
Abstraction for Irrigation for the areas irrigated in 2020	0,1	-
Abstraction for water supply	0,7	4,9 (*)
Abstraction for Livestock	0,1	-
Abstraction for Industry	0,03	-
<b>Total</b>	<b>0,9</b>	<b>4,9</b>

(\*) Refers to the abstraction from by the Ag. Georgios spring near the Louros river (EL05), for the water supply demand of Lefkadas (≈4.9 hm<sup>3</sup>).



**Figure 5.4-5: Distribution of annual water abstractions in the Lefkadas RB (EL0444)**

The abstractions to cover overall needs within the Lefkadas RB are implemented 100% from SWB.

## 5.5 Other pressures

Other pressures include briefly:

- **Run-off from extractive activities (mines, mining)**  
 In the area of the River Basin District of Western Sterea Ellada (EL04), four (4) quarries of mining materials are located in the Acheloos RB (EL0415), namely one (1) gypsum quarry and three (3) aggregate quarries and four (4) sites of mining activities (mines) in the Mornos RB (EL0421). These mining activity sites are shown to be associated with surface water bodies such as Limni Amvrakia, Limni Voulkaria, SWB of Acheloos, Mornos as well as the Meleşista stream.
- **Desalination units**  
 There are no desalination plants within the River Basin District of Western Sterea Ellada (EL04).
- **Ports - Marinas - Navigation**

In the area of the River Basin District of Western Sterea Ellada (EL04), in the River Basin of Lefkadas (EL0444), apart from ports of local importance and marinas, there is one (1) port of major interest, the port of Lefkadas

- **Artificial groundwater recharge**

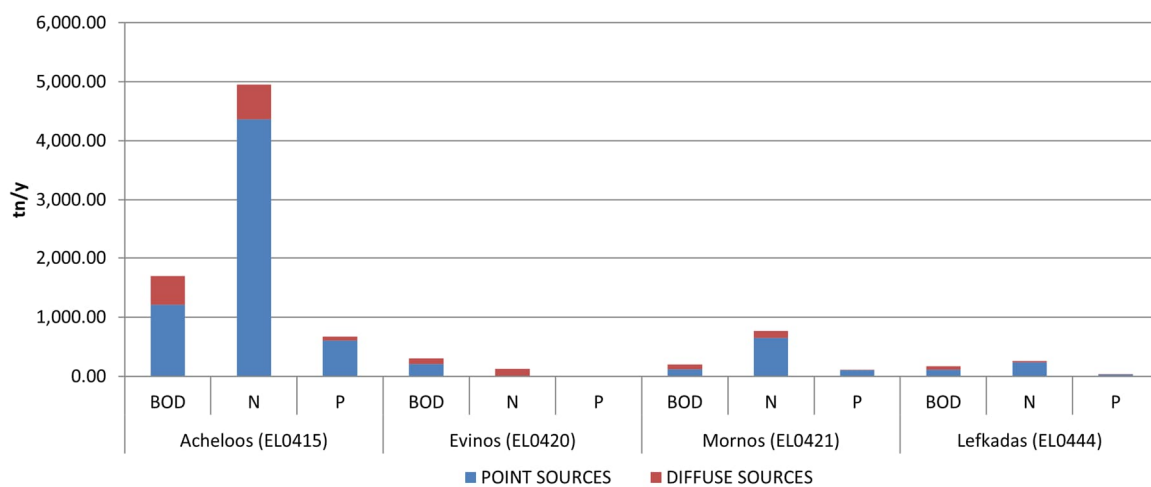
In the area of the River Basin District of Western Sterea Ellada (EL04) no study has been carried out for the implementation of an artificial recharge program. The possibility of implementing an artificial recharge program could be considered in the groundwater body of SYSTIMA ANOIXIATIKOU - LOUTROU AMFILOCHIAS ( EL0400040) where water recharge of the granular coastal alluvial aquifer is observed due to local overpumping.

- **Groundwater alteration of water level or groundwater quantity due to underground operations or the construction of large underground works.**

There are no changes in groundwater levels and water quantity in the River Basin District of Western Sterea Ellada due to underground exploitation or the construction of large underground works.

## 5.6 Pressure aggregates

From the individual pollution sources of point, diffuse and other types of anthropogenic pressures, the total final annual amounts of BOD<sub>5</sub>, N and P pollutant loads generated in the study area are derived, as shown in the figure below.



**Figure 5.6-1: Total annual surface loads of BOD<sub>5</sub>, N and P in river basins (EL0415), (EL0420), (EL0421) and (EL0444) from all sources of pollution**

The total annual surface loads resulting from the sum of the individual diffuse, point and other anthropogenic pressures are presented below, per RB of the RBD of Western Sterea Ellada (EL04).

**Table 5.6-1: Total annual surface loads of BOD<sub>5</sub>, N and P produced by all pollution sources in the RB of Acheloos (EL0415)**

SOURCE OF POLLUTION	BOD <sub>5</sub> (tonnes/year)	N (tonnes/year)	P (tonnes/year)
---------------------	--------------------------------	-----------------	-----------------

<b>DIFFUSE</b>	<b>485,91</b>	<b>586,93</b>	<b>71,20</b>
<b>POINT</b>	<b>1.204,48</b>	<b>4.363,52</b>	<b>601,71</b>
<b>TOTAL</b>	<b>1.690,39</b>	<b>4.950,45</b>	<b>672,91</b>

Table 5.6-2: Total annual surface loads of BOD<sub>5</sub>, N and P produced by all pollution sources in the RB of Evinos (EL0420)

<b>SOURCE OF POLLUTION</b>	<b>BOD<sub>5</sub> (tonnes/year)</b>	<b>N (tonnes/year)</b>	<b>P (tonnes/year)</b>
<b>DIFFUSE</b>	<b>94,09</b>	<b>120,80</b>	<b>7,13</b>
<b>POINT</b>	<b>209,79</b>	<b>4,40</b>	<b>0,92</b>
<b>TOTAL</b>	<b>303,88</b>	<b>125,19</b>	<b>8,05</b>

Table 5.6-3: Total annual surface loads of BOD<sub>5</sub>, N and P produced by all pollution sources in the RB of Mornos (EL0421)

<b>SOURCE OF POLLUTION</b>	<b>BOD<sub>5</sub> (tonnes/year)</b>	<b>N (tonnes/year)</b>	<b>P (tonnes/year)</b>
<b>DIFFUSE</b>	<b>85,81</b>	<b>116,08</b>	<b>6,86</b>
<b>POINT</b>	<b>115,48</b>	<b>651,04</b>	<b>103,76</b>
<b>TOTAL</b>	<b>201,29</b>	<b>767,12</b>	<b>110,62</b>

Table 5.6-4: Total annual surface loads of BOD<sub>5</sub>, N and P produced by all pollution sources in the RB of Lefkadas (EL0444)

<b>SOURCE OF POLLUTION</b>	<b>BOD<sub>5</sub> (tonnes/year)</b>	<b>N (tonnes/year)</b>	<b>P (tonnes/year)</b>
<b>DIFFUSE</b>	<b>59,46</b>	<b>26,62</b>	<b>1,17</b>
<b>POINT</b>	<b>112,91</b>	<b>233,17</b>	<b>33,16</b>
<b>TOTAL</b>	<b>172,37</b>	<b>259,79</b>	<b>34,34</b>

## 5.7 Impact assessment

### 5.7.1 Assessment of the likelihood of achieving the environmental objectives of the Directive in surface water bodies

During the assessment of the impacts and the designation of the water bodies based on the likelihood of achieving the environmental objectives of the WFD, the following are assessed for each water body:

- Intensity of pressure from pollution sources and discharges: high (H), medium (M), low (L)
- The available data and the results of the monitoring program
- Expert judgement, when no data are available.

From the set of criteria, the water bodies of the River Basin District of Western Sterea Ellada (EL04) were ranked according to whether or not they are likely to achieve the environmental objectives of Directive 2000/60/EC.

The diagram and tables below summarise the assessment of the achievement or non-achievement of the objectives of Directive 2000/60/EC per water body category and per RB.

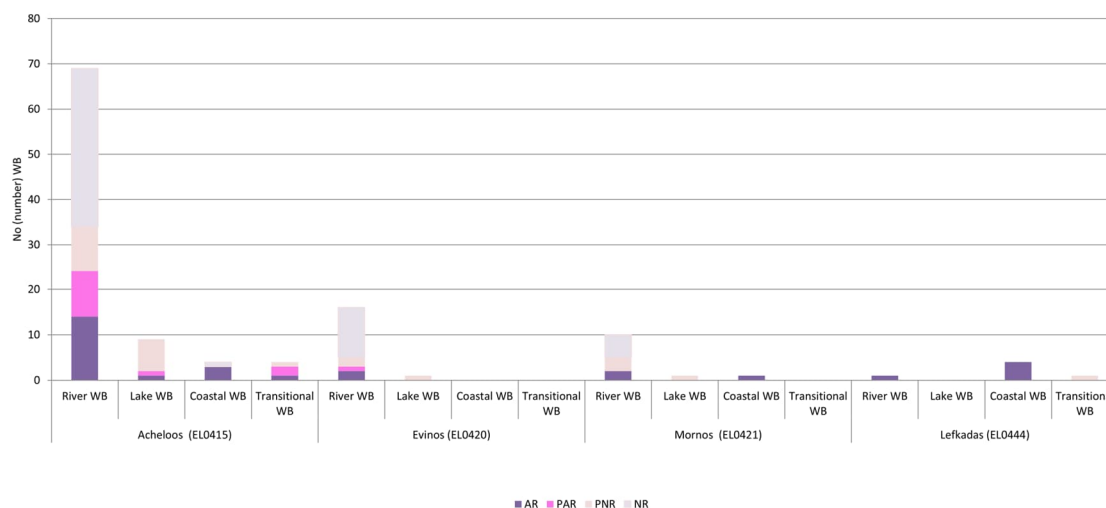


Figure 5.7-1: Assessment of the risk of not achieving the objectives of surface water bodies in River Basins (EL0415), (EL0420), (EL0421) and (EL0444)

Table 5.7-1: Overview of risk assessment of surface water bodies failing to achieve the objectives in the RB of Acheloos (EL0415) - Number of WB

Type of WB	Risk assessment categories*								Total Number of WB
	NR		PNR		PAR		AR		
	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	
<b>Rivers WB</b>	35	50,7%	10	14,5%	10	14,5%	14	20,3%	69
<b>Lakes WB</b>	0	0,0%	7	77,8%	1	11,1%	1	11,1%	9
<b>Coastal WB</b>	1	25,0%	0	0,0%	0	0,0%	3	75,0%	4
<b>Transitional WB</b>	0	0,0%	1	25,0%	2	50,0%	1	25,0%	4
<b>Total</b>	<b>36</b>	<b>41,9%</b>	<b>18</b>	<b>20,9%</b>	<b>13</b>	<b>15,1%</b>	<b>19</b>	<b>22,1%</b>	<b>86</b>

\*As regards the assessment of the risk of not achieving the objectives of WFD, the following categories can be distinguished: at risk (AR), probably at risk (PAR), probably not at risk (PNR), not at risk (NR)

**Table 5.7-2: Overview of risk assessment of surface water bodies failing to achieve the objectives in the RB of Evinos (EL0420) - Number of WB**

Type of WB	Risk assessment categories*								Total Number of WB
	NR		PNR		PAR		AR		
	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	
Rivers WB	11	68,8%	2	12,5%	1	6,3%	2	12,5%	16
Lakes WB	0		1	100,0%	0	0,0%	0	0,0%	1
Coastal WB	0		0		0		0		0
Transitional WB	0		0		0		0		0
<b>Total</b>	<b>11</b>	<b>64,7%</b>	<b>3</b>	<b>17,6%</b>	<b>1</b>	<b>5,9%</b>	<b>2</b>	<b>11,8%</b>	<b>17</b>

*\*As regards the assessment of the risk of not achieving the objectives of WFD, the following categories can be distinguished: at risk (AR), probably at risk (PAR), probably not at risk (PNR), not at risk (NR)*

**Table 5.7-3: Overview of risk assessment of surface water bodies failing to achieve the objectives in the RB of Mornos (EL0421) - Number of WB**

Type of WB	Risk assessment categories*								Total Number of WB
	NR		PNR		PAR		AR		
	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	
Rivers WB	5	50,0%	3	30,0%	0	0,0%	2	20,0%	10
Lakes WB	0		1	100,0%	0		0		1
Coastal WB	0		1	100,0%	0		0		1
Transitional WB	0		0		0		0		0
<b>Total</b>	<b>5</b>	<b>41,7%</b>	<b>5</b>	<b>41,7%</b>	<b>0</b>	<b>0,0%</b>	<b>2</b>	<b>16,7%</b>	<b>12</b>

*\*As regards the assessment of the risk of not achieving the objectives of WFD, the following categories can be distinguished: at risk (AR), probably at risk (PAR), probably not at risk (PNR), not at risk (NR)*

**Table 5.7-4: Overview of risk assessment of surface water bodies failing to achieve the objectives in the RB of Lefkadas (EL0444) - Number of WB**

Type of WB	Risk assessment categories*								Total Number of WB
	NR		PNR		PAR		AR		
	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	
Rivers WB	0	0,0%	0	0,0%	0	0,0%	1	100,0%	1
Lakes WB	0		0		0		0		0
Coastal WB	0	0,0%	0	0,0%	0	0,0%	4	100,0%	4

Risk assessment categories*									
Type of WB	NR		PNR		PAR		AR		Total Number of WB
	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	Number of WB	Percentage of number of WB (%)	
Transitional WB	0	0,0%	1	100,0%	0	0,0%	0	0,0%	1
<b>Total</b>	<b>0</b>	<b>0,0%</b>	<b>1</b>	<b>16,7%</b>	<b>0</b>	<b>0,0%</b>	<b>5</b>	<b>83,3%</b>	<b>6</b>

\*As regards the assessment of the risk of not achieving the objectives of WFD, the following categories can be distinguished: at risk (AR), probably at risk (PAR), probably not at risk (PNR), not at risk (NR)

## 5.7.2 Assessment of impacts on groundwater bodies

### River Basin of Acheloos (EL0415)

In the River Basin of Acheloos, 15 groundwater bodies have been delineated, the status of which is given in the following table.

The groundwater bodies of the RB are in good qualitative and quantitative status except for the SYSTIMA ANOIXIATIKOU - LOUTROU AMFILOCHIAS (EL0400040) which is in bad quantitative and chemical status.

**Table 5.7-5: Table of qualitative (chemical) and quantitative status of groundwater bodies in the RB of Acheloos (EL0415)**

No	Code	Name	Quantitative situation	Trend of water decline levels	Qualitative (chemical) status	Quality problems	Trend of pollutants
1	EL0400010	SYSTIMA MONASTIRAKIOU	Good	No	Good	No	No
2	EL0400020	SYSTIMA AKARNANIKON OREON	Good	No	Good	Locally high measurements of NO <sub>2</sub> due to agricultural activities. Locally high measurements of Cl, SO <sub>4</sub> and increased conductivity measurements due to natural background.	No
3	EL0400030	SYSTIMA KANDILAS	Good	No	Good	Locally high measurements of NO <sub>3</sub> due to agricultural activities.	No
4	EL0400040	SYSTIMA ANOIXIATIKOU - LOUTROU AMFILOCHIAS	Bad	No	Bad	Extensive pollution (Cl) from to sea intrusion due to over-abstraction. Local	No

No	Code	Name	Quantitative situation	Trend of water decline levels	Qualitative (chemical) status	Quality problems	Trend of pollutants
						exceedances of the limits for Mn.	
5	EL0400050	SYSTIMA KATOUNAS-LESINIOU	Good	No	Good	Locally high measurements of NO <sub>3</sub> due to agricultural activities. Local Natural surcharge of SO <sub>4</sub> and increased conductivity values. High measurements of Cl in the northern coastal area	No
6	EL0400060	SYSTIMA AGRINIOU	Good	No	Good	Locally high measurements of NO <sub>3</sub> due to agricultural activities. Local exceedances of the limits for Mn.	No
7	EL0400070	SYSTIMA ARAKYNTHOU	Good	No	Good	Natural surcharge of Cl in the south part.	No
8	EL0400080	SYSTIMA DELTA ACHELOOU-OINIADON	Good	No	Good	Natural background of Cl. Local exceedances of the limits for Mn.	No
9	EL0400130	SYSTIMA OLONOU-PINDOU	Good	No	Good	No	No
10	EL0400140	SYSTIMA AMFILOCHIAS	Good	No	Good	Natural surcharge of Cl and increased conductivity values. Local exceedances of the limits for Fe.	No
11	EL0400150	SYSTIMA VALTOY EMPESOU	Good	No	Good	No	No
12	EL0400180	SYSTIMA VONITSAS - VOYLKARIA	Good	No	Good	Natural surcharge of Cl	No
13	EL0400190	SYSTIMA YDROFORION LEKANIS ACHELOOU	Good	No	Good	No	No
14	EL0400200	SYSTIMA YDROFORION ANATOLIKOY TMIMATOS LEKANIS ACHELOOU	Good	No	Good	No	No
15	EL0400250	SYSTIMA YDROFORION	Good	No	Good	Locally high measurements of NO <sub>3</sub> due to	No

No	Code	Name	Quantitative situation	Trend of water decline levels	Qualitative (chemical) status	Quality problems	Trend of pollutants
		KATO ROY ACHELOOU				agricultural activities. Local exceedances of the limits for Mn.	

### River Basin of Evinos (EL0420)

In the River Basin of Evinos, 4 groundwater bodies have been delineated, which are in good qualitative and quantitative status, as presented in the table below.

**Table 5.7-6: Table of qualitative (chemical) and quantitative status of groundwater bodies in the RB of Evinos (EL04210)**

A/N	Code	Name	Quantitative situation	Trend of water decline levels	Qualitative (chemical) status	Quality	Trend of pollutants
1	EL0400090	SYSTEMA MESOLONGIOU-EVINOY	Good	No	Good	Local exceedances of the limits for Mn, Fe.	No
2	EL0400210	SYSTEMA YDROFORION ANO ROY LEKANIS EVINOY	Good	No	Good	No	No
3	EL0400230	SYSTEMA YDROFORION ANTIRRIOY	Good	No	Good	Local exceedances of the limits for Mn, Fe.	No
4	EL0400240	SYSTEMA YDROFORION KATO ROY LEKANIS EVINOY	Good	No	Good	No	No

### River Basin of Mornos (EL0421)

In the River Basin of Mornos, 4 groundwater bodies have been delineated, which are in good qualitative and quantitative status, as presented in the table below.

**Table 5.7-7: Table of qualitative (chemical) and quantitative status of groundwater bodies in the RB of Mornos (EL0421)**

A/N	Code	Name	Quantitative situation	Trend of water decline levels	Qualitative (chemical) status	Quality	Trend of pollutants
1	EL0400100	SYSTIMA MORNOU	Good	No	Good	No	No
2	EL0400110	SYSTIMA VARDOUSION	Good	No	Good	No	No
3	EL0400120	SYSTIMA YDROFORION ERATEINIS - TOLOFONA	Good	No	Good	No	No
4	EL0400220	SYSTIMA YDROFORION LEKANIS ANO ROU MORNOU	Good	No	Good	No	No

#### River Basin of Lefkadas (EL0444)

In the River Basin of Lefkadas , 3 groundwater body has been delineated, the status of which is given in the following table.

The groundwater bodies of the RB are in good qualitative and quantitative status except for the SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS (EL0400170) which is in bad quantitative status.

**Table 5.7-8: Table of qualitative (chemical) and quantitative status of groundwater bodies in the RB of Lefkadas (EL0444)**

A/N	Code	Name	Quantitative situation	Trend of water decline levels	Qualitative (chemical) status	Quality	Trend of pollutants
1	EL0400160	SYSTIMA LEFKADAS	Good	No	Good	Locally natural surcharge of Cl and increased conductivity measurements	No
2	EL0400170	SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS	Bad	No	Good	Local exceedances of the limits for Mn, Fe. Locally natural surcharge of Cl and SO <sub>4</sub> .	No
3	EL0400260	SYSTIMA MEGANISIOU - KASTOU - KALAMOU	Good	No	Good	Local exceedances of the limits for Mn. Locally natural surcharge of Cl.	No

## **6 STATUS OF WATER BODIES**

### **6.1 Classification of the status of surface water bodies**

The Tables and Maps below present the results of the classification of the ecological and chemical status of the surface water bodies of the River Basin District of Western Sterea Ellada (EL04) per RB, as assessed during the 2<sup>nd</sup> Update of the RBMP. In addition, the tables present the differentiations in the ecological and chemical status of the SWB compared to the previous RBMPs, as well as the classification method.

Table 6.1-1: Status assessment of river water bodies per RB in the River Basin District of Western Sterea Ellada (EL04) in comparison to previous RBMPs

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
<b>RIVER BASIN OF ACHELOOS (EL0415)</b>															
1	EL0415R00000008N	PLATANIAS R.	GOOD	GOOD	GOOD	MODERATE	GR	GOOD	GR	MODERATE	MODERATE	GR	FAILING TO ACHIEVE GOOD	EJ	MODERATE
2	EL0415R000101001H	ARPILLIAS R. 1*	GOOD	UNKNOWN	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	LOWER THAN GOOD	MM	GOOD	MP	LOWER THAN GOOD
3	EL0415R000200003N	ACHELOOS P. 2*	MODERATE	FAILING TO ACHIEVE GOOD	MODERATE	MODERATE	MP	GOOD	MP	MODERATE	POOR	MP	GOOD	MP	POOR
4	EL0415R000200004N	ACHELOOS P. 3*	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	-	GOOD	GR	UNKNOWN	GOOD	EJ	GOOD	GR	GOOD
5	EL0415R000200009N	ACHELOOS P. 4*	UNKNOWN	UNKNOWN	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	POOR	MP	GOOD	MP	POOR
6	EL0415R000200011H	ACHELOOS P. 5	UNKNOWN	UNKNOWN	UNKNOWN	POOR	MP	GOOD	MP	POOR	LOWER THAN GOOD	MM	GOOD	GR	LOWER THAN GOOD
7	EL0415R000200039N	ACHELOOS P. 6	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD

Summary

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
8	EL0415R000200044N	ACHELOOS P. 7	GOOD	GOOD	GOOD	HIGH	MP	GOOD	GR	HIGH	MODERATE	MP	GOOD	GR	MODERATE
9	EL0415R000200049N	ACHELOOS P. 8	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	GOOD	GR	MODERATE
10	EL0415R000200052N	ACHELOOS P. 9	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD
11	EL0415R000200054N	ACHELOOS P. 10	GOOD	GOOD	GOOD	GOOD	MP	GOOD	GR	GOOD	GOOD	MP	GOOD	GR	GOOD
12	EL0415R000200058N	ACHELOOS P. 11	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
13	EL0415R000200059N	ACHELOOS P. 12	GOOD	GOOD	GOOD	GOOD	MP	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
14	EL0415R000200060N	ACHELOOS P. 13	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
15	EL0415R000200062N	ACHELOOS P. 14	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
16	EL0415R000201002N	ACHELOOS P. 1*	UNKNOWN	GOOD	UNKNOWN	UNKNOWN	-	GOOD	GR	UNKNOWN	POOR	MP	GOOD	GR	POOR
17	EL0415R000202005H	DIMIKOS P.	UNKNOWN	GOOD	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	LOWER THAN GOOD	MM	GOOD	MP	LOWER THAN GOOD
18	EL0415R000202007H	ENOTIKI TAFROS	UNKNOWN	FAILING TO ACHIEVE GOOD	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	LOWER THAN GOOD	MM	GOOD	MP	LOWER THAN GOOD
19	EL0415R000202106N	ERMITSAS R.	GOOD	UNKNOWN	UNKNOWN	POOR	MP	GOOD	GR	POOR	MODERATE	MP	GOOD	GR	MODERATE
20	EL0415R000204010H	TAFROS YPERCHEILISIS OZEROU	UNKNOWN	UNKNOWN	UNKNOWN	METER	MP	GOOD	GR	MODERATE	LOWER THAN GOOD	MM	GOOD	GR	LOWER THAN GOOD
21	EL0415R000206012N	ZERVAS R.	GOOD	UNKNOWN	UNKNOWN	MODERATE	GR	UNKNOWN	-	UNKNOWN	MODERATE	GR	GOOD	GR	MODERATE
22	EL0415R000208013N	INACHOS P. 1	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
23	EL0415R000208014N	INACHOS P. 2	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	GOOD	GR	MODERATE

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
24	EL0415R000210015N	KRIKELIOTIS R. 1	GOOD	GOOD	GOOD	GOOD	MP	GOOD	GR	GOOD	GOOD	MP	GOOD	GR	GOOD
25	EL0415R000210019N	KRIKELIOTIS R. 2	GOOD	GOOD	GOOD	GOOD	MP	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
26	EL0415R000210020N	KRIKELIOTIS R. 3	GOOD	UNKNOWN	UNKNOWN	GOOD	MP	UNKNOWN	-	UNKNOWN	GOOD	MP	GOOD	GR	GOOD
27	EL0415R000210116N	KORIKISTIANO R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
28	EL0415R000210217N	KARPENISIOTIS R. 1	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD
29	EL0415R000210218N	KARPENISIOTIS R. 2	MODERATE	GOOD	MODERATE	POOR	MP	GOOD	GR	POOR	POOR	MP	FAILING TO ACHIEVE GOOD	EJ	POOR
30	EL0415R000212021N	TAVROPOS P. 1	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD
31	EL0415R000212029H	TAVROPOS P. 2*	GOOD AND ABOVE	GOOD	GOOD	HIGH	MP	GOOD	MP	HIGH	LOWER THAN GOOD	MM	GOOD	MP	LOWER THAN GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
32	EL0415R000212122N	GAVRENITIS	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
33	EL0415R000212223N	AGIOTRIADITIK O R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
34	EL0415R000212324N	TAVROPOS P. - PARAPOTAMOS MEGA R. 1	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
35	EL0415R000212325N	TAVROPOS P. - PARAPOTAMOS MEGA R. 2	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
36	EL0415R000212426N	KAROULAS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
37	EL0415R000212527N	SARANTAPORO U R. 1	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
38	EL0415R000212528N	SARANTAPORO U R. 2	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
39	EL0415R000212630N	ASPROS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
40	EL0415R000212731N	KARITSIOTIS R.	MODERATE	GOOD	MODERATE	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	FAILING TO ACHIEVE GOOD	EJ	MODERATE
41	EL0415R000212832N	MEGALO P.	MODERATE	GOOD	MODERATE	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	FAILING TO ACHIEVE GOOD	EJ	MODERATE
42	EL0415R000214033N	FRANGISTANOR EMMA	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
43	EL0415R000216034N	AGRAFIOTIS P. 1	GOOD	GOOD	GOOD	MODERATE	MP	GOOD	MP	MODERATE	GOOD	MP	GOOD	GR	GOOD
44	EL0415R000216035N	AGRAFIOTIS P. 2	GOOD	GOOD	GOOD	HIGH	MP	GOOD	GR	HIGH	GOOD	MP	GOOD	GR	GOOD
45	EL0415R000216036N	AGRAFIOTIS P. 3	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
46	EL0415R000218037N	GRANITSIOTIS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
47	EL0415R000220038N	LEPIANITIS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
48	EL0415R000222040N	PRASIAS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
49	EL0415R000224041N	ACHELOOS P. - PARAPOTAMOS PLATANIAS R. 1	GOOD	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
50	EL0415R000224042N	ACHELOOS P. - PARAPOTAMOS PLATANIAS R. 2	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
51	EL0415R000226043N	VATANIADA R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
52	EL0415R000228045N	KOUMPOURGIA NITIKO R. 1	MODERATE	GOOD	MODERATE	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
53	EL0415R000228048N	KOUMPOURGIA NITIKO R. 2	GOOD	GOOD	GOOD	GOOD	MP	GOOD	GR	GOOD	MODERATE	GR	GOOD	GR	MODERATE
54	EL0415R000228146N	KOUMPOURGIA NITIKO R. - PARAPOTAMOS PLATANIAS R. 1	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
55	EL0415R000228147N	KOUMPOURGIA NITIKO R. - PARAPOTAMOS PLATANIAS R. 2	GOOD	GOOD	GOOD	GOOD	MP	GOOD	GR	GOOD	GOOD	MP	GOOD	GR	GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
56	EL0415R000230050N	ARENTAS R. 1	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
57	EL0415R000230051N	ARENTAS R. 2	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
58	EL0415R000232053N	GKOURA R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
59	EL0415R000234055N	VATHYRREVMA TOS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	FAILING TO ACHIEVE GOOD	EJ	MODERATE
60	EL0415R000236056N	KAMNAITIKO R.	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	GOOD	EJ	GOOD	MP	GOOD
61	EL0415R000238057N	MOUSARITIKO R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
62	EL0415R000240061N	LEPENITSIS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
63	EL0415R000301063H	TAFROS VALTI*	GOOD	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	LOWER THAN GOOD	MM	FAILING TO ACHIEVE GOOD	EJ	LOWER THAN GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP					
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	
64	EL0415R000501064N	XIROPOTAMOS R.	GOOD	UNKNOWN	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	MODERATE	GR	GOOD	GR	MODERATE	
65	EL0415R000701065N	MYTIKA R.	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	MODERATE	GR	FAILING TO ACHIEVE GOOD	EJ	MODERATE	
66	EL0415R000901066N	VOUTOUMIAS R.	GOOD	UNKNOWN	UNKNOWN	POOR	MP	GOOD	MP	POOR	GOOD	EJ	GOOD	MP	GOOD	
67	EL0415R001101067N	NISSIS R.	GOOD	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	GOOD	GR	MODERATE	
68	EL0415R001301068N	AMFILOCHIAS R.	GOOD	UNKNOWN	UNKNOWN	GOOD	MP	GOOD	MP	GOOD	GOOD	EJ	GOOD	MP	GOOD	
69	EL0415R000100096N	AGRILIAS R.2**									GOOD	MP	GOOD	GR	GOOD	
<b>RIVER BASIN OF EVINOS (EL0420)</b>																
70	EL0420R000200070N	EVINOS P. 2	MODERATE	UNKNOWN	MODERATE	HIGH	MP	UNKNOWN	-	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	
71	EL0420R000200073N	EVINOS P. 3*	UNKNOWN	GOOD	UNKNOWN	UNKNOWN	-	GOOD	GR	UNKNOWN	MODERATE	MP	GOOD	GR	MODERATE	

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
72	EL0420R000200078N	EVINOS P. 4	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
73	EL0420R000200081N	EVINOS P. 5	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
74	EL0420R000201069N	EVINOS P. 1	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	MODERATE	GR	FAILING TO ACHIEVE GOOD	EJ	MODERATE
75	EL0420R000202071N	PORIRIS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
76	EL0420R000204072N	KOTSALOS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
77	EL0420R000206074N	CHALIKIOTIKO R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
78	EL0420R000208075N	GIDRMANDITIS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
79	EL0420R000210076N	DIPLATANOU R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
80	EL0420R000212077N	KLINOVITIS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
81	EL0420R000214079N	EVINOS P. - PARAPOTAMOS KERASORREMA 1	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
82	EL0420R000214080N	EVINOS P. - PARAPOTAMOS KERASORREMA 2	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
83	EL0420R000216082N	KALOGERIKO R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
84	EL0420R000301093N	LONGIES R.	GOOD	GOOD	GOOD	MODERATE	MP	GOOD	GR	MODERATE	GOOD	MP	GOOD	GR	GOOD
85	EL0420R000501094N	KATO VASILIKIS R.	GOOD	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
<b>RIVER BASIN OF MORNOS (EL0421)</b>															
86	EL0421R0001083N	ERATEINIS R.	GOOD	UNKNOWN	UNKNOWN	GOOD	MP	GOOD	GR	GOOD	GOOD	EJ	GOOD	GR	GOOD
87	EL0421R000200085H	MORNOS P. 2	GOOD AND ABOVE	GOOD	GOOD	METER	MP	GOOD	GR	MODERATE	LOWER THAN GOOD	MM	GOOD	GR	LOWER THAN GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
88	EL0421R000200091N	MORNOS P. 3	GOOD	GOOD	GOOD	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD
89	EL0421R000201084N	MORNOS P. 1	GOOD	UNKNOWN	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	MODERATE	MP	FAILING TO ACHIEVE GOOD	MP	MODERATE
90	EL0421R000202086N	LIMNITSIANO R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
91	EL0421R000204087N	MORNOS P. - PARAPOTAMOS KERASORREMA	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
92	EL0421R000206088N	KOKKINOS R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
93	EL0421R000208089N	GRANITSORRAMA	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD
94	EL0421R000210090N	BELESITSA R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	EJ	GOOD
95	EL0421R000212092N	P. MORNOS - PARAPOTAMOS MEGA R.	GOOD	GOOD	GOOD	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	GR	GOOD

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
<b>RIVER BASIN OF LEFKADA (EL0444)</b>															
96	EL0444R000101095N	KAROUCHAS P.	GOOD	UNKNOWN	UNKNOWN	GOOD	MP	GOOD	MP	GOOD	MODERATE	GR	GOOD	GR	MODERATE

\* Differences in the coding of river water bodies compared to the 1<sup>st</sup> Update of the RBMP, due to the change in the classification of water bodies from Natural to ITYS and vice versa

\*\*Addition of a new WB

(MP): Classification based on monitoring program

(GR): Classification based on grouping

(EJ): Classification based on expert judgement

(MM): Classification based on mitigation measures methodology (Prague approach).

Table 6.1-2: Status assessment of lake water bodies per RB in the River Basin District of Western Sterea Ellada (EL04) in comparison to previous RBMPs

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
<b>RIVER BASIN OF ACHELOOS (EL0415)</b>															
1	EL0415L000000004N	LIMNI TRICHONIDA	MODERATE	GOOD	MODERATE	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD
2	EL0415L000000005N	LIMNI LYSIMACHIA*	UNKNOWN	UNKNOWN	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	MODERATE	MP	GOOD	MP	MODERATE
3	EL0415L000000006N	LIMNI OZEROS	MODERATE	GOOD	MODERATE	MODERATE	MP	GOOD	MP	MODERATE	POOR	MP	GOOD	MP	POOR
4	EL0415L000000008N	LIMNI AMVRAKIA	MODERATE	GOOD	MODERATE	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD
5	EL0415L000000009N	LIMNI VOULKARIA	UNKNOWN	UNKNOWN	UNKNOWN	BAD	MP	GOOD	MP	BAD	BAD	EJ	GOOD	MP	BAD

\* Differences in the coding of river water bodies compared to the 1st revision of the SDLAP, due to the change in the classification of water bodies from Natural to ITYS and vice versa

(MP): Classification based on monitoring program

(GR): Classification based on grouping

(EJ): Classification based on expert judgement

(MM): Classification based on mitigation measures methodology (Prague approach).

Table 6.1-3: Status assessment of reservoirs per RB in the River Basin District of Western Sterea Ellada (EL04) in comparison to previous RBMPs

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLO-GICAL STATUS/POTENTIAL	CHEMI-CAL STATUS	TOTAL STATUS	ECOLO-GICAL STATUS/POTENTIAL	CLASSI-FICATION METHOD	CHEMI-CAL STATUS	CLASSI-FICATION METHOD	TOTAL STATUS	ECOLO-GICAL STATUS/POTENTIAL	CLASSI-FICATION METHOD	CHEMI-CAL STATUS	CLASSI-FICATION METHOD	TOTAL STATUS
<b>RIVER BASIN OF ACHELOOS (EL0415)</b>															
1	EL0415RL00200002H	TECHNITI LIMNI KREMASTON	GOOD AND ABOVE	GOOD	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD AND ABOVE
2	EL0415RL00200003H	TECHNITI LIMNI KASTRAKIOU	GOOD AND ABOVE	GOOD	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD AND ABOVE
3	EL0415RL00200004H	TECHNITI LIMNI STRATOU	UNKNOWN	FAILING TO ACHIEVE GOOD	UNKNOWN	GOOD AND ABOVE	MP	GOOD	MP	GOOD	GOOD AND ABOVE	EJ	GOOD	MP	GOOD AND ABOVE
4	EL0415RL00212001H	TECHNITI LIMNI TAVROPOU	MODERATE	FAILING TO ACHIEVE GOOD	MODERATE	GOOD AND ABOVE	MP	GOOD	MP	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD AND ABOVE
<b>RIVER BASIN OF EVINOS (EL0420)</b>															
5	EL0420RL00200005H	TECHNITI LIMNI EVINOY	GOOD AND ABOVE	GOOD	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD AND ABOVE
<b>RIVER BASIN OF MORNOS (EL0421)</b>															
6	EL0421RL00200006H	TECHNITI LIMNI MORNIOY	GOOD AND ABOVE	GOOD	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD	GOOD AND ABOVE	MP	GOOD	MP	GOOD AND ABOVE

(MP): Classification based on monitoring program

(GR): Classification based on grouping

(EJ): Classification based on expert judgement

Summary

*(MM): Classification based on mitigation measures methodology (Prague approach).*

Table 6.1-4: Status assessment of transitional water bodies per RB in the River Basin District of Western Sterea Ellada (EL04) in comparison to previous RBMPs

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
<b>RIVER BASIN OF ACHELOOS (EL0415)</b>															
1	EL0415T0005N	LIMNI SALTINI**	UNKNOWN	UNKNOWN	UNKNOWN	MODERATE	MP	GOOD	MP	MODERATE	MODERATE	EJ	GOOD	MP	MODERATE
2	EL0415T0001N	LIMNOTHALASSA AITOLIKOU	POOR	UNKNOWN	POOR	POOR	MP	GOOD	MP	POOR	MODERATE	MP	GOOD	MP	MODERATE
3	EL0415T0002N	LIMNOTHALASSA MESOLONGIOU (KENTRIKI - KLEISOVA)	MODERATE	UNKNOWN	MODERATE	MODERATE	MP	GOOD	MP	MODERATE	POOR	MP	FAILING TO ACHIEVE GOOD	MP	POOR
4	EL0415T0003N	EKVOLES ACHELOOU	MODERATE	UNKNOWN	MODERATE	UNKNOWN	-	UNKNOWN	-	UNKNOWN	GOOD	MP	GOOD	MP	GOOD
<b>RIVER BASIN OF LEFKADA (EL0444)</b>															
5	EL0444T0004N	LIMNOTHALASSA STENON (LEFKADAS)	MODERATE	UNKNOWN	MODERATE	GOOD	MP	GOOD	MP	GOOD	GOOD	MP	GOOD	MP	GOOD

\*\*Addition of a new PS(MP): Classification based on monitoring program

(MP): Classification based on monitoring program

(GR): Classification based on grouping

(EJ): Classification based on expert judgement

(MM): Classification based on mitigation measures methodology (Prague approach)

Table 6.1-5: Status assessment of coastal water bodies per RB in the River Basin District of Western Sterea Ellada (EL04) in comparison to previous RBMPs

No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP					
			ECOLOGICAL STATUS/POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	
<b>RIVER BASIN OF OF ACHELOOS (EL0415)</b>																
1	EL0415C0002N	THALASSA MESOLONGIOU	MODERATE	UNKNOWN	MODERATE	GOOD	MP	GOOD	MP	GOOD	GOOD	EJ	GOOD	EJ	GOOD	
2	EL0415C0003N	ANAT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES)	GOOD	UNKNOWN	UNKNOWN	GOOD	MP	GOOD	MP	GOOD	MODERATE	MP	GOOD	MP	MODERATE	
3	EL0415C0008N	ORMOS DERMATA	HIGH	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	EJ	GOOD	
4	EL0415C0009N	NOTIOS AMVRAKIKOS KOLPOS	MODERATE	UNKNOWN	MODERATE	POOR	MP	GOOD	MP	POOR	POOR	MP	GOOD	MP	POOR	
<b>RIVER BASIN OF MORNOS (EL0421)</b>																
5	EL0421C0001N	KORINTHIAKOS KOLPOS - AKTES AITOLOAKARNANIAS	GOOD	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	GOOD	GR	MODERATE	
<b>RIVER BASIN OF LEFKADA (EL0444)</b>																
6	EL0444C0004N	DYT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES) KAI ORMOS VASILIKIS	GOOD	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	MODERATE	GR	GOOD	GR	MODERATE	

Summary

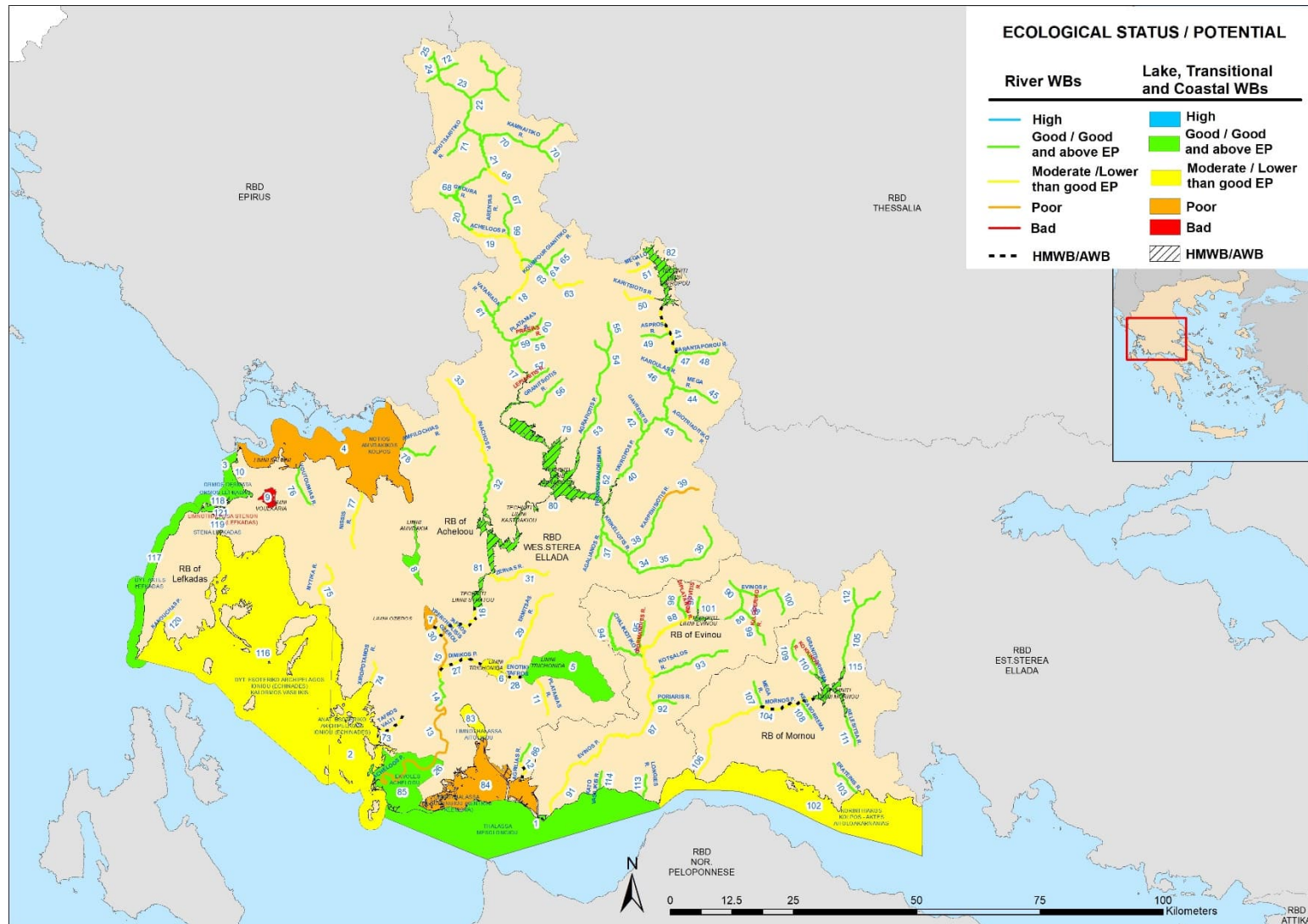
No	WB CODE - 2nd UPDATE OF RBMP	NAME OF WB	1st RBMP			1st UPDATE OF RBMP					2nd UPDATE OF RBMP				
			ECOLOGICAL STATUS/ POTENTIAL	CHEMICAL STATUS	TOTAL STATUS	ECOLOGICAL STATUS/ POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS	ECOLOGICAL STATUS/ POTENTIAL	CLASSIFICATION METHOD	CHEMICAL STATUS	CLASSIFICATION METHOD	TOTAL STATUS
7	EL0444C0005N	DYT. AKTES LEFKADAS	HIGH	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	EJ	GOOD
8	EL0444C0006N	ORMOS LEFKADAS	HIGH	UNKNOWN	UNKNOWN	GOOD	GR	GOOD	GR	GOOD	GOOD	GR	GOOD	EJ	GOOD
9	EL0444C0007H	STENA LEFKADAS	GOOD AND ABOVE	UNKNOWN	UNKNOWN	GOOD AND ABOVE	GR	GOOD	GR	GOOD	LOWER THAN GOOD	MM	GOOD	EJ	LOWER THAN GOOD

(MP): Classification based on monitoring program

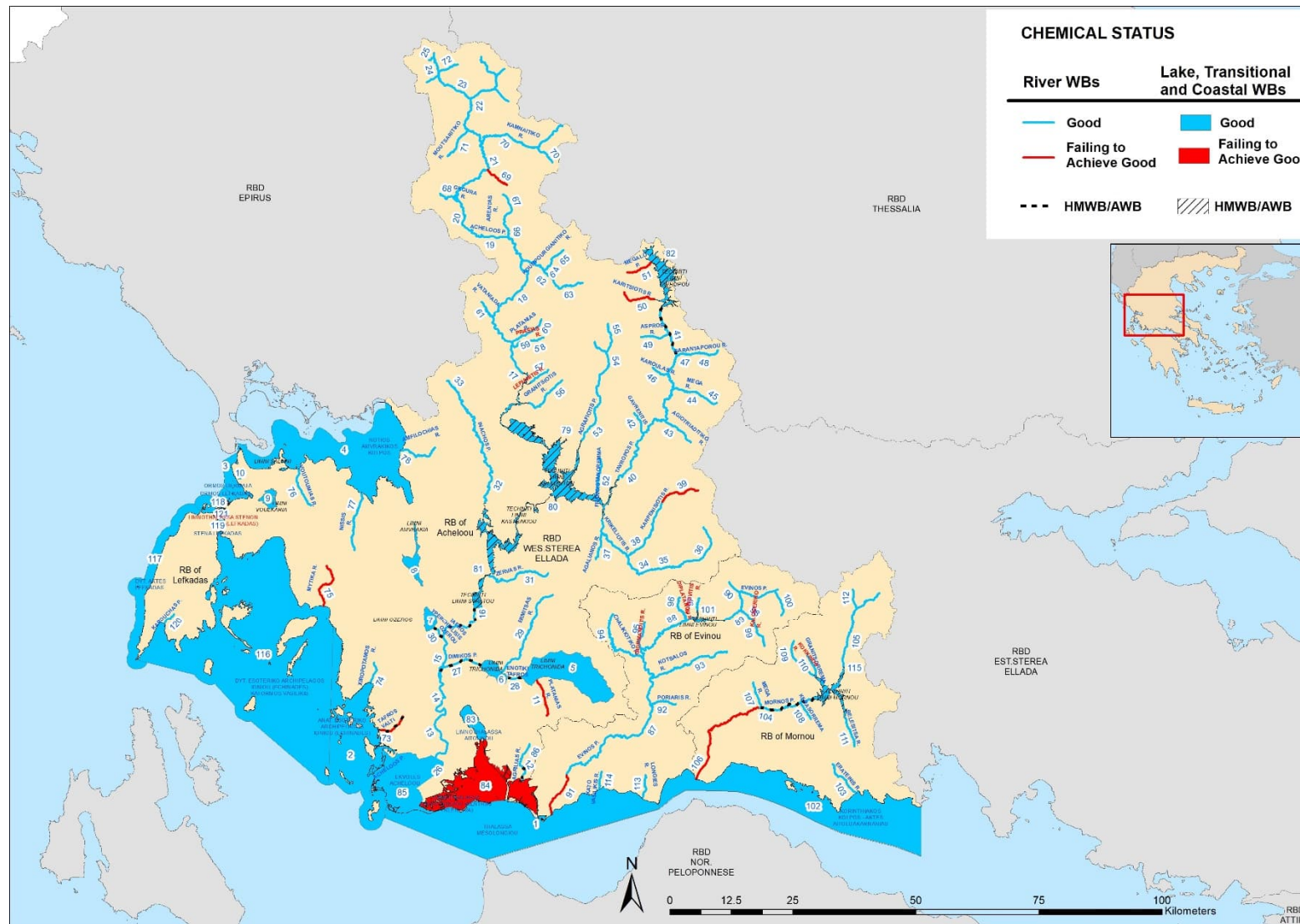
(GR): Classification based on grouping

(EJ): Classification based on expert judgement

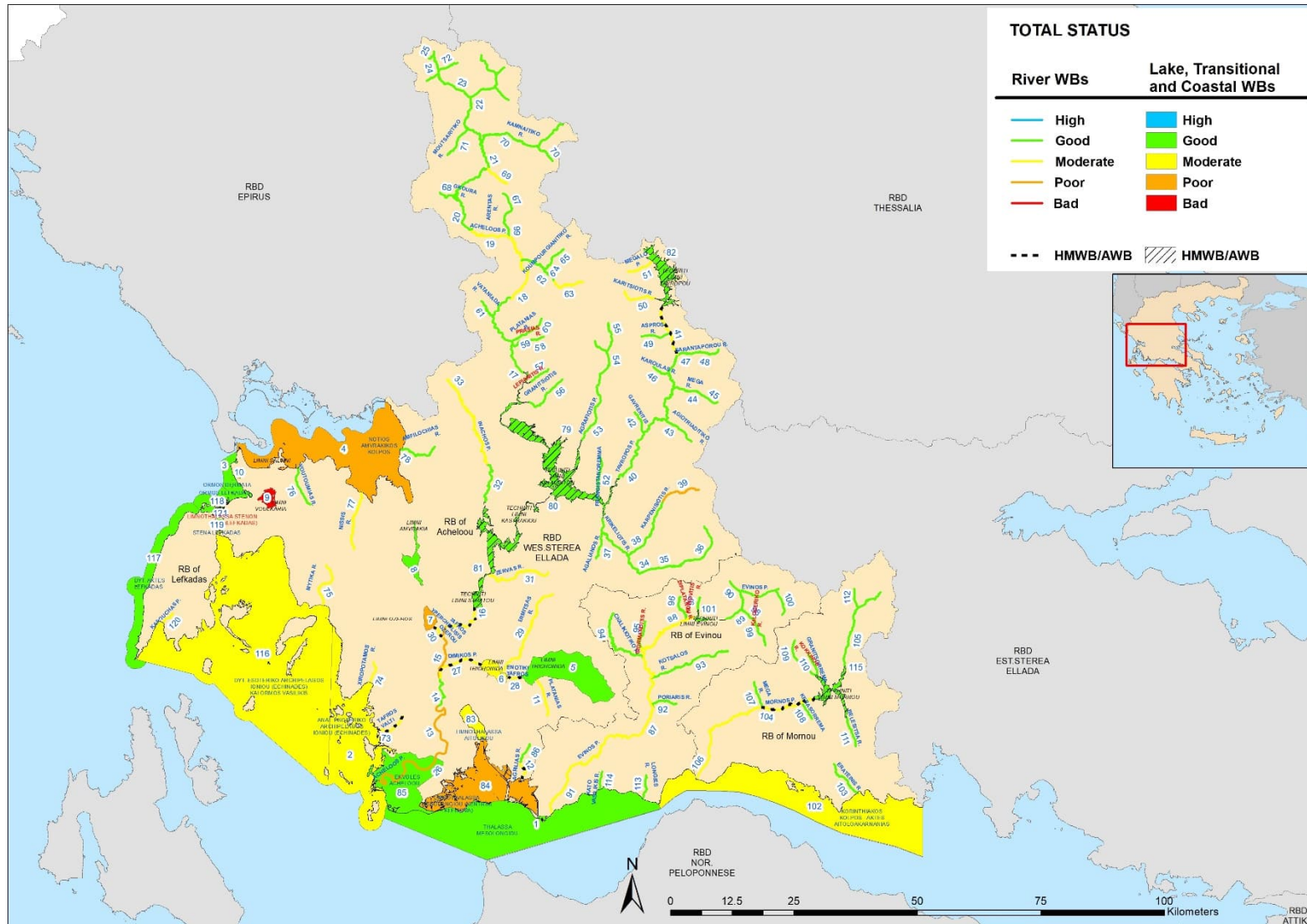
(MM): Classification based on mitigation measures methodology (Prague approach)



Map 6.1-1: Ecological status of surface water bodies in the River Basin District of Western Sterea Ellada (EL04)



Map 6.1-2: Chemical status of surface water bodies in the River Basin District of Western Sterea Ellada (EL04)



Map 6.1-3: Total status of surface water bodies in the River Basin District of Western Sterea Ellada (EL04)

**Map Legend: 6.1-1/2/3:**

WB Index	WB CODE.	NAME OF WB	WB Index	WB CODE.	NAME OF WB	WB Index	WB CODE.	NAME OF WB	WB Index	WB CODE.	NAME OF WB
1	EL0415C0002N	THALASSA MESOLONGIO U	31	EL0415R000206012N	ZERVAS R.	61	EL0415R000226043N	VATANIADA R.	91	EL0420R000201069N	EVINOS P. 1
2	EL0415C0003N	ANAT. ESOTERIKO ARCHIPELAGO SIONIYOU (ECHINADES)	32	EL0415R000208013N	INACHOS P. 1	62	EL0415R000228045N	KOUMPOURGIANITI KO R. 1	92	EL0420R000202071N	PORIARIS R.
3	EL0415C0008N	ORMOS DERMATA	33	EL0415R000208014N	INACHOS P. 2	63	EL0415R000228048N	KOUMPOURGIANITI KO R. 2	93	EL0420R000204072N	KOTSALOS R.
4	EL0415C0009N	NOTIOS AMVRAKIKOS KOLPOS	34	EL0415R000210015N	KRIKELIOTIS R. 1	64	EL0415R000228146N	KOUMPOURGIANITI KO R. - PARAPOTAMOS PLATANIAS R. 1	94	EL0420R000206074N	CHALIKIOTIKO R.
5	EL0415L000000004N	LIMNI TRICHONIDA	35	EL0415R000210019N	KRIKELIOTIS R. 2	65	EL0415R000228147N	KOUMPOURGIANITI KO R. - PARAPOTAMOS PLATANIAS R. 2	95	EL0420R000208075N	GIDRMANDITIS R.
6	EL0415L000000005N	LIMNI LYSIMACHIA	36	EL0415R000210020N	KRIKELIOTIS R. 3	66	EL0415R000230050N	ARENTAS R. 1	96	EL0420R000210076N	DIPLATANOU R.
7	EL0415L000000006N	LIMNI OZEROS	37	EL0415R000210116N	KORIKISTIANO R.	67	EL0415R000230051N	ARENTAS R. 2	97	EL0420R000212077N	KLINOVITIS R.
8	EL0415L000000008N	LIMNI AMVRAKIA	38	EL0415R000210217N	KARPENISIOTIS R. 1	68	EL0415R000232053N	GKOURA R.	98	EL0420R000214079N	EVINOS P. - PARAPOTAMOS KERASORREMA 1
9	EL0415L000000009N	LIMNI VOULKARIA	39	EL0415R000210218N	KARPENISIOTIS R. 2	69	EL0415R000234055N	VATHYRREVMATOS R.	99	EL0420R000214080N	EVINOS P. - PARAPOTAMOS KERASORREMA 2
10	EL0415T0005N	LIMNI SALTINI	40	EL0415R000212021N	TAVROPOS P. 1	70	EL0415R000236056N	KAMNAITIKO R.	100	EL0420R000216082N	KALOGERIKO R.

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11	EL0415R00000008N	PLATANIAS R.	41	EL0415R000212029H	TAVROPOS P. 2	71	EL0415R000238057N	MOUTSARITIKO R.	101	EL0420RL00200005H	TECHNITI LIMNI EVINOY
12	EL0415R000101001H	AGRILIAS R. 1	42	EL0415R000212122N	GAVRENITIS	72	EL0415R000240061N	LEPENITSIS R.	102	EL0421C0001N	KORINTHIAKOS KOLPOS - AKTES AITOLOAKARNANI AS
13	EL0415R000200003N	ACHELOOS P. 2	43	EL0415R000212223N	AGIOTRIADITIK O R.	73	EL0415R000301063H	TAFROS VALTI	103	EL0421R000101083N	ERATEINIS R.
14	EL0415R000200004N	ACHELOOS P. 3	44	EL0415R000212324N	TAVROPOS P. - PARAPOTAMO S MEGA R. 1	74	EL0415R000501064N	XIROPOTAMOS R.	104	EL0421R000200085H	MORNOS P. 2
15	EL0415R000200009N	ACHELOOS P. 4	45	EL0415R000212325N	TAVROPOS P. - PARAPOTAMO S MEGA R. 2	75	EL0415R000701065N	MYTIKA R.	105	EL0421R000200091N	MORNOS P. 3
16	EL0415R000200011H	ACHELOOS P. 5	46	EL0415R000212426N	KAROULAS R.	76	EL0415R000901066N	VOUTOUMIAS R.	106	EL0421R000201084N	MORNOS P. 1
17	EL0415R000200039N	ACHELOOS P. 6	47	EL0415R000212527N	SARANTAPOR OU R. 1	77	EL0415R001101067N	NISSIS R.	107	EL0421R000202086N	LIMNITSIANO R.
18	EL0415R000200044N	ACHELOOS P. 7	48	EL0415R000212528N	SARANTAPOR OU R. 2	78	EL0415R001301068N	AMFILOCHIAS R.	108	EL0421R000204087N	MORNOS P. - PARAPOTAMOS KERASORREMA
19	EL0415R000200049N	ACHELOOS P. 8	49	EL0415R000212630N	ASPROS R.	79	EL0415RL00200002H	TECHNITI LIMNI KREMASTON	109	EL0421R000206088N	KOKKINOS R.
20	EL0415R000200052N	ACHELOOS P. 9	50	EL0415R000212731N	KARITSIOTIS R.	80	EL0415RL00200003H	TECHNITI LIMNI KASTRAKIOY	110	EL0421R000208089N	GRANITSORREMA
21	EL0415R000200054N	ACHELOOS P. 10	51	EL0415R000212832N	MEGALO P.	81	EL0415RL00200004H	TECHNITI LIMNI STRATOU	111	EL0421R000210090N	BELESITSA R.
22	EL0415R000200058N	ACHELOOS P. 11	52	EL0415R000214033N	FRANGISTANO REMMMA	82	EL0415RL00212001H	TECHNITI LIMNI TAVROPOY	112	EL0421R000212092N	P. MORNOS - PARAPOTAMOS MEGA R.
23	EL0415R000200059N	ACHELOOS P. 12	53	EL0415R000216034N	AGRAFIOTIS P. 1	83	EL0415T0001N	LIMNOTHALASSA AITOLIKOY	113	EL0420R000301093N	LONGIES R.

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24	EL0415R000200060N	ACHELOOS P. 13	54	EL0415R000216035N	AGRAFIOTIS P. 2	84	EL0415T0002N	LIMNOTHALASSA MESOLONGIOU (KENTRIKI - KLEISOVA)	114	EL0420R000501094N	KATO VASILIKIS R.
25	EL0415R000200062N	ACHELOOS P. 14	55	EL0415R000216036N	AGRAFIOTIS P. 3	85	EL0415T0003N	EKVOLES ACHELOOU	115	EL0421RL00200006H	TECHNITI LIMNI MORNOU
26	EL0415R000201002N	ACHELOOS P. 1	56	EL0415R000218037N	GRANITSIOTIS R.	86	EL0415R000100096N	AGRILIAS R. 2	116	EL0444C0004N	DYT. ESOTERIKO ARCHIPELAGOS IONIΟΥ (ECHINADES) KAI ORMOS VASILIKIS
27	EL0415R000202005H	DIMIKOS P.	57	EL0415R000220038N	LEPIANITIS R.	87	EL0420R000200070N	EVINOS P. 2	117	EL0444C0005N	DYT. AKTES LEFKADAS
28	EL0415R000202007H	ENOTIKI TAFROS	58	EL0415R000222040N	PRASIAS R.	88	EL0420R000200073N	EVINOS P. 3	118	EL0444C0006N	ORMOS LEFKADAS
29	EL0415R000202106N	ERMITAS R.	59	EL0415R000224041N	ACHELOOS P. - PARAPOTAMO S PLATANIAS R. 1	89	EL0420R000200078N	EVINOS P. 4	119	EL0444C0007H	STENA LEFKADAS
30	EL0415R000204010H	TAFROS YPERCHEILISIS OZEROU	60	EL0415R000224042N	ACHELOOS P. - PARAPOTAMO S PLATANIAS R. 2	90	EL0420R000200081N	EVINOS P. 5	120	EL0444R000101095N	KAROUCAS P.
									121	EL0444T0004N	LIMNOTHALASSA STENON (LEFKADAS)

Summary

## 6.2 Classification of the status of groundwater bodies

The Table and the following maps present the qualitative and quantitative status of the groundwater bodies of the River Basin District of Western Sterea Ellada (EL04) as they emerged during the 2<sup>nd</sup> Update of the RBMP per RB. In addition, the table shows the differentiations in the quantitative and qualitative (chemical) status of the GWB compared to the previous RBMPs.

**Table 6.2-1: Results of the assessment of the status of groundwater bodies per RB in the River Basin District of Western Sterea Ellada (EL04) in comparison to previous RBMPs**

GWB code	Name of the GWB	1st RBMP		1st UPDATE OF RBMP		2nd UPDATE OF RBMP	
		Qualitative (chemical) status	Quantitative status	Qualitative (chemical) status	Quantitative status	Qualitative (chemical) status	Quantitative status
<b>ACHELOOS RB (EL0415)</b>							
EL0400010	SYSTIMA MONASTIRAKIOU	Good	Good	Good	Good	Good	Good
EL0400020	SYSTIMA AKARNANIKON OREON	Good	Good	Good	Good	Good	Good
EL0400030	SYSTIMA KANDILAS	Good	Good	Good	Good	Good	Good
EL0400040	SYSTIMA ANOXIATIKOU - LOUTROU AMFILOCHIAS	Bad	Bad	Bad	Bad	Bad	Bad
EL0400050	SYSTIMA KATOUNAS-LESINIOU	Good	Good	Good	Good	Good	Good
EL0400060	SYSTIMA AGRINIOU	Good	Good	Good	Good	Good	Good
EL0400070	SYSTIMA ARAKYNTHOU	Good	Good	Good	Good	Good	Good
EL0400080	SYSTIMA DELTA ACHELOOU-OINIADON	Good	Good	Good	Good	Good	Good
EL0400130	SYSTIMA OLONOU-PINDOU	Good	Good	Good	Good	Good	Good
EL0400140	SYSTIMA AMFILOCHIAS	Good	Good	Good	Good	Good	Good
EL0400150	SYSTIMA VALTOY EMPESOU	Good	Good	Good	Good	Good	Good
EL0400180	SYSTIMA VONITSAS - VOYLKARIA	Good	Good	Good	Good	Good	Good
EL0400190	SYSTIMA YDROFORION LEKANIS ACHELOOU	Good	Good	Good	Good	Good	Good
EL0400200	SYSTIMA YDROFORION ANATOLIKOY TMIMATOS LEKANIS ACHELOOU	Good	Good	Good	Good	Good	Good
EL0400250	SYSTIMA YDROFORION KATO ROY ACHELOOU	Good	Good	Good	Good	Good	Good
<b>EVINOS RB (EL0420)</b>							
EL0400090	SYSTIMA MESOLONGIOU-EVINOY	Good	Good	Good	Good	Good	Good
EL0400210	SYSTIMA YDROFORION ANO ROY LEKANIS EVINOY	Good	Good	Good	Good	Good	Good
EL0400230	SYSTIMA YDROFORION ANTIRRIOY	Good	Good	Good	Good	Good	Good
EL0400240	SYSTIMA YDROFORION KATO ROY LEKANIS EVINOY	Good	Good	Good	Good	Good	Good

Summary

GWB code	Name of the GWB	1st RBMP		1st UPDATE OF RBMP		2nd UPDATE OF RBMP	
		Qualitative (chemical) status	Quantitative status	Qualitative (chemical) status	Quantitative status	Qualitative (chemical) status	Quantitative status
<b>MORNOS RB (EL0421)</b>							
EL0400100	SYSTIMA MORNOU	Good	Good	Good	Good	Good	Good
EL0400110	SYSTIMA VARDOUSION	Good	Good	Good	Good	Good	Good
EL0400120	SYSTIMA YDROFORION ERATEINIS - TOLOFONA	Good	Good	Good	Good	Good	Good
EL0400220	SYSTIMA YDROFORION LEKANIS ANO ROU MORNOU	Good	Good	Good	Good	Good	Good
<b>LEUKADA RB (EL0444)</b>							
EL0400160	SYSTIMA LEFKADAS U	Good	Good	Good	Good	Good	Good
EL0400170	SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS	Good	Bad	Good	Bad	Good	Bad
EL0400260	SYSTIMA MEGANISIOU - KASTOU - KALAMOU	Good	Good	Good	Good	Good	Good



Map 6.2-1: Chemical status of the GWB in the River Basin District of Western Sterea Ellada (EL04)



Map 6.2-2: Quantitative status of the GWB in the River Basin District of Western Sterea Ellada (EL04)

### 6.3 Water status monitoring network

#### Monitoring Network of SWB

A total of 67 stations for monitoring of surface water bodies operate in the RBD of Western Sterea Ellada (EL04), of which 43 are surveillance and 24 are operational stations. The following table summarises the number of stations per category of water body, type of monitoring and group of monitored parameters.

**Table 6.3-1: Distribution of monitoring stations for SWB in the RBD of Western Sterea Ellada (EL04)**

Station category	Ecological and chemical monitoring		Ecological monitoring only	
	Surveillance	Operational	Surveillance	Operational
Rivers	12	7	19	7
Lakes*	8	3	0	0
Transitional	1	4	1	2
Coastal	1	1	1	0
Total	22	15	21	9

#### Monitoring network of GWB

The following table summarises the number of stations by type of monitoring and group of monitored parameters.

**Table 6.3-2: Distribution of monitoring stations for GWB in the River Basin District of Western Sterea Ellada (EL04)**

Station category	Qualitative (chemical) and quantitative monitoring	
	Supervisors	Business
Groundwater body level	50	9
Springs flow	20	-

## 7 ECONOMIC ANALYSIS OF WATER USE

### 7.1 Estimation of Water Services Costs - Financial Costs

#### 7.1.1 Drinking water supply, sewerage collection and wastewater treatment services

The total financial cost of the drinking water supply, the sewerage collection and wastewater treatment service (where applicable) in the RBD of Western Sterea Ellada (EL04) is estimated at € 21,9 million.

The recovery of the total financial cost of the drinking water supply, the sewerage collection and wastewater treatment service (where applicable) for the RBD is estimated at 92,3%.

There is no recorded supply and thus consumption of water from private boreholes from the water supply network in the River Basin District of Western Sterea Ellada (EL04). It should be noted that as regards the use of water from private boreholes, the financial costs of private boreholes are fully (100%) covered by the borehole owner.

The unit total financial cost of drinking water supply, the sewerage collection and wastewater treatment service (where applicable) in the RBD EL04 is 1,024 €/m<sup>3</sup> of authorized users consumption and the unit total financial revenue per cubic meter of authorized users' consumption is 0,944 €/m<sup>3</sup>.

The table below presents the total and unit financial cost and financial revenue figures as well as the recovery of the total financial cost of drinking water supply, the sewerage collection and wastewater treatment service (where applicable), per RB of the River Basin District of Western Sterea Ellada (EL04), based on the available data of the service providers per RB.

**Table 7.1-1: Financial cost recovery for drinking water supply, the sewerage collection and wastewater treatment service (where applicable), in the RBs of the RBD of Western Sterea Ellada (EL04), 2020**

RB	Authorised use consumption (m <sup>3</sup> )	Total Financial Cost (€)	Average Unit Financial Cost (€/m <sup>3</sup> )	Total Revenue (€) (charges) (Not including environmental cost)	Average unit revenue (€/m <sup>3</sup> ) (Not including environmental cost)	Total Financial Cost Recovery (%)
<b>PROVIDERS WITH AVAILABLE COST AND REVENUE DATA PER RB</b>	<b>14.441.081</b>	<b>13.368.784</b>	<b>0,926</b>	<b>13.816.231</b>	<b>0,957</b>	<b>103,3%</b>
RB OF ACHELOOS (EL0415)	10.668.888	9.520.770	0,892	7.364.391	0,690	77,4%
RB OF EVINOS (EL0420)	1.050.861	1.107.969	1,054	1.049.611	0,999	94,7%
RB OF MORNOS (EL0421)	37.483	39.520	1,054	37.438	0,999	94,7%
RB OF LEFKADAS (EL0444)	2.683.849	2.700.525	1,006	5.364.791	1,999	198,7%
<b>PROVIDERS WITH INCOMPLETE OR UNAVAILABLE COST AND/OR REVENUE DATA - TOTAL RBD</b>	<b>14.441.081</b>	<b>13.368.784</b>	<b>0,926</b>	<b>13.816.231</b>	<b>0,957</b>	<b>103,3%</b>
<b>TOTAL PROVIDERS</b>	<b>33.684.042</b>	<b>57.234.161</b>	<b>1,699</b>	<b>45.120.460</b>	<b>1,340</b>	<b>78,8%</b>
<b>PRIVATE BOREHOLES (only drinking water supply)</b>	No withdrawals from private boreholes for water supply in the RBD EL04					<b>100%</b>
<b>TOTAL RIVER BASIN DISTRICT</b>	<b>21.381.650</b>					<b>92,3%</b>

Source: Ministry of Environment / GDNEW / Water Services Monitoring Mechanism and Study Team's Estimates where no data is provided by the provider.

### 7.1.2 Water supply service for agricultural use

The total financial cost of the water supply service for agricultural use in the River Basin District of Western Sterea Ellada (EL04) was estimated at 10,96 million €.

The recovery of the total financial cost of the water supply service for agricultural use in the RBD of Western Sterea Ellada (EL04) is estimated at 63,5% taking into account only the water supply associations for agricultural use and at 75,5 % including the private boreholes that supply water from the irrigation network.

Water consumption from private boreholes in the River Basin District of Western Sterea Ellada (EL04), which are supplied by the irrigation network, is for agricultural and livestock use. Private boreholes owners are considered to fully recover their financial costs.

The unit total financial cost of the water supply service for agricultural use in the RBD of EL04 is 0.050 €/m<sup>3</sup> of authorised use consumption and the unit total financial revenue per cubic meter of authorised use consumption is 0.032 €/m<sup>3</sup>.

The table below presents the total and unit financial cost and revenue figures as well as the recovery of the total financial cost of water supply service for agricultural use per RB of the River Basin District of Western Sterea Ellada (EL04) based on the available data of the providers per RB.

Table 7.1-2: Recovery of Financial Costs of water supply service for agricultural use in the RBs of the RBD of Western Sterea Ellada (EL04)

LAP	Authorised use consumption (m <sup>3</sup> )	Total Financial Cost (€)	Average Unit Financial Cost (€/m <sup>3</sup> )	Total Revenue (€) (charges) (Not including environmental cost)	Average unit revenue (€/m <sup>3</sup> ) (Not including environmental cost)	Total Financial Cost Recovery (%)
<b>PROVIDERS WITH AVAILABLE COST AND REVENUE DATA PER RB</b>	<b>83.634.550</b>	<b>4.211.472</b>	<b>0,0504</b>	<b>2.672.778</b>	<b>0,0320</b>	<b>63,5%</b>
RB OF ACHELOOS (EL0415)	81.526.142	4.144.554	0,0508	2.608.162	0,0320	62,9%
RB OF EVINOS (EL0420)	2.108.408	66.918	0,0317	64.616	0,0306	96,6%
RB OF MORNOS (EL0421)	[1]	[1]	[1]	[1]	[1]	[1]
RB OF LEFKADAS (EL0444)	[2]	[2]	[2]	[2]	[2]	[2]
<b>PROVIDERS WITH INCOMPLETE OR UNAVAILABLE COST AND/OR REVENUE DATA - TOTAL RBD</b>	<b>134.094.841</b>	<b>6.746.319</b>	<b>0,0503</b>	<b>4.285.379</b>	<b>0,0320</b>	<b>63,5%</b>
<b>TOTAL PROVIDERS</b>	<b>217.729.391</b>	<b>10.957.791</b>	<b>0,0503</b>	<b>6.958.157</b>	<b>0,0320</b>	<b>63,5%</b>
<b>PRIVATE GROUNDING (only for agricultural water supply) [3]</b>	<b>106.878.473</b>					<b>100%</b>
<b>TOTAL RIVER BASIN DISTRICT</b>	<b>324.607.864</b>					<b>75,5%</b>

[1] No cost and revenue data were available by the providers that are included in the Mornos RB.

[2] No active providers for agricultural use is recorded in the RB of Lefkadas.

[3] Includes quantities for agricultural and livestock use.

Source: Ministry of Environment / GDNEW / Water Services Monitoring Mechanism and Study Team's Estimates where no data is provided by the provider.

## 7.2 Environmental and resource cost

### 7.2.1 Environmental Cost Assessment

The total environmental cost of the RBD amounts to €1.720.000. Of this, 99,6% of the environmental cost is attributed to the RB of Acheloos (EL0415) and 0,4% in the RB of Mornos (EL0421). The unit environmental cost at RBD level is estimated at 0,0008 €/m<sup>3</sup>.

**Table 7.2-1: Environmental Costs in the RBs of the RBD of Western Sterea Ellada (EL04) for the period 2024-2027**

RB	Total Environmental Cost (€)	Unit Environmental Cost (€/m <sup>3</sup> )
Acheloos (EL0415)	1.713.333,33	0,0009
Mornos (EL0421)	6.666,67	0,0028
<b>Total</b>	<b>1.720.000,00</b>	<b>0,0008</b>

The distribution of environmental cost by use in the RBs of the RBD of Western Sterea Ellada (EL04) is presented in the table below.

**Table 7.2-2: Distribution of Environmental Cost per Water Use in the RBD of Western Sterea Ellada (EL04)**

Environmental Cost	Households	Agricultural		Industry
		Irrigation	Livestock	
<b>ACHELOOS RB (EL0415)</b>				
Total cost for all years of PoM implementation (€)	70.860,71 €	1.573.465,03 €	44.567,40 €	24.440,19 €
Annual Cost per use (€)	17.715,18 €	393.366,26 €	11.141,85 €	6.110,05 €
Share of use (%) in total annual cost	4,14%	91,84%	2,60%	1,43%
<b>Annual Unit Cost (€/m<sup>3</sup>)</b>	<b>0,00082 €</b>	<b>0,00084 €</b>	<b>0,00359 €</b>	<b>0,00359 €</b>
<b>MORNOS RB (EL0421)</b>				
Total cost for all years of PoM implementation (€)	0,00 €	0,00 €	3.333,33 €	3.333,33 €
Annual Cost per use (€)	0,00 €	0,00 €	833,33 €	833,33 €
Share of use (%) in total annual cost	0,00%	0,00%	50,00%	50,00%
<b>Annual Unit Cost (€/m<sup>3</sup>)</b>	<b>0,000 €/m<sup>3</sup></b>	<b>0,000 €/m<sup>3</sup></b>	<b>0,00278 €/m<sup>3</sup></b>	<b>0,00278 €/m<sup>3</sup></b>

In the Acheloos RB 91,84% of the total environmental cost is related to irrigation use and 4,14% to household use, which includes drinking water supply and sewerage collection. In the RB of Mornos 50% of the total environmental costs is related to livestock use while the remaining 50% is related to industry use.

## 7.2.2 Resource Cost Estimate

The total resource cost of the RBD amounts to 6,765,000 € for all years of implementation of the measures. Of this, 98,15% of the resource cost is attributed to the RB of Acheloos (EL0415) and the remaining 1,85% in the RB of Lefkadas (EL0444). The unit resource cost at RBD level is estimated at 0,0034 €/m<sup>3</sup>.

**Table 7.2-3: Resource Cost in the RBs of the RBD of Western Sterea Ellada (EL04) for the period 2024-2027**

RB	Total Environmental Cost (€)	Unit Environmental Cost (€/m <sup>3</sup> )
Acheloos (EL0415)	1.713.333,33	0,0009
Mornos (EL0421)	6.666,67	0,0028
<b>Total</b>	<b>1.720.000,00</b>	<b>0,0008</b>

The distribution of resource cost by use in the RBs of the RBD of Western Sterea Ellada (EL04) is presented in the table below.

**Table 7.2-4: Distribution of Resource Cost per Water Use in the RBD of Western Sterea Ellada (EL04)**

Resource Cost	Households	Agricultural		Industry
		Irrigation	Livestock	
<b>ACHELOOS RB (EL0415)</b>				
Total cost for all years of PoM implementation (€)	62.987,30 €	6.563.080,02 €	8.998,19 €	4.934,49 €
Annual Cost per use (€)	15.747 €	1.640.770 €	2.250 €	1.234 €
Share of use (%) in total annual cost	0,95%	98,84%	0,14%	0,07%
<b>Annual Unit Cost (€/m<sup>3</sup>)</b>	<b>0,00073 €/m<sup>3</sup></b>	<b>0,00349 €/m<sup>3</sup></b>	<b>0,00073 €/m<sup>3</sup></b>	<b>0,00073 €/m<sup>3</sup></b>
<b>LEFKADAS RB (EL0444)</b>				
Total cost for all years of PoM implementation (€)	120.068,61 €	2.144,08 €	643,22 €	2.144,08 €
Annual Cost per use (€)	30.017,15 €	536,02 €	160,81 €	536,02 €
Share of use (%) in total annual cost	96,05%	1,72%	0,51%	1,72%
<b>Annual Unit Cost (€/m<sup>3</sup>)</b>	<b>0,00536 €/m<sup>3</sup></b>	<b>0,00536 €/m<sup>3</sup></b>	<b>0,00536 €/m<sup>3</sup></b>	<b>0,00536 €/m<sup>3</sup></b>

In the Acheloos RB 98,84% of the total resource cost is related to irrigation use and 0,95% to household use. In the RB of Lefkadas 96,05% of the total resource costs is related to household use while the remaining 1,72% is related to irrigation and industry uses.

### 7.2.3 Environmental fees

According to the rules of water cost and price, water service providers will, from 2018 onwards, determine their costs, taking into account the environmental and resource costs calculated as presented in the above paragraphs. In terms of pricing, the relevant charges will have to be determined.

The following decisions have been issued for the River Basin District of Western Sterea Ellada (EL04), concerning the Environmental Cost and the Resource Cost:

#### 1. RB: EL0444 - No. Prot: 6196 / 10-01-2018 (Year 2019)

Cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,0006	-	-	-
Resource cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,003	-	-	-
Environmental Fee	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,0036	-	-	-

#### 2. RB: EL0415 - No. Prot: 13836 / 11-02-2019 (Year of use 2019)

Environmental cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,00017	0,0011	0,0067	0,00567

#### 3. RB: EL0420 - No. Prot: 39762 / 21-02-2019 (Year of use 2019)

Environmental cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,00017	0,0011	0,0067	0,00567

#### 4. RB: EL0420 - No. Prot: 270191 / 28-11-2019 (Year of use 2020)

Environmental cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	-	-	-	-

#### 5. RB: EL0415 - No. Prot: 286204 / 18-12-2019 (Year of use 2020)

Environmental cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,00017	0,0011	0,0067	0,00567

#### 6. RB: EL0444 - No. Prot: 3738 / 09-01-2020 (Year of use 2020)

Cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,0006	-	-	-
Resource cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,003	-	-	-
Environmental Fee	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,0036	-	-	-

**7. RB: EL0415 - No. Prot: 200435 / 06-11-2020 (Year of use 2021)**

Environmental cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,00017	0,0011	0,0067	0,00567

**8. RB: EL0420 - No. Prot: 212659 / 25-11-2020 (Year of use 2021)**

Environmental cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	-	-	-	-

**9. RB: EL0444 - No. Prot: 227314 / 18-12-2020 (Year of use 2021)**

cost (€) per cubic metre of water and per water use				
Environmental Cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,0006	-	-	-
Resource cost	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,003	-	-	-
Environmental Fee	Household use*	Agriculture **	Livestock***	Industry
Annual Unit Cost (€/m <sup>3</sup> )	0,0036	-	-	-

\*Household use includes drinking water supply and sewerage

\*\* Agriculture includes the subcategories "2.1 Irrigation" "2.4 Antifrozen protection" "2.3 Aquaculture" "2.5 Other water uses serving agricultural activities" of the basic category "2. Agricultural use" of Annex I of the J.M.D. 146896/14.

\*\*\*Livestock farming includes poultry farming

## 8 ENVIRONMENTAL OBJECTIVES - EXEMPTIONS

The following Table summarises the objectives set for 2027 for the 121 SWB of the RBD of Western Sterea Ellada. More specifically:

**Table 8-1: Ecological status/ecological potential and chemical status targets for surface water bodies by 2027**

OBJECTIVE	NUMBER OF SURFACE WB
Maintain of good / high ecological status	80
Maintain of good chemical status	111
Achieve good ecological status/potential	41
Achieve good chemical status	10
Exemption in accordance with Article 4.4	41
Exemption in accordance with Article 4.5	0
Exemption in accordance with Article 4.6	0

According to the above, it appears that for a total of 41 SWB, exemption of Article 4.4 for an extension of the deadline is implemented.

The Table below summarises the objectives set for the 26 GWB of the RBD of Western Sterea Ellada:

**Table 8-2: Quantitative and chemical status objectives for GWB after 2027**

OBJECTIVE	NUMBER OF SYSTEMS
Maintain of good quantitative status	24
Maintain of good chemical status	25
Achieve good quantitative status	2
Achieve good chemical status	1
Exemption in accordance with Article 4.4	2
Exemption in accordance with Article 4.5	0
Exemption in accordance with Article 4.6	0

According to the above:

- For 2 GWB the objective is to achieve good quantitative status whenever Natural Hydrogeological Conditions allow it, for one of the them until 2027 and for the other after 2027.
- For 1 GWB the objective is to achieve good chemical status whenever Natural Hydrogeological Conditions allow it after 2027.

## 9 PROGRAM OF MEASURES

### 9.1 Main management issues in the RBD of Western Sterea Ellada (EL04)

The most important management issues for the River Basin District of Western Sterea Ellada, as highlighted by the assessment of anthropogenic pressures and their impacts on each surface and groundwater body, are the following.

#### Pollution of surface water and groundwater bodies

The most important pressures identified in the River Basin District of Western Sterea Ellada are mainly related to livestock and industry activity, as well as the concentration of fish farming units (sea and inland waters).

#### Water abstractions from rivers and lakes:

The surface water bodies that are subject to significant abstractions are:

- the part of the river Tavropos that extends 12 km downstream of Limni Plastira (due to the water supply of Karditsa and the irrigation of the Local Irrigation Network Association of Tavropos in the south-western plain of Thessaly through the Tavropos reservoir),
- the part of the river Acheloos about 10 km immediately downstream of the Stratos dam, where total diversion of flow is implemented.
- the part of the river Mornos that extends immediately after the Mornos dam up to its estuary (due to the water supply of Athens through the Mornos reservoir) and
- the part of the river Evinos that extends 26,5 km downstream of the Evinos dam (due to the water supply of Athens and irrigation of the surrounding areas).
- the WB of Tafros Valti from which the Local Irrigation Network Association of Lessiniou is irrigated.

In terms of annual abstractions from reservoirs, the artificial lakes where high abstraction is implemented, are the Techniti Limni of Tavropou, the Techniti Limni of Evinos and the Techniti Limni of Mornos.

In conclusion, in the River Basin District of Western Sterea Ellada, the surface water bodies do not face problems of overexploitation, although irrigation is mainly carried out by surface waters. In the wider area of the river basin of Acheloos, water quantity is considered oversufficient in relation to its overall needs.

#### Hydromorphological alterations:

The hydromorphological alterations of surface water bodies in the River Basin District of Western Sterea Ellada consist of interventions mainly concerning dams for water abstraction and hydroelectric dams, with the consequent regulation of the flow downstream, but also of the adjustment of river, regulation of water balance of lakes and interventions on coasts.

#### Restrictions - Commitments

Some interventions, such as the modernisation of old irrigation networks and others, require the allocation of financial resources.

### Quantitative groundwater management

In terms of groundwater bodies, the River Basin District of Western Sterea Ellada is rich in groundwater resources.

The exploitation of groundwater aquifers (groundwater bodies) in Western Sterea Ellada has never been intensive. The reason for this is the oversupply of surface water, especially after the construction of irrigation works in the main plain areas.

In the River Basin District of Western Sterea Ellada, the groundwater bodies of Systima Anoixiatikou – Loutrou Amfilochias and Systima Vasilikis – Nydriou - Lefkadas are in a state of local overexploitation. In these cases overexploitation is accompanied by local salinisation due to sea intrusion in the Systima Anoixiatikou – Loutrou Amfilochias and locally in the case of Lefkadas. In both groundwater bodies that are open to the sea, overabstraction is observed only at a local level, resulting in a disturbance of the water balance and salination.

There are also significant problems of water salination in the western part of the RB of Acheloos and specifically in the GWB of Amfilochias.

A particular characteristic of the River Basin District is the increased natural background values for sulphate ions in several Groundwater Bodies in the western part of the RB of Acheloos, due to the development of both Triassic limestones mudflats with gypsum (Amfilochias - Lesini) and neonatal gypsum (Lefkadas).

### Sufficiency and good quality of drinking water

In the terrestrial part of the River Basin District of Western Sterea Ellada, the problems with the drinking water supply are related more with technical, economic and organisational problems and with local groundwater quality pollution due to high concentrations of sulphate ions (SO<sub>4</sub>) of natural origin in some of the groundwater bodies and less with insufficient water resources. However, in the island part of the River basin District, i.e. in Lefkada and the surrounding small islands, there is a problem of insufficient water resources during the summer period, when the presence of a large number of visitors – tourists has as a consequence the increase in the demand for drinking water.

## **9.2 Program of Basic and Complementary Measures**

According to paragraph 3 of Article 11 of the Directive, the Basic Measures are the minimum requirements that must be met in order to achieve the Environmental Objectives of Article 4 and comprise two sub-groups of measures.

The groups of basic measures on the basis of which the program of basic measures of the 2nd Update of the RBMP of Western Sterea Ellada has been designed, are described In the following sections.

## 9.2.1 Actions in implementation of EU Directives (Group I Basic Measures)

The table below lists the provisions transposing the EU Directives of Annex VI of Directive 2000/60/EC (as amended and in force) into national law .

DIRECTIONS	INCORPORATION INTO NATIONAL LAW
Bathing waters (Directive 2006/7/EC)	<b>JMD 8600/416/E103/23.02.2009 (Government Gazette 356/B/2009) on the</b> "Quality and management measures of bathing water, in compliance with the provisions of Directive 2006/7/EC "on the management of bathing water quality and the repeal of Directive 76/160/EEC" as amended and in force.
Protection of wild birds (Directive 2009/147/EC) and habitats (Directive 92/43/EEC)	<b>JMD ΗΠ 37338/1807/E103/1.9.2010</b> (Government Gazette 1495/B/2010) "Determination of measures and procedures for the conservation of wild birds and their habitats, in compliance with the provisions of Directive 79/409/EEC "On the Conservation of Wild Birds" of the European Council of 2 April 1979, as codified by Directive 2009/147/EC" and its amending <b>JMD ΗΗ 8353/276/E103/2012 (Government Gazette 415/B/2012).</b> <b>JMD 33318/3028/11.12.1998 (Government Gazette 1289/B/1998)</b> "definition of measures and procedures for the conservation of natural habitats and wild fauna and flora" and its amendment <b>JMD ΗΗ 14849/853/E103/2008</b> (Government Gazette 645/B/2008) in compliance with the provisions of Directive 92/43/EEC "on the conservation of natural habitats and wild fauna and flora". <b>Law 3937/2011 (Government Gazette 60/A/2011)</b> "Conservation of Biodiversity and other provisions" <b>JMD 50743/2017 (Government Gazette 4432/B/2017)</b> "Update of the national list of sites of the European Ecological Network Natura 2000" <b>Law 4685/2020 (Government Gazette 92/A/2020)</b> "Modernization of environmental legislation, incorporation into Greek legislation of Directives 2018/844 and 2019/692 of the European Parliament and of the Council and other provisions".
Drinking Water (Directive 2020/2184/EU)	<b>JMD No. Δ1 (δ)/ΓΠ οικ. 27829/15-5-2023 (Government Gazette 3525/B/25-5-2023)</b> "Quality of water intended for human consumption in compliance with the provisions of Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 (L435/1, 23.12.2020)"
Environmental Impact of Projects/ Activities (Directives 85/337/EEC, 2011/92/EU, 2014/52/EU)	<b>Law 4014/2011 (Government Gazette 209/A/2011)</b> "Environmental licensing of projects and activities, regulation of arbitrary acts in connection with the creation of environmental balance and other provisions under the competence of the Ministry of Environment" as amended and in force. <b>MD οικ.5688/2018 (Government Gazette 988/B` 21.3.2018)</b> "Modification of the annexes of the law. 4014/2011 (A` 209), in accordance with Article 36A of this Law, in compliance with Directive 2014/52/EU "amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment" of the European Parliament and of the Council of 16 April 2014". <b>Law 4936/2022 (Government Gazette 105/A` 27.5.2022)</b> "National Climate Law - Transition to climate neutrality and adaptation to climate change, urgent provisions to address the energy crisis and environmental protection".
Industrial Emissions Directive IED (Directives 96/61/EC, 2008/1/EC, 2010/75/EU)	<b>MD 36060/1155/E.103/2013 (Government Gazette 1450/B/2013)</b> "Establishing a framework of rules, measures and procedures for the integrated prevention and control of environmental pollution from industrial activities, in compliance with the provisions of Directive 2010/75/EU "on industrial emissions (integrated pollution

DIRECTIONS	INCORPORATION INTO NATIONAL LAW
	prevention and control)" of the European Parliament and of the Council of 24 November 2010"
<p>Protection from Nitrate Pollution (Directive 91/676/EEC)</p>	<p><b>JMD 16190/1335/19.05.1997 (Government Gazette 519/B/1997)</b> "Measures and conditions for the protection of waters from nitrate pollution of agricultural origin"  <b>MD οικ. 19652/1906/1999 (Government Gazette 1575/B/1999)</b> "Identification of waters subject to nitrate pollution of agricultural origin - List of vulnerable zones, in accordance with paragraphs 1 and 2 respectively of Article 4 of Joint Ministerial Decision No. 16190/1335/1997 "Measures and conditions for the protection of waters from nitrate pollution of agricultural origin" (B 519). Amendment of Articles 3, 4, 5 and 8 of this Decision" as amended by the <b>Ministry of Public Provisions 20419/2522/2001 (Government Gazette 1212/B/2001)</b>, the <b>Ministry of Public Provisions 24838/1400/E103/2008 (Government Gazette 1132/B/2008)</b>, the <b>Ministry of Public Provisions 106253/2010 (Government Gazette 1843/B/2010)</b>, the <b>Ministry of Public Provisions 190126/2013 (Government Gazette 983/B/2013)</b>, the <b>Ministry of Public Provisions 147070/2014 (Government Gazette 3224/B/2014)</b> and in force.  <b>JMD YPEN/38552/265/2019 (Government Gazette 1496/B/3-5-2019)</b> Action Program for areas identified as vulnerable zones from nitrate pollution of agricultural origin according to Article 2 of the relevant Decree No. 19652/1906/1999 Joint Ministerial Decision (V'1575), as in force, in compliance with Directive 91/676/EEC "for the protection of waters against nitrate pollution of agricultural origin" of the Council of the European Communities of 12 December 1991, as amended and in force.  <b>MD 1848/278812/2021 (Government Gazette 4855/B` 20.10.2021)</b> "Code of Good Agricultural Practice for the Protection of Waters from Nitrate Pollution of Agricultural Origin (Article 10§1)</p>
<p>Plant protection products (Directive 2009/128/EC, as amended by 2019/782/EU, Regulation (EC) No 1107/2009, Regulation (EU) No 652/2014)</p>	<p><b>Law 4036/27.01.2012 (Government Gazette 8/A/2012)</b> "Placing of agricultural products on the market, rational use of agricultural products and related provisions" as amended and in force.  <b>Law 4625/2019 (Government Gazette A 139 - 31.08.2019)</b> "Regulations of the Ministry of Infrastructure and Transport and other urgent provisions" [Article 19 includes the amendment of Annex E of Law 4036/2012 (Government Gazette 8/A/2012), in compliance with Directive (EU) 2019/782 (Articles 1 and 2 of Directive 2019/782/EU)].</p>
<p>Addressing major accident (Seveso) (Directive 2012/18/EU)</p>	<p><b>JMD 172058/2016 (Government Gazette 354/B/2016)</b> "Determination of rules, measures and conditions for addressing the risks of major accidents in installations or units, due to the presence of hazardous substances, in compliance with the provisions of Directive 2012/18/EU "on the control of major accident hazards involving dangerous substances and on the amendment and subsequent repeal of Council Directive 96/82/EC" of the European Parliament and of the Council of 4 July 2012. Replacement of Decree No 12044/613/2007 (376/B/2007), as corrected (Government Gazette 2259/B/2007)".</p>
<p>Use of Sewage Sludge (Directives 86/278/EEC, 2018/853/EU, Regulation 2019/1010/EU)</p>	<p><b>JMD 80568/4225/05.07.1991 (Government Gazette 641/B/1991)</b> "Methods, conditions and restrictions for the use in agriculture of sludge from domestic and urban wastewater treatment"  <b>JMD No. YPEN/ΔDA/41828/630 (FEK 2692/B/21.04.2023)</b> "Measures, conditions and procedures for the use of treated sludge in agriculture and soil remediation - Compliance with the provisions of Council Directive 86/278/EEC of 12 June 1986 "on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture", as amended by Regulation (EU) 2019/1010 of the European</p>

DIRECTIONS	INCORPORATION INTO NATIONAL LAW
	Parliament and of the Council of 5 June 2019 and replacing Regulation (EU) No. 80568/4225/1991 (B' 641) Joint Ministerial Decision."
Urban Wastewater Treatment (Directives 91/271/EEC, 98/15/EC)	KYA 5673/400/05.03.1997 (Government Gazette 192/B/1997) "Measures and conditions for the treatment of urban wastewater" and its amending decisions YA 19661/1982/2.8.1999 (Government Gazette 1811/B/1999) and YA 48392/939/28.3.2002 (Government Gazette 405/B/2002)

The planned actions for the implementation of EU and national legislation on water protection are presented in the following table.

Table 9.2-1: : Actions in implementation of EU Directives

DIRECTIONS	PLANNED ACTIONS
Bathing waters (Directive 2006/7/EC)	<ul style="list-style-type: none"> <li>• <b>BO11:</b> Continue monitoring bathing water quality in accordance with Directive 2006/7/EC.</li> <li>• <b>BO12:</b> Update of the Registry of Swimming Beaches</li> </ul>
Protection of wild birds (Directive 2009/147/EC) and habitats (Directive 92/43/EEC)	<ul style="list-style-type: none"> <li>• <b>BO21:</b> Preparation/institution of Management Plans for protected areas of the Natura 2000 network that are directly dependent on water, with special reference to water management issues.</li> <li>• <b>BO22:</b> Monitor/assess the conservation status of water-dependent habitats and species in Natura 2000 sites.</li> </ul>
Drinking Water (2020/2184/EE )	<ul style="list-style-type: none"> <li>• <b>BO31:</b> Monitoring the implementation of the Directive</li> </ul>
Industrial Emissions Directive IED (Directive 2010/75/EU)	<ul style="list-style-type: none"> <li>• <b>BO51:</b> Keeping a record-Registry of establishments covered by the provisions of the Directive</li> </ul>
Protection from nitrates (Directive 91/676/EEC)	<ul style="list-style-type: none"> <li>• <b>BO61:</b> Systematic monitoring of nitrate levels in water bodies that are or may be subject to nitrate pollution. Implementation of the Code of Good Agricultural Practice.</li> </ul>
Plant protection products (Directive 2009/128/EC, Regulation (EC) No 1107/2009, Regulation (EU) No 652/2014)	<ul style="list-style-type: none"> <li>• <b>BO71:</b> Rational use of plant protection products</li> </ul>
Addressing major accident (Seveso) (Directive 2012/18/EU)	<ul style="list-style-type: none"> <li>• <b>BO81:</b> Keeping a record-Registry of establishments covered by the provisions of the Directive.</li> </ul>
Use of Sewage Sludge (Directive 86/278/EEC)	<ul style="list-style-type: none"> <li>• <b>BO91:</b> Preparation of a CBA on measures, conditions and procedures for the use of sludge from the treatment of domestic and urban wastewater and certain liquid wastes, in compliance with the provisions of Directive 86/278/EEC and replacing CBA 80568/4225/1991 and promotion of actions related to the safe disposal of treated sludge.</li> <li>• <b>BO101:</b> Completion of sewerage and wastewater treatment works in agglomerations covered by the Directive</li> </ul>

DIRECTIONS	PLANNED ACTIONS
Urban waste water treatment (Directives 91/271/EEC and 98/15/EC) Regulation (EC) No 1107/2009, Regulation (EU) No 652/2014)	<ul style="list-style-type: none"><li>• <b>BO102:</b> Strengthening actions to monitor the efficient operation of existing wastewater treatment and drainage projects.</li></ul>

### 9.2.2 Other Basic Measures (Group II Basic Measures)

These categories of basic measures relate to the basic principles of Community and national water management legislation. The basic measures in this group relate to the horizontal application of actions to groups of water bodies, usually with the aim of achieving or maintaining good status in them.

A summary table is presented below with the measures proposed by this Group in the program of measures of the River Basin District of Western Sterea Ellada and the corresponding categories of measures. The program of measures for the River Basin District of Western Sterea Ellada includes 21 basic measures.

Table 9.2-2: Basic Measures of Other Categories

CODE - NAME OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE
<b>M04B0204</b> Training and expertise of all stakeholders (Decentralized Administrations, Regional Administration and water service providers) on the general rules of costing and pricing of water supply services	Measures to implement the principle of cost recovery for water services (Article 9)	-	Ongoing Measure (modification of title and description)
<b>M04B0301</b> Preparation / Update of Water Master Plans (Masterplan)	Measures to promote the efficient and sustainable use of water so as not to compromise the achievement of the objectives of the Directive (Article 4)	-	M04B0301 Ongoing Measure (modification of description)
<b>M04B0302</b> Actions for the reinforcement, rehabilitation, modernization of water supply networks and leakage control	Measures to promote the efficient and sustainable use of water so as not to compromise the achievement of the objectives of the Directive (Article 4)	Modification / Specialization of measure WD04B100	M04B0302 Ongoing Measure (modification of description)
<b>M04B0303</b> Increasing water use efficiency in land improvement infrastructure	Measures to promote the efficient and sustainable use of water so as not to compromise the achievement of the objectives of the Directive (Article 4)	Modification / Specialization of measure WD04B060	M04B0303 Ongoing measure (modification of the description of the measure)
<b>M04B0304</b> Investments for saving water in agriculture	Measures to promote the efficient and sustainable use of water so as not to compromise the achievement of the objectives of the Directive (Article 4)	Modification / Specialization of measure WD04B060	M04B0304 Ongoing measure
<b>M04B0305</b> Determination of upper limits for crop irrigation needs for private water abstraction	Measures to promote the efficient and sustainable use of water so as not to compromise the achievement of the objectives of the Directive (Article 4)	Modification/ Specialization of measure WD04B160	M04B0305 Ongoing measure (modification of measure description)
<b>M04B0308</b> Update of the existing Strategic Plan to Address Water Scarcity and Drought	Measures to promote the efficient and sustainable use of water so as not to compromise the achievement of the objectives of the Directive (Article 4)		M04B0308 Ongoing measure It has been completed for the RB of Lefkadas (EL0444).
<b>M04B0401</b> Protection of water abstraction points/zones intended for human consumption from Groundwater Bodies	Measures to protect waters intended for human consumption (Article 7)	Modification / Specialization of measure WD04B090, WD04B120	M04B0401 Ongoing measure (modification of measure)

CODE - NAME OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE
			description, including obligations of Directive 2020/2184/EU )
<b>M04B0402</b> Protection of GWB included in the Register of protected areas for human consumption and establishment of an institutional framework of protection	Measures to protect waters intended for human consumption (Article 7)	Modification / Specialization of measure WD04B130	M04B0402 Ongoing measure
<b>M04B0403</b> Protection of water projects intended for human consumption from Surface Water Bodies	Measures to protect waters intended for human consumption (Article 7)	-	M04B0403 Ongoing measure (modification of the description of the measure including the obligations of Directive 2020/2184/EU )
<b>M04B0501</b> Restrictions, terms and conditions for the construction of groundwater abstraction projects (boreholes, wells, etc.) for new uses, as well as the extension of permits for existing water uses in: (a) areas with poor quantitative status (b) in protection zone II of water abstractions serving drinking water supply networks operated by water service providers, (c) zones of irrigation networks associations (d) GWB in coastal zones with extensive or localised salinisation problems, irrespective of their origin	Measures to control surface and groundwater abstraction and surface water storage	Modification / Specialization of measure WD04B200	M04B0501 Ongoing measure (modification of measure description)
<b>M04B0601</b> Investigation of the conditions for the application of artificial groundwater aquifer enrichment as a means of quantitative enhancement and qualitative protection of GWB, with priority to GWB in poor condition and treatment of salinisation	Measures for the control and licensing of artificial enrichment of the GIS	Continuation of Measure WD04B210	M04B0601 Ongoing measure
<b>M04B0701</b> Strengthening environmental inspections and audits	Measures on point sources of discharges	-	M04B0701 Ongoing measure
<b>M04B0702</b> Defining guidelines and developing tools for the effective control of wastewater and industrial wastewater discharges	Measures on point sources of discharges	-	New measure to replace M04B0702 & M04B1102
<b>M04B0704</b> Conditions for the licensing of new/expansion of existing aquaculture facilities	Measures on point sources of discharges	-	M04B0704 Ongoing measure
<b>M04B0705</b> Establishment of rules for the protection of sinkholes	Measures on point & diffuse sources of discharges	Modification / Specialization	M04B0705 Ongoing

CODE - NAME OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE
		of measure WD04S070	measure
<b>M04B0801</b> <b>Biological agriculture</b>	Measures on diffuse sources of discharges	Modification / Specialization of measure WD04B310	M04B0801 Ongoing measure (modification of measure description)
<b>M04B0902</b> <b>Determination of the maximum range of reservoir level variation</b>	Measures to address negative impacts on the status of surface water bodies in particular from hydro-morphological alterations	-	M04B0902 Ongoing measure (modification of measure description)
<b>M04B0905</b> <b>Determination of selected areas for river sediment deposits removal for the needs of civil engineering works</b>	Measures to address negative impacts on the status of surface water bodies in particular from hydro-morphological alterations	Continuation of Measure WD04B340	M04B0905 Ongoing measure (modification of measure description)
<b>M04B0906</b> <b>Monitoring, recording and restoration of coastal erosion</b>	Measures to address negative impacts on the status of surface water bodies in particular from hydro-morphological alterations		M04B0906 Ongoing measure
<b>M04B0907</b> <b>Measures to identify and achieve Good Ecological Potential in Heavily Modified Water Bodies</b>	Measures to address negative impacts on the status of surface water bodies in particular from hydro-morphological alterations	-	New measure, following the implemented measure M04B0904 of the 1st Update

### 9.2.3 Supplementary Measures

The program of basic measures is a tool for the protection and restoration of all water bodies. To achieve the objectives of the Management Plan, the implementation of the basic measures needs to be supported by supplementary measures.

Methodologically, supplementary measures were suggested:

- a) To maintain the good status of surface or groundwater bodies, as well as to increase knowledge and awareness on specific issues for the rational use of water for targeted users. In this case, the supplementary measures are applied horizontally and do not identify the water bodies affected.
- b) Water bodies that, despite the implementation of the program of basic measures, are estimated to fail to achieve the good status objective by 2027, namely:
  - in water bodies which, according to measurements of qualitative and quantitative parameters or according to the new grouping methodological approach, are in a lower than good status,
  - in water bodies which are in good status but where there is clear evidence, through the analysis of pressures, that they are at risk of failing to achieve their environmental objectives.

The measures of case (b) shall be taken into consideration for the calculation of environmental and/or resource costs, in accordance with the applicable costing rules.

The program of measures for the River Basin District of Western Sterea Ellada includes 45 additional measures. The following table lists the supplementary measures to achieve good status in the surface and groundwater bodies of the river basin district:

Table 9.2-3: Supplementary measures to achieve the objectives of the Directive in surface and groundwater bodies in the River Basin District of Western Sterea Ellada (EL04)

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
M04Σ0201 Development of a Monitoring System for the Program of Measures of the RBMP of the River Basin District and provision of support services for the implementation of the program of measures of the RBMP of the River Basin District	Administrative Measures	-	M04Σ0201 Ongoing measure	All WB	650.000
M04Σ0202 Prohibition of sand extraction from the water bodies of Acheloos river downstream of the Techniti Limni Stratos until a special study per RB is conducted to determine selected areas for sand extraction for the needs of civil engineering works		It is related to the measure WD04S010 of the 1 <sup>st</sup> RBMP	M04Σ0202 Ongoing measure	ELO415R000200003N (ACHELOOS P. 2), ELO415R000200011H (ACHELOOS P. 5)	0
M04Σ0203 Redelineation of coastal WBs to the maritime area between the coasts Aitoloakarnanias, Lefkadas and Echinadon nison	Administrative Measures		M04Σ0203 Ongoing measure	ELO444C0004N (DYT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES) KAI ORMOS VASILIKIS), ELO415C0003N (ANAT. ESOTERIKO ARCHIPELAGOS IONIOU (ECHINADES))	0
M04Σ0204 Completion of the procedure of the Joint Ministerial Decision 146896/2014 for the water abstraction points registered in the National Abstraction Point Register of GWB ELO400170 SYSTIMA VASILIKIS-NYDRIOY-LEFKADAS	Administrative Measures		M04Σ0204 Ongoing measure	ELO400170 (SYSTIMA VASILIKIS-NYDRIOU-LEFKADAS)	0

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
M04Σ0206 Establishment of the Ionian Islands River Basin District (EL15)	Administrative Measures	-	NEW MEASURE	All WB (in EL0444)	0
M04Σ0207 A package of measures to prevent and tackle water scarcity and drought.	Administrative Measures	-	NEW MEASURE	All SWB and GWB (in EL0444)	60.000
M04Σ0208 Establishment of an institutional framework for determining the conditions for the protection of inland recreational waters under Article 6 of Directive 2000/60/EC - Temporary regulation for new projects in inland water bodies included as recreational waters in the Register of Protected Areas under Article 6 of Directive 2000/60/EC	Administrative Measures	Continuation of measure WDO4B330	Modification of the basic measure M04B0901	TECHNITI LIMNI TAVROPOU (ELO415RL00212001H), TECHNITI LIMNI KREMASTON (ELO415RL00200012H), ACHELOOS P. 12 (ELO415R000200059N), ACHELOOS P. 13 (ELO415R000200060N), KRIKELIOTIS R. 1 (ELO415R000210015N), KRIKELIOTIS R. 3 (ELO415R000210020N), KRIKELIOTIS R. 2 (ELO415R000210019N), TAVROPOS P. 1 (ELO415R000212021N), AGRAFIOTIS P. 1 (ELO415R000216034N), AGRAFIOTIS P. 2 (ELO415R000216035N), KARPENISIOTIS R. 1 (ELO415R000210217N), KARPENISIOTIS R. 2 (ELO415R000210218N), EVINOS P. 2 (ELO420R000200070N),	0

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
				KORISTIANIKO R. (ELO415R000210116N), TAVROPOS P. - PARAPOTAMOS MEGA R. 1 (ELO415R000212324N), APOTRIADITIKO R. (ELO415R000212223N)	
<b>M04Σ0401</b> Initiatives on making an environmental agreement between the Management Authority of the protected area of the National Park of Limnothalassa Mesologgiou and Protected Areas of Western Sterea Ellada and the organisations of agricultural farmers' and livestock farmers' for the reduction of the impacts of agriculture on the status of wetland ecosystems	Environmental agreements after negotiations	It is related to the measure WD04S040 of the first RBMP	M04Σ0401 Ongoing measure	ELO415R000101001H (AGRILIAS R.1), ELO415R000200003N (ACHELOOS P. 2), ELO415T0002N (LIMNOTHALASSA MESOLONGIOU (KENTRIKI, KLEISOVA))	20.000
<b>M04Σ0402</b> Initiatives on making an environmental agreement between the Management Authority of Limnothalassa Mesologgiou and Protected Areas of Western Sterea Ellada and association of fishermen and aquaculture farmers for the reduction of any potential impacts of extensive and intensive aquaculture on the status of transitional and coastal water bodies and ecosystems	Environmental agreements after negotiations	It is related to the measure WD04S050 of the first RBMP	M04Σ0402 Ongoing measure	ELO415R000101001H (AGRILIAS R.1), ELO415R000200003N (ACHELOOS P. 2), ELO415T0002N (LIMNOTHALASSA MESOLONGIOU (KENTRIKI, KLEISOVA))	20.000
<b>M04Σ0501</b> Audits in the outlets of stormwater and other point sources of pollution discharging into surface water systems	Emission controls	-	M04Σ0501 Ongoing measure	It is related to specific SWB	120.000
<b>M04Σ0503</b> Audits on compliance with the discharging limits by	Emission controls	-	M04Σ0503 Ongoing measure	For SWB classified as "failing to achieve good"	200.000

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
<b>Industrial processing and livestock and poultry farms within the catchment area of the water body at least twice a year</b>				ecological or chemical status	
<b>M04Σ0504</b> Design and implementation of a specialised program aiming at monitoring point source discharges in SWB related to specific pollutants according to the results of the Registry of pollution sources	Emission controls	-	NEW MEASURE	MORNOS P. 1 EL0421R000201084N (and upstream WB) LIMNOTHALASSA MESOLONGIOU (KENTRIKI, KLEISOVA) EL0415T0002N DIMIKOS P. EL0415R000202005H (and upstream WB) MORNOS P. 3 EL0421R000200091N (and upstream WB) AGRILIAS R. 1 EL0415R000101001H (and upstream WB) LIMNI VOULKARIA EL0415L000000009N	60.000
<b>M04Σ0505</b> Investigative monitoring program on the quality status of groundwater and surface water bodies in the areas of existing landfills	Emission controls	Modification / Specialisation of measure WD04S090	Modification of basic measure M04B0703	EVINOS P.2 (EL0420R000200070N), TECHNITI LIMNI STRATOI (EL0415RL00200004H), EVINOS P.1 (EL0420R000201069N)	0
<b>M040701</b> Projects for the improvement of the hydraulic connection between some parts of the wetland systems of Amvrakikos, which are facing problems of insufficient fresh or saltwater supply.	Restoration and rehabilitation of wetland areas	It is related to measure WD04S120 of the first RBMP	M04Σ0701 Ongoing measure	EL0415T0002N (LIMNOTHALASSA MESOLONGIOU (KENTRIKI, KLEISOVA))	13.000.000

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
Projects for the improvement of the hydraulic connection between some parts of wetland systems, facing problems of sufficient fresh or salt water supply, in the wider area of the wetland system of the EKVOLES ACHELOOU and the lagoons of Messolongi - Aitoliko					
M04Σ0702 Conducting a study to examine the possibility of re-opening the tunnel outfall of Lysimachia in the limnothalassa Aitolikou	Restoration and rehabilitation of wetland areas		Modification of M04Σ0702	LIMNOTHALASSA AITOLIKOU (E0415T0001N), LIMNI LYSIMACHIA (E0415L000000005N), LIMNI TRICHONIDA (E0415L000000004N)	300.000
M04Σ0801 Quality control of licensed water abstraction projects in groundwater bodies with high natural background values (chloride ions)	Control of abstractions	It is related to the measure WD04S150 of the first RBMP	M04Σ0801 Ongoing measure	E0400020 (SYSTIMA AKARNANIKON OREON), E0400080 (SYSTIMA DELTA ACHELOOU-OINIADON), E0400140 (SYSTIMA AMFILOCHIAS), E0400160 (SYSTIMA LEFKADAS), E0400170 (SYSTIMA VASILIKIS – NYDRIOU - LEFKADAS), E0400260 (SYSTIMA MEGANISIOU - KASTOU - KALAMOU), E0400070 (SYSTIMA ARAKYNTHOU), E0400180 (SYSTIMA VONITSAS –	20.000

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
				Voulkaria)	
<b>M04Σ0802</b> Control of artesian wells	Control of abstractions	It is related to the measure WD04S140 of the first RBMP	M04Σ0802 Ongoing measure	All WB	0
<b>M04Σ0803</b> Restrictions or replacement of groundwater pumping with abstraction from a surface water body or other groundwater body or technical project (Ponds, dam, desalination)	Control of abstractions		M04Σ0803 Ongoing measure	EL0400170 (SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS)	50.000
<b>M04Σ0804</b> Prohibition in the construction of new groundwater abstraction projects (drilling, wells, etc.) for new water use licenses and the extension of existing water use licenses in the GWB Systima Arakynthou (EL0400070).	Control of abstractions	-	M04Σ0804 Ongoing measure	EL0400070 (SYSTIMA ARAKYNTHOU)	0
<b>M04Σ0805</b> Restrictions and conditions for the construction of new water abstraction projects in EL0400170 SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS and EL0400160 SYSTIMA LEFKADAS	Control of abstractions	-	M04Σ0805 Ongoing measure	SYSTIMA LEFKADAS (EL0400160), SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS (EL0400170)	0
<b>M04Σ0806</b> Control of licensed water abstraction in GWB classified in bad quantitative status GWB	Control of abstractions		M04Σ0806 Ongoing measure	EL0400170 (SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS)	0
<b>M04Σ0807</b> Implementation of a water flow metering program in SWB with high abstraction pressure assessment	Control of abstractions	-	NEW MEASURE	ACHELOOS P. 5 (EL0415R000200011H), TAVROPOS P. 2 (EL0415R000212029H), TAFROS VALTI (EL0415R000301063H), MORNOS P. 1 (EL0421R000202086N),	80.000

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
				MORNOS P. 2 (ELO421R000200091N), EVINOS P.2 (ELO420R000200070N)	
<b>M04Σ0808</b> Restrictions and conditions for the construction of new water abstraction projects in SYSTIMA AMFILOCHIAS ELO400140	Control of abstractions		NEW MEASURE	SYSTIMA AMFILOCHIAS (ELO400140)	0
<b>M04Σ0809</b> Restrictions and conditions for the construction of new water abstraction projects in SYSTIMA AKARNANIKON OREON ELO400020, SYSTIMA VONITSAS – VOYLKARIA and SYSTIMA KATOUNAS-LESINIYOU ELO400050	Control of abstractions		NEW MEASURE	SYSTIMA AKARNANIKON OREON (ELO400020), SYSTIMA VONITSAS – VOYLKARIA (ELO400180), SYSTIMA KATOUNAS- LESINIYOU (ELO400050)	0
<b>M04Σ0810</b> Specific arrangements for the protection of the quantitative status of the GWB	Control of abstractions	-	NEW MEASURE	All WB	0
<b>M04Σ1002</b> Recording water losses in water abstractions and exits of the water supply tanks	Efficiency and re-use measures		M04Σ1002 Ongoing measure	ELO400170 (SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS)	0
<b>M04Σ1003</b> Providing incentives for the installation of water saving equipment / upgrading of wastewater treatment facilities in large hotels and reduction of abstraction from GWB	Administrative Measures	-	NEW MEASURE	ELO400160 (SYSTIMA LEFKADAS), ELO400170 (SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS)	-
<b>M04Σ1101</b> Completion of the Canal DI - Amvrakias - Amfilochias - Valtos	Construction projects	It is related to measure WD04S210 of the first RBMP	NEW MEASURE	SYSTIMA ANOIXIATIKOU - LOUTROU AMFILOCHIAS (ELO400040), SYSTIMA AMFILOCHIAS (ELO400140)	18.000.000
<b>M04Σ1102</b>	Construction projects		NEW MEASURE	SYSTIMA ANOIXIATIKOU -	65.000.000

Summary

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
Land improvement works in the lakeside areas of Amvrakias -Amfilochias-Valtos A' Phase				LOUTROU AMFILOCHIAS (EL0400040), SYSTIMA AMFILOCHIAS (EL0400140)	
M04Σ1301 Restoration and ecological operation of connecting ditches	Rehabilitation projects	It is related to measure WD04S260 of the first RBMP	Modification of M04Σ1301	DIMIKOS P. (EL0415R000202005H), ENOTIKI TAFROS (EL0415R000202007H), TAFROS YPERCHEILISIS OZEROY (EL0415R000204010H), LIMNI TRICHONIDA (EL0415L000000004N), LIMNI LYSIMACHIA (EL0415L000000005N), LIMNI OZEROS (EL0415L000000006N)	180.000
M04Σ1302 Establishment of environmental flow and measures for the improvement of fish continuity in rivers designated HM downstream of dams	Rehabilitation projects	-	NEW MEASURE	MORNOS P.2 (EL0421R000200085H), TAVROPOS P.2 (EL0415R000212029H)	0
M04Σ1501 Professional training of farmers for the protection of water bodies	Educational measures	-	M04Σ1501 Ongoing measure	All WB	96.645
M04Σ1502 Informing and raising public awareness regarding water issues	Educational measures	-	M04Σ1502 Ongoing measure	All WB	50.000
M04Σ1503 Strengthening of environmental programs in Primary Education	Educational measures	-	M04Σ1503 Ongoing measure	All WB	50.000

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
<b>M04Σ1601</b> Pilot measures for the implementation of precision agriculture	Research, development and demonstration projects	-	M04Σ1601 Ongoing measure	All WB	200.000
<b>M04Σ1603</b> Design and implementation of a specific investigative monitoring program with the aim of collecting data for the provisional identification of water bodies downstream of dams as Heavily Modified Water Bodies	Research, development and demonstration projects	-	M04Σ1603 Ongoing measure	EL0415R000200011H (ACHELOOS P. 5), EL0420R000200073N (EVINOS P. 3), EL0421R000200085H (MORNOS P. 2)	250.000
<b>M04Σ1606</b> Monitoring the anoxicity observed in the Amvrakikos Gulf and the time evolution of this stratification	Research, development and demonstration projects	-	M04Σ1606 Ongoing measure	EL0415C0009N (NOTIOS AMVRAKIKOS KOLPOS),	100.000
<b>M04Σ1607</b> Increase in the density of the monitoring network of GWB	Research, development and demonstration projects	-	M04Σ1607 Ongoing measure	EL0400170 (SYSTIMA VASILIKIS - NYDRIOU – LEFKADAS)	50.000
<b>M04Σ1608</b> Development of a network of hydrometric stations	Research, development and demonstration projects	-	NEW MEASURE	It is related to specific SWB	400.000
<b>M04Σ1609</b> Regional Monitoring Program for SWB in the RBD of Western Sterea Ellada with a low level of confidence in status assessment	Research, development and demonstration projects	-	NEW MEASURE	EL0415R00000008N (PLATANIAS R.), EL0415R000200011H (ACHELOOS P. 5), EL0415R000200049N (ACHELOOS P. 8), EL0415R000200062N (ACHELOOS P. 14), EL0415R000206012N (ZERVAS R.), EL0415R000208013N	380.000

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
				(INACHOS P. 1), ELO415R000208014N (INACHOS P. 2), ELO415R000212223N (APOTRIADITIKO R.), ELO415R000212832N (MEGALO P.), ELO415R000226043N (VATANIADA R.), ELO415R000234055N (VATHYRREVMATOS R.), ELO415R000301063H (TAFROS VALTI), ELO420R000201069N (EVINOS P. 1), ELO420R000202071N (PORIARIS R.), ELO420R000501094N (KATO VASILIKIS R.), ELO421R000210090N (MPELESITSA R.), ELO444R000101095N (KAROYCHAS P.), ELO415T0005N (LIMNI SALTINI), ELO415L000000009N (LIMNI VOULKARIA)	
<b>M04Σ1610</b> Determination of the ecological level of LIMNI TRICHONIDA	Research, development and demonstration projects		NEW MEASURE	LIMNI TRICHONIDA (ELO415L000000004N)	200.000
<b>M04Σ1611</b> Determination of the ecological level of LIMNI	Research, development and demonstration		NEW MEASURE	LIMNI LYSIMACHIA (ELO415L000000005N)	100.000

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>st</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
<b>LYSIMACHIA</b>	projects				
<b>M04Σ1612</b> Determination of the ecological level of LIMNI OZEROS	Research, development and demonstration projects		NEW MEASURE	LIMNI OZEROS (EL0415L000000006N)	100.000
<b>M04Σ1613</b> Determination of the ecological level of LIMNI AMVRAKIA	Research, development and demonstration projects		NEW MEASURE	LIMNI AMVRAKIA (EL0415L000000008N)	100.000
<b>M04Σ1614</b> Determination of the ecological level of LIMNI VOULKARIA	Research, development and demonstration projects		NEW MEASURE	LIMNI VOULKARIA (EL0415L000000009N)	100.000

#### 9.2.4 Additional supplementary measures to achieve the objectives of the Directive in the surface and groundwater of the River Basin District of Thessalia

In this section, a brief presentation is made of the additional measures proposed to be included in the program of supplementary measures of the 2<sup>nd</sup> Update of the RBMP of Western Sterea Ellada, concerning the coverage of the quantitative annual deficit of 172 hm<sup>3</sup> recorded in Thessalia for the coverage of the basic water uses (agriculture, livestock, water supply and industry), as well as the achievement of the objectives of the Directive for the surface and groundwater of the River Basin District of Thessalia. These supplementary measures allow for the conditional transfer of 250 hm<sup>3</sup> per year from the RB of Acheloos to the RB of Pineios.

More specifically, in the context of the present 2<sup>nd</sup> Update of the RBMP of Western Sterea Ellada and Thessalia, it is proposed to include the possibility of transferring 250 hm<sup>3</sup> per year from the RB of Acheloos to the RB of Pineios in the program of supplementary measures of the two RBMP s (Western Sterea Greece and Thessalia) as a group of four distinct measures, of which the successful completion of the first is a prerequisite for the activation and implementation of the other three.

The first measure concerns both the preparation of the necessary technical studies for the redesign<sup>1</sup> of the Sykia reservoir as the only water storage project that will provide the possibility of transferring 250 hm<sup>3</sup> per year and the preparation - updating of the studies necessary according to the legislation in force for the comprehensive technical and environmental licensing of the entire project.

The other three measures concern the implementation of the construction works for the transfer of water quantity from RB of Acheloos and their utilisation in the RBD of Thessalia. These three measures are subject to the successful completion of the first measure mentioned above and can therefore only be activated and implemented after the completion of the procedures and actions for the redesign and successful licensing of the Sykia project.

The table below presents the water demand and availability of water resources as derived from the 2<sup>nd</sup> Update of the RBMP of Thessalia.

**Table 9.2-4: Water needs and available water resources in the RBD of Thessalia (1<sup>st</sup> and 2<sup>nd</sup> Update of the RBMP)**

Units of measurement	stremma	m <sup>3</sup>	m <sup>3</sup>
WATER NEEDS IN THE RBD OF THESSALIA		1st Update	2nd Update
Irrigation needs (AGRICULTURE) - 1st Update	2.500.000	1.310.000.000*	
Irrigation needs (AGRICULTURE) - 2nd Update	2.830.000		1.290.000.000**
Losses in water transport mainly of surface water in primary and secondary networks (from the abstraction source to the central supply in the field) - 2nd Update			89.000.000
OTHER NEEDS (WATER SUPPLY, LIVESTOCK, INDUSTRY)		115.000.000	106.000.000
<b>TOTAL</b>		<b>1.425.000.000</b>	<b>1.485.000.000</b>
<b>AVAILABILITY OF WATER RESOURCES WITHIN THE RIVER</b>			

<sup>1</sup> The redesign of the Sykia reservoir is absolutely necessary, since the last design was done before 2000 and involved a storage project which, in combination with the Mesochora reservoir, provided the possibility of transferring more than 1 hm<sup>6</sup> per year.

Units of measurement	stremma	m <sup>3</sup>	m <sup>3</sup>
<b>BASIN DISTRICT OF THESSALIA</b>			
SECURED QUANTITY AVAILABILE FROM EXISTING STORAGE OPERATIONS		168.000.000	220.000.000
SUSTAINABLE QUANTITY OF ANNUAL GROUNDWATER ABSTRACTION (average environmental requirements)		620.000.000	620.000.000
SUSTAINABLE QUANTITY OF SUMMER ABSTRACTION FROM SURFACE WATERS (average environmental requirements)		160.000.000	180.000.000
<b>TOTAL</b>		<b>948.000.000</b>	<b>1.020.000.000</b>
<b>REMAINING QUANTITATIVE DEFICIT</b>		<b>477.000.000</b>	<b>465.000.000</b>

\* Includes surface water transport losses in primary and secondary networks (from the abstraction source to the central supply in the field)

\*\* In the 2nd Update, meteorological data of mean temperature time series were used for the assessment of irrigation needs and in applying the Blaney - Criddle method, in contrast to the methodology applied in the 1st Update, when the mean maximum temperature was used.

- Following the implementation of a series of measures, which are already having visible results in many cases and which relate to
  - a) reduced irrigation water consumption by reducing losses (replacing open networks with closed ones) and rationalising irrigation methods with a target quantity of 450 cubic meters/stremma/year for crop irrigation; and
  - b) increased available resources in the RBD of Thessalia due to the development of new water storage projects, reservoirs, as well as the application of artificial enrichment in groundwater aquifers
 still remains a significant deficit of available water resources to meet the needs in the RBD of Thessalia, estimated at 172 hm<sup>3</sup> per year.

The table below shows the quantities per package of measures and the corresponding remaining deficits.

Packages of basic and supplementary measures within the Water Region of Thessaly of the proposed programme of measures of the 2 <sup>nd</sup> Update of the RBMP of Thessalia	REMAINING DEFICIT (m <sup>3</sup> /year)
<i>Estimated initial annual deficit (2021 data)</i>	465.000.000
<b>FIRST PACKAGE OF MEASURES (savings and rationalisation measures)</b> including measures for water savings and loss reduction (replacement of networks, rationalisation of irrigation methods, etc.) <i>Remaining quantitative deficit after the implementation of the first package of measures</i>	359.500.000
<b>SECOND PACKAGE OF MEASURES (relatively mature water storage projects in Thessalia - included in a financial instrument)</b> Winter runoff storage projects of importance (Narthaki, Kaklitzorema), the Agiokampos reservoir, the Paleoderli dam on the Enipeas and the Pournari reservoir in Ambelakia <i>Remaining quantitative deficit after the implementation of the second package of measures</i>	322.258.000
<b>THIRD PACKAGE MEASURES (less mature water storage projects in Thessalia - not included in a financial instrument)</b> Reservoir projects: the dams of Pyli, Chamilo Mouzaki, Kalouda and Neochoritis, the reservoirs of Kalo Nero - Agios Antonios, Koilada, Kranonas, Belma and Kerasoula Trikalon, the dam at Deleria, the dam of Agioneriou Elassona and the Titanos weir Artificial enrichment in groundwater aquifers Reservoirs in lowlands <i>FINAL REMAINING QUANTITATIVE DEFICIT AFTER THE IMPLEMENTATION OF ALL THE ABOVE MEASURES</i>	172.038.000

- The research and analysis that took place in the framework of both the 1st Update of the RBMP and the current 2nd Update does not leave room for significant further possibilities to increase the availability of water resources through new storage projects that have not been identified so far within Thessalia and have not been included as measures in the 2nd Update of the RBMP of Thessalia.
- Similarly, the research and analysis that took place in the framework of both the 1st Update of the RBMP and the current 2nd Update does not leave room for significant further possibilities to reduce the average irrigation requirement below 450 cubic meters per stremma, even if losses in irrigation water transfer are minimised and irrigation methods are implemented to the greatest extent possible (depending on the types of crops).

**Table 9.2-5: Supplementary measures to achieve good status (Part B - Additional measures for the transfer of water from the RB of Acheloos to the RB of Pineios)**

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>o</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
<b>M08Σ1126</b> Redesign of the Sykia reservoir at preliminary design level for the transfer of 250 million cubic meters from RB of Acheloos to the RB of Pineios and its	Construction projects	The measure is related with WD08S400 of the 1 <sup>st</sup> RBMP	NEW MEASURE	Surface and Groundwater Bodies of the RBs of the RBD of Thessalia that are in chronic overexploitation status and are expected to benefit from the proposed	750.000.000  The cost is counted in the Program of Measures of the RBD of EL08

CODE - TITLE OF MEASURE	CATEGORY OF MEASURE	CORRELATION WITH 1 <sup>o</sup> RBMP	CORRELATION WITH 1 <sup>st</sup> UPDATE	WB CONCERNED	COST (€)
licensing				water storage projects	
<b>M08Σ1127</b> Implementation of the redesigned Sykia reservoir project	Construction projects	The measure is related with WD08S401 of the 1st RBMP	NEW MEASURE	Surface and Groundwater Bodies of the RBs of the RBD of Thessalia that are in chronic overexploitation status and are expected to benefit from the proposed water storage projects	100.000.000  The cost is counted in the Program of Measures of the RBD of EL08
<b>M08Σ1128</b> Completion of the Tunnel for Water Transfer of 250 hm <sup>3</sup> from RB of Acheloos to the RB of Pineios	Construction projects	The measure is related with WD08S402 of the 1st RBMP	NEW MEASURE	Surface and Groundwater Bodies of the RBs of the RBD of Thessalia that are in chronic overexploitation status and are expected to benefit from the proposed water storage projects	70.000.000  The cost is counted in the Program of Measures of the RBD of EL08
<b>M08Σ1129</b> Design and Construction of irrigation networks for the replacement of boreholes in the RB of Pineios	Construction projects	The measure is related with WD08S403 of the 1st RBMP	NEW MEASURE	Surface and Groundwater Bodies of the RBs of the RBD of Thessalia that are in chronic overexploitation status and are expected to benefit from the proposed water storage projects	120.000.000  The cost is counted in the Program of Measures of the RBD of EL08

## 10 NEXT STEPS

### 10.1 Difficulties encountered in the preparation of the 2nd Update

The preparation of the Management Plan, as a whole, was a demanding task, multidimensional and complex, with the main limitation being the lack of information regarding both the results of the monitoring program implemented in the National Monitoring Network and the non-implementation of measures of the 1<sup>st</sup> Update concerning the implementation of investigative monitoring programs.

Quantitative data of different water uses, with the exception of household water use, still have deficiencies or difficulties in their accurate calculation in the preparation of the 2<sup>nd</sup> Update.

Apart from the above, the usual problems that occur both at national level and at the level of the River Basin District of Western Sterea Ellada were the following:

- Restrictions on the recording of pollutant loads discharged by industry and the anti-pollution technologies applied.
- Continuation of over-abstraction of surface water resources to meet irrigation needs due to extremely high losses in abstraction works and primary networks for transporting water to the areas of use. Although there appears to be sufficient resources to meet the needs of the RBD to date, as well as to supply and support the conservation of wetland systems of international importance with high biodiversity, it is necessary to conduct works to replace, repair and maintain the networks. This type of project is proposed in the relevant programs of measures to be studied and implemented already in the 1st RBMP (2014), have been re-proposed in the 1<sup>st</sup> Update of the RBMP (2017) and are proposed again herein.
- Difficulties in the completeness of data collection that would complement and document to a greater extent, issues considered under the requirements of the Directive such as pressure data.
- Inadequately staffed competent departments that are required to implement the Management Plans, both at the level of decentralised administration and at the regional level (Water Directorates, Water Management Departments etc.).
- Incomplete records of water cost and billing, non-adherence to relevant accounting standards in some MEWSS or local authorities.
- No distinction between the economic elements of water supply and sewerage services, making it impossible to differentiate between the two water services in the economic analysis.
- Non-differentiation of billing data by use by water service providers for both water supply and irrigation water supply.
- Limited access of the relevant authorities to Community financial resources for the implementation of measures included in the respective programs of basic and supplementary measures.

## 10.2 Next steps - Implementation of the Management Plan

The objective of the Management Plan is to prevent further deterioration, protect and improve the status of inland surface, transitional, coastal and groundwater bodies, as well as the terrestrial ecosystems and wetlands directly dependent on them. To achieve this objective requires the implementation of the Program of Basic and Supplementary Measures.

The Program of Measures has been designed in such a way that the priority of each intervention is clearly indicated according to its cost, its effectiveness, the importance of the water system to which it applies and the necessary time to prepare it.

All elements of the Program of Measures are important, but some planning and prioritisation is required to enable the monitoring of the progress and to identify where corrective action is needed when deviations from targets are identified.

In the following, some main axes are proposed that constitute a basic framework for the organisation of the Action Plan, which can be enriched and eventually shaped according to the views of the competent services, in order to better implement the Management Plan:

- **Monitoring/investigation programs for the quantitative and qualitative status of surface and groundwater bodies.** Bodies have been identified for which existing data are not sufficient for classification (with emphasis on water bodies with a low level of confidence, due to classification by grouping/expert judgement and high or moderate pressure intensity). Priority should therefore be given to measures related to the verification of the status of these systems.
- **Ensuring drinking water in sufficient quantity and satisfactory quality in accordance with the requirements of the relevant legislation.**
- **Water for agriculture.** Agriculture is an important activity for the local and national economy. Measures related to modernization of irrigation infrastructure, adoption of modern irrigation methods and adoption of good agricultural practices that reduce irrigation water abstractions and the impact of agriculture on diffuse and point source pollution and are an important priority for the Management Plan.
- **Protected areas.** The River Basin District includes several protected areas of particular importance.
- **Strengthening environmental inspections and audits.** The implementation of the Program of Measures requires wider and more intensive audits of water abstractions and pollution from point sources.
- **Other Measures in accordance with the Program of Measures.**

Further critical issues that determine the degree of implementation of the Program of Measures are the following:

- coordinating the stakeholders involved in its implementation and ensuring channels of communication with other stakeholders.

The evaluation of the results of the Monitoring Network of water bodies and its appropriate adaptation, where necessary, both to cover missing data and to rationalise it, so that during the process of implementing the program of measures it is possible to monitor the progress and impact of the measures on water status.

## 11 SUMMARY STATISTICS FOR THE RIVER BASIN DISTRICT OF WESTERN STEREA ELLADA (EL04)

The following Tables contain aggregated statistics for the River Basin District of Western Sterea Ellada (EL04).

**Table 11-1: Categories of Water body per RB in the RBD of Western Sterea Ellada (EL04)**

CATEGORIES OF WATER BODIES	RB of Acheloos (EL0415)	RB of Evinos (EL0420)	RB of Mornos (EL0421)	RB of Lefkadas (EL0444)	RBD TOTAL
River WB	69	16	10	1	96
Lake WB	9	1	1		11
Transitional WB	4	-	-	1	5
Coastal WB	4	-	1	4	9
<b>TOTAL SURFACE WB</b>	<b>86</b>	<b>17</b>	<b>12</b>	<b>6</b>	<b>121</b>
Groundwater bodies	15	4	4	3	26
<b>TOTAL NUMBER OF WATER BODIES</b>	<b>101</b>	<b>21</b>	<b>16</b>	<b>9</b>	<b>147</b>
Heavily modified and artificial water bodies (HMWB/AWB)	11	1	2	1	15
Water bodies linked to protected areas	69	10	9	6	94

**Table 11-2:Types of surface water bodies per RB in the RBD of Western Sterea Ellada (EL04)**

<b>TPOLOGY OF SURFACE WATER BODIES</b>	<b>RB of Acheloos (EL0415)</b>	<b>RB of Evinos (EL0420)</b>	<b>RB of Mornos (EL0421)</b>	<b>RB of Lefkadas (EL0444)</b>	<b>RBD TOTAL</b>
<b>River water bodies</b>	<b>69</b>	<b>16</b>	<b>10</b>	<b>1</b>	<b>96</b>
Type R-M1	31	8	6		45
Type R-M2	22	4	3		29
Type R-M3	7	2			9
Type R-M4	3	2		1	6
Type R-M5	6		1		7
<b>Reservoirs</b>	<b>4</b>	<b>1</b>	<b>1</b>		<b>6</b>
Type L-M5/7	1				1
Type L-M8	2	1	1		4
Type GR-SR	1				1
<b>Lake water bodies</b>	<b>5</b>				<b>5</b>
Type GR-DNL	2				2
Type GR-SNL	2				2
Type GR-VSNL	1				1
<b>Transitional water bodies</b>	<b>4</b>			<b>1</b>	<b>5</b>
Type TW 1	1				1
Type TW 2	3			1	4
<b>Coastal water bodies</b>	<b>4</b>		<b>1</b>	<b>4</b>	<b>9</b>
Type IIIE	4		1	4	9

Table 11-3: Results of the assessment of the status of water bodies per RB in the River Basin District of Western Sterea Ellada (EL04)

STATUS/ POTENTIAL			RB of Acheloos (EL0415)				RB of Evinos (EL0420)				RB of Mornos (EL0421)			
			Number	% Number	Length (km)	% Length	Number	% Number	Length (km)	% Length	Number	% Number	Length (km)	% Length
<b>RIVER WATER BODIES</b>														
<b>TOTAL NUMBER OF RIVER WB</b>	<b>ECOLOGICAL</b>	High												
		Good/Good and Above EP	45	65,22%	445,03	62,42%	13	81,25%	109,02	59,96%	8	80,00%	64,74	62,40%
		Moderate/Lower than Good EP	20	28,99%	208,90	29,30%	3	18,75%	72,81	40,04%	2	20,00%	39,00	37,60%
		Poor	4	5,80%	59,01	8,28%								
		Bad												
		Unknown												
	<b>CHEMICAL</b>	Good	62	89,86%	658,17	92,32%	15	93,75%	172,24	94,73%	9	90,00%	78,94	76,09%
		Failing to achieve good	7	10,14%	54,78	7,68%	1	6,25%	9,58	5,27%	1	10,00%	24,80	23,91%
		Unknown												

(continuation of Table)

STATUS/ POTENTIAL			RB of Lefkadas (EL0444)				RBD TOTAL			
			Number	% Number	Length (km)	% Length	Number	% Number	Length (km)	% Length
<b>RIVER WATER BODIES</b>										
<b>TOTAL NUMBER OF RIVER WB</b>	<b>ECOLOGICAL</b>	High								
		Good/Good and Above EP					66	68,75%	618,79	61,79%
		Moderate/Lower than Good EP	1	100,00%	2,97	100,00%	26	27,08%	323,68	32,32%
		Poor					4	4,17%	59,01	5,89%
		Bad								
		Unknown								
	<b>CHEMICAL</b>	Good	1	100,00%	2,97	100,00%	87	90,63%	912,32	91,10%
		Failing to achieve good					9	9,38%	89,16	8,90%
		Unknown								

STATUS/ POTENTIAL			RB of Acheloos (EL0415)				RB of Evinos (EL0420)				RB of Mornos (EL0421)			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>LAKE WATER BODIES</b>														
<b>TOTAL NUMBER OF LAKE WB</b>	<b>ECOLOGICAL</b>	High												
		Good/Good and Above EP	2	40,00%	111,05	77,87%								
		Moderate/Lower than Good EP	1	20,00%	13,05	9,15%								
		Poor	1	20,00%	9,39	6,58%								
		Bad	1	20,00%	9,13	6,40%								
		Unknown												
	<b>CHEMICAL</b>	Good	5	100,0%	142,62	100,0%								
		Failing to achieve good												
		Unknown												

(continuation of Table)

STATUS/ POTENTIAL			RB of Lefkadas (EL0444)				RBD TOTAL			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>LAKE WATER BODIES</b>										
<b>TOTAL NUMBER OF LAKE WB</b>	<b>ECOLOGICAL</b>	High								
		Good/Good and Above EP					2	40,00%	111,05	77,87%
		Moderate/Lower than Good EP					1	20,00%	13,05	9,15%
		Poor					1	20,00%	9,39	6,58%
		Bad					1	20,00%	9,13	6,40%
		Unknown								
	<b>CHEMICAL</b>	Good					5	100,0%	142,62	100,0%
		Failing to achieve good								
		Unknown								

STATUS/ POTENTIAL			RB of Acheloos (EL0415)				RB of Evinos (EL0420)				RB of Mornos (EL0421)			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>RESERVOIRS</b>														
<b>TOTAL NUMBER OF RESERVOIRS</b>	<b>ECOLOGICAL</b>	High	4	100,0%	130,01	100,0%	1	100,0%	2,89	100,0%	1	100,0%	14,8	100,0%
		Good/Good and Above EP												
		Moderate/Lower than Good EP												
		Poor												
		Bad												
		Unknown	4	100,0%	130,01	100,0%	1	100,0%	2,89	100,0%	1	100,0%	14,8	100,0%
	<b>CHEMICAL</b>	Good												
		Failing to achieve good												
		Unknown	4	100,0%	130,01	100,0%	1	100,0%	2,89	100,0%	1	100,0%	14,8	100,0%

(continuation of Table)

STATUS/ POTENTIAL			RB of Lefkadas (EL0444)				RBD TOTAL			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>RESERVOIRS</b>										
<b>TOTAL NUMBER OF RESERVOIRS</b>	<b>ECOLOGICAL</b>	High					6	100,0%	147,7	100,0%
		Good/Good and Above EP								
		Moderate/Lower than Good EP								
		Poor								
		Bad								
		Unknown					6	100,0%	147,7	100,0%
	<b>CHEMICAL</b>	Good								
		Failing to achieve good								
		Unknown					6	100,0%	147,7	100,0%

STATUS/ POTENTIAL			RB of Acheloos (EL0415)				RB of Evinos (EL0420)				RB of Mornos (EL0421)			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>TRANSITIONAL WATER BODIES</b>														
<b>TOTAL NUMBER OF TRANSITIONAL WB</b>	<b>ECOLOGICAL</b>	High												
		Good/Good and Above EP	1	25,00%	107,91	41,14%								
		Moderate/Lower than Good EP	2	50,00%	19,19	7,32%								
		Poor	1	25,00%	135,18	51,54%								
		Bad												
		Unknown												
	<b>CHEMICAL</b>	Good	3	75,00%	127,10	48,46%								
		Failing to achieve good	1	25,00%	135,18	51,54%								
		Unknown												

(continuation of Table)

STATUS/ POTENTIAL			RB of Lefkadas (EL0444)				RBD TOTAL			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>TRANSITIONAL WATER BODIES</b>										
<b>TOTAL NUMBER OF TRANSITIONAL WB</b>	<b>ECOLOGICAL</b>	High								
		Good/Good and Above EP	1	100,0%	8,62	100,0%	2	40,00%	116,52	43,01%
		Moderate/Lower than Good EP					2	40,00%	19,19	7,08%
		Poor					1	20,00%	135,18	49,90%
		Bad								
		Unknown								
	<b>CHEMICAL</b>	Good	1	100,0%	8,62	100,0%	4	80,00%	135,71	50,10%
		Failing to achieve good					1	20,00%	135,18	49,90%
		Unknown								

STATUS/ POTENTIAL			RB of Acheloos (EL0415)				RB of Evinos (EL0420)				RB of Mornos (EL0421)			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>COASTAL WATER BODIES</b>														
<b>TOTAL NUMBER OF COASTAL WB</b>	<b>ECOLOGICAL</b>	High												
		Good/Good and Above EP	2	50,00%	384,80	43,48%								
		Moderate/Lower than Good EP	1	25,00%	228,61	25,83%				1	100,00%	326,11	100,00%	
		Poor	1	25,00%	271,54	30,68%								
		Bad												
		Unknown												
	<b>CHEMICAL</b>	Good	4	100,0%	884,96	100,0%				1	100,0%	326,11	100,0%	
		Failing to achieve good												
		Unknown												

(continuation of Table)

STATUS/ POTENTIAL			RB of Lefkadas (EL0444)				RBD TOTAL			
			Number	% Number	Area (km <sup>2</sup> )	% Length	Number	% Number	Area (km <sup>2</sup> )	% Length
<b>COASTAL WATER BODIES</b>										
<b>TOTAL NUMBER OF COASTAL WB</b>	<b>ECOLOGICAL</b>	High								
		Good/Good and Above EP	2	50,00%	101,34	10,35%	4	44,44%	486,14	22,20%
		Moderate/Lower than Good EP	2	50,00%	877,87	89,65%	4	44,44%	1432,60	65,41%
		Poor					1	11,11%	271,54	12,40%
		Bad								
		Unknown								
	<b>CHEMICAL</b>	Good	4	100,0%	979,21	100,0%	9	100,0%	2190,28,0	100,0%
		Failing to achieve good								
		Unknown	2	50,00%	101,34	10,35%	4	44,44%	486,14	22,20%

STATUS/ POTENTIAL			RB of Acheloos (EL0415)				RB of Evinos (EL0420)				RB of Mornos (EL0421)			
			Number	% Number	Area (km) <sup>2</sup>	% Surface area	Number	% Number	Area (km) <sup>2</sup>	% Surface area	Number	% Number	Area (km) <sup>2</sup>	% Surface area
<b>GROUNDWATER BODIES</b>														
<b>TOTAL NUMBER OF GROUNDWATER BODIES</b>	QUALITY	Good	14	93,33%	8.500,99	99,71%	4	100,00%	723,93	100,00%	4	100,00%	909,03	100,00%
		Bad	1	6,67%	24,76	0,29%	0	0,00%	0,00	0,00%	0	0,00%	0,00	0,00%
	QUANTITATIVE	Good	14	93,33%	8.500,99	99,71%	4	100,00%	723,93	100,00%	4	100,00%	909,03	100,00%
		Bad	1	6,67%	24,76	0,29%	0	0,00%	0,00	0,00%	0	0,00%	0,00	0,00%

(continuation of Table)

STATUS/ POTENTIAL			RB of Lefkadas (EL0444)				RBD TOTAL			
			Number	% Number	Area (km) <sup>2</sup>	% Surface area	Number	% Number	Area (km) <sup>2</sup>	% Surface area
<b>GROUNDWATER BODIES</b>										
<b>TOTAL NUMBER OF GROUNDWATER BODIES</b>	QUALITY	Good	3	100,00%	355,04	100,00%	25	96,15%	10.488,99	99,76%
		Bad	0	0,00%	0,00	0,00%	1	3,85%	24,76	0,24%
	QUANTITATIVE	Good	2	66,67%	146,61	41,29%	24	92,31%	10.280,56	97,78%
		Bad	1	33,33%	208,43	58,71%	2	7,69%	233,19	2,22%

## **ANNEX I: TABLE OF MEASURES TO ACHIEVE GEP INCLUDED IN BASIC MEASURE M04B0907**

Affected HMWB	GEP measures
<b>ACHELOOS P. 5</b> <b>(EL0415R000200011H)</b>	Provide additional flow/ minimum flow components (e.g. low flow, base flow, fish flow)  Prohibition of removing material from the rest of the riverbed downstream of the dam   Prohibition of obstruction of sediment transport in tributaries that confluence downstream of the dam
<b>MORNOS P. 2</b> <b>(EL0421R000200085H)</b>	Improve upstream continuity for biota (e.g. ramp, fish pass, by-pass channel, fish lift) Improve downstream continuity for biota (e.g. fish friendly turbines, fish screens)  Catch, transport and release of fish  Provide additional flow/ minimum flow components (e.g. low flow, base flow, fish flow)  Prohibition of removing material from the rest of the riverbed downstream of the dam   Prohibition of obstruction of sediment transport in tributaries that confluence downstream of the dam
<b>TAVROPOS P.2</b> <b>(EL0415R000212029H)</b>	Improve upstream continuity for biota (e.g. ramp, fish pass, by-pass channel, fish lift) Improve downstream continuity for biota (e.g. fish friendly turbines, fish screens)  Catch, transport and release of fish  Provide additional flow/ minimum flow components (e.g. low flow, base flow, fish flow)  Prohibition of removing material from the rest of the riverbed downstream of the dam   Prohibition of obstruction of sediment transport in tributaries that confluence downstream of the dam
<b>DIMIKOS P.</b> <b>(EL0415R000202005H)</b>	Ecological adapted operation mode Improvement/development of key habitats (e.g. gravel bed/creation of ripples, provision of shelter)  Ecologically optimised conservation practices including sediment and vegetation management  Seasonal or tidal restrictions on activity (e.g. maintenance works outside the breeding season)  Choice of methods (e.g. vegetation cutting for drainage) or equipment
<b>ENOTIKI TAFROS</b> <b>(EL0415R000202007H)</b>	Ecological adapted operation mode

Affected HMWB	GEP measures
	<p>Improvement/development of key habitats (e.g. gravel bed/creation of ripples, provision of shelter)</p> <p>Ecologically optimised conservation practices including sediment and vegetation management</p> <p>Seasonal or tidal restrictions on activity (e.g. maintenance works outside the breeding season)</p> <p>Choice of methods (e.g. vegetation cutting for drainage) or equipment</p>
<p><b>TAFROS YPERCHEILISIS OZEROU (EL0415R000204010H)</b></p>	<p>Ecological adapted operation mode</p> <p>Improvement/development of key habitats (e.g. gravel bed/creation of ripples, provision of shelter)</p> <p>Ecologically optimised conservation practices including sediment and vegetation management</p> <p>Seasonal or tidal restrictions on activity (e.g. maintenance works outside the breeding season)</p> <p>Choice of methods (e.g. vegetation cutting for drainage) or equipment</p>
<p><b>TAFROS VALTI (EL0415R000301063H)</b></p>	<p>Provide additional flow/ minimum flow components (e.g. low flow, base flow, fish flow)</p> <p>Improvement/development of key habitats (e.g. gravel bed/creation of ripples, provision of shelter)</p> <p>Ecologically optimised conservation practices including sediment and vegetation management</p> <p>Seasonal or tidal restrictions on activity (e.g. maintenance works outside the breeding season)</p> <p>Choice of methods (e.g. vegetation cutting for drainage) or equipment</p>
<p><b>AGRILIAS R. 1 (EL0415R000101001H)</b></p>	<p>Improvement/development of key habitats (e.g. gravel bed/creation of ripples, provision of shelter)</p> <p>Ecologically optimised conservation practices including sediment and vegetation management</p> <p>Seasonal or tidal restrictions on activity (e.g. maintenance works outside the breeding season)</p>

Affected HMWB	GEP measures
	Choice of methods (e.g. vegetation cutting for drainage) or equipment
<b>STENA LEFKADAS (EL0444C0007H)</b>	Rip rap or ecological blocks instead of using concrete or steel
	Select dredging method to retain sediment in the system or to avoid raising suspended sediment levels
	Use long arm excavator to avoid disturbing or damaging sensitive habitats to retain riparian vegetation